A grammar of Ik (Icé-tód)
Northeast Uganda’s last thriving Kuliak language
A grammar of Ik (Icé-tód)

Northeast Uganda’s last thriving Kuliak language

PROEFSCHRIFT

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To my parents, Arlin & Velma:

Dad, for imparting his way with words and his search for truth,

Mom, for showing how to learn the world with love and wonder.

And both, for taking a young boy to Africa long ago...
Acknowledgments

It is a privilege to acknowledge all the people who helped make the writing of this grammar possible. I want to thank them here, and if I forget anyone, please know that it was not intentional. And though many helped me, any errors left in the book—I fear they are not few—are solely my responsibility.

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And last but not least, I acknowledge my Lord Jesus Christ, the Grammar of God, for τὰ πάντα δι’ αὐτοῦ καὶ εἰς αὐτὸν ἔκτισται καὶ αὐτὸς ἐστιν πρὸ πάντων καὶ τὰ πάντα ἐν αὐτῷ συνέστηκεν—“all things were created through him and for him, and he is before all things, and in him all things hold together” (Colossians 1:16-17)—including the intricacies of the Ik language. I offer this labor of love for his glory and the advance of his reign on Earth.
In Memory of:

Lochiyo Gax Gabriel  (197? - 2011)
Lopuwa Paul  (198? - 2014)

Ik friends whose lives were cut short by sickness
Foreword

This book contains a grammar of Ik, not the grammar. It is really just a ‘state of knowledge’ report of one individual non-Ik linguist at one point in history. Of the many topics covered in the following pages, some are no doubt incorrectly analyzed, while others could probably have been correctly analyzed in more than one way. And then, of course, the ways of phrasing the descriptions of each linguistic entity number to infinity.

Trying to capture the grammar of a living language linearly on paper is a little like photographing an elusive wild animal. As it darts through the underbrush, you snap your photo. What the photo captures is true: the shape and contours of the animal, its color and patterns, its mode of movement. But as true as the photo may be, it in no way does justice to the living beast. In the same way, a written grammar can trace the structural features of a language: its phonemes, morphemes, syntactic structures. But seen in light of the living language in use, the grammar pales in comparison. Even after completing this project, all I have to do is walk through the neighborhood, overhear a conversation, or attend a public function to learn something totally new about the language. After cataloguing all the phonemes, morphemes, and many lexemes, I can still hear a string of Ik speech whose meaning escapes me entirely. I have tried to write a true description of Ik, but the language in use is much more colorful...and alive.

With this grammar I have also tried to initiate a philological tradition for Ik—‘philological’ in the etymological sense of ‘love of learning’, yes, but also in the sense of language study from written sources. From now on, one can study Ik from books alone, perhaps furthering the inquiry into the relationships between East African languages and where they came from. Attending to these questions is attending to the people who speak these languages, and this is one way we can communicate our love for them too.
“Man [and the language he speaks: TBS] is a mystery. It needs to be unraveled, and if you spend your whole life unraveling it, don’t say you’ve wasted time. I am studying that mystery because I want to be a human being.”
F. Dostoevsky 1839.

“To decipher man [and the language he speaks: TBS] is essentially to try to find out how the world was made and how it ought to go on making itself. The science of man is the practical and theoretical science of hominisation. It means profound study of the past and of origins. But still more, it means constructive experiment pursued on a continually renewed object.”
Teilhard de Chardin (1881-1955)

“Grammar would appear to represent the pinnacle of humanness.”
Martin Edwardes (2010)
### Abbreviations

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<td>*-ita-</td>
<td>Singulative</td>
<td>Teso-Turkana</td>
<td>§4.1.4</td>
</tr>
<tr>
<td>*-iti-</td>
<td>Singulative</td>
<td>Teso-Turkana</td>
<td>§4.1.4</td>
</tr>
<tr>
<td>*-kɪ/ki-</td>
<td>Preposition, case?</td>
<td>(pre-)Nilotic</td>
<td>§4.1.4</td>
</tr>
<tr>
<td>*lo-/lɔ-</td>
<td>Locative masc./neuter</td>
<td>Teso-Turkana</td>
<td>§4.1.4</td>
</tr>
<tr>
<td>*na-</td>
<td>Locative feminine</td>
<td>Teso-Turkana</td>
<td>§4.1.4</td>
</tr>
<tr>
<td>*-nan-</td>
<td>Nominalizer</td>
<td>?</td>
<td>§7.2.5</td>
</tr>
<tr>
<td>*nd(V)-</td>
<td>Interrogative</td>
<td>Proto-Nilo-Saharan</td>
<td>§5.4</td>
</tr>
<tr>
<td>*nt(V)-</td>
<td>Interrogative</td>
<td>Proto-Nilo-Saharan</td>
<td>§5.4</td>
</tr>
<tr>
<td>*nV-</td>
<td>Nominal gender</td>
<td>Teso-Turkana</td>
<td>§4.1.4</td>
</tr>
<tr>
<td>*ŋa-</td>
<td>Feminine plural prefix</td>
<td>Teso-Turkana</td>
<td>§4.1.4</td>
</tr>
<tr>
<td>*ŋi-</td>
<td>Masc./neuter plurative</td>
<td>Teso-Turkana</td>
<td>§4.1.4</td>
</tr>
<tr>
<td>*-oo-</td>
<td>Second sg. possessive</td>
<td>Proto-/Pre-Kuliak?</td>
<td>§4.4</td>
</tr>
<tr>
<td>*sr-/si-</td>
<td>Nominal prefix</td>
<td>(pre-)Nilotic</td>
<td>§4.1.4</td>
</tr>
<tr>
<td>*to-/to-/ta/</td>
<td>Class I verbal subsec.</td>
<td>Teso-Turkana</td>
<td>§7.1.4</td>
</tr>
<tr>
<td>*te-/te-</td>
<td>Verbal prefix</td>
<td>?</td>
<td>§7.1.4</td>
</tr>
<tr>
<td>*tr-/ti-</td>
<td>Nominal prefix</td>
<td>?</td>
<td>§4.1.4</td>
</tr>
<tr>
<td>*tr-/ti-</td>
<td>Verbal prefix</td>
<td>?</td>
<td>§7.1.4</td>
</tr>
<tr>
<td>Affix</td>
<td>Function</td>
<td>Source</td>
<td>Section</td>
</tr>
<tr>
<td>-------</td>
<td>--------------</td>
<td>-------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>*-Vc</td>
<td>Singulative</td>
<td>Cushitic</td>
<td>§4.1.4</td>
</tr>
<tr>
<td>*-Vd-</td>
<td>Adjectival?</td>
<td>Proto-Nilo-Saharan?</td>
<td>§7.10.2</td>
</tr>
<tr>
<td>*-Vk-</td>
<td>Adjectival?</td>
<td>Proto-Nilo-Saharan?</td>
<td>§7.10.2</td>
</tr>
<tr>
<td>*-Vl-</td>
<td>Adjectival?</td>
<td>Proto-Nilo-Saharan?</td>
<td>§7.10.2</td>
</tr>
<tr>
<td>*-Vɲ</td>
<td>Singulative</td>
<td>Cushitic</td>
<td>§4.1.4</td>
</tr>
<tr>
<td>*-Vŋ-</td>
<td>Adjectival?</td>
<td>Proto-Nilo-Saharan?</td>
<td>§7.10.2</td>
</tr>
<tr>
<td>*-Vŋ-</td>
<td>Adjectival?</td>
<td>Proto-Nilo-Saharan?</td>
<td>§7.10.2</td>
</tr>
<tr>
<td>*-Vr-</td>
<td>Adjectival?</td>
<td>Proto-Nilo-Saharan?</td>
<td>§7.10.2</td>
</tr>
<tr>
<td>*-Vs-</td>
<td>Adjectival?</td>
<td>Proto-Nilo-Saharan?</td>
<td>§7.10.2</td>
</tr>
<tr>
<td>*-Vts'</td>
<td>Singulative</td>
<td>Cushitic/Surmic?</td>
<td>§4.1.4</td>
</tr>
<tr>
<td>Clitic</td>
<td>Abbr.</td>
<td>Full name</td>
<td>Section</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>-------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>=bátsə</td>
<td>PST2</td>
<td>Removed Past Marker</td>
<td>§7.11</td>
</tr>
<tr>
<td>=já</td>
<td>ADV</td>
<td>Adverb: ‘so, then, just’</td>
<td>§8.3</td>
</tr>
<tr>
<td>=jíkí</td>
<td>ADV</td>
<td>Adverb: ‘also, too, even’</td>
<td>§8.3</td>
</tr>
<tr>
<td>=kítʃí</td>
<td>ADV</td>
<td>Adverb: ‘so, then, but’</td>
<td>§8.3</td>
</tr>
<tr>
<td>=kə</td>
<td>DEM.SG.DIST</td>
<td>Distal Demonstrative Enclitic Sg.</td>
<td>§8.2.1</td>
</tr>
<tr>
<td>=kí</td>
<td>DEM.PL</td>
<td>Distal Demonstrative Enclitic Pl.</td>
<td>§8.2.1</td>
</tr>
<tr>
<td>=na</td>
<td>DEM.SG</td>
<td>Proximal Dem. Enclitic Sg.</td>
<td>§8.2.1</td>
</tr>
<tr>
<td>=na</td>
<td>REL.SG</td>
<td>Non-Past Relative Pronoun Sg.</td>
<td>§5.6</td>
</tr>
<tr>
<td>=náka</td>
<td>PST1</td>
<td>Recent Past Marker</td>
<td>§7.11</td>
</tr>
<tr>
<td>=ná-ka</td>
<td>DEM.SG-PST1</td>
<td>Recent Past Demonstrative Sg.</td>
<td>§8.2.2</td>
</tr>
<tr>
<td></td>
<td>REL.SG-PST1</td>
<td>Recent Past Relative Pronoun Sg.</td>
<td>§5.6</td>
</tr>
<tr>
<td>=náka</td>
<td>ADV</td>
<td>Adverb: ‘so, then, just’</td>
<td>§8.3</td>
</tr>
<tr>
<td>=nɔkɔ</td>
<td>PST3</td>
<td>Remote Past Marker</td>
<td>§7.11</td>
</tr>
<tr>
<td>=nɔ-kɔ</td>
<td>DEM.SG-PST3</td>
<td>Remote Past Demonstrative Sg.</td>
<td>§8.2.2</td>
</tr>
<tr>
<td></td>
<td>REL.SG-PST3</td>
<td>Remote Past Relative Pro. Sg.</td>
<td>§5.6</td>
</tr>
<tr>
<td>=nɔ</td>
<td>DEM.SG.MED</td>
<td>Medial Demonstrative Enclitic Sg.</td>
<td>§8.2.1</td>
</tr>
<tr>
<td>=ni</td>
<td>DEM.PL</td>
<td>Proximal Dem. Enclitic Pl.</td>
<td>§8.2.1</td>
</tr>
<tr>
<td>=ni</td>
<td>REL.PL</td>
<td>Non-Past Relative Pronoun Pl.</td>
<td>§8.2.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>§5.6</td>
</tr>
<tr>
<td>=nif-ki</td>
<td>DEM.PL-PST1</td>
<td>Recent Past Demonstrative Pl.</td>
<td>§8.2.2</td>
</tr>
<tr>
<td></td>
<td>REL.PL-PST1</td>
<td>Recent Past Relative Pronoun Pl.</td>
<td>§5.6</td>
</tr>
<tr>
<td>=nu-ku</td>
<td>REL.PL-PST3</td>
<td>Remote Past Demonstrative Pl.</td>
<td>§8.2.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>§5.6</td>
</tr>
<tr>
<td>=si-na</td>
<td>DEM.SG-PST2</td>
<td>Removed Past Demonstrative Sg.</td>
<td>§8.2.2</td>
</tr>
<tr>
<td></td>
<td>REL.SG-PST2</td>
<td>Removed Past Relative Pro. Sg.</td>
<td>§5.6</td>
</tr>
<tr>
<td>=si-ni</td>
<td>REL.PL-PST2</td>
<td>Removed Past Demonstrative Pl.</td>
<td>§8.2.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>§5.6</td>
</tr>
<tr>
<td>=‘díɛ’</td>
<td>ANPH.SG</td>
<td>Anaphoric Demonstrative Sg.</td>
<td>§8.2.3</td>
</tr>
<tr>
<td>=‘díí’</td>
<td>ANPH.PL</td>
<td>Anaphoric Demonstrative Plural</td>
<td>§8.2.3</td>
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<tr>
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<td>Abbr.</td>
<td>Full name</td>
<td>Section</td>
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<td>--------</td>
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<td>----------------------------------</td>
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</tr>
<tr>
<td>=ˊdɛ</td>
<td>DP</td>
<td>Dummy Pronoun</td>
<td>§5.10, §6.6</td>
</tr>
<tr>
<td>kɪ=</td>
<td>DIST</td>
<td>Distal Demonstrative Proclitic Sg.</td>
<td>§5.5, §8.2.4</td>
</tr>
<tr>
<td>kɪ=</td>
<td>DIST</td>
<td>Distal Demonstrative Proclitic Pl.</td>
<td>§5.5, §8.2.4</td>
</tr>
<tr>
<td>na=</td>
<td>PROX</td>
<td>Proximal Dem. Proclitic Sg.</td>
<td>§5.5, §8.2.4</td>
</tr>
<tr>
<td>na+=</td>
<td>CONJ</td>
<td>Subordinating Conjunction</td>
<td>§8.4.1</td>
</tr>
<tr>
<td>ni=</td>
<td>PROX</td>
<td>Proximal Dem. Proclitic Pl.</td>
<td>§5.5, §8.2.4</td>
</tr>
</tbody>
</table>
1 Introduction

This book is a description of the grammar of Ik, a Kuliak (Rub) language spoken in northeast Uganda. Since any given language is the cognitive tool and cultural capital of its speakers, knowing a bit about those speakers may help one to better know the language. For that reason, this grammar of Ik begins with a short description of the Ik people themselves. This is then followed by a general introduction to the subject at hand: the Ik language.

1.1. The Ik people

The people whose language is the subject of this book call themselves the Ik (sg. Icé-ám [îtʃéám], pl. Ikᵃ [îkᵃ]). Because the Ik word for ‘head’ is also ik, some have speculated that the ethnic name comes from the Ik being the ‘head’ of a southerly migration long ago. However, an insight from Ik morphology makes this unlikely: Only in the nominative case do the two words resemble each other. With other cases, such as the accusative, the resemblance vanishes: cf. icé-kᵃ ‘Ik-ACC’ and ikᵃ-kᵃ ‘head-ACC’. A more likely connection from the grammar comes from the plural agentive suffix {-icé-} whose form is identical to that of the ethnonym. The plural agentive suffix conveys the idea of ‘the people (who…’). If this semantic connection is on the right track, then the Ik refer to themselves simply as The People.

The cattle-keeping Teso-Turkana (Eastern Nilotic) tribes surrounding the Ik have two names for them, both of which mean ‘poor, without livestock’. These are Ñíkúlyâk (sg. Ékulyakít) and Ñíteusó (sg. Éteusóít). Both terms are also applied to members of the Turkana or Karimojong tribes who are considered poor. The latter term, Ñíteusó, gave rise to ‘Teuso’, the name by which the Ik people and language have been known abroad up to recent years. And Ñíkúlyâk is the source of ‘Kuliak’, the title given to the linguistic subgroup of which it is a part, along with So and Nyang’í (Heine 1976).
Due to its derogatory overtones, some scholars have suggested replacing *Kuliak* with *Rub* (a Proto-Kuliak word for ‘people’; see Ehret 1981; cf. Ik *roɓa*- ‘people’), but it seems the older term has become conventional. Among other Ugandan peoples and internationally, the Ik are known simply as the ‘Teuso’ or ‘Ik’ (pronounced [ika] or [ikã] or somewhere in between).

The Ik people live in Kaabong District (formerly part of Kotido District), Dodoth County, Kamion Subcounty, in the extreme northeast corner of Uganda’s Karamoja Region (see Map 1 below). Their current homeland stretches from Mt. *Lopokók* and *Tímu* Forest in the south to Mt. *Morúŋole* and Kidepo National Park in the north, occupying a narrow, 50 km long/1 km wide swath of ground along the frontier between Uganda and Kenya. A group of several hundred Ik is reported to be living in New Site, Sudan, while around 100 or so more can be found scattered across north-western Kenya seeking livelihood in urban centers. Beyond these, a small community of Ik from one family lives in Masindi, western Uganda. Although in the early 21st century the Ik mostly inhabit the nation of Uganda, it seems in times past they roamed freely between Uganda, Kenya, Ethiopia, and Sudan.

*Map 1: The Ik language area in northeast Uganda*
When not living in urban centers like Kaabong (Uganda) or Kakuma (Kenya), the Ik live in awik⁴, ‘manyattas’ or ‘villages’—homesteads enclosed by a high fence made of sticks, poles, and thorns (marîŋ). These homesteads may be small, hosting only one family, or big, hosting ten to twenty related or unrelated families. In Map 2 below, all the eighty-one (81) known (as of 2012) current Ik homesteads are marked with white pins:

Map 2—Horizontal view of Ik homesteads from the south

In Map 2, the thirty (30) homesteads clustered on the right side are known collectively as Tîmu, while the next eight (8) ones to the left may be referred to as Kámion. The three (3) in the very middle are in Lotînám, and the ten (10) just to the left of Lotînám are in Lôkwakaramɔᶦ. Finally, the thirty (30) homesteads clustered to the far left are known collectively as Morûŋole.

Getting an accurate population number for the Ik has been problematic. Members of the Toposa, Turkana and Karimojong tribes intermingle and occasionally intermarry with the Ik. Numbers of family members are inflated when relief is suspected as the reason for the census. Although figures as low as 1,300 (Turnbull 1972:64) and 4,000 (Heine 1999:11) have been proposed in the past, my impression is that population has grown to at least around 7500, thanks to increased security and access to healthcare.
1.1.1 History

According to a major strand of their own oral tradition, the Ik came to their current homeland from Egypt, down the Blue Nile, by way of Ethiopia. The Egyptian origin hypothesis is highly speculative and perhaps not falsifiable. Tucker saw a connection between the Ik personal pronouns and those of Middle (1967b) or Ancient (1971) Egyptian, and the Ik themselves wonder whether their ethnonym might be related to the Egyptian Iksos people. But whatever their ultimate provenance may be, a more sure-footed starting point for reconstructing Ik prehistory lies within Ethiopia. Lamberti considered it the ‘unquestionable result’ of his 1988 study that the Ik moved to Uganda from Ethiopia (p. 6). He cites the ‘numerous conformities’ Ik (Kuliak) shares with Ethiopian Afroasiatic and Nilo-Saharan languages alike (p. 146), and supposes that the Ik birthplace or Urheimat is in the west-central Ethiopian province of Gojjam (p. 14). So though it is still impossible to piece together Ik prehistory in detail, a reasonable guess is that the Kuliak peoples spent several thousand years (Knight on 2005:40) migrating down from south-western Ethiopia and roaming the deserts and desolate hills among the borderlands of Sudan, Ethiopia, Kenya, and Uganda.

The initial migration from Ethiopia is thought to have been motivated by hunger. After finding wild honey and fruits on Soŋot mountain in Kenya, the Ik sent young men further south in search of even better lands. Eventually they all moved southward, and settled in Tulútúl, on the edge of Tímu Forest. After some years, a skin disease (koɗó) ravaged the people, so that they split up and settled in other areas. Later, raids from slave traders caused them to divide again and migrate once more. This pattern of migrating to escape hunger, thirst, disease, and insecurity has characterized Ik (pre-)history up to this day. As a result, the Ik have become masters of surviving against terrible odds. The good humor they maintain in the face of hardship is testimony to their indomitable spirit and its struggle for life.
By the late 1800s, foreigners began reaching northern Karamoja and may have had contact with the Ik. In the 1950s, Catholic priests evangelized the Ik together with the Karimojong. Then, the colonial British government of Uganda turned the Kidepo Valley, one of the Ik’s prime hunting grounds, into a game park in the early 1960s. The Ik’s expulsion from the park was soon followed by the famine and societal upheaval so controversially narrated in the book *The Mountain People* (Turnbull 1972). In 1980, a cholera epidemic befell the Ik, killing hundreds. This prompted a widespread scattering of people, separating even parents from children.

What is known about the Ik’s past tells a story of eking out survival amidst difficult, traumatic situations. To some degree, these difficulties have continued into the 21st century in the form of extreme climatic flux, tribal conflict, lack of government services, ethnic discrimination, and political marginalization. Despite these challenges, the Ik are growing numerically and are poised to grow as a culture and society. At the time of writing this grammar, things are improving on many fronts. Inter-tribal violence is being curtailed by disarmament. Government services are coming to the Ik area. And Ik political representation and human rights’ awareness is on the rise.

Pending their ongoing health and the security of the Ugandan nation as a whole, the future of the Ik looks brighter than their recent past. To paraphrase a priest-scientist speaking of humankind, “Even in this century, [the Ik] are still living as chance circumstances decide for them, with no aim but their daily bread and quiet old age...After having for so long done no more than allow [themselves] to live, [the Ik] will one day understand that the time has come to undertake [their] own development and to mark [their] own road” (De Chardin 1978:182-195). This grammar is devoted to giving the Ik the cognitive and cultural tools they need to make the difficult transition from an isolated traditional society to a modern, national one...and from there to share in greater human solidarity at the global level.
1.1.2 *Ecology*

The current Ik habitat portrays a scenario oft-repeated in this part of the world: minority non-pastoralist groups—often hunter-gatherer and/or farmers—being forced to high ground by powerful invading cattle-keepers. This reportedly happened to the Kuliak peoples when the Teso-Turkana groups entered northeastern Uganda. Up to this day, the Ik and the So live in mountainous areas (the Nyang’ía live at the base of a mountain range). Compare this situation to that of the South Omotic Dime people of Ethiopia who were pushed up in the mountains by the pastoralist Bodi who have them entrenched and embattled on all sides (Mulugeta 2008:1, 3). Like the Dime, the Ik are forcibly confined to their mountain perches. But they seem well adapted to them, having learned to exploit every available ecological niche. One worsening problem, though, is the lack of enough arable land.

For the terrain of Ikland (*Icéékíʝᵃ*) is rugged and precarious. Its rocky surface is strewn with granite, quartz, siltstone, and chert—traces of the birth of the Eastern Rift Valley. Altitudes range from 1800‒3000 meters (6000‒9000 ft.), and changes in height are often dramatic as mini-plateaus give way to steep ravines and gorges. The Ik are famous for their ability to traverse these gorges with speed and agility, especially when escaping enemies.

Moreover, the climate of Ikland is characterized by extremes. Rainy season (*ɔtáᶦ*) typically starts in March or April, takes a break from June to August, and then resumes until December. On a light year, the rains may be scarce, leading to the desiccation of crops and wild plant foods. On a heavy year, the rains may be torrential, eroding topsoil and drowning crops in water-logged soil. Dry season (*ódz*) usually begins in December and lasts until March. In a matter of weeks, the sun and wind blanch the vegetation, making the once lush landscape only a memory. Then the land is burned off to expose wildlife to hunting and to encourage new grass growth.
Despite the long dry periods, Ikland is still home to an abundant floral life. Lower-lying valleys are covered in bushland and wooded grassland, while in the higher slopes woodland and forest fade into an Afro-alpine zone. The Ik have a thorough knowledge of local vegetation; this is reflected in the 263 plant names already catalogued (Heine 1999:153‒173). They use plants and trees as food, medicine, tools, toys, household items, and building materials. Some of the more common trees found in the area include those in (1):

<table>
<thead>
<tr>
<th>Tree Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>asunán</td>
<td>‘African pencil cedar’</td>
</tr>
<tr>
<td>áts*</td>
<td>‘Sycamore fig’</td>
</tr>
<tr>
<td>ŋokólá</td>
<td>‘Gerrard’s acacia’</td>
</tr>
<tr>
<td>gáʒad*</td>
<td>‘Red-pod terminalia’</td>
</tr>
<tr>
<td>rttité</td>
<td>‘Flame tree’</td>
</tr>
<tr>
<td>mʊs</td>
<td>‘Candelabra’</td>
</tr>
<tr>
<td>tsum’</td>
<td>‘Desert date’</td>
</tr>
<tr>
<td>tsóór</td>
<td>‘White-thorn acacia’</td>
</tr>
</tbody>
</table>

Ikland is also host to a remarkable array of bird species. For example, Kidepo Valley National Park, bordering Ik territory to the northwest, boasts an astonishing 472 recorded birds species. Some of the more commonly seen or heard species around the Ik homesteads include:

<table>
<thead>
<tr>
<th>Bird Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>alálá</td>
<td>‘Augur buzzard’</td>
</tr>
<tr>
<td>fúłukurú</td>
<td>‘White-crested turaco’</td>
</tr>
<tr>
<td>itsók*</td>
<td>‘Amethyst sunbird’</td>
</tr>
<tr>
<td>káaraká</td>
<td>‘Green wood-hoopoe’</td>
</tr>
<tr>
<td>kiryooró</td>
<td>‘Crested helmet shrike’</td>
</tr>
<tr>
<td>kórák*</td>
<td>‘Fan-tailed raven’</td>
</tr>
<tr>
<td>múufudú</td>
<td>‘Senegal coucal’</td>
</tr>
<tr>
<td>tsits*</td>
<td>‘Gabar goshawk’</td>
</tr>
</tbody>
</table>

* Indicates a common Ik name, not a scientific one.
Although domestic chickens and wild birds provide an occasional meal for the Ik, small mammals supply the bulk of their protein intake. A century ago, Ikland was home to much of the great East African mega-fauna (elephants, rhinos, lions, buffalo, elands, etc.), but over-hunting with guns led to their extinction in most places outside the Kidepo park. Smaller animals, like the following, are still trapped and hunted regularly:

<table>
<thead>
<tr>
<th>Ik Name</th>
<th>English Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>borok⁸</td>
<td>‘Bushpig’</td>
<td>Potamochoerus porcus</td>
</tr>
<tr>
<td>gasoˊ</td>
<td>‘Warthog’</td>
<td>Phacochoerus aethiopicus</td>
</tr>
<tr>
<td>kɔtʰr</td>
<td>‘Oribi’</td>
<td>Ourebia ourebi</td>
</tr>
<tr>
<td>kuláɓᵃ</td>
<td>‘Bushbuck’</td>
<td>Tragelaphus scriptus</td>
</tr>
<tr>
<td>ŋámurʳ</td>
<td>‘Common duiker’</td>
<td>Cephalophus grimmia</td>
</tr>
<tr>
<td>ŋurˊ</td>
<td>‘Cane rat’</td>
<td>Thryonomys swinderianus</td>
</tr>
<tr>
<td>ɲól</td>
<td>‘Günther’s dik-dik’</td>
<td>Madoqua guentheri</td>
</tr>
<tr>
<td>róɡᵃ</td>
<td>‘Mountain reedbuck’</td>
<td>Redunca fulvorufula</td>
</tr>
<tr>
<td>tɔrɔmɪɲ</td>
<td>‘Crested porcupine’</td>
<td>Hystrix cristata</td>
</tr>
<tr>
<td>tsör</td>
<td>‘Baboon’</td>
<td>Papio cyncephalus</td>
</tr>
</tbody>
</table>

The Ik names for many more biological species are found in Appendix B.

1.1.3 Economy

The Ik live off the land. At times they have been portrayed as pure hunter-gatherers forced to take up agriculture, but the truth is that they have been both hunter-gatherers and farmers for at least centuries. As adept survivalists, they have learned to exploit every available resource, whether meat or meal. They are omnivores and opportunists, hunting, trapping, gathering, and farming with the seasons. This broad survival strategy has enabled them to survive in an ecologically harsh yet fecund environment.

Trapping (tɔlɔkᵃ) is done throughout the year, while hunting (ƙaƙᵃ) occurs only during dry season, as soon as the lower valleys have been burned off.
In addition to trapping and hunting, the Ik regularly harvest wild honey (ɗaɗᵃ) from tree-hives, rock-hives, and hand-made hives. Another relished treat—white ants (dάɲ)—is collected after the first big rains.

When harvested food supplies run low, the Ik return to the bush to forage for wild fruits and greens (waicíkᵃ). However, this survival strategy has been constrained by regional insecurity. Not only does the bush provide meat, leather, honey, and greens, it also supplies grass (kaʳᵃ), sticks (kɛɗɪtɪ́n), poles (titɪ́rikᵃ), and bark fibers (sinitín) for building or renovating houses, fences, and granaries. And when an Ik needs quick cash, they may sell these materials to the neighboring Dodoth or Turkana who are eager to buy.

It is often reported that the Ik have no livestock. While this is presently true, it has not long been the case. Before the 1970s, when spears and old rifles were the weapons of the day, the Ik still kept herds of cows, goats, and sheep. Today, however, the Ik keep no domestic animals larger than dogs and chickens longer than a few days or weeks. If any are acquired at all, they are soon either given to a Dodoth or Turkana friend for safe-keeping in his herd or killed and eaten. Otherwise, they will be stolen away. The Ik miss their herds of livestock and often dream of a future time when they can again eat meat and butter and drink milk to their satisfaction.

Farming (tɔkɔbᵃ) is the main economic activity of the Ik. It is an all-consuming effort that takes up much of the year and requires the contribution of all family members. The Ik cultivate sorghum (gám), finger millet (rēbᵃ), and maize (naɓʊra’) as staple crops and supplement these with pumpkins (kaide'), beans (moridᵃ), and greens (waicíkᵃ) of various kinds. The hard labor of agriculture is often done is groups of men and/or women. The payment for group work is typically home-brew sorghum or maize beer (mes). Harvested crops that are not immediately consumed are stored in granaries (lóɗúrúikᵃ). The centrality of farming to the Ik is ritualized in the agricultural ceremonies they hold throughout the year. For example:
1.1.4 Society and culture

Before the advent of the AK-47 rifle and the chaos it has caused around Ikland, the Ik used to carry on successful trade (dzágwⁿ) with the Turkana from Kenya. The Ik would exchange their snuff tobacco (lístico), decorated gourds (boldíkⁿ), and grains (edⁿ) for the Turkana’s milk (ídwaⁿ), meat (em), animals (ímwaⁿ), clothing (kwázíkⁿ), and jewelry (njábitíkⁿ). In times of need, the two tribes could get what they did not have in exchange for what they had. Even though this trade remains today to a limited extent, the region’s violence has eroded a certain level of trust between the two groups.

The seven thousand or so Ik may be divided up on the basis of patriclan, family, gender, age, or government administrative unit. The twelve traditional clans, listed in (5), are exogamous, patrilocal, and patrilineal. When a particular clan gets too big, it can be divided into two, as in:

Clans are tied to certain areas historically, but because Ik are required to marry outside their clan, clan members may end up in different territory. A newly married couple starts their own nuclear family (ts’adí-ékwⁿ, lit. ‘fire-
eye’ or ‘hearth’), building a homestead either attached to the bridegroom's parents' village or in a new, separate spot. Clan and family ties are strong, to the point that kinship relations form the backbone of Ik society.

Men and women have fairly clear-cut divisions of labor. Men protect the family, hunt, trap, farm, cut and bring trees from the forest, and build fences and houses. Women fetch water and firewood, cook and clean, farm, thatch houses, and raise children. Fathers and mothers both discipline children. Not too long ago, the Ik further divided themselves according to age-groups or age-sets. Each age-group had a totem based on a particular animal. Each age-group had its own rites of initiation, activities, benefits, and duties. Today, with the influence of modern education and forms of Christianity leading to cultural apathy, the age-group system has sadly been mostly abandoned. These age-groups included the following (Heine 1999):

(6)  **Ik age-groups**

<table>
<thead>
<tr>
<th>Language</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basaúr</td>
<td>‘Eland’</td>
</tr>
<tr>
<td>Gasar</td>
<td>‘Buffalo’</td>
</tr>
<tr>
<td>Gwaits’a</td>
<td>‘Giraffe’</td>
</tr>
<tr>
<td>Kadokói</td>
<td>‘Vervet Monkey’</td>
</tr>
<tr>
<td>Kofow’a</td>
<td>‘Gazelle’</td>
</tr>
<tr>
<td>Lewen</td>
<td>‘Ostrich’</td>
</tr>
<tr>
<td>Rágw’a</td>
<td>‘Ox’</td>
</tr>
</tbody>
</table>

Traditional patriclan and family divisions are often centered around homesteads clustered into units called ‘villages’. On top of this organization, the Ugandan government has lain its own administrative system. This system starts at the ‘village’ and then goes up through wards, parishes, subcounties, and so on up to the district level. The newly founded (2010) Kamion Subcounty comprises all the Ik population and is divided into five parishes: Kapalu, Timu, Kamion, Lokwakaramoe, and Morunjole.
Traditionally, the male elders ruled Ik society. Elderly woman gave input when invited. Men can become elders on the basis of age but also influence or ability to speak well publicly. The elders built a system of taboos, fines for breaking taboos, and punishments for wrong-doing. Since British rule more than a hundred years ago, the Ik also have had government-appointed or popularly elected Ik as officials. These include Villages Counselors and Parish Chiefs. They have official authority but comparatively little real authority among the people. The two systems of rule now coexist and conflict in Ikland. People are not always sure which system to refer to when a crime has been committed. Traditional punishments like caning are discouraged by the government whose own judicial procedures are corrupt. So unfortunately, true justice is rarely upheld for the victims of crimes.

In terms of religion, the Ik practice what has been generally called African Traditional Religion (ATR). This religion involves a sky-god called Didï-Gwarï, literally ‘weather-top’, who is mostly associated with benevolent or malevolent weather patterns and the effects they have on the Ik's livelihood. The Ik can influence this god through prayer (wáán) and sacrifice (sîs’în).

Various forms of Christianity are now intermingled with traditional Ik religion: Roman Catholicism from the mid-20th century, Anglicanism and Pentecostalism from the early 21st century. Although the supreme God of Christianity can be translated into Ik as Didi-Gwarï, it is more commonly rendered Ɲakúŋ, after the sky-god Akuj of the Karimojong and Turkana.

While Didi-Gwarï governs the affairs of the skies, it is the lesser gods (nakúŋuïcik”) and evil spirits (nëkïpyęk”) who meddle in the daily affairs of people. More than the great Weather-Top sky-god, these lesser spirits can be manipulated by skilled practitioners, for either good purposes like healing or evil purposes like killing. Those Ik who are skilled at using traditional herbs (cêmërik”) for healing are called ñkwaatiku”. And those who use charms, amulets, and other devices to curse or hex another are called subésí-ik”. These hexers are often paid to carry out revenge.
In Ik belief, spirits can also be embodied, and their embodiments seem to be ambiguous in regard to their intent toward humankind. Stories circulate among the Ik about the kújá-wík⁴, or ‘earth-children’: small, often light-skinned humanoid creatures seen on paths or among trees. While not outright dangerous, these forest-fairies often warn Ik settlers against settling in their territory. Another embodiment is the bádi-am, a ‘wizard’ or ‘sorcerer’. Typically spoken of as a human, these mysterious figures are said to move about at night, haunting villages and doing things weird and fantastic. They are more humorous than dangerous. Owls (lófúk⁴) are believed to be wizards transforming themselves into birds, and hyenas (hái) are thought to be the animal that wizards travel around on at night.

The strong belief among the Ik that physical effects in their lifeworld have spiritual causes, often initiated by other humans manipulating the spirits, has led to a culture of superstition. Where one might expect conventional wisdom, for example in the realm of child-rearing, one gets instead superstitions encapsulated in short sayings. Consider the following:

(7)  
Na ima zekwétso gwaséé na ɲwéšíɛ́, baduƙota ɲwaát⁴.  
If a child sits on a grinding stone, his or her mother will die.

Máá kɔkɪ́da asaka nɛ́ɛ́ iídee ho-akɔk⁴, ipéɗída as.  
Don’t close the door when you’re inside, lest you bewitch yourself.

Cɛma cíkóroiko sédikee ɲura didia sédikoo díi.  
Fighting over garden boundaries will stop rain in those gardens.

In addition to superstitions, prohibitions or taboos also figure prominently in Ik daily life. These taboos play an important role in governing the society and avoiding conflict. Breaking a prohibition usually requires the offender to pay a fine to the elders or those offended. The following are some examples of prohibitions:
### Some Ik prohibitions

<table>
<thead>
<tr>
<th>Prohibition</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bɔsɛ́s</td>
<td>against fining children or youth</td>
</tr>
<tr>
<td>cu⁹</td>
<td>against failing to give water to elders first</td>
</tr>
<tr>
<td>dc</td>
<td>against failing to give leg-meat to elders</td>
</tr>
<tr>
<td>ifófóés</td>
<td>against eating the first harvest secretly</td>
</tr>
<tr>
<td>imwáŋón</td>
<td>against seeing your mother-in-law</td>
</tr>
</tbody>
</table>

While such taboos remain salient in the society overall, their power is lessening as the younger generations embrace modern, homogenized, and Christianized Ugandan national culture. Inevitably, the old spiritual ways of parents and ancestors are increasingly being seen as strange and irrelevant.

### 1.2 The Ik language

The Ik people call their language *Icé-tôd* ([ɪtʃé-tôd̥̚]) (Ethnologue code *ikx*), meaning literally ‘Ik-talk’. It is the mother-tongue of approximately 7,500 people. The neighboring Teso-Turkana peoples call the language *Ijateusó*, and on a recently created page of the Swahili Wikipedia ([http://sw.wikipedia.org/wiki/Kiik](http://sw.wikipedia.org/wiki/Kiik)), the language received the Swahili name *Kiik*. In keeping with scholarly convention and for the sake of brevity, the language is referred to simply as *Ik* throughout the rest of this grammar.

#### 1.2.1 Classification

Greenberg (1963) is the purportedly the source of the original ‘Kuliak Hypothesis’ which placed Ik and Nyang’ía into a linguistic cluster based on observed shared traits (Fleming 1983:426). Heine (1976) elaborated on this hypothesis with a comparative grammar sketch and internal reconstruction of the group he called *Kuliak* consisting of Ik, Nyang’ía, and So/Tepeth. Since then, the internal linguistic relationship between the Kuliak languages has never been seriously questioned in the literature (Fleming 1983:426). But, amazingly, no less than six different external classifications for Kuliak have been proposed over the last fifty years. These conflicting classifications and some of the linguists who have supported them are presented below:
Conflicting classifications of Kuliak

- Afroasiatic, ‘Fringe’ Cushitic—Tucker 1967a, 1967b, 1971‒3. This classification was based on, among other things, supposed similarities between Ik and Ancient Egyptian personal pronouns. Ik’s elaborate case system also suggests an Afroasiatic affiliation, but this could just as likely be from sustained language contact.

- Afroasiatic, East Cushitic—Lamberti 1988. Although Lamberti never actually claimed that Kuliak is related to Cushitic genetically, he provides ample lexical and morphological evidence demonstrating at least a significant and long-term cultural contact between Kuliak and Cushitic.


- Nilo-Saharan, Northeastern branch—Dimmendaal 2013. This classification is based on traits shared between Kuliak and Nilo-Saharan languages, e.g. an accusative case marker *ka/ga, derivational verbal prefixes, and the causative r-/i- which is considered a stable diagnostic of Nilo-Saharan.

- Unclassified—Gulliver 1952, Laughlin 1975, Heine 1976, 1999, König 2002. Due to conflicting or insufficient evidence, these linguists believe a sure classification cannot yet be made.

If these differing classifications are any indication, the Kuliak languages truly are “an enigma in African linguistics” (Carlin 1993:4)
The purpose of this grammar is not to advance another classificatory hypothesis for Kuliak. But nonetheless, it is hoped that the insights gained from this study will get the problem closer to its resolution. For a variety of reasons, there seems to be a bias in the literature toward a Nilo-Saharan classification for Ik (and Kuliak). The question really has to do with what it means for a language to be related to another. If, as has been pointed out in Ehret (1981a) and Fleming (1983), a larger percentage of Ik phonological, morphological, and lexical traits can be linked to Nilo-Saharan than to Afroasiatic, is that sufficient evidence for positing a genetic relationship with Nilo-Saharan? Is the ample counter-evidence linking Ik to Cushitic (e.g. Lamberti 1988) or Omotic not convincing because of lower percentages?

Without going into great detail, my impression after completing this study of Ik grammar is that Ik—and Kuliak by extension—should not be pronounced Afroasiatic or Nilo-Saharan at this time. This statement no doubt puts me in the camp of ‘splitters’ who resist higher-level classifications before strongly established sub-groupings (cf. Blench 2010). I have taken note of the high number of phonological, morphological, syntactic, and lexical traits tying Ik to Nilo-Saharan, particularly Eastern and Southern Nilotic. But I have also traced a growing number of morphemes to both Cushitic and Omotic. Then there remains, of course, a number of affixes and lexemes for which no areal parallels have been identified.

To summarize, I believe that the Ik language is a yet unclassifiable ancient language originating somewhere in Ethiopia that has had millennia of contact with both Afroasiatic and Nilo-Saharan. This sustained contact has left traces in the form of linguistic ‘genes’ or ‘traits’ shared with both phyla. In recent centuries, a particularly influential contact with Eastern Nilotic languages led to a massive influx of vocabulary and calqued grammatical structures. Like Shabo in Ethiopia, Ik’s linguistic traits straddle at least two language phyla, and distinguishing contact versus genetic influence will be extremely difficult. These cross-phyletic resemblances must be exhaustively identified and catalogued to see what remains of any old Kuliak substrate.
1.2.2 Typology

The difficulty in classifying Ik genetically stems largely from its unique and eclectic typological profile among other languages in East Africa. This typological profile is summarized below and illustrated with an annotated text. The goal of this section is to give the reader an overall impression of the language—a sort of typological Gestalt—in case there is no time to read through each chapter in detail. The overview begins with phonology and then proceeds through morphology, syntax, and finally the annotated text.

In terms of phonology, Ik has thirty-nine (39) contrastive sounds: thirty (30) consonants and nine (9) vowels. Consonants made with pulmonic airstream include plosives, affricates, fricatives, liquids, nasals, and glides. Those made with glottalic airstream include implosives and ejectives. The three lateral fricatives and ejectives Ik once used are now almost entirely lost. Eight of the nine vowels consist of [+ATR]/[-ATR] pairs that operate in a [+ATR]-dominant vowel harmony system. The low vowel /a/ is opaque but can be lexically (morphologically) specified with either [ATR] value.

The rightward edge of an Ik phonological phrase is strictly observed. This means that the final segment of any word or morpheme, whether consonant or vowel, is reduced before a pause. In this reduction, consonants may be partially devoiced and/or unreleased, while vowels are usually fully devoiced or deleted. Devoiced consonants and vowels are allophonic, not phonemic. Other allophonic changes observed among consonants include nasal assimilation, place assimilation, implosivization, and debuccalization, while other allophones among vowels arise from raising and glottalization. At the juncture of morphemes, certain consonants may be deleted and vowel may assimilate partially or totally to nearby vowels.

The template (C)V can generate all lawful phonological syllables in Ik, and the concatenation of morphemes may require resyllabifications in the form of vowel epenthesis, inter-consonantal syncope, vowel deletion, haplology,
desyllabification/compensatory lengthening, and metathesis. At the surface level, the template (C)V(V)(C) generates all lawful phonetic syllables.

Ik is a tonal language with two underlying tone levels: H and L. Ik has lexical tone though few tonal minimal pairs. There is no grammatical tone in the sense of a morpheme made up solely of a tonal autosegment. However, tone changes do accompany various segmental morphemes. H-tone may surface phonetically as high, high-falling, or downstepped high pitch. L-tone may surface as low, low-falling, or mid pitch. Voiced obstruents function pervasively as depressor consonants, pulling the pitch of a preceding high tone to high-falling, mid, or low pitch. Downdrift occurs, as well as depressor-consonant induced downstep. All noun and verb roots have a lexically assigned tone melody whose surface realization may change according to grammatical context. Stem-level and phrase-level tonal processes are complex and appear to count metrical feet in the (re)assignment of tones. At the clause level, at least three intonational patterns can be observed: the indicative, interrogative, and the ‘solicitive’.

Morphologically, Ik is mostly agglutinative. Roots and affixes can typically be separated out linearly. Except for lexicalized prefixes on words borrowed from other languages, Ik is exclusively sufficing. On the continuum between analytic and polysynthetic, Ik ranks as moderately synthetic: Only three suffixes can be attached to noun roots, while up to six can be attached to verb roots (one more if one counts root reduplication).

In terms of form, verb roots tend to have a (V)(C)VC syllabic shape. Verb roots can be partially or fully reduplicated, though only full reduplication is productive. Ik verbs may be intransitive, transitive, ditransitive, or ambitransitive. Tonal verbal minimal pairs signify only slight semantic differences, and a small subset of verbs are inherently pluractional.

A basic morphological division in the verbal system is realis-irrealis. This division is posited more on the basis of morphology than semantics. Other
verbal extensions include suffixes to nominalize the verb, give it directional deixis, subject agreement, or non-core argument reference. And yet other suffixes give the verb modal, aspectual, valency-changing, or polarity properties. Most attributive (descriptive) notions are handled by intransitive ‘adjectival’ verbs in Ik. Tense, contrary to aspect and modality, is communicated by clitics and lays out a three-level time deixis in both the past and non-past. Ik uses a variety of strategies to express epistemic status.

The majority of Ik nouns have a CVC(V) or CVCVC(V) syllable shape. Roughly one third of the nominal lexicon begins with the Teso-Turkana gender prefix $nV$ (or one of its locative allomorphs) which as been lexicalized in Ik. Noun roots may also be partially or fully reduplicated, though neither strategy is productive in the language. Each noun has a lexical tone melody that can change in various morphological and syntactic contexts. Nominal suffixes include a two types of singulative, five types of plurative and eight case endings. The language’s limited noun suffixation is counterbalanced by productive (pro-)nominal compounding.

Case—an interface of phonology, morphology, syntax—is a pan-systemic feature of Ik grammar. Not only must every noun be inflected for case, but even some of the verbal suffixes appear to be grammaticalized case markers. The Ik case system is split-accusative: Direct objects are marked in the nominative case with 1/2-person subjects and in the accusative with 3-person subjects. In the Ik system, eight cases are observed: nominative, instrumental, ablative, genitive, accusative, dative, copulative, and oblique.

Nouns and verbs represent the two open lexical word classes in Ik. Other, closed word classes include the pronouns, quantifiers, demonstratives, adverbs, conjunctions, interjections, infantile imperatives, ideophones. The seven personal pronouns incorporate three persons, three numbers, and an inclusive/exclusive distinction in first person plural. Non-verbal quantifiers and adverbs exist but are very few. Demonstratives provide spatial deixis in three degrees of distance (near/medial/far) and temporal deixis in four
degrees of time (tense). Other demonstratives provide anaphoric reference for either actual discourse or a shared deictic context. Lastly, Ik makes wide use of ideophones to colorfully enhance the meaning of verbs.

In noun phrases, modifiers follow the head noun. Modifiers consist of genitive noun phrases, adjectival verbs, quantifiers, and other relative clauses. Relative pronouns mark the number of their noun head as well as the tense of the predicate in the relative clause. The fullest statement of the ‘common argument’ of a main and relative clause is in the main clause. Like in other subordinate clauses, the syntax of relative clauses is marked.

The basic, unmarked constituent order of Ik main clauses is VSO (VS/VAO), but SVO is attested in subordinate clauses. In a main clause, the verb comes first, followed by a tense clitic (if present) and then the subject and object(s) if explicitly mentioned (both subjects and objects may be left implicit in Ik.) Peripheral arguments come next, followed by any adverbs.

Clause chaining is a definitive aspect of Ik discourse. An initial controlling clause sets the TAM context for the chain of clauses to follow. Clause chains may consist of one or many more sequential clauses or one or two simultaneous clauses. Chained simultaneous clauses may be used as a complementation strategy and in bi-clausal comparative constructions.

The Ik lexicon exhibits several recognizable substrata. Perhaps the oldest substratum can simply be called ‘Ik’ since it has yet to be tied to any other subgroup within Africa. Ik of course shares numerous lexemes with the other Kuliak languages, Nyang’á and So. A handful of lexemes have parallels in Didinga (Surmic). A fair number of Ik lexemes appear to be pre- or proto-Nilotic, while very many more are obviously cognate with forms in Eastern, Southern, and even Western Nilotic. A substantial number of core lexemes are also traceable to Afroasiatic Cushitic languages like Afar/Saho, Dhaasanac, Ts'amakko, and West Rift Cushitic. Finally, English (Germanic) and Swahili (Bantu) have in recent centuries loaned quite a few lexemes.
In conclusion, perhaps some of the most typologically interesting things about Ik are its rich consonant inventory (including ejectives and lateral fricatives), vowel harmony (with binary /a/), tone, numerous pluratives, meta-categorial case system, tensed demonstratives, morphologically-based realis-irrealis distinction, directional suffixes, and clause chaining.

The following short annotated text is provided to further illustrate some of the salient features of Ik grammar. Trace each number to its corresponding explanatory comment in the paragraph that follows.

(9) Oŋor ńda Tulú (‘The Elephant and the Hare’)

Noo sayo kainikee nuu iluɲukotat,

\begin{align*}
\text{CONJ.PST3 & some-INS year-PL-GEN = REL.PL.PST3 pass-COMP-3PL-REAL}.
\end{align*}

In some years gone by,

\begin{align*}
iya noo Tulua nda Oŋor.
\text{be-REAL = PST3 hare-NOM and elephant[OBL]}
\end{align*}

there was a Hare and an Elephant.

1 Tensed relative pronouns like noo (remote past) have been grammaticalized into use as conjunctions introducing temporal subordinate clauses. 2 The instrumental case marker {ɔ} is found on noun phrases expressing time concepts. 3 This noun phrase in the genitive case modifies the preceding noun sayo. 4 Relative pronouns are enclitics that convey both the number of their heads (in this case plural) and the tense of the relative clause (in this case remote past). 5 The directional suffixes, like the andative {ʊƙɔtɪ́}, are also used aspectually, here as completive. 6 Because there is a brief pause between the subordinate and main clauses, the final morpheme, here the realis suffix {a}, is devoiced. 7 The verb comes first in unmarked main clauses. 8 Tense enclitics come between the verb and the following
subject(s). 9 The nominative case suffix {a} marks the subject (A/S) of indicative main clauses. 10 Oblique (peripheral) arguments, like those following the coordinating conjunction ñda, are marked with the oblique case in Ik, which is zero morpheme.

The text continues below with more annotated features:

\[(10)\] *Mitiya noo koto Oŋora nda Tulu ebaik,*
\[mit-i^{11}.a = noo = kótó^{12} oŋor-a ñda tulú éba-ik^{13}\]
be-PLUR-NOM = PST3 = ADV elephant-NOM and hare[OBL] friend-PL[OBL]
The Elephant and the Hare were friends,

*minimosatie dita liaatikoe.*
\[mín-ímós\^{14}.áti^{15}.e^{16} dítá liaison-tikó\^{e}\]
love-RECIP-3PL-SIML like brother-PL-GEN
loving each other like brothers.

11 The pluractional suffix {i-} encodes grammatical number in the verbal system. In this case, it conveys the habitual nature of the animals’ friendship. Being dominantly [+ATR], it has also harmonized the preceding [-ATR] root *nut-* ‘be’. 12 The adverbial (=)kɔtɔ is an important clause connector and is one of the few indicators of contrastiveness or counterexpectation (though here that meaning is not in focus). 13 The oblique case zero-morpheme often allows the underlying form of morphemes to surface, here the plurative (-íkó-). 14 The reciprocal suffix requires high tones on the preceding root, regardless of its underlying tone melody. Functionally, it detransitivizes a transitive clause by conflating the A and O into S. 15 The 3PL subject-agreement suffix {-áti-} is one of the language’s opaque [+ATR]-dominant morphemes that block leftward harmony to the stem. 16 The simultaneous aspect marker {-kɛ} is used to mark chained clauses like this one that express circumstances attending the main clause.

A final excerpt from this story brings out a few more grammatical features:
One day, it started raining,

itsyaketuo ja roɓa ni tokobak.

and these people (the Elephant and Hare) started cultivating.

16 The proclitic conjunction na= introduces temporal clauses within a sequential clause chain. Such temporal clauses are tensed relative to the preceding and following sequential clauses; they do not express absolute tense. 17 The singulative *-it/it is no longer productive and can only be found in lexemes and lexicalized expressions like kónító ‘on one…’. 18 The genitive case marker {6ɛ} is raised to /ɪ,i/ after high back vowels. 19 When the 3SG suffix {6ɪ6} is desyllabified into a glide, the following vowel, in this case the sequential aspect marker {6(k)ɔ}, is lengthened compensatorily. The sequential aspect suffix marks chained sequential clauses that depend on an initial controlling clause for TAM specification. 20 If the subject of a transitive verb is 3-person, any objects will be in the accusative case. 21 Younger speakers increasingly use Teso-Turkana borrowings, here the verb itsyák- in place of the Ik ɪsáé ‘begin’. 22 The venitive directional suffix {6ɛt} is also used aspectually to convey inchoativeness. 23 A high front vowel, like this 3SG {i-}, is backed to /u/ when followed by /ɔ,ɑ/. 24 Ik demonstratives indicate number as well as tense.

1.2.3 Lectal variation and language contact

Lectal variation is minimal among Ik speakers. This is due to the combined factors of the Ik’s small numbers, proximity, mobility, and ethnic solidarity. No lectal varieties that could be described as dialects are known to exist. What little variation does occur is mainly in phonology, tonology, and lexis.
For example, speakers from Loúsúna, a village on the edge of a gorge between Tímu and Kámion, tend to reduce the affricates /ts/ and /ts'/ to [s] and [s']. Thus the common greeting Atşída awóó? ‘Have you come from home?’, rendered as Asşída awóó?, quickly identifies speakers from Loúsúna. On the side of lexis, speakers from certain areas, like Kámion for example, tend to use more Teso-Turkana loanwords than speakers from other areas. The general consensus among the Ik is that the Ik spoken around Tímu Forest in the south is ‘pure’ Ik, i.e. less influenced by Teso-Turkana.

A second type of lectal variation involves sound shifts between speakers of different generations. These demographically defined lects, or ‘chronolects’, were first described by Heine (1983, 1999). As described by Heine, these chronolects differ in their inventory of contrastive consonants, leading to splits and mergers of several sounds. The most easily recognizable difference between chronolects is the loss of lateral fricatives in younger generations. But chronolects also differ in tonology. Younger speakers tend to employ high-tone insertion more than their parents’ generation (see §3.2.4).

Various linguistic traits suggest that Ik used to be in contact with Cushitic (Lamberti 1988) and Southern Nilotic (Rottland 1983) languages, whereas nowadays its contact is with English, Swahili, and the Teso-Turkana (including Dodoth, Jie, Toposa, and Turkana). Beyond areal contact through trade and travel, the cultural dominance exerted by the Teso-Turkana peoples has strongly influenced the Ik language. As many Ik children enter their teen-age years, they begin learning a Teso-Turkana language during trips outside Ikland, stints at non-Ik schools, or periods when a non-Ik guest stays at their home. Thus many Ik adults have a functional command of one or more Teso-Turkana languages, though few become very fluent.

Contact with Swahili comes about in three ways. First, over the years many Ik have lived in Kenya, having gone there for school, work, or to escape some catastrophe in their homeland. Typically, the longer they remain in Kenya, the more fluent they become in Swahili. Second, since one of the
languages of the Ugandan army is Swahili, the presence of soldiers patrolling Ikland leads to contact with Swahili. Third, a few Swahili songs are sung in churches. As a result of these three inroads, Swahili functions as a useful but limited language of wider communication among the Ik.

English touches the Ik by being the national language of Uganda, the language of national media and education, of inter-ethnic business, of religious materials, and of general cultural aspiration toward the West. Ik people who have completed on average five–seven years of primary education manage to get by in English. Fluency of course increases the longer they stay in school. Some Ik, especially men—as women have had much fewer educational opportunities—become reasonably adept at English with little to no formal education. For most Ik, learning these contact languages has been more out of survival necessity than leisure or pleasure.

1.2.4 Vitality

In contrast to the other, endangered Kuliak (Rub) languages, Ik language is still vital. According to the EGIDS scale (Simons & Lewis 2010), Ik is a level 6 ‘vigorouls’, since “the language is used by all generations and the situation is sustainable.” Small children are still learning it as their mother tongue and typically remain monolingual for at least six years. After that, they may begin to pick up English or Teso-Turkana from school and/or travels outside Ikland. Ik young people face a subtle pressure to learn Teso-Turkana as a language of wider communication. It is especially useful in trade, travel, and simple physical survival. A fair number of Ik children attend primary schools in towns and thus have to learn one of these languages in order to learn from the teachers. But adding Teso-Turkana, English, or Swahili (in Kenyan schools) to the repertoire of Ik youth has not so far diminished the vitality of Ik in the homeland. There, Ik is still spoken in all domains of life, with the exception of local community schools (if teachers are non-Ik) and in Christian churches (with non-Ik songs or visiting non-Ik preachers).
But perhaps the more important indicator of Ik’s vitality is the positive attitude the Ik have toward their language. It is a symbol of their ethnic identity and solidarity. They revel in their ability to communicate in a language that no outsider, including their long-time Teso-Turkana enemies, can understand in the least. It is a rightful means of surviving and subverting the oppression they have so often experienced.

Recognizing their language as a unifying cultural asset, the Ik today are eager to see their language taught (alongside English) in schools and used in churches, since those are the two domains which present the greatest threat. The Ik do also take great pride in being able to speak other languages, but this is not in opposition to speaking their mother tongue. Teso-Turkana languages and cultures have had massive influence on Ik language and culture, but the Ik have managed to absorb the impact. This they did by accommodating foreign influences to the point needed for physical survival but resisting at the point needed for ethnic and linguistic survival. With increased language development efforts, the Ik language should remain strong and vital at least well into the present century.

1.2.5 Previous works

It goes without saying that this grammar of Ik builds on the good linguistic work of many others. The first of these others, Wayland (1931), compiled a short list of Ik words on a geological survey through the area. In his article, he refers to the Ik as the ‘Wanderobo’, a common term for non-pastoralist peoples bordering the lands of Eastern Nilotes. Because his word list includes several items not immediately recognizable as Ik, it fostered a belief that persisted for years that ‘Dorobo’ might be a fourth, now extinct Kuliak language. Careful scrutiny, however, reveals that Wayland’s ‘Dorobo’ wordlist is most likely Ik, poorly transcribed and poorly glossed (Schrock, to appear; also Serzisko 1992:7)). The implication is that there never was a fourth Kuliak language called ‘Dorobo’, though credit is still due Wayland for recording the first information on the language.
As the years progressed, other linguists undertook to describe Ik. This led to several early grammar sketches, each with different emphases, including Crazzolara 1967, Heine 1971, Tucker 1971-73, and Heine 1975. Once Ik became known to the linguistic world, the question of Kuliak internal and external classification arose. This question was first addressed by Greenberg 1963, then Heine 1976, and in the same year Bender 1976, followed later by contributions from Ehret 1981, Fleming 1983, and Lamberti 1988.

The first attempt at a full grammar of Ik was Heine 1983, which unfortunately was never published. From there, the mantle of Ik grammar study was taken up by Fritz Serzisko, a colleague of Heine’s at Cologne. Serzisko published a series of books and articles on Ik and on various linguistic topics with Ik as the main source of data (Serzisko 1985, 1985-87, 1987, 1988, 1989a-b, 1992, and 1993a-b). Heine 1990 also appears, a study of the dative case in Ik and Kanuri. Later in the decade comes Heine & König 1996, an unpublished revision and expansion of Heine 1983.

In the 1980s and ‘90s, formerly SIL linguist Richard Hoffman began working on the language. Although he never published on it, he gained a thorough knowledge of Ik grammar and began working out a practical orthography. Also in the 1990s, Heine returned to Ik and published the first Ik-English dictionary (1999) that included an ethnographic sketch, phonology sketch, and an ethnobotanical section. The new millennium began with König’s lengthy exposition of Ik case (2002) and SIL’s sociolinguistic survey of the Ik area (2007). König 2008 refined her 2002 analysis of Ik case and fit it into a broader and much-needed discussion of case across Africa.

Since 2008, I have been personally conducting linguistic research on Ik, under the auspices of SIL Uganda. This research has led to a number of papers, including a foray into nominal tone (2011a), a phonological sketch (2011b), and a description of the Ik instrumental case (Schrock 2014).
1.3 Research background

Seen in light of what has already been written on Ik, the need for a fuller grammatical description arose from the practical challenges of language development, as well as from a desire to contribute to linguistic science. On the side of language development, creating a practical orthography has required a growing knowledge of phonology and morphology, just as the creation and translation of literature will require knowledge of lexis, syntax, and discourse. Attempts to develop the language practically under SIL kept bumping up against newly discovered allophones and unidentified morphemes. At last it seemed good to consolidate previous research and add new findings into one comprehensive treatment. Doing so fulfills the second desire—adding to linguistic science—by documenting the last vital member of the dwindling Kuliak (Rub) subgroup and describing its unique features.

1.3.1 Methodology

The aim reflected in this book has been to research and analyze Ik grammar in terms of Basic Linguistic Theory (BLT) expounded in Dixon (2010-2012). BLT is a theory of linguistics as a natural science that “consists in the study and comparison of the grammatical patterns of individual languages” (Dixon 2010a:5). This approach makes eclectic use of the classical grammatical tradition and the growing body of generally accepted linguistic terms, concepts, and categories. The hope of using this methodology is that the unique genius of the Ik language might be brought to the fore without being overly constrained by any particular formal theory. Insofar as this hope is realized in the following pages, people from different theoretical backgrounds should be able to easily follow it. Given the diverse theoretical orientations of prior linguists who have worked on Ik, this seemed to be the best way to capture the language in a grammatical description.

Also, this grammar is primarily a form-based, analytical grammar. It is form-based in that it seeks to exhaustively list and describe all the grammatical forms of Ik: phonemes, morphemes, syntagmèmes, and
lexemes. As much as possible, the functions of the forms are discussed as well. By the same token, the grammar is analytical in that it breaks apart the language bit by bit. In this sense it is designed to assist one in the more passive skill of interpreting or decoding the Ik language. The more advanced and culturally relevant skill of using or encoding the language appropriately will have to await a work building on a much greater knowledge of the language’s semantics, pragmatics, cultural matrix...and people.

In describing the forms found in Ik, an eye has been kept toward diachronic origin and explanation. The need for this element of my approach is captured eloquently in the following quote: “Because grammar is always emergent but never present it could be said that it never exists as such, but is always coming into being. There is, in other words, no ‘grammar’ but only ‘grammaticization’—movements toward structure which are often characterizable in typical ways.” (Hopper 1987:148, cited in Serzisko 1992).

Diachronic exploration requires comparison with other languages in the area. To this end, I have tried—as time and opportunity allowed—to seek parallels for Ik forms in the non-Bantu languages of East Africa. Due to limited library access, this comparison focused primarily on Dhaasanac (Tosco 2001), So (Carlin 1993), and Turkana (Dimmendaal 1983).

1.3.2 Fieldwork

Fieldwork for this grammar was carried out intermittently from March 2008 until July 2014. From 2008-2009, my wife and I lived in a Baptist mission compound surrounded by Dodoth (Karimojong) people. Collecting Ik data was limited to occasional visits by four educated Ik men: †Lochiyo Gabriel, Lokwang Hillary, †Lopuwa Paul, and later Longoli Philip. From time to time, day-trips were made to the Ik area. In Kaabong, I focused on Ik phonology, collecting the 1700-word Comparative African Wordlist as well as SADUL grammatical questionnaires (Bouquiaux & Thomas 1992).
In late 2009, we finally were able to move to Ikland, to a compound with an Ik village less than 100 meters away. Although still living in a private compound, our contact with Ik speakers increased significantly. During the first two months, SIL lexicographer Ron Moe and I conducted a lexicography workshop involving fifteen Ik men and women. Many of the words in Appendix B were collected during that workshop. And since we lived there, language learning and text collection increased from that point on.

For much of 2010, Longoli Philip became a regular language informant, working with me on various aspects of the language development program. Longoli completed Form Two of secondary school but has had opportunity for many types of training over the years, including in linguistics. He had worked previously with Bernd Heine, Fritz Serzisko, and Richard Hoffman. In late 2010, Longoli Philip and I took part in a tone workshop led by SIL tone specialist Keith Snider. Philip was the only Ik speaker in Nairobi at that time. For six weeks we elicited and analyzed tone data together.

For the next year and a half (2011-2012), Longoli Philip continued to work with me as my main teacher of Ik. American linguist Kate Shugart visited in late 2011, and along with Amber Schrock collected numerous oral histories that were later transcribed by Longoli Philip. In January 2012, two other men, Komboni Daniel and Lokwameri Sylvester, began interacting with us and providing more data through a translation training course we held.

Finally, after six months away from the Ik area, we returned to Ikland to intermittently fill in gaps in the data, revise hypotheses, and finish writing during the whole year of 2013. From the end of 2013 through the early part of 2014, Lomeri John Mark—at last returned to Ikland—provided crucial last-minute help in answering grammatical questions, checking examples, and filling in paradigms. In March-April of 2014, a group of ten Ik men participated with me in an orthography workshop. More data and insights came from our enjoyable interaction. Research then concluded in July 2014.
1.3.3 Data

The data used in this description of Ik comprises approximately 6,000 words (mostly nouns and verbs) in a FLEx lexical database and over 100 texts of different genres and varying numbers of pages. Additional data was collected throughout the fieldwork period through direct elicitation, uncountable scribbled notes, and lots of careful listening. When data is quoted from previous works, the source is indicated with the example. Otherwise, data comes from my research, usually through Longoli Philip and Lomeri John Mark or through daily interactions with Ik neighbors.

This book is the first step in making my data widely accessible. Anything I have is available upon request (betsoniik@gmail.com), with the disclaimer that in may be poorly written, transcribed, or analyzed! The Ik 1,700-word Comparative African Wordlist is available at the Comparalex website (http://comparalex.org/). And plans are being made to eventually produce a fuller Ik linguistic lexicon, a non-linguist’s Ik-English dictionary, one or more volumes of annotated Ik texts, and a pedagogical grammar of Ik.

1.3.4 Orthography

Currently two orthographies exist for Ik: 1) a Linguistic Orthography (LingO) and 2) a Popular Orthography (PopO). This ‘dual orthography’ situation arose from the differing needs of different language practitioners and is described in detail in Schrock (In preparation). The LingO is to be used in grammars and dictionaries, while the PopO is to be used for any material produced for the general (future) Ik reading community.

The PopO uses only five vowels and does not represent tone or voiceless vowels. One consonantal difference between it and the LingO is that it represents /ʃ/ as <x>. The PopO is used in the first line (in italics) in all the example sentences and texts in this grammar. An adapted LingO is used in the second line of examples and texts. It represents all thirty consonants and nine vowels, as well as assimilated nasals, tone and voiceless vowels.
2 Segmental Phonology

Ik segmental phonology involves a relatively rich inventory of contrastive consonants and vowels and phonological and morphophonological variations. Although a full account of Ik phonology is beyond the scope of this book, its basics are offered here as a gateway into the broader grammar.

2.1 Consonants

Ik uses thirty (30) contrastive consonants, presented in (1) below. This is a high number compared to the neighboring Eastern Nilotic language Turkana which has only seventeen (Dimmendaal 1983:7). But it is not so high in the greater Rift Valley language area where the East Cushitic language Dhaasanac has twenty-five (Tosco 2001:16) and the South Omotic language Dime has thirty-three (Mulugeta 2008:9). Unlike Turkana, but like Dhaasanac and Dime, Ik has glottalic (im)plosives in addition to pulmonic.

(1) **Ik contrastive consonants**

<table>
<thead>
<tr>
<th></th>
<th>Labial</th>
<th>Alveolar</th>
<th>Lateral</th>
<th>Palatal</th>
<th>Velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosives, vl.</td>
<td>p</td>
<td>t</td>
<td></td>
<td></td>
<td>k</td>
<td></td>
</tr>
<tr>
<td>Plosives, vd.</td>
<td>b</td>
<td>d</td>
<td></td>
<td></td>
<td>g</td>
<td></td>
</tr>
<tr>
<td>Implosives</td>
<td>b</td>
<td>d</td>
<td></td>
<td></td>
<td>j</td>
<td></td>
</tr>
<tr>
<td>Ejectives</td>
<td>ts’</td>
<td>(tl’)</td>
<td></td>
<td></td>
<td>k</td>
<td></td>
</tr>
<tr>
<td>Fricatives, vl.</td>
<td>f</td>
<td>s</td>
<td>(l)</td>
<td>f’</td>
<td>h</td>
<td></td>
</tr>
<tr>
<td>Fricatives, vd.</td>
<td>z</td>
<td>(ɬ)</td>
<td>ʒ</td>
<td>ɦ’</td>
<td>fiy</td>
<td></td>
</tr>
<tr>
<td>Affricates, vl.</td>
<td>ts</td>
<td>c</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricates, vd.</td>
<td>dz</td>
<td>j</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Liquids</td>
<td>r</td>
<td>l</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Nasals</td>
<td>m</td>
<td>n</td>
<td>ɲ</td>
<td>ɲ’</td>
<td>ɲ</td>
<td>y</td>
</tr>
<tr>
<td>Glides</td>
<td>w</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>y</td>
</tr>
</tbody>
</table>
With Table 1 still in mind, note that those sounds whose orthographic symbols differ from the IPA include: j [f], k [k'/ɡ], c [tʃ], j [dʒ], y [j]. Three sounds in Table 1—tl', ɬ, ɬʒ—are in parentheses because they are all but lost from the form of Ik spoken at the time this grammar was being written.

2.1.1 Consonant contrasts

Some evidence for the existence of the thirty contrastive consonants comes from sets of segmentally similar nouns (in the NOM case) like those below. High tone is marked with an accent, while low tone is unmarked. Low tone before a floating high tone is pronounced with mid level pitch (see §3.2):

(2)  pakwᵃˊ   ‘cave’
     bakutsᵃˊ   ‘chest’
     ɓaláŋ   ‘Toothbrush tree’
     fádwᵃ   ‘scale’

(3)  taɓᵃ ˊ   ‘boulder’
     dakwᵃˊ   ‘tree’
     ɗamˊ   ‘brain’

(4)  karatsᵃ   ‘stool’
     ɡasar   ‘Cape buffalo’
     ƙaƙᵃ   ‘hunt’

(5)  ts'ol   ‘drop’
     soreˊ   ‘boy’
     zɔtᵇ   ‘chain’
     tsól    ‘Bee-eater (bird sp.)’
     dzon    ‘well’

(6)  ram    ‘pile of dried *Euphorbia* branches’
     lar    ‘tobacco pipe’
For the palatal set, which is considerably rarer, sufficiently similar nouns are not available for all the sounds, so a few verbs have to be included:

(9)  jej-   ‘stay’
    jeje   ‘leather mat’
    céŋ    ‘joke’
    ŋaƙwᵃ   ‘meat left on skinned hide’
    ṣaɓúd⁶   ‘be soft’

2.1.2 Consonant realizations

All consonants except for glottals are produced with an egressive airstream from the lungs. The glottals are made with an airstream produced in the larynx—implosives with an ingressive airstream and ejectives with egressive. The voice quality and articulators (active and passive) of all Ik consonants, as well as notes on phonetic realization, are provided below.

/p/   is a voiceless bilabial plosive.
/t/   is a voiceless lamino-alveolar plosive [t̻].
/k/   is a voiceless dorso-velar plosive.

/b/   is a voiced ‘fortis’ bilabial plosive [b].
/d/   is a voiced ‘fortis’ lamino-alveolar plosive [d].
/g/   is a voiced ‘fortis’ dorso-velar plosive [g].
All six Ik plosives may be unreleased before a pause. This only occurs when a pre-pause devoiced vowel is deleted entirely. Moreover, the three voiced plosives are (partially) devoiced before a pause or a devoiced vowel. Thus the voiceless plosives have \([p', t', k']\) as allophones, and the voiced plosives have devoiced \([b, d, g]\) and unreleased devoiced \([b', d', g']\) as allophones.

The lamino-alveolars /t, d/ are audibly fronted, nearly dental, but not quite. For some speakers, this fronting is more pronounced, the tongue even being visible against the teeth. Perhaps this is an areal feature: Dhaasanac contrasts 'dental oral stops' and 'post-alveolar stops' (Tosco 2001:16), while in the Eastern Jebel language Gaahmg, “the dental stops are made with the tongue tip touching the back of the top teeth” (Stirtz 2004:128).

The voiced plosives /b, d, g/ can also be described as ‘fortis’ in the following sense: They sound as though they are made with greater supralaryngeal pressure and slightly delayed release, especially in slower speech. According to De Jong, a fortis-lenis distinction is an areal feature in at least Southwest Surmic languages like Didinga and Eastern Nilotic languages like Lopit and Lotuxo (2004:146). With the prevalence of ejectives in Ethiopian languages, one wonders if for Ik these fortis plosives have their origin in ejectives like /p'/ and /t'/ that are long since lost.

\[-\]
\[
/ɓ/ \quad \text{is a voiced bilabial implosive.} \\
/ɗ/ \quad \text{is a voiced apico-post-alveolar implosive [ɗ].} \\
/ʝ/ \quad \text{is a voiced lamino-palatal implosive [ʄ].}
\]

Like the plosives, the implosives are partially devoiced before a devoiced vowel and may optionally be unreleased. This means they have \([ɓ, ɗ, ʄ]\) and \([ɓ', ɗ', ʄ']\) as allophones. Also, the apico-post-alveolar /ɗ/ sounds nearly retroflexed at times (cf. /ɗ/→[ɖ] of Dhaasanac, Tosco 2001:22).
/ts'/ is a voiceless lamino-alveolar ejective affricate [tś'].
(tl') is a voiceless lamino-alveolar lateral ejective affricate [tɭ'].
/k/ is a voiceless dorso-velar ejective [k'/ʔ].

Uncommon in the area, Ik ejective affricates /ts'/ and (tl') are a link to South Cushitic languages that also have them (Mous 2012:356). The lateral ejective affricate (tl') now seems entirely lost from the language. In five years of fieldwork, the sound was never once heard. Yet, as recent as 1999, it was still considered a rare but present phoneme (Heine 1999). Based on reconstructions, the sound is replaced by the palatal implosive /j/, as in "tlɔt → jɔt" 'Adenium obesum (plant sp.)' and "tl'abú-gwa → jábú-gwa 'guinea-fowl'. A similar trend is observed today among young children who substitute /j/ for /ts'/ as in ďjókɔták' 'I have eaten it up' versus ďts'ókɔták'.

The dorso-velar ejective /k/ has several allophones including a dorso-velar voiced implosive [q] and fronted and backed variants according to following vowels. Linguists have differed on which of the two sounds (k/q) is phonemic and which is allophonic. Tucker (1971) was the first to mention the implosive as a phone in Ik along side the ejective, while Heine (1999) claims that the implosive is the phoneme that has replaced the ejective still used by elderly speakers. Contrary to what Heine claimed, the velar ejective is still very much in use today, though the implosive is a common allophone of it. Younger speakers often seem to prefer the implosive, and it tends to show up in faster and more casual speech. The ejective may even weaken to the point of becoming merely a glottal stop [ʔ] (see §2.3.3).

/f/ is a voiceless labio-dental fricative.
/s/ is a voiceless lamino-alveolar fricative [ʂ].
(ɬ) is a voiceless lateral fricative.
/ʃ/ is a voiceless lamino-post-alveolar fricative [ʃ].
/h/ is a voiceless glottal fricative.
The voiceless lamino-post-alveolar fricative /ʃ/ is the heir of the old Ik voiceless lateral fricative (ɬ), which is now only used by the eldest of speakers. As such, (ɬ), like (tl’), is considered marginal. Any given speaker tends to use either (ɬ) or /ʃ/ but not both. Occasionally one may hear a middle-aged Ik speaker pronounce /ʃ/ with a slight laterality. Also, for younger speakers and those in contact with Teso-Turkana languages, (which lack [ʃ] as a phoneme), /ʃ/ may freely vary with [tʃ] or [dʒ].

/z/ is a voiced lamino-alveolar fricative [ʒ].
(ɮ) is a voiced lateral fricative.
/z/ is a voiced lamino-post-alveolar fricative [ʒ].
/ɦy/ is a lightly palatalized voiced glottal fricative [ɦʲ].

The voiced lamino-alveolar fricative /z/ is partially devoiced before a devoiced vowel, making [z] an allophone. Also, some speakers, like those with more influence from Teso-Turkana languages, may freely alternate /z/~/s/. The voiced lamino-post-alveolar fricative /ʒ/ is one of two heirs of an old Ik voiced lateral fricative (ɮ), which may now only be heard rarely among the most elderly speakers (the reason it is considered marginal). (ɮ) split into /ʒ/ and /ɦy/, probably within the last 50–100 years.

The phonetic nature of /ɦy/ has been extremely hard to ascertain. What is clear is that it never surfaces only as [ɦ] without tongue being raised toward the palate. Perhaps the tongue raising is phonetic remnant of the tongue position of (ɮ), while the voicing of /ɦy/ is a phonetic remnant of the voicing of (ɮ). Lexemes containing /ɦy/—ɦyɔ ‘cow’, for example—have been transcribed variously as [ɦɪ̀ɔ̀], [ɦɛ̀ɔ̀], and [ɦʲɔ̀]. Of this sound, Heine said, “word-initially, y is pronounced as a sound intermediate between a palatal semivowel and a voiced glottal fricative” (1999:15). As such, /ɦy/ could be represented phonetically as [ɦʲ] or [ʱj]. For some speakers, especially younger ones, /ɦy/ may lose either its voicing or its stridence, leading to free variants [hj] or simply [j]. /ɦy/ is only found word-initially.
/ts/ is a voiceless lamino-alveolar affricate [ʦ].
/c/ is a voiceless lamino-post-alveolar affricate [ʧ].
/dz/ is a voiced lamino-alveolar affricate [ʣ].
/j/ is a voiced lamino-post-alveolar affricate [ʤ].

The voiceless affricate /ts/ is replaced by /s/ by some speakers, particularly from certain areas. The voiced affricate /dz/ has the partially devoiced allophone [ʣ] before devoiced vowels before a pause. This does not affect /j/ because it is only found in word-initially and word-medially.

/r/ is a voiced lamino-alveolar rhotic flap/tap [ɾ].
/l/ is a voiced lamino-alveolar lateral approximate [l].

The rhotic flap /r/ may be rolled [r] in any position but especially in word-medial and word-final positions. Emotional intensity and rhetorical flourishes in speech seem to increase the frequency of rolling. Also, before devoiced vowels, the rolled flap is devoiced [ɹ] and often lengthened [ɹː]. The lateral approximate is partially devoiced [l̥] before a pause or a devoiced vowel and may optionally be unreleased [l̥̚].

/m/ is a voiced bilabial nasal.
/n/ is a voiced lamino-alveolar nasal [n].
/p/ is a voiced lamino-palatal nasal [ɲ].
/ŋ/ is a voiced dorso-velar nasal.
/w/ is voiced bilabial/dorso-velar glide.
/y/ is a voiced lamino-palatal glide [j].

The glides are partially devoiced [w, ɣ] before a pause or a devoiced vowel, and depending on syllabification, may occasionally be analyzed as vowels.
2.1.3 Consonant distribution

Most Ik consonants can occur in any position. However, nasals, glottal fricatives, and the affricate /j/ have distributional restrictions, as do implosives vis-à-vis their plosive counterparts. First, nasals that immediately precede another consonant must be made at the same place of articulation as that consonant. Some of the personal pronouns provide evidence of this restriction. In the left column of (10), the pronouns are shown with an archiphonemic nasal (N), followed by surface realizations. Note the velar, alveolar, and palatal places of nasal articulation in the right column:

\[(10)\]

\[
\begin{align*}
\text{Nk}^a & \quad \text{I:NOM} \quad \rightarrow \quad [ŋ̃k̃] \\
\text{Nc}^i & \quad \text{I:OBL} \quad \rightarrow \quad [ɲ̃tʃi̥] \\
\text{Ngw}^a & \quad \text{we:NOM} \quad \rightarrow \quad [ŋ̃gw̃] \\
\text{Nt}^a & \quad \text{they:NOM} \quad \rightarrow \quad [nt̃]
\end{align*}
\]

An exception to nasal assimilation occurs when a nasal-stop sequence arises from vowel syncope, as when \textit{maran}-it-et-és ‘to make good’ → \textit{maran}-t-et-és.

Second, the voiceless glottal fricative /h/ only occurs word-initially in Ik. Historically, this restriction may be related to the universal tendency to avoid onsetless syllables, as in Dhaasanac (Tosco 2001:42), Turkana (Dimmendaal 1983:45), and So (Carlin 1993:15). Unlike in Dhaasanac, the Ik glottal fricative is a phoneme, but even so, it is rare, occurring in less than twenty noun and verb roots. Currently, Ik does not show a strict onset principle that is consistently satisfied by a glottal fricative. This can be seen from the pair \textit{hon}- ‘drive’ and \textit{oni}- ‘abandoned village’ in which /h/ and zero are clearly contrasted word-initially. Nevertheless, speakers do prefer an onset before the back vowel /u/, giving words like \textit{ud} ‘grass sp.’ and \textit{ug}- ‘dig’ surface pronunciations like [“ud̃’] or [ʰud̃’] and [“ug̃’] or [ʰug̃’].
The voiced glottal fricative /ɦy/ also only occurs word-initially. This restriction was created when (ɮ) split historically to /ɦy/ word-initially and /ʒ/ elsewhere. Examples of this include ɦyɔ ‘cow’ and ɡóʒowɑ‘mist’.

Third, the voiced lamino-post-alveolar affricate /j/ is attested only in word-initial and word-medial positions. As a phoneme, it is quite rare, known to be present in only five noun lexemes: jeje ‘leather mat’, jìje ‘opposite side/slope’, lejé ‘mental illness’, njìn ‘we incl.’, njàjarán ‘sewing machine’. Similarly, in nearby Dhaasanc, /j/ is a very rare sound (Tosco 2001:17).

Lastly, implosives/ejectives and their plosive counterparts at the same place of articulation do not occur in the same root. The only exceptions are /ɗ/ and /d/, presumably because their places of articulation differ slightly. The three instances are doɗɑ‘vagina’, dudɛ́r ‘water-beetle’, and nødòdɑ‘ant-bear’.

### 2.2 Vowels

Ik uses nine (9) contrastive vowels, shown in (11) below. These include the low vowel /a/ and four pairs whose members differ only in Advanced Tongue Root [ATR] value. In its basics, the Ik vowel system is quite similar to those of Surmic languages like Didinga and Eastern Nilotic languages like Turkana. But it differs substantially from others in the wider area like those of the Cushitic Dhaasanac and Omotic Dime which lack ATR distinctions.

\[
\begin{array}{|c|c|c|c|c|c|}
\hline
 & \text{Front} & \text{Central} & \text{Back} \\
 & +ATR & -ATR & +ATR & -ATR \\
\hline
\text{High} & i & i & u & u \\
\text{Mid} & e & e & o & o \\
\text{Low} & & a & & \\
\hline
\end{array}
\]

(11)  \textit{Ik contrastive vowels}
2.2.1 Vowel contrasts

Some evidence for the existence of nine contrastive vowels comes from segmentally similar pairs of nouns like the following:

(12) Evidence of vowel contrasts

<table>
<thead>
<tr>
<th>/i–ɪ/</th>
<th>fnw° ‘animal’</th>
<th>gid° ‘cloud’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fnw°’ ‘Milk-bush’</td>
<td>grzá ‘stone surface’</td>
</tr>
<tr>
<td>/e–ɛ/</td>
<td>cɛŋ ‘joke’</td>
<td>éd° ‘name’</td>
</tr>
<tr>
<td></td>
<td>cɛŋ’ ‘wood-pecker’</td>
<td>ɛb° ‘horn’</td>
</tr>
<tr>
<td>/a–ɛ/</td>
<td>lar ‘pipe’</td>
<td>hab° ‘tree-hive’</td>
</tr>
<tr>
<td></td>
<td>ler ‘Naivasha Thorn’</td>
<td>fiyeg° ‘bone marrow’</td>
</tr>
<tr>
<td>/u–ʊ/</td>
<td>gůr ‘heart’</td>
<td>kur° ‘shade’</td>
</tr>
<tr>
<td></td>
<td>gůr ‘Sickle Bush’</td>
<td>kůra ‘Wait-a-bit Acacia’</td>
</tr>
<tr>
<td>/o–ɔ/</td>
<td>nos° ‘male leopard’</td>
<td>tsól° ‘bee-eater’</td>
</tr>
<tr>
<td></td>
<td>nos ‘noise’</td>
<td>tsór° ‘baboon’</td>
</tr>
<tr>
<td>/a–ɔ/</td>
<td>kak° ‘leaf’</td>
<td>fâdw° ‘scale’</td>
</tr>
<tr>
<td></td>
<td>kok° ‘small reeds’</td>
<td>fûd° ‘loincloth’</td>
</tr>
</tbody>
</table>

On the surface, vowel length is also contrastive in Ik, as the following show:

(13) Contrastive vowel length

<table>
<thead>
<tr>
<th>V</th>
<th>VV</th>
</tr>
</thead>
<tbody>
<tr>
<td>/i–ii/</td>
<td>dîd° ‘donkey’</td>
</tr>
<tr>
<td>/i–ii/</td>
<td>tsîk° ‘bee’</td>
</tr>
<tr>
<td>/e–ee/</td>
<td>seg° ‘Acacia sp.’</td>
</tr>
<tr>
<td>/e–ee/</td>
<td>derét° ‘Acacia sp.’</td>
</tr>
<tr>
<td>/a–aa/</td>
<td>kwar° ‘mountain’</td>
</tr>
<tr>
<td>/ɔ–ɔɔ/</td>
<td>klôr° ‘tree sp.’</td>
</tr>
<tr>
<td>/o–oo/</td>
<td>tsól° ‘bee-eater’</td>
</tr>
<tr>
<td>/u–uu/</td>
<td>tsûň° ‘bird tail’</td>
</tr>
<tr>
<td>/u–uu/</td>
<td>tulú ‘rabbit’</td>
</tr>
</tbody>
</table>
The phonetically long vowels shown in the VV column in (13) above are analyzed in this grammar as sequences of individual short vowels, not vocalic units with a length feature. A similar analysis is posited for the Teso-Turkana languages which have heavily influenced Ik (Dimmendaal 1994:154). In addition to the sequences of identical vowels listed in (13), Ik also exhibits many sequences of dissimilar vowels (see §2.2.3 below).

### 2.2.2 Vowel realizations

All nine Ik vowels are fully voiced, except before a pause where they are devoiced. The four vowels with advanced tongue root [+ATR] have a deeper resonance phonetically and can be characterized as ‘heavy’ or ‘breathy’. The five vowels with a neutral tongue root [-ATR] are less resonant due to a narrower pharyngeal cavity. They can be characterized as ‘light’ or ‘flat’. Precise feature specifications for the vowels are as follows:

- /i/ is a close front unrounded vowel with [+ATR].
- /ɪ/ is a close front unrounded vowel with [-ATR].
- /e/ is a mid front unrounded vowel with [+ATR].
- /ɛ/ is a mid front unrounded vowel with [-ATR].
- /a/ is a low central unrounded vowel with [-ATR].
- /ɔ/ is a mid back rounded vowel with [-ATR].
- /o/ is a mid back rounded vowel with [+ATR].
- /ʊ/ is a close back rounded vowel with [-ATR].
- /u/ is a close back rounded vowel with [+ATR].

The back vowels /o, ɔ, u, ʊ/ can be desyllabified before an adjacent vowel, yielded [w] as a semi-vocalic allophone. The front vowels /i, ɪ/ can also be desyllabified, producing [y] as their semi-vocalic allophone. Whether the mid front vowels /e, ɛ/ can desyllabify to [y] is an analytical issue touching on the interpretation of diphthongs (see §2.2.3 below). Dimmendaal 1995 argues that for Nilotic languages, so-called diphthongs should be reanalyzed as glide+vowel sequences. But Ik diphthong-like units (vowels with two
targets) include combinations of mid and low vowels like [e̯a], making a [ya] interpretation inappropriate. So if the diphthong analysis is rejected, the existence of mid-level semi-vowels [ĕ, ĕ̆] must be posited instead.

Using Speech Analyzer software, the following four nouns were compared in terms of the duration of their vowel targets. The approximate measurements from a single Ik speaker indicate that the duration of a diphthong-like sound is longer than for single vowels but shorter than for double vowels:

(14)  

<table>
<thead>
<tr>
<th>Vowel sequence</th>
<th>Vowel</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>akᵃ</td>
<td>‘mouth’</td>
<td>(~0:0.1600)</td>
</tr>
<tr>
<td>ekwᵃ</td>
<td>‘eye’</td>
<td>(~0:0.1700)</td>
</tr>
<tr>
<td>ĕakwᵃ</td>
<td>‘man’</td>
<td>(~0:0.1900)</td>
</tr>
<tr>
<td>seekwᵃ</td>
<td>‘broth’</td>
<td>(~0:0.2050)</td>
</tr>
</tbody>
</table>

The question of diphthongs versus glide + vowel combinations is taken up again below in §2.2.3, where a list of representative words is presented.

All nine Ik vowels are devoiced before a pause as a general rule. This is a clear example of the phonology-syntax interface: A syntactic boundary (clause-finally and before a pause) is the conditioning environment for vowel allophony. Non-voiced vowels are an areal trait; they are found in various language families around Sub-Saharan Africa, including the local Teso-Turkana languages and more distant Cushitic languages like Oromo, Burunge, Alagwa, and K’abeena (Mous 2012:353). Vine gives them the ‘phonetically neutral’ label ‘shadow vowels’ (1981:385), while Novelli calls them ‘breathed’ (1985:29). ‘Whispered’ is also a term found in the literature. According to Vine, voiceless vowels are either 1) allophones of underlyingly voiced vowels, 2) surface realizations of underlyingly voiceless vowels, or 3) the result of the auto-segmental behavior of laryngeal features (1981:409).

The Ik vowels of this type are called called ‘devoiced’ here to reflect the analysis that they are underlyingly voiced vowels that have undergone
devoicing. Following a tradition started by Crazzolara 1967, the Ik devoiced vowels are written with the superscript symbols \[^{i}, ^{e}, ^{a}, ^{u}, ^{o}, ^{u} \]. Even though their occurrence is allophonic, the devoiced vowels are written throughout this grammar. Perhaps because their conditioning environment is syntactic as well as phonological, native speakers seem much more aware of devoiced vowels than other consonantal or vocalic allophones.

In the neighboring languages of Toposa (Schröder & Schröder 1987) and Turkana (Dimmendaal 1983), non-voiced vowels have been analyzed as distinct phonemes, contrasting with voiced vowels. Dimmendaal writes that “With regard to the position of non-voiced vowels, it is noted that they only occur in word-final position (i.e. potentially in the position before pause), but so may voiced vowels. It is, therefore, not predictable synchronically in Turkana when a vowel is [+voiced], or [-voiced]” (1983:31). But in Ik, it is generally predictable: Any vowel before a pause is devoiced, and any vowel not before a pause is voiced. For Turkana it is claimed that underlying non-voiced [-voiced] vowels become voiced “in the position other than before pause”, as the following examples illustrate (Dimmendaal 1983:31):

(15) lo-mu̥ɡi || → [lomu̥ɡʰi] ‘the mauve-colored one’
lo-mu̥ɡi lo → [lomu̥ɡi lo] ‘this mauve-colored one’

The opposite interpretation is given for Ik: Underlyingly voiced vowels become devoiced before a pause. Such a view helps explain apparent evidence for phonemic voicing contrast in examples like the following:

(16) ín-o || → ín'o [ínq] ‘with (an) animal(s)’
ínó-o || → ínó [ínó] ‘from (an) animal(s)’

In (16), the noun root ínó- ‘animal(s)’ takes two case suffixes. In the first line, the instrumental case suffix {-o}, which first subtracts the root-final vowel /o/, is devoiced before a pause. In the second line, the ablative case suffix, also {-o}, which preserves the root-final vowel, gets devoiced and
actually deleted, leaving the root final vowel fully voiced. So what first appears to be a case of contrastiveness between voiced and non-voiced vowels is really a syntactically conditioned type of allophony. The devoiced/deleted vowels in (16), when in a clause-medial position, surface as fully voiced in line with their underlying voicing specification:

(17) \( \text{ín-ó}=\text{ni} \rightarrow \text{ínó}=\text{ni} \ [\text{ínónì}] \) ‘with these animals’
    \( \text{ínó-o}=\text{ni} \rightarrow \text{ínóo}=\text{ni} \ [\text{ínóònì}] \) ‘from these animals’

The examples above in (16) illustrate another trait of Ik devoiced vowels: Depending on the vowel preceding them, they may be completely inaudible. As such, a further allophone of all nine vowels is simply zero \([∅] \). A devoiced vowel is inaudible when it is identical or very close in quality to the vowel that immediately precedes it, for example in:

(18) \( \text{baro-o} \rightarrow \text{baro}^{o} \ [\text{bàrò}] \) ‘from the corral’
    \( \text{dakú-o} \rightarrow \text{dakú}^{o} \ [\text{dākú}] \) ‘from the tree’
    \( \text{ɲɛƙɛ-e} \rightarrow \text{ɲɛƙɛ}^{e} \ [\text{ɲɛ̀ƙɛ̀}] \) ‘of hunger’
    \( \text{sisí-e} \rightarrow \text{sisí}^{e} \ [\text{sìsì}] \) ‘in the honey-beer’

As noted above, pre-pause vowel devoicing is a general rule. The rule is suspended in the following four environments: 1) when the phrase or clause has interrogative intonation, 2) when the phrase or clause has solicitive intonation, 3) when the anaphoric demonstratives \( =\text{ɗɛ́ɛ́} \) (sg.) or \( =\text{ɗií} \) (pl.) are present, and 4) when the vowel in question is part of a deictic demonstrative. In environments (1)-(2), the syntax and therefore the phonology iconically reflect the pragmatic notion that the clause lacks the level of finality needed for devoicing. For a question, this entails waiting for an answer. For solicitation, this entails waiting for the desired response:
(19)  *Kaa naa awak.*  
\[
\text{ƙa-a = náa} \quad \text{awá-k'}
\]
\[
go-3SG = \text{PST1} \quad \text{home-DAT}
\]
S/he went home.

(20)  *Kaa naa awee?*  
\[
\text{ƙa-a = náa} \quad \text{awé-e}
\]
\[
go-3SG = \text{PST1} \quad \text{home-DAT}
\]
Did s/he go home?

(21)  *Kaa naa aweee?*  
\[
\text{ƙa-a = náa} \quad \text{awé-éé}
\]
\[
go-3SG = \text{PST1} \quad \text{home-DAT}
\]
S/he went home, okay?

For environment (3)—after anaphoric demonstratives—it is not known why devoicing is suspended. Perhaps there is a historical explanation:

(22)  *Kaa naa awee dee kona.*  
\[
\text{ƙa-a = náa} \quad \text{awé-é = 'déé} \quad \text{kɔn-a} \quad (**kɔn-∅)
\]
\[
go-3SG = \text{PST1} \quad \text{home-DAT = ANPH.SG} \quad \text{one-REAL}
\]
S/he went to that very home.

Lastly, many deictic demonstratives consist only of a consonant and a vowel, making the devoicing of the sole vowel impractical. For example:

(23)  *Kaa naa awee ne.*  
\[
\text{ƙa-a = náa} \quad \text{awé-é = ne} \quad (**n)
\]
\[
go-3SG = \text{PST1} \quad \text{home-DAT = DEM.SG}
\]
S/he went to that home.
### 2.2.3 Vowel distribution

Ik vowels can occur in any position within a word. For all nine vowels in a word-medial position, please refer back to §2.2.1 above. The data below show vowels in word-initial and word-final positions. A hyphen is used to signify that nouns are in their lexical forms to show their final vowels. (In isolation, nouns take the nominative case which deletes root-final vowels).

<table>
<thead>
<tr>
<th>Word-initial</th>
<th>Word-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>ínó-</td>
<td>ṇókí-</td>
</tr>
<tr>
<td>‘animal’</td>
<td>‘dog’</td>
</tr>
<tr>
<td>mò-</td>
<td>ssí-</td>
</tr>
<tr>
<td>‘Milkbush’</td>
<td>‘honey beer’</td>
</tr>
<tr>
<td>ekù-</td>
<td>bóré-</td>
</tr>
<tr>
<td>‘eye’</td>
<td>‘corral’</td>
</tr>
<tr>
<td>ekéú-</td>
<td>Ṉèké-</td>
</tr>
<tr>
<td>‘muscle fiber’</td>
<td>‘hunger’</td>
</tr>
<tr>
<td>aká-</td>
<td>kwará</td>
</tr>
<tr>
<td>‘mouth’</td>
<td>‘mountain’</td>
</tr>
<tr>
<td>ɔlíří-</td>
<td>Ṉàtò-</td>
</tr>
<tr>
<td>‘female hyrax’</td>
<td>‘men’</td>
</tr>
<tr>
<td>oní-</td>
<td>dèró-</td>
</tr>
<tr>
<td>‘abandoned village’</td>
<td>‘rat’</td>
</tr>
<tr>
<td>óżêti-</td>
<td>kafò-</td>
</tr>
<tr>
<td>‘Uzet clan’</td>
<td>‘thorn’</td>
</tr>
<tr>
<td>úde-</td>
<td>dakú-</td>
</tr>
<tr>
<td>‘soft grass sp.’</td>
<td>‘tree’</td>
</tr>
</tbody>
</table>

As already noted, sequences of identical and non-identical vowels occur. Please refer to (13) above for sequences of same vowels. Sequences of different vowels are shown below in a couple of phonological syllable types:

<table>
<thead>
<tr>
<th>CVVC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ò</td>
</tr>
<tr>
<td>ì</td>
</tr>
<tr>
<td>ɛ</td>
</tr>
<tr>
<td>ɔ</td>
</tr>
<tr>
<td>a</td>
</tr>
<tr>
<td>e</td>
</tr>
<tr>
<td>i</td>
</tr>
<tr>
<td>u</td>
</tr>
<tr>
<td>o</td>
</tr>
<tr>
<td>òì</td>
</tr>
<tr>
<td>ì òì</td>
</tr>
<tr>
<td>ì òì</td>
</tr>
</tbody>
</table>
Vowel pairs not attested in the data include: ie, iu, uo, oa, ea, ei, ui, ua, uo, xe, xu, xa, ax, and ao (though they are found across morpheme boundaries).

Some vowel sequences must be analyzed as diphthongs or as glides + vowels because a) they clearly consist of two vocalic targets and b) they consist of one tone-bearing unit (see discussion under §2.2.2). These include: ie, ia, io, ia, ye, ya, and yo, and are found in few words like the following:

(27)  

<table>
<thead>
<tr>
<th>Vowel Pairs</th>
<th>Meaning</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ɪ̯ɛ/ɪ̯ɛ́ɓ̪</td>
<td>'cold'</td>
<td></td>
</tr>
<tr>
<td>ɪ̯ɛƙ̪</td>
<td>'be far'</td>
<td></td>
</tr>
<tr>
<td>ɪ̯a/ɪ̯án̪</td>
<td>'converse'</td>
<td></td>
</tr>
<tr>
<td>ɪ̯áŋ̪</td>
<td>'rest'</td>
<td></td>
</tr>
<tr>
<td>ɪ̯át̪</td>
<td>'add'</td>
<td></td>
</tr>
<tr>
<td>ɪ̯ɔ/yɔ/ɪɔ́k̪</td>
<td>'flower (v)'</td>
<td></td>
</tr>
<tr>
<td>ɪ̯ʊ/yʊ/ɪ̯ʊm̪</td>
<td>'capture a bride'</td>
<td></td>
</tr>
<tr>
<td>e̯a/e̯akwᵃ</td>
<td>'man'</td>
<td></td>
</tr>
<tr>
<td>e̯as</td>
<td>'truth'</td>
<td></td>
</tr>
</tbody>
</table>
The Ik diphthong-like sounds are found only root-initially. In all but two identified cases, this means they come word-initially. But if a root is reduplicated, the sound may appear stem-internally, as in the following:

(28) ɪ̯aʊɪ̯aʊ (yawɪyawᵃ) small stream
  ḳuk-ʊ̄k (yukú̄k-) force in

2.3 Summary of allophonic realizations

The preceding sections describe Ik contrastive consonant and vowel sounds. They also introduced a variety of allophones arising from different phonological and syntactic environments. The present section summarizes these allophonic realizations according to environment because many environments affect both consonants and vowels in similar ways.

2.3.1 Devoicing

The Ik phonology-syntax interface strictly observes the right-edge of speech and does so by universally devoicing the final segment (consonant or vowel), regardless of the morpheme type involved. Voiced consonants are partially devoiced in this environment, and voiced vowels are either fully devoiced, reduced to a feature (like labialization) or deleted (rendered inaudible). This devoicing can be captured in the following aphorism:

(29) Phonological Rule 1 (P1)—Final Devoicing
  • “A voiced vowel devoices before a pause.”
  • “A voiced consonant devoices before a pause whether followed by a devoiced vowel or not.”
The data below illustrate devoicing in consonants and vowels. The first column of (30) gives the abstract lexical form of the nouns (to show their final vowels), and the second column shows how the nouns surface phonetically in the final form of the oblique case (see §6.3.1):

\[
\begin{array}{ll}
\text{rébe-} & \rightarrow \quad [\text{rêb} \breve{c}] \quad \text{‘finger millet’} \\
\text{édi-} & \rightarrow \quad [\text{êd} \breve{î}] \quad \text{‘name’} \\
\text{sega-} & \rightarrow \quad [\text{sêg} \breve{g}] \quad \text{‘Umbrella Thorn’} \\
\text{tabá-} & \rightarrow \quad [\text{tâb} \breve{g}] \quad \text{‘rock’} \\
\text{morido-} & \rightarrow \quad [\text{môrîd} \breve{q}] \quad \text{‘beans’} \\
\text{emé-} & \rightarrow \quad [\text{êm}] \quad \text{‘meat’} \\
\text{eŋúnú-} & \rightarrow \quad [\text{ēŋûn} \breve{u}] \quad \text{‘lastborn’} \\
\text{wɛla-} & \rightarrow \quad [\text{wêl}] \quad \text{‘opening’} \\
\text{baro-} & \rightarrow \quad [\text{bâr}] \quad \text{‘herd’}
\end{array}
\]

As (30) shows, if the devoiced vowel is a back vowel, it may leave a trace of labialization on the preceding nasal, as in eŋúnú- ‘lastborn’ \(\rightarrow\) [ēŋûn\breve{u}].

The impact that pre-pause devoicing has on final consonants and vowels ultimately depends on the particular combination of consonant and vowel. This is also true for neighboring Toposa (Schröder & Schöder 1987:19) and Turkana languages (Dimmendaal 1983:32). In Ik, there is a general but violable tendency for devoiced vowels to become completely inaudible after fricatives /f, s, z, ʒ/, nasals /n, m, ɲ, ŋ/, and liquids /l, r/. The degree to which holds true depends on such factors as idiolect, speech rate, and other yet unknown articulatory or pragmatic factors. If, however, the devoiced vowel in question is needed for meaning, it is pronounced as whispered regardless of the preceding consonant. This happens, for example, with the instrumental case. Compare the following final (pre-pause) forms of nouns with the nominative suffix {6a} and the instrumental suffix {6ɔ}:
Ik nouns spoken in isolation are typically in the nominative case. So throughout this grammar, the nominative case suffix {-a} in its non-final form is written as a raised vowel everywhere except after /f, s, z, ʒ, m, n, ɲ, ŋ, l, r/. Even though there is some variation among speakers, the line must be drawn somewhere in terms of how to represent such forms.
Even after consonants other than fricatives, nasals, and liquids, the tendency to soften the final element of a word or phrase may lead an Ik speaker to eliminate the final vowel entirely, leaving only a consonant. This type of consonantal unrelease is in free variation with releasing the final vowel in a whispered puff. Compare the two possible surface pronunciations of five nouns in the final-form oblique case:

(32)    rébe- → [rêb̥e̥] / [rêb̥̚] ‘finger millet’
    édi- → [êd̥i̥] / [êd̥̚] ‘name’
    sega- → [sèg̊ा] / [sèg̊̚] ‘Umbrella Thorn’
    tabá- → [tāɓ̥ḁ] / [ tāɓ̥̚] ‘rock’

As noted above in §2.2.2, vowels can surface fully voiced before a pause. This can happen, for example, when a stem ends in a VV sequence. The last vowel in the pair is devoiced, allowing the first to surface with voicing. If the two vowels are identical, the devoiced vowel tends not to be audible at all—in other words, deleted. If the vowels are different, the devoiced vowel will remain as a whispered puff. A devoiced /a/ can at times cannot be distinguished from a mere puff of aspiration. These tendencies are illustrated below with a set of nouns ending in VV in the oblique case:

(33)    didii- → [dìdì] ‘rain’
    séi- → [séi] ‘quartz’
    sábai- → [sábái̥] ‘fatty stomach lining’
    muceé- → [mūtʃē] ‘path’
    ŋkwaá- → [ŋ̄ ̩k'wāʰ] ‘traditional healer’
    girúu- → [ɡīɾú] ‘locust’
    dódoo- → [dōdō] ‘sheep’
    demio- → [dèm@*JG{ˋ妞?ˊ́@→JG{ˋ妞?ˊ̊o̥] ‘Wild Olive tree’
    dau- → [dдв̆] ‘knife’
2.3.2 Place assimilation

Ik consonants and vowels may shift their place of articulation slightly to accommodate to other nearby segments. On the side of consonants, this assimilation affects nasals and velars. Nasals must be articulated at the same place as a consonant immediately following them (except when vowel syncope is involved; see §2.1.3 above), and velars shift slightly forward [C̟] before front vowels and slightly backward [C] before back vowels, as in:

(34)  kutsʰʷ → [k̟'otsʰ] ‘insect’
      fɔ̄bʰ → [k̟'ɔ̀b̥] ‘navel’
      fɪwʰ → [k̟'ɪw̥] ‘leather strap’
      fɛɛr → [k̟'ɛ̄ɛ̄] ‘grasshopper’
      ƙəfʰ → [k̟'ək’ɛ̄] ‘hunt’

A similar situation is found in neighboring Turkana where [q, χ, ɣ, ʁ] are all allophones of /k/ (Dimmendaal 1983:9), and in Dhaasanac where /k/ is uvularized to [q] before back vowels /a, o, u/ (Tosco 2001:21).

On the side of vowels, place assimilation raises the low central vowel /a/ to [ɑ̝] or [æ] following palatal consonants like /c, j, ɲ/:

(35)  jeta → [jæt̥a] ‘broom’
      caál → [tʃæːl̥] ‘hearth-stone’
      ɲátatsʰ → [ɲɛt̥atsʰ] ‘spike trap’

Ik vowel height assimilation recalls Dhaasanac where /a/ also raises to [æ], before instead of after palatal consonants and glides (Tosco 2001:27). Similarly, a few words traceable back to Teso-Turkana (T-T) origins show the raising of /a/ to [æ] after the (semi-)vocalic target /i/ or /ts/:
With the latter two examples of (36), Ik speakers often reanalyze the raised /a/ as /ɛ/, thereby rendering ɪ̃tsɛnɛsˊ ‘to disturb’ and tsɛmɛ́s ‘to like’.

A final lexeme of unknown etymological origin exhibits /a/-raising without apparent phonetic motivation, and that is: kwaár → [kwæ᷄ːr̥] ‘baboon troop’.

Place assimilation processes in Ik are verbalized in the following aphorisms:

(37) **Phonological Rule 2 (P2)—Place Assimilation**
- “Nasal consonants must be articulated at the same place as a consonant immediately following (except after syncope).”
- “Velar consonants shift slightly back or front to accommodate the back or front vowel that follows them.
- “The low central vowel /a/ is raised slightly when following high segments like palatals, alveolars, or high vowels.”

### 2.3.3 Glottalic effects

Two types of allophony have to do with glottalic consonants: implosives and ejectives. The first type affects consonants and involves a) the weakening of an ejective to an implosive (*Implosivization*) or b) the weakening of either an ejective or implosive to a glottal stop (*Debuccalization*). The second type involves vowels given a creaky quality (*Laryngealization*) when surrounded by glottalic consonants. Glottalic effects on consonants are discussed first.

**Implosivization**: The velar ejective /k/ often surfaces as a voiced velar implosive [ɡ]. Schrock 2011 offers an hypothesis on the articulatory motivation for this allophony. Based on observation and on practice making
these sounds, it seems that making the ejective requires more muscular
tension and articulatory effort than does the implosive. So, in fast or casual
speech, the speaker makes only half an attempt at the ejective, and this
results in a sound approximating an implosive. Examples include:

(38) ƙɛƙɛ́r → [ɠɛ̄ɠɛ́r̥] 'grasshopper'
tɔƙɔtɔƙˊ → [tɔ̄ɠɔ̄tɔ̄ƙ̠̚] 'slug/snail'
ƙaƙa-aƙɔ6kᵋ → [ɠàɠàːƙ̠̲ɔ̀k̠ɛ̥] 'for hunting'

In Ik, implosivization appears to be an historical as well as a current
phenomenon. As Heine pointed out, older Ik speakers often retain ejective
sounds where younger ones prefer implosives (1999:14). Take for example
the following set of three, adapted from Heine:

(39)

<table>
<thead>
<tr>
<th>Older</th>
<th>Younger</th>
</tr>
</thead>
<tbody>
<tr>
<td>/tl/ → ʝ/</td>
<td>tl/aɓ ú6ɡwa</td>
</tr>
<tr>
<td>/ts/ → ʝ/</td>
<td>ts/anˊ</td>
</tr>
<tr>
<td>/ƙ→ɠ/</td>
<td>zɛƙwˊ</td>
</tr>
</tbody>
</table>

In such lexical pairs, Heine certainly captured a chronolectal variation, but
the situation today is not so clear cut. True, the lateral affricate ejective /tl'/
is entirely lost, but /ts'/ and /ƙ/ are still widely used across generations.

**Debuccalization**: An implosive, or an ejective-turned-implosive, may further
weaken into a glottal stop [ʔ]. Although speakers of all ages do this, it is
more often heard among the young. Frequent examples include these below:

(40) bia =jt → [biʔʔɪ] 'you (sg.) too'
ntsɪó da=ke → [n̩̄ts@*JG{ˋŋ̩̄ts@*JG{ˋ} 'There it is!'
ŋáá-kwet*’ → [ŋ̄ʔáʔá-kwɛ̄t₆] 'right hand'
féd-ayé → [ʔɛd̄ajé] 'there'
ɓɛƙɛ́s → [ɓɛ̄ʔɛ́s] 'to walk'
(40) shows that glottal stops arising from weakened glottal consonants can occur word-initially and word-medially. No glottal stops have been found word-finally, or as allophones of the bilabial implosive /ɓ/ or the alveolar affricate ejective /ts'/. Therefore only /ɗ/, /ʝ/, and /ƙ/ are affected.

Finally, vowels may be creaky (laryngealized) in the vicinity of glottalics like ejectives or a glottal stop. Examples include: ḉkáƙ’a → [ŋ̩̄k’á̰k’ḁ] ‘food’, ḅekés ‘to walk’ → [ɓɛ̰̄k’ɛ̰́s], and kekér ‘grasshopper’ → [k’ɛ̰̄k’ɛ̰́r̥].

To conclude, glottalic allophonic processes can be summarized as follows:

(41)  
\[ \text{Phonological Rule 3 (P3) — Glottalic Consonant Weakening} \]
  \begin{itemize}
  \item “A velar ejective may weaken to an implosive.”
  \item “The implosives /ɗ, ʝ/ and the ejective /ƙ/ may further weaken to a glottal stop [ʔ].”
  \end{itemize}

\[ \text{Phonological Rule 3 (P3) — Vowel Laryngealization} \]
  \begin{itemize}
  \item “A vowel adjacent to glottalic consonants may become creaky.”
  \end{itemize}

### 2.4 Syllables

The concept of the syllable is invoked here to account for peaks of vocal energy or sonority and the types of sounds that can enclose them. It is also a useful analytical tool for describing phenomena like: epenthesis, syncope, haplology, desyllabification, and metathesis. Because of the pre-pause devoicing of vowels in Ik, it is necessary to distinguish phonological syllables from phonetic syllables. In the phonological, or underlying syllable structure, the devoiced vowels are fully present. Whereas in the phonetic syllable, they are not. This means that for Ik, syllable structure differs significantly between the underlying and surface levels.
2.4.1 Phonological syllables

In Ik, all phonological syllables can be generated by the template: (C)V. This maximal syllable template produces the open syllables V and CV:

(42) Ik phonological syllable types

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>single vowel</td>
</tr>
<tr>
<td>CV</td>
<td>open with single vowel</td>
</tr>
</tbody>
</table>

Any V can be a vowel, diphthong, or syllabic nasal (only directly before another non-nasal consonant). And any consonant (C) may be a simple consonant or a complex consonant (consonant plus glide). The absence of VV sequences in underlying representations is due to their being analyzed as two syllabic peaks. This is because they do not behave as a single unit. The same has been claimed for neighboring Turkana (Dimmendaal 1983:34, 50) and for some languages in wider Eastern Nilotic (Dimmendaal 1995:151). Ik VV sequences consist of two tone-bearing units and can involve nearly any sequence of like or different vowels (see §2.2.1 and §2.2.3 above).

The following lexical noun roots illustrate a few phonological syllable combinations. At the surface level, with phonetic syllable types, each of these words would syllabify according to different parameters:

(43) Phonological syllabification

<table>
<thead>
<tr>
<th>Type</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>V.CV</td>
<td>í.nó-</td>
<td>‘animal’</td>
</tr>
<tr>
<td></td>
<td>é.di-</td>
<td>‘name’</td>
</tr>
<tr>
<td></td>
<td>a.ká-</td>
<td>‘mouth’</td>
</tr>
<tr>
<td></td>
<td>ʤ.za-</td>
<td>‘bottom’</td>
</tr>
<tr>
<td></td>
<td>ú.de-</td>
<td>‘soft dry grass’</td>
</tr>
<tr>
<td>CV.CV</td>
<td>st.sí-</td>
<td>‘honey-beer’</td>
</tr>
<tr>
<td></td>
<td>ce.kí-</td>
<td>‘woman’</td>
</tr>
<tr>
<td></td>
<td>ƙa.ƙa-</td>
<td>‘hunt’</td>
</tr>
</tbody>
</table>
ɓó.ré6  ‘corral’
gú.ró6  ‘heart’
CV.V  kí.ɔ́6  ‘leather strap’
dc.á-  ‘leg’
má.ó-  ‘lion’
tso.é-  ‘wild hunting dog’
ku.a-  ‘grass’

Syllabic nasals are found in just a few environments, for example:

(44)  V.CV  ŋ́.ka  [ŋ̩̄kḁ]  ‘I’
n.tsa’  [n̩̄tsḁ]  ‘s/he/it’
ŋ.ƙe’  [ŋ̩̄k’e̥]  ‘Eat!’

Complex onsets involving a consonant-glide (CG) combination are rather more common. In Ik, these come from two sources: 1) desyllabified high vowels that lose their mora, causing compensatory lengthening on the following vowel and 2) lexicalized consonant-glide complexes. The first type is discussed below in §2.4.3, while the second type is exemplified in (42). At the phonological level, these CG sequences are found only in onsets:

(45)  Consonant-glide combinations

di.kwá-  ‘dance, song’
gwa.á-  ‘bird’
kwa.rá-  ‘mountain’
kwa.za-  ‘clothing’
ŋwa.á-  ‘female’

gwá.mó.ni-  ‘to stand’
i.ɓwa.te.sí-  ‘to handle roughly’
i.mwá.ŋó.ni-  ‘to shift the eyes’
The semi-vowel /y/ may also appear in an onset, though more rarely:

(46)  
i.syó.nó.ni- ‘to have pity’  
i.tsyá.ké.to.ni- ‘to begin’  
i.tsyá.tó.ni- ‘to be resistant’  
i.tya.ke.sí- ‘to forge’

Semi-vowels of the second type mentioned above can be analyzed as back vowels underlyingly. Though at present it is not possible to recover whether a given Cw, for example, is Co, Cɔ, Cu, or Cʊ, there is evidence they have the same moraic value as other vowels. As described ahead in §4.2.1, the assignment of Ik pluratives in some cases references the number of moras in a noun root. Nouns with two moras take a particular suffix, while nouns with three or more take a different one. As it turns out, nouns with the profile CGVCV pattern not with CVCV nouns but with CVCVV and CVCVCV nouns. This means that in terms of syllable weight, at least, the semi-vowel is ‘read’ as a vowel. In this light, compare the following examples:

(47)  
CVCV   ƙɔɓa- → ƙɔɓ-ɪ́tɪ́n ‘navel(s)’  
CVCVV   ƙɔfɔ́ɔ- → ƙɔfɔ́-ɪkᵃ ‘small gourd(s)’  
CGVCV   ƙwaza- → ƙwáz-ɪkᵃ ‘clothing (pl.)’  
CVCVCV   ƙɔɗɔta- → ƙɔ́ɗɔ́t-ɪkᵃ ‘hooked ladder(s)’

In (47), only the first noun with a CVCV syllable structure takes the pluralive {-ɪ́tɪ́n-}. Note that the three following nouns all take the pluralive {-ɪka}, including the one with a CG sequence: ƙwaza- ‘clothing (sg.)’. Apparently then, the semi-vowel has the same moraic value as a vowel. As a result, it is possible to syllabify forms like ƙwaza- in the following two ways:
Interestingly, other similar words like *kwani* ‘penis’ pattern with CVCV nouns, its plural surfacing as *kwani*′ not **kwani**. Also, the fact that the noun *dëdë* ‘leg, foot’ pluralizes as *dëdë*′ suggests that depressor consonants like /d/ count for one mora in the mora-counting pluative inflection. So there are exceptions, perhaps hiding yet undiscovered relevant factors.

Because of the large number of consonants that can form complex onsets with semi-vowels (11 out of 30), it was decided not to treat each complex as a separate phoneme. It could happen that further historical insight into Ik will require the positing of at least some labialized phonemes like the velars.

### 2.4.2 Phonetic syllables

The universal devoicing of vowels before pauses means that at the surface level, closed syllables are attested. Closed phonetic syllables account for the cases where a final vowel is devoiced, leaving an unreleased final consonant. If, on the other hand, the devoicing leaves a whispered vowel, it may be analyzed as syllabic, non-syllabic, or extra-syllabic. The descriptive framework permits all three interpretations at the phonetic level.

Closed phonetic syllables may contain a complex VV nucleus, though as noted above, these are treated as V.V at the phonological level. This is also what has been claimed for Turkana (Dimmendaal 1983:50). Thus, at the surface level, the template (C)V(V)(C) is a more accurate generator of allowable phonetic syllable types, such as these shown below:

```plaintext
(48)  gwa.sá-  OR  gu.a.sá-  ‘stone’
kwa.rá-  OR  ko.a.rá-  ‘mountain’
kwɛ.tá-  OR  kɔ.ɛ.tá-  ‘hand, arm’
```
Ik phonetic syllable types

- V: single vowel
- VV: double vowel
- CV: open with single vowel
- CVV: open with double vowel
- CVC: closed with single vowel
- CVVC: closed with double vowel

It may be helpful now to make a comparison between phonological and phonetic syllable types. This can be done by syllabifying various items both at an underlying level and at the surface level:

<table>
<thead>
<tr>
<th>Phonological syllable</th>
<th>Phonetic syllable</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>V.V</td>
<td>é.é</td>
<td>VV</td>
</tr>
<tr>
<td>CV.CV</td>
<td>ŋó.kí-</td>
<td>CVC</td>
</tr>
<tr>
<td>CV.V.CV</td>
<td>ñ.wa.a.tí-</td>
<td>CVVC</td>
</tr>
<tr>
<td>CV.C.V</td>
<td>ts'ê.'dé.é</td>
<td>CV.VV</td>
</tr>
<tr>
<td>CV.C.V.C.V</td>
<td>cu.cwâ.á.ña</td>
<td>CV.CVVC</td>
</tr>
</tbody>
</table>

2.4.3 Syllabification methods

Ik words are syllabified left-to-right, and syllable onsets are maximized. The following lengthy noun and verb stems illustrate normal syllabification:

<table>
<thead>
<tr>
<th>a.rá.gwa.né.é.b.ín</th>
<th>V.CV.CV.CV.CV.CVC</th>
<th>'new moon'</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.lá.máá.rá.nón</td>
<td>V.CV.CV.CV.CV.CVC</td>
<td>'to sway'</td>
</tr>
</tbody>
</table>

When morphemes are strung together, the normal method of syllabification may be challenged. In such cases, Ik has ways of resyllabifying the string to form allowable syllable types. These procedures include epenthesis, syncope, haplology, and desyllabification, all described below.
Epenthesis: Whenever a CVC lexical root is fully reduplicated, a disallowed consonant cluster (CVC.CVC) is created word-internally. If this happens, an epenthetic vowel is inserted to break up the cluster. The default epenthetic vowel in Lk is /i/ or /ɪ/ (which may be backed to /u/ or /ʊ/):

(52)  *bot.bot- → bo.ti.bot- ‘be nomadic’
*cem.cem- → ce.mi.cem- ‘be combative’
*ket.ket- → ke.ti.ket- ‘pitter-patter’
*sur.sur- → su.ru.sór- ‘be lanky’

Syncope: Vowels may be deleted in words for two reasons: 1) They fall between a nasal and non-nasal consonant, or 2) they occur in a disallowed VVV sequence. In the first environment, when a nasal is the onset of a word-medial syllable, and its vowel nucleus is deleted, the nasal then becomes part of the VV nucleus of the preceding syllable as in the following:

(53)  ma.rá.ɲí.te.su.köt’ → ma.ɾáŋ́.tě.su.kot’ ‘to heal’
1.tso.ɲu.köt’ → 1.tsuŋ.kot’ ‘Burn (it)!’
ɲí.ki.swa.hí.li.tod⁸ → ŋ́.ki.swa.hí.lí.tod⁸ ‘Kiswahili’

In the second environment—when a disallowed VVV sequence appears at the juncture of two morphemes—one of the first two vowels is deleted. This can be illustrated by affixing the non-final Accusative case morpheme {-a} to a couple of noun roots ending in a VV sequence:

(54)  hɔ́tɔɔ → **hɔ́tɔɔa → hɔ́tɔa… ‘egret-ACC’
muceé → **muceé-á → mucéá… ‘path-ACC’

Haplology: When two identical or very similar consonants occur in adjacent morphemes, the first similar consonant may be deleted. The loss of a syllable onset means that the string of segments has to be resyllabified:
In the first example of (55), the /n/ in *fán* ‘direction’ is lost before the /n/ in the possessive plural {ɪnɪ6}. Likewise, in the second example, the /t/ in *det* ‘bring’ is lost before the /d/ in the second person singular suffix {ɪdɪ6}.

**Desyllabification and Compensatory Lengthening:** A back vowel /o, ɔ, u, ʊ/ may desyllabify to /w/ if preceded by a consonant and following by another vowel. A front vowel /i, ɪ/ may also desyllabify to /y/ in the same context. If this happens, the mora (syllabic weight unit) of the desyllabified vowel shifts to the vowel of the suffix, causing it to lengthen in compensation:

(56)  
bién → [byɛ⁸ŋ] ‘yours’  
cuán → [tʃwá⁸ŋ] ‘It’s liquid.’  
dzúám → [ʣwá⁸ŋ] ‘thief’  
egíade=nak⁰ → [ēgyàdènàkḁ] ‘I put it there (earlier).’  
idoᵉ → [îdwè⁸] ‘in the milk…’  
jués → [ʃwɛ⁸] ‘to roast’  
ŋués → [ŋwɛ⁸] ‘to grab’  
epúáw⁰ → [ēpwa⁸w̥ḁ] ‘sleeping place’  
taitaión → [tāïtāyó⁸ŋ] ‘to spin’  
tsɔa → [tswà⁸] ‘Now?’

At the surface level, desyllabification of this type is the source of many semi-vowels acting as allophones of underlying vowels.

**Methathesis:** Onsets of successive syllables may swap places with each other. Interestingly, when this happens, the swapped onsets may or may not take the voicing quality of the onset that they replaced. This type of metathesis has only been observed in the following three words:
Isolated cases of different kinds of metathesis include fùlùkùrù ‘turaco’ → kùlùfurù and nάnɪŋnɪŋ ‘axe-head’ → náŋnɪŋnɪŋ. For the latter case, native speakers argue over which form is original and which one metathesized.

### 2.5 Morphophonology

Besides the sound changes that happen in phonological environments, some consonant and vowel changes happen in certain morphophonological environments (at the boundaries of specific morphemes and not others). These include haplology, de-affrication, and non-final deletion for consonants; and for vowels, several types of vowel assimilation.

#### 2.5.1 Haplology

For Ik, haplology refers to the process whereby the first of two consonants made at the same place of articulation in certain adjacent morphemes is deleted. Presumably this has its origin in ease of pronunciation. Haplology has only been observed affecting the consonants /k, ƙ, n, t/—that is, two velars and two alveolars. Not only does haplology involve only those four consonants but only those four in specific morphological environments, i.e:

(58) **Morphophonological Rule 1 (M1)—Haplology**

- A root-final /k/ or /ƙ/ may be deleted before the andative/completive suffix {-ʊƙɔtɪ́} or the pluralive III {ɪka-}.
- A morpheme-final /n/ may be deleted before an adjacent morpheme also containing /n/.
- The /t/ in the venitive/inchoative suffix {-ɛt-} and the andative/completive suffix {-ʊƙɔtɪ́} may be deleted before the /t/ in the 2SG, 1PL.INC, and 2PL subject-marking suffixes.
The first such environment is when a lexical root ending in /k/ or /ƙ/ is followed by the andative/completive suffix {-ʊƙɔtɪ́-}. In this environment, the root-final /k,ƙ/ is deleted, as the following verbs show:

(59) *Luuƙotuk.*

\[
\text{luk-ʊƙọ-t-u-ƙ}^0 \rightarrow \text{lu-ʊƙọ-tu-ƙ}^0
\]

swallow-COMP-3SG-SEQ

And s/he swallowed (it).

(60) *Kooƙotuk.*

\[
\text{kɔk-ʊƙọ-t-u-ƙ}^0 \rightarrow \text{kɔ-ʊƙọ-t-u-ƙ}^0
\]

close-COMP-3SG-SEQ

And s/he closed (it).

The second morphophonological environment involves a noun root ending in /k/ pluralized by the plurative III {-ɪka-}. When this environment arises, the root-final /k/ deletes before the /k/ of the plurative suffix:

(61) *baciika mʊn*

\[
\text{báčí-k-ɪ-k-a mʊn} \rightarrow \text{báčí-ɪka mʊn}
\]

area-PL-NOM all

all areas

The third morphophonological environment involves /n/ and comprises two different morphemic combinations. First, when the impersonal passive suffix {-anɪ́-} is followed by the recent past tense clitic = *náka*, the /n/ in the suffix is deleted before the /n/ in the clitic:

(62) *Ijabitetaa nak.*

\[
\text{ŋáb-it-ɛt-a-n-a = nak}^* \rightarrow \text{ŋáb-it-ɛt-a-a = nak}^*
\]

wear-CAUS-INCH-IPS-REAL = PST1

S/he was dressed.
Second, when a noun root ending with /n/ takes the possessive plurative {-ɪnɪ-}, the root-final /n/ gets deleted, as in the following noun phrase:

(63) \[
\begin{array}{c}
\text{xainio mʊn} \\
\hspace{1cm} \text{ʃâ-ɪnɪ-o mʊn} \rightarrow \text{ʃâ-ɪnɪ-o mʊn}
\end{array}
\]
direction-POS.PL-ABL all
from all directions

The fourth morphophonological environment causing haplology involves the venitive/inchoative suffix {-ɛt-}. When this suffix is followed by any of the subject-agreement marking suffixes that contain an alveolar consonant, the /t/ in the suffix is deleted. This happens with 2SG, 1PL.INC, and 2PL, as shown in the following table. Note the missing /t/ in those three root forms:

(64) \[\text{Haplology in the venitive/inchoative paradigm}\]

<table>
<thead>
<tr>
<th></th>
<th>1SG</th>
<th>2SG</th>
<th>3SG</th>
<th>1PL.EXC</th>
<th>1PL.INC</th>
<th>2PL</th>
<th>3PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>det-í</td>
<td>dé-ídʰ</td>
<td>det-ʰ</td>
<td></td>
<td>det-ím</td>
<td>de-ísín</td>
<td>de-ítʰ</td>
<td>det-átʰ</td>
</tr>
<tr>
<td></td>
<td>‘I bring.’</td>
<td>‘You (SG) bring.’</td>
<td></td>
<td>‘We (EXC) bring.’</td>
<td>‘We (INC) bring.’</td>
<td>‘You (PL) bring.’</td>
<td>‘They bring.’</td>
</tr>
</tbody>
</table>

The fifth and final haplological environment is similar to the previous one in that it involves /t/ and subject-agreement suffixes. But in this case, it is the andative/completive suffix {-ʊkɔtɪ́} that loses its /t/ before the 2SG, 1PL.INC, and 2PL verb forms. Take note of the missing /t/ in those forms:

(65) \[\text{Haplology in the andative/completive paradigm}\]

<table>
<thead>
<tr>
<th></th>
<th>1SG</th>
<th>2SG</th>
<th>3SG</th>
<th>1PL.EXC</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-ʊkot-í</td>
<td>d-ʊkó-ídʰ</td>
<td>d-ʊkotʰ</td>
<td></td>
<td>d-ʊkot-ím</td>
</tr>
<tr>
<td></td>
<td>‘I take.’</td>
<td>‘You (SG) take.’</td>
<td>‘S/he takes.’</td>
<td>‘We (EXC) take.’</td>
</tr>
<tr>
<td></td>
<td>1PL.INC</td>
<td>2PL</td>
<td>3PL</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>--------</td>
<td>-----</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d-uƙo-ísín</td>
<td>d-uƙo-ít³</td>
<td>d-uƙo-tát³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘We (INC) take.’</td>
<td>‘You (PL) take.’</td>
<td>‘They take.’</td>
<td></td>
</tr>
</tbody>
</table>

That exhaustively completes the recorded instances of haplology in Ik and the morphophonological contexts that induce it. Hap lology is marginally optional: It is grammatical for a speaker to circumvent haplology in very careful speech, but by all indications it is vastly preferred in these contexts.

The fact that haplology is restricted to certain morphophonological environments—as opposed to being a general rule—can be amply demonstrated by words such as the following in which it fails to occur:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(66) /k-k/</td>
<td>kakák³</td>
<td>‘It’s a leaf.’</td>
</tr>
<tr>
<td></td>
<td>sskák³</td>
<td>‘in the middle’</td>
</tr>
<tr>
<td></td>
<td>lókók³</td>
<td>‘worker ant’</td>
</tr>
<tr>
<td>/k-k/</td>
<td>dúlúƙuƙú</td>
<td>‘small oval gourd’</td>
</tr>
<tr>
<td></td>
<td>kakak³</td>
<td>‘in the hunt’</td>
</tr>
<tr>
<td></td>
<td>n éturukúƙu</td>
<td>‘bone on chicken’s back’</td>
</tr>
<tr>
<td>/n-n/</td>
<td>asünán</td>
<td>‘African pencil cedar’</td>
</tr>
<tr>
<td></td>
<td>imánán</td>
<td>‘Castor-oil plant’</td>
</tr>
<tr>
<td></td>
<td>séinení</td>
<td>‘Stereospermum kuntianum tree’</td>
</tr>
<tr>
<td>/t-t/</td>
<td>akatát³</td>
<td>‘gourd lid’</td>
</tr>
<tr>
<td></td>
<td>botetam</td>
<td>‘wood chip’</td>
</tr>
<tr>
<td></td>
<td>Tutét³</td>
<td>‘Tutet Mountain’</td>
</tr>
</tbody>
</table>

Nevertheless, one instance of intra-morphemic haplology has been observed: nɔ́ɔkɔr ‘chicken’ → nɔ́kɔr. This resembles Turkana haplology (Dimmendaal 1983:47-48), and indeed the word is borrowed from Turkana.
Haplology has also left an imprint on the Ik lexicon. The verb roots ‘bring/take and ‘give' have different forms depending on which verbal extensions are attached to them. They have a shorter root with any verbal suffix but the andative {ʊƙɔtɪ́} and a longer root form with the andative:

(67)  
\[
\begin{align*}
\text{d-} & \text{-et-és} & \text{‘to bring’} \\
\text{duƙ-} & \text{-és-úƙot}^{a} & \text{‘to take’} \\
\text{me-} & \text{-és} & \text{‘to give (generally)’} \\
\text{me-} & \text{-et-és} & \text{‘to give (this way)’} \\
\text{maƙ-} & \text{-és-úƙot}^{a} & \text{‘to give (out/away)’}
\end{align*}
\]

Looking at (67), it is not immediately clear whether the root for ‘give' is \text{ma-} (\text{me-} when the vowel is assimilated by the following vowel) or \text{maƙ-}. It is also not clear whether the root for ‘bring/take' is \text{d-} or \text{duƙ-}. Haplology in current Ik phonology gives a clue that the longer forms are original. In the imperative singular forms of these verbs with the andative—\text{maƙọt-ê} and \text{déuƙot-ê}—the velar /ƙ/ in the root seems to have been deleted before the /ƙ/ in the andative suffix. Speakers then re-interpreted the shorter forms (\text{ma-} and \text{d-}) as roots unto themselves and began extrapolating forms like \text{me-}\text{-et-és} and \text{d-}\text{-et-és} instead of \text{maƙ-}\text{-et-és} and \text{duƙ-}\text{-et-és}.

2.5.2  \textit{De-affrication}

In the introduction of this grammar, the Ik word for themselves (\text{Ik-}a) and the Ik word for ‘head’ (\text{ik-}a) were said to be homophonous in the nominative case. In accordance with their homophony, it has been suggested that the Ik people were the ‘head' of ancient migrations. But their being the same word historically is challenged by the fact that in the other cases, their base forms are different: \text{icé-} ‘Ik' and \text{iká-} ‘head'. Comparing the full case declensions of these two noun roots opens up the discussion of (de-)affrication:
\( (68) \) Non-final case paradigm for icé- ‘Ik’ and iká- ‘head’

<table>
<thead>
<tr>
<th></th>
<th>‘Ik’</th>
<th>‘head’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base form</td>
<td>icé-</td>
<td>iká-</td>
</tr>
<tr>
<td>OBL</td>
<td>ice</td>
<td>ika</td>
</tr>
<tr>
<td>NOM</td>
<td>ik-a</td>
<td>ik-a</td>
</tr>
<tr>
<td>INS</td>
<td>ik-o (ic-o?)</td>
<td>ik-o</td>
</tr>
<tr>
<td>ABL</td>
<td>icé-ò/icó-ò</td>
<td>ikó-ò</td>
</tr>
<tr>
<td>GEN</td>
<td>icé-é</td>
<td>iké-é</td>
</tr>
<tr>
<td>ACC</td>
<td>icé-á</td>
<td>iká-á</td>
</tr>
<tr>
<td>DAT</td>
<td>icé-é</td>
<td>iké-é</td>
</tr>
<tr>
<td>COP</td>
<td>icé-ò/icó-ò</td>
<td>ikó-ò</td>
</tr>
</tbody>
</table>

As discussed further in §6.3, the Ik nominative and instrumental case suffixes first subtract the final vowel of the root to which they attach. This means that for icé- ‘Ik’, once the /é/ is deleted, the /c/ is directly exposed to the nominative suffix {-a} or the instrumental suffix {-o}. So, unlike in other regional languages where affrication of /k/ to /c/ before high vowels is common (e.g. Luganda), (68) presents a situation in Ik where /c/ de-affricates to /k/ before non-front vowels /a/ and /o/. De-affrication is also attested in other roots similar to icé-, like wicé- ‘children’ and jíci- ‘I’.

This type of de-affrication applies only at the morpheme boundary between noun root and two case suffixes. If it applied more generally, one would expect words like caalí- ‘hearth-stone’ to become *kaalí-, which it does not. Ik de-affrication can be captured in the following aphorism:

\( (69) \) Morphophonological Rule 2 (M2)—De-affrication

- In noun roots ending in the sequence /cV-/ , the /c/ ‘hardens’ to [k] when the final vowel is substracted by the nominative or instrumental case suffixes.

As a final note, a trend toward de-affrication has been noted among younger speakers and those from certain areas (like Loisina valley). These speakers
like to pronounce words like *jeje*—‘leather mat’ as *gege*—and *ŋjíni*—‘we, inc’ as *ŋgíní*. Obviously, in these examples, the phonological motivation (de-affrication before non-high vowels) is not the same as in (68), since both words contain front vowels. So this type of de-affrication may just be an idiosyncratic preference of some speakers, or it may have historical explanations not immediately recognizable today.

### 2.5.3 Non-final deletion

Non-final deletion refers to the situation where the final consonant of a morpheme is deleted in phrase-medial environments (i.e., not before a pause). So it occurs in the exact opposite environment as devoicing (§2.3.1):

\[(70) \quad \text{Morphophonological Rule 3 (M3)—Non-final deletion}\]

- In many grammatical morphemes ending in the sequence /...CV/, the consonant (C) is deleted in phrase-medial positions.

Although it can affect any class of morpheme, non-final deletion must be considered morphophonological because only certain morphemes are affected and not others. Below is a representative sample of the morphemes known to undergo non-final deletion. The reader is referred to the Affix list for more information on identifying each morpheme.

\[(71) \quad \text{Non-final allomorphs}\]

<table>
<thead>
<tr>
<th>Morpheme</th>
<th>Underlying</th>
<th>Non-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC</td>
<td>-ka</td>
<td>-a</td>
</tr>
<tr>
<td>ADV</td>
<td>=jitɛ</td>
<td>=jɛ</td>
</tr>
<tr>
<td>DAT</td>
<td>-kɛ</td>
<td>-ɛ</td>
</tr>
<tr>
<td>DP</td>
<td>=ˊdɛ</td>
<td>=ˊɛ</td>
</tr>
<tr>
<td>PRF</td>
<td>-'ka</td>
<td>-'a</td>
</tr>
<tr>
<td>PST2</td>
<td>=batse</td>
<td>=bɛɛ</td>
</tr>
</tbody>
</table>
2.5.4 Vowel assimilation

Vowel assimilation is widespread in Ik just as it is in neighboring Turkana (Dimmendaal 1983:29). Being aware the various types of assimilation is one of the keys to unlocking the larger system of Ik grammar. The types of assimilation attested include total and partial, regressive and progressive, adjacent and non-adjacent, in several combinations. Each type occurs between certain morphemes and not others, and no type occurs within single morphemes, but only between morphemes. Refer back to §2.2.3 for evidence of non-assimilated vowel sequences within lexical roots.

(72) Morphophonological Rule 4 (M4)—Vowel assimilation

- Particular vowel combinations across particular morpheme boundaries tend to assimilate to each other.

Total Regressive Assimilation is when the second vowel in a two-vowel sequence changes the first vowel to make it identical with it. The process may involve rounding, backing, raising, or lowering, depending on the vowels concerned. In Ik this occurs between noun stems and case suffixes and between verb stems and TAM (tense-aspect-mood/modal) suffixes. All vowels may be assimilated in this way, apart from the high [+ATR] /i/ and /u/ and the mid vowels /o/ and /ɔ/. In some cases, one consonant may intervene, making the assimilation non-adjacent. The table in (73) lists the known sequences resulting from total regressive assimilation. The arrow (→) signifies the direction of assimilation, i.e. regressive in this case:

(73) Types of total regressive assimilation

<table>
<thead>
<tr>
<th>Type of assimilation</th>
<th>Sequence</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rounding/backing</td>
<td>e→o</td>
<td>oo</td>
</tr>
<tr>
<td></td>
<td>ɛ→ɔ</td>
<td>ɔɔ</td>
</tr>
<tr>
<td>Rounding/backing/raising</td>
<td>a→ɔ</td>
<td>ɔɔ</td>
</tr>
<tr>
<td></td>
<td>a→ɔ</td>
<td>ɔɔ</td>
</tr>
<tr>
<td>Rounding/backing/lowering</td>
<td>ɪ→ɔ</td>
<td>ɔɔ</td>
</tr>
<tr>
<td>Backing/lowering</td>
<td>ɪ→a</td>
<td>aa</td>
</tr>
<tr>
<td>Lowering</td>
<td>ʊ←ɔ = ɔɔ</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ɪ←ɛ = ɛɛ</td>
<td></td>
</tr>
<tr>
<td>Fronting/raising</td>
<td>a←e = ee</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a←ɛ = ɛɛ</td>
<td></td>
</tr>
</tbody>
</table>

The sequences of assimilated vowels in (73) are found in noun and verb stems like the following:

(74) **Examples of total regressive assimilation**

<table>
<thead>
<tr>
<th>Stem</th>
<th>New Stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>mucé-ɔ</td>
<td>mucó-ɔ</td>
<td>path-ABL/COP</td>
</tr>
<tr>
<td>mesɛ-ɔ</td>
<td>mesɔ-ɔ</td>
<td>beer-ABL/COP</td>
</tr>
<tr>
<td>ṭɛɛm-ɛt-ɔs</td>
<td>ṭɛɛm-ɔt-ɔs</td>
<td>creature</td>
</tr>
<tr>
<td>da-ɔ</td>
<td>do-ɔ</td>
<td>be.nice-INF</td>
</tr>
<tr>
<td>tsá-ɛn</td>
<td>tsó-ɔn</td>
<td>be.dry-INF</td>
</tr>
<tr>
<td>séda-ɔ</td>
<td>sédo-ɔ</td>
<td>garden-ABL/COP</td>
</tr>
<tr>
<td>gwa-ɔ</td>
<td>gwɔ-ɔ</td>
<td>stomach-ABL/COP</td>
</tr>
<tr>
<td>ɓɛkɛ́s-ɛ́</td>
<td>ɓɛkɛ́s-ɛ́</td>
<td>walk-IPFV-3SG-SEQ</td>
</tr>
<tr>
<td>sisá-á</td>
<td>sisá-á</td>
<td>honey.beer-ACC</td>
</tr>
<tr>
<td>kafʊ-ɔ</td>
<td>kafɔ-ɔ</td>
<td>thorn-ABL/COP</td>
</tr>
<tr>
<td>ɓɛkɛ́s-ɛ́</td>
<td>ɓɛkɛ́s-ɛ́</td>
<td>walk-3SG-SIML</td>
</tr>
<tr>
<td>da-ɛs</td>
<td>de-ɛs</td>
<td>be.nice-INT</td>
</tr>
<tr>
<td>tsá-ɛs</td>
<td>tsɛ-ɛs</td>
<td>be.dry-INT</td>
</tr>
<tr>
<td>sɛdɛ-ɛ</td>
<td>sɛdɛ-ɛ</td>
<td>garden-GEN/DAT</td>
</tr>
<tr>
<td>ɓɪsɛ́-ɛ́</td>
<td>ɓɪsɛ́-ɛ́</td>
<td>spear-GEN/DAT</td>
</tr>
</tbody>
</table>

A further example of this kind of assimilation in a clausal context is when the negator verb ńt- comes before verbs that begin with a vowel:

(75) **Nte enid.**

<table>
<thead>
<tr>
<th>Verb</th>
<th>New Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>ńt-ɛ́</td>
<td>en-ĩd⁰́</td>
</tr>
</tbody>
</table>

You don’t see (it).
Partial regressive assimilation, by contrast, occurs when the second vowel in a sequence of two vowels (adjacent or not) changes the first vowel to be more but not totally like it. This assimilation only takes place in Ik when the first vowel is a high front vowel (/i, ɪ/) and the second vowel a mid back vowel (/o, ɔ/), which for nouns might be the ablative or copulative case and for verbs the sequential or plural imperative suffixes. This type of assimilation involves rounding and backing. Adjacent partial regressive assimilation affects only the [+ATR] /i/, while the non-adjacent type (with /k/ intervening) affects both the [+ATR] /i/ and the [-ATR] /ɪ/:

\[
\begin{array}{c|c}
\text{Rounding/backing} & i\rightarrow o = uo \\
i\rightarrow ɔ = ʊɔ \\
\end{array}
\]

These partially assimilated sequences are taken from words like:

(76) Examples of partial regressive assimilation

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ats-i-o</td>
<td>ats-u-o</td>
<td>come-3SG-SEQ</td>
</tr>
<tr>
<td>ats-ɪ-o</td>
<td>ats-ʊ-o</td>
<td>come-IMP.PL</td>
</tr>
<tr>
<td>ɗí-ɔ</td>
<td>ɗú-ɔ</td>
<td>ones-ABL/COP</td>
</tr>
<tr>
<td>cekí-ɔ</td>
<td>cekú-ɔ</td>
<td>woman-ABL/COP</td>
</tr>
</tbody>
</table>

The non-adjacent type occurs with the final form (FF) of the copulative case marker and the sequential aspect suffix, both of which contain a /k/:

(77) Examples of non-adjacent partial regressive assimilation

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ats-i-k°</td>
<td>ats-u-k°</td>
<td>come-3SG-SEQ,FF</td>
</tr>
<tr>
<td>cekí-k°</td>
<td>cekú-k°</td>
<td>woman-COP,FF</td>
</tr>
<tr>
<td>áts'-ɪ-k°</td>
<td>áts'-ʊ-k°</td>
<td>gnaw-3SG,SEQ,FF</td>
</tr>
<tr>
<td>kɔn-k°</td>
<td>kɔn-ʊ-k°</td>
<td>one-COP,FF</td>
</tr>
</tbody>
</table>

Total progressive assimilation is when the first vowel in a sequence of two vowels changes the second vowel to be identical with it. The change may
involve raising, lowering, backing, fronting, rounding, and unrounding. This type of assimilation shows up in three specific morphological contexts:

1. When the non-final form (=’e/=’ɛ) of the dummy pronoun clitic (=’de) follows any TAM verbal suffix,
2. When the andative/completive suffix {6ʊƙɔtɪ́6} follows either a) the pluractional suffix {6í6} or b) a verb root whose root-final velar consonant has been deleted by haplology (see §2.5.1),
3. When a verb stem whose last vowel is high and back is followed by a) the causative suffix {6ɪt6} or b) the reciprocal suffix {6ɪ́nɔ́sɪ́6} (with or without an intervening consonant).

The affected vowel sequences are listed below according to context:

(79) **Types of total progressive assimilation**

<table>
<thead>
<tr>
<th></th>
<th>Raising</th>
<th>Backing/rounding</th>
<th>Lowering/backing</th>
<th>Backing</th>
<th>Lowering</th>
<th>Lowering/fronting/unrounding</th>
<th>Backing/rounding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>i→e = ii</td>
<td>o→e = oo</td>
<td>a→e = aa</td>
<td>i→u = ii</td>
<td>o→u = oo</td>
<td>a→u = aa</td>
<td>u→i = uu</td>
</tr>
<tr>
<td></td>
<td>i→ɛ = ii</td>
<td>ɛ→ɛ = ɛɛ</td>
<td>a→ɛ = aa</td>
<td></td>
<td></td>
<td></td>
<td>u→ɛ = ɛɛ</td>
</tr>
<tr>
<td></td>
<td>o→ɛ = oo</td>
<td>ɔ→ɛ = ɔɔ</td>
<td>a→ɔ = aa</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ɔ→ʊ = ɔʊ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Examples of the first morphological context include the following:
(80) **Examples of total progressive assimilation**

<table>
<thead>
<tr>
<th>ka-iní = e</th>
<th>ka-iní = i</th>
<th>go-SEQ = DP</th>
</tr>
</thead>
<tbody>
<tr>
<td>kot-iní = e</td>
<td>kot-iní = i</td>
<td>say-SEQ = DP</td>
</tr>
<tr>
<td>ka-i-kó = e</td>
<td>ka-i-kó = o</td>
<td>go-3SG-SEQ = DP</td>
</tr>
<tr>
<td>kut-u-kó = e</td>
<td>kut-u-kó = o</td>
<td>say-3SG-SEQ = DP</td>
</tr>
</tbody>
</table>

Examples of the second morphological context include the following:

(81) **More examples of total progressive assimilation**

<table>
<thead>
<tr>
<th>kwad-i-úkot-át^n</th>
<th>kwad-i-íkot-át</th>
<th>few-PLUR-COMP-3PL-REAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ṭḥb-áák-ukót-im</td>
<td>ṭḥb-áá-ákót-im</td>
<td>green-DISTR-COMP-SEQ</td>
</tr>
<tr>
<td>kók-ukót-ɛ</td>
<td>kó-ókót-ɛ</td>
<td>close-COMP-IMP.SG</td>
</tr>
<tr>
<td>ze-ik-áák-ukót-im</td>
<td>ze-ik-áá-ákót-im</td>
<td>big-ADJ.PL-DISTR-COMP-SEQ</td>
</tr>
</tbody>
</table>

Lastly, examples of the third morphological context include:

(82) **Yet more examples of total progressive assimilation**

<table>
<thead>
<tr>
<th>dús-it-es</th>
<th>dús-ut-es</th>
<th>cut-CAUS-INF</th>
</tr>
</thead>
<tbody>
<tr>
<td>itúr-ít-és</td>
<td>itúr-út-és</td>
<td>boast-CAUS-INF</td>
</tr>
<tr>
<td>ru-it-et-és</td>
<td>ru-ut-et-és</td>
<td>uproot-CAUS-VEN-INF</td>
</tr>
<tr>
<td>dúl-ínós</td>
<td>dúl-únós</td>
<td>oppress-RECIP</td>
</tr>
<tr>
<td>tolú-ínós</td>
<td>tolú-únós</td>
<td>betray-RECIP</td>
</tr>
<tr>
<td>ts’ón-únós</td>
<td>ts’ón-únós</td>
<td>kiss-RECIP</td>
</tr>
</tbody>
</table>

Just as the vowels /i,i/ in this third environment get backed and rounded, the reciprocal suffix {-ínós-} also shows vowel rounding after any labial consonants like /b/, /ɓ/, and /m/:

(83)  

<table>
<thead>
<tr>
<th>ts’áb-ínós</th>
<th>ts’áb-únós</th>
<th>hate-RECIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>sáb-ínós</td>
<td>sáb-únós</td>
<td>kill-RECIP</td>
</tr>
<tr>
<td>tsám-ínós</td>
<td>tsám-únós</td>
<td>like-RECIP</td>
</tr>
</tbody>
</table>
Labially induced assimilation like this also occurs in Ik’s sister language So, where it is called ‘labial attraction’ (Carlin 1993:24, 88). This shows up, for example, when the So word neb-an ‘person-DEM.SG’ becomes neb-un.

Finally, partial progressive assimilation is when the first vowel in a sequence of two vowels changes the second one to be more like it but not totally. This only happens when the andative/completive suffix {-ʊƙɔtɪ́} follows a verb root ending in /e/, /ɛ/, or /a/. The affected sequences are:

(84) **Types of partial progressive assimilation**

<table>
<thead>
<tr>
<th>Fronting</th>
<th>e→u = ei</th>
</tr>
</thead>
<tbody>
<tr>
<td>e→ʊ = ɛɪ</td>
<td></td>
</tr>
<tr>
<td>a→u = ai</td>
<td></td>
</tr>
<tr>
<td>a→ʊ = aɪ</td>
<td></td>
</tr>
</tbody>
</table>

These sequences are derived from verb forms like the following:

(85) **Examples of partial progressive assimilation**

| tsé-ʊƙot-át-a-k³ | tsé-ɪƙot-át-a-k³ | die-COMP-3PL-REAL-PRF |
| tsébè-ʊƙot-á-k³ | tsébè-ɪƙot-á-k³ | lay.eggs-COMP-REAL-PRF |
| tsá-ʊƙot-á-k³ | tsá-ɪƙot-á-k³ | dry-COMP-REAL-PRF |
| tlá-ʊƙot-á-k³ | tlá-ɪƙot-á-k³ | go-AND-REAL-PRF |

To conclude, the table below shows all the sequences of vowels involved in the various types of assimilation described in the preceding paragraphs:
### Ik vowel assimilation types

<table>
<thead>
<tr>
<th></th>
<th>Progressive</th>
<th>Regressive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e→u</td>
<td>ei</td>
<td>i→o</td>
</tr>
<tr>
<td>ε→ʊ</td>
<td>εɪ</td>
<td>i→k°</td>
</tr>
<tr>
<td>a→u</td>
<td>ai</td>
<td>r→k°</td>
</tr>
<tr>
<td>a→ʊ</td>
<td>aɪ</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i→e</td>
<td>ii</td>
<td>e→o</td>
</tr>
<tr>
<td>o→e</td>
<td>oo</td>
<td>e→ɛ</td>
</tr>
<tr>
<td>a→e</td>
<td>aa</td>
<td>i→ɛ</td>
</tr>
<tr>
<td>a→ʊ</td>
<td>aa</td>
<td>u→ɛ</td>
</tr>
<tr>
<td>i→ʊ</td>
<td>ii</td>
<td>a→e</td>
</tr>
<tr>
<td>o→ʊ</td>
<td>oo</td>
<td>a→ɛ</td>
</tr>
<tr>
<td>a→u</td>
<td>aa</td>
<td></td>
</tr>
<tr>
<td>a→ʊ</td>
<td>aa</td>
<td></td>
</tr>
<tr>
<td>u(C)→i</td>
<td>u(C)</td>
<td></td>
</tr>
<tr>
<td>u(C)→ʊ</td>
<td>u(C)ʊ</td>
<td></td>
</tr>
</tbody>
</table>
3 Suprasegmental Phonology

Suprasegmental phonology covers those properties of the Ik sound system whose domain may be greater than the single segment or syllable. Ik vowel harmony (§3.1) and tone (§3.2) fall into this category and so are treated here together. They also belong together for other reasons, namely that they have been the most difficult aspect of Ik phonology to comprehend and are crucial characteristics of the overall Ik grammar and lexicon.

3.1 Vowel harmony

In their survey of African vowel harmony systems, Hall et al. noted that for ‘Teuso’ (Ik), ‘no information’ was available (1974:257). This section is intended to partly remedy that situation. Like many sub-Saharan languages, particularly in Nilo-Saharan, Ik shows a system of vowel harmony. This puts it in the areal company of Eastern Nilotic (Teso-Turkana), Southern Nilotic (Pokot, Kalenjin), Western Nilotic (Acholi, Lango), as well as the Cushitic Somali and Kuliak (Rub) So. Ik is a 9-vowel harmony language with two sets of high contrastive vowels—a /2IU/ system in Casali’s typology (2008:504)—two sets of mid contrastive vowels and one low vowel:

(1) \textit{Ik 9-vowel harmony system}

<table>
<thead>
<tr>
<th></th>
<th>FRONT</th>
<th>CENTRAL</th>
<th>BACK</th>
</tr>
</thead>
<tbody>
<tr>
<td>[+ATR]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIGH</td>
<td>i</td>
<td>u</td>
<td></td>
</tr>
<tr>
<td>MID</td>
<td>e</td>
<td>o</td>
<td></td>
</tr>
<tr>
<td>[-ATR]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIGH</td>
<td>i</td>
<td>u</td>
<td></td>
</tr>
<tr>
<td>MID</td>
<td>e</td>
<td>o</td>
<td></td>
</tr>
<tr>
<td>LOW</td>
<td></td>
<td></td>
<td>a</td>
</tr>
</tbody>
</table>
Vowel harmony is a general condition in the language that all vowels in a given phonological word have the same value for the feature Advanced Tongue Root or [ATR]. Cross-linguistically, the phonetic correlates of ATR vary from tongue-root frontness/backness to tongue-body height to laryngeal-cavity volume. Because it requires instrumental measurements, the exact phonetic manifestation of ATR in Ik has not been determined.

Ik is a [+ATR]-dominant language with dominant-recessive harmony. Harmony spread is bi-directional. Lexical roots are specified underlingly for [ATR], and [+ATR] roots spread harmony rightward to any recessive suffixes. All synchronic Ik affixes are suffixes, and these suffixes are also specified underlingly for [ATR]. Three suffixes with high front vowels are dominantly [+ATR], harmonizing the stem in both directions as far as possible (§3.1.2). Nine other suffixes containing /a/ as one or the only vowel are also [+ATR] but can only harmonize rightward due to /a/’s opacity (§3.1.3). Most suffixes in the language are recessively [-ATR] (§3.1.4). However, two unique [-ATR] suffixes containing /a/ block bi-directional [+ATR] spread, also due to /a/’s opacity (§3.1.5). The phonological domain over which Ik lexical vowel harmony presides is the phonological word, which may include a root, suffixes, and clitics.

From a typological point of view, the Ik system is interesting in the following respects (Casali, p.c.). First, roots and affixes whose only vowel is /a/ can be specified for either [ATR] value underlingly. In other languages, /a/ often has a [+ATR] allophone in [+ATR] environments (Casali 2008:502), but in Ik there is no indication of this. This leads to a second fascinating feature: Because 1) /a/ is inherently [-ATR] and 2) morphemes containing only /a/ can be [+ATR], this requires positing a floating [+ATR] feature that can spread rightward but not leftward (i.e. through /a/ which is opaque). Third, though [+ATR] vowels are dominant and marked, they statistically outnumber [-ATR] vowels almost two-to-one (see §3.1.1).
3.1.1 Lexical vowel harmony

Vowel harmony in Ik operates at both the lexical and post-lexical levels (§3.1.6) of phonological representation. The lexical forms of all Ik roots and affixes are specified as either \(+ATR\) or \(-ATR\). In the present analysis, the [ATR] specification—as an autosegment on a separate tier from the segmental—is a property of morphemes, not of individual vowels. As an autosegment, it links up to any available vowel in the morpheme.

From a traditional structuralist point of view, the nine vowels shown above in (1) are seen as individual ‘phonemes’. This view is fine and creates no problems for the analysis of Ik vowel harmony. But following Kutsch-Lojenga’s analysis of Ngiti vowel harmony (1994:56), a more generativist view is also possible, namely that—leaving aside /a/ for the moment—Ik has four ‘archi-phonemes’ underspecified for [ATR] in deep structure:

(2)  

<table>
<thead>
<tr>
<th></th>
<th>[+/-ATR]</th>
<th>[-ATR]</th>
<th>[+/-ATR]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FRONT</td>
<td>CENTRAL</td>
<td>BACK</td>
</tr>
<tr>
<td>HIGH</td>
<td>I</td>
<td>U</td>
<td></td>
</tr>
<tr>
<td>MID</td>
<td>E</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>LOW</td>
<td>a</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In this analysis, while the low vowel /a/ stays inherently [-ATR], the other eight Ik vowels can be viewed as generated by these four archi-phonemes that get specified for their ‘allo-phoneme’ by a given morpheme’s [ATR] specification. Though quite abstract, this view may help account for why (in my experience with Ik and Ateso), vowel harmony falls largely below the perceptual threshold for native speakers. Paradoxically, the nine surface allophones (or ‘allo-phonemes’) of the archi-phonemes are also ‘phonemes’ themselves. This suggests that the strict division between ‘phoneme’ and ‘allophone’ may prove less than adequate for such vowel harmony systems.
With the archi-phonemic analysis in the background, lexical (near-) minimal pairs like the following can be viewed as (nearly) the same sequence of segments, only with different [ATR] (and in some case tone) specifications:

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>gúró- 'heart'</td>
<td>bot- 'migrate'</td>
</tr>
<tr>
<td>gūra- 'Sickle-bush tree'</td>
<td>bot- 'peel'</td>
</tr>
<tr>
<td>ikọŋá- 'oath'</td>
<td>bun- 'join in'</td>
</tr>
<tr>
<td>ikọŋa- 'fried beer mash'</td>
<td>bun- 'pass by'</td>
</tr>
<tr>
<td>ínó- 'animal'</td>
<td>isá- 'do first'</td>
</tr>
<tr>
<td>ínọ- 'Milkbush'</td>
<td>isa- 'miss (a shot)'</td>
</tr>
<tr>
<td>kòñí- 'ligament'</td>
<td>ìsép- 'flow'</td>
</tr>
<tr>
<td>kòńí- 'one'</td>
<td>ìsép- 'be lame'</td>
</tr>
<tr>
<td>kóré- 'back of knee'</td>
<td>kúp- 'be cloudy'</td>
</tr>
<tr>
<td>kɔ́rɛ́- 'ladle'</td>
<td>kʊp- 'burn'</td>
</tr>
</tbody>
</table>

At an autosegmental level of representation, words like the above ones for ‘back of knee’ and ‘ladle’ can be depicted as in (4). Here, the relevant archiphonemic vowels get specified for either of the two [ATR] values:

\[
\begin{array}{c|c}
\text{back of knee} & \text{ladle} \\
\text{[+ATR]} & \text{[-ATR]} \\
/kóřé'/ & /ǩóřé' \rightarrow ǩóřé' \\
\end{array}
\]

Less abstractly, it can be said that the two nouns in (4) simply contain similar (only different in [ATR]) vowels from the nine-vowel inventory.
Whatever theoretical interpretation one may make, Ik lexical roots can be neatly divided into two groups according to their [ATR] specification. The following table offers a few more examples of this. [+ATR] lexical roots are more numerous than [-ATR] ones. In a sample of 1930 noun roots, approximately 60% were found to be [+ATR] and 40% [-ATR]. Conversely, there are far more [-ATR] suffixes than there are [+ATR] ones (§3.1.4).

(5)  

<table>
<thead>
<tr>
<th>Nouns</th>
<th>[-ATR]</th>
</tr>
</thead>
<tbody>
<tr>
<td>bĩroõ- ‘bird sp.’</td>
<td>bìlɔɔrɔ́ ‘bird sp.’</td>
</tr>
<tr>
<td>demio- ‘Wild olive tree’</td>
<td>cɛmɛrɛ ‘herb’</td>
</tr>
<tr>
<td>fetí- ‘sun’</td>
<td>dʊɗɛ́rɛ ‘water beetle’</td>
</tr>
<tr>
<td>girúu- ‘locust’</td>
<td>dɛrɛ́tʊ́ ‘Sudan gum arabic’</td>
</tr>
<tr>
<td>hoo- ‘hut’</td>
<td>ekeɛ ‘muscle fiber’</td>
</tr>
<tr>
<td>ídeme- ‘snake’</td>
<td>ɡogomɔ́ ‘breast-bone’</td>
</tr>
<tr>
<td>jìjì- ‘opposite bank’</td>
<td>ɡɔɡɔmɔ́ ‘breast-bone’</td>
</tr>
<tr>
<td>jólilé- ‘Black kite’</td>
<td>kìfsɛɛ ‘young baboon’</td>
</tr>
<tr>
<td>nɛbú- ‘body’</td>
<td>ƙɔfɔ ‘calabash’</td>
</tr>
<tr>
<td>rébe- ‘finger millet’</td>
<td>nɛɛ ‘big rock’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Verbs</th>
<th>[-ATR]</th>
</tr>
</thead>
<tbody>
<tr>
<td>bìz- ‘press’</td>
<td>bɛ̀ ‘want’</td>
</tr>
<tr>
<td>ɓoɓ- ‘be deep’</td>
<td>ɓɔ́ ‘be nearly ripe’</td>
</tr>
<tr>
<td>dim- ‘refuse’</td>
<td>cɛmɛ ‘fight’</td>
</tr>
<tr>
<td>eréɡ- ‘use’</td>
<td>dʊ ‘catch’</td>
</tr>
<tr>
<td>fój- ‘whistle’</td>
<td>gɔ ‘jump up and down’</td>
</tr>
<tr>
<td>gό́ ‘throw away’</td>
<td>hɔn ‘drive’</td>
</tr>
<tr>
<td>hɔf- ‘free’</td>
<td>rɔ ‘scoot’</td>
</tr>
<tr>
<td>itɛ́ ‘watch’</td>
<td>jɛ ‘stay’</td>
</tr>
<tr>
<td>luƙ- ‘swallow’</td>
<td>kɔŋ ‘cook’</td>
</tr>
<tr>
<td>mídz- ‘smell’</td>
<td>fɔ ‘suck’</td>
</tr>
</tbody>
</table>
In 9-vowel systems, it is cross-linguistically common for a low vowel to combine in roots with vowels of either [ATR] value (Casali 2008:528). This is certainly the case in Ik. Though inherently [-ATR], /a/ is found within morphemes with both [+ATR] and [-ATR] vowels in a variety of arrangements. This is illustrated below with only nouns, as most verb roots have a (i)CVC-profile. For VV combinations involving /a/, see §2.2.3:

<table>
<thead>
<tr>
<th>Nouns</th>
<th>[ +ATR]</th>
<th>[-ATR]</th>
</tr>
</thead>
<tbody>
<tr>
<td>abúba- ‘spider’</td>
<td>abɛta- ‘Sitatunga antelope’</td>
<td></td>
</tr>
<tr>
<td>báčika- ‘area’</td>
<td>barisá- ‘male hyrax’</td>
<td></td>
</tr>
<tr>
<td>bĩba- ‘egg’</td>
<td>bĩsá- ‘spear’</td>
<td></td>
</tr>
<tr>
<td>cɛŋá- ‘joke’</td>
<td>cɛŋá- ‘woodpecker’</td>
<td></td>
</tr>
<tr>
<td>dokira- ‘old honeycomb’</td>
<td>dɛdɛsa- ‘Willow warbler’</td>
<td></td>
</tr>
<tr>
<td>dário- ‘dirty teeth’</td>
<td>dɛmú- ‘brain’</td>
<td></td>
</tr>
<tr>
<td>faido- ‘Ebony tree’</td>
<td>ëba- ‘horn’</td>
<td></td>
</tr>
<tr>
<td>gasóó- ‘warthog’</td>
<td>ɡáŋđi- ‘Red-pod terminalia’</td>
<td></td>
</tr>
<tr>
<td>haúu- ‘Spotted hyena’</td>
<td>ɪláŋɪ́- ‘Indian jujube’</td>
<td></td>
</tr>
<tr>
<td>kǎlits’i- ‘jaw’</td>
<td>ɛ́bɛ́ ‘grasshopper’</td>
<td></td>
</tr>
</tbody>
</table>

In light of the above data, a crucial claim for the Ik harmony system is that there are not two phonetically different /a/ vowels. This claim has yet to be confirmed by extensive instrumental evidence. But initial investigations reveal no detectable phonetic difference between the /a’s in [ +ATR] and [-ATR] environments (Casali, p.c.). This is corroborated by my auditory impressions over several years of exposure, as well as the adamant testimony of native speakers. Still, further instrumental testing is needed.

The main issue is this: It is not predictable whether a noun or verb containing /a/ as its only vowel will have [+ATR] or [-ATR] suffixes. For nouns, this is shown below by affixing the ablative case suffix {-ɔ} and for verbs either the transitive infinitive suffix {-ɛ́s} or the intransitive infinitive
suffix {-ən}. In half of the roots shown in (7), these suffixes surface as their [+ATR] allomorphs. The vowel assimilation seen in the nouns in (7) is normal (see §2.5.4). In the [+ATR] nominal stems, vowel assimilation first takes place between the [-ATR] case suffix and root-final /a/ (still [-ATR] at that point). Then the [+ATR] autosegment is able to link up with both the root-final vowel (now /ɔ/) and the suffix {-ɔ} producing an /ɔ-ɔ/ sequence.

(7)  

<table>
<thead>
<tr>
<th>+ATR ambiguity on roots containing only /a/</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nouns</strong></td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>báts'á- → báts'ɔ-</td>
</tr>
<tr>
<td>gadárā- → gadárɔ-</td>
</tr>
<tr>
<td>gwa- → gwa-ɔ-</td>
</tr>
<tr>
<td>kanaʃaa- → kanaʃɔ-</td>
</tr>
<tr>
<td>ŋap- → ŋap-ɔ</td>
</tr>
<tr>
<td>ŋap- → ŋap-ɔ</td>
</tr>
<tr>
<td>-ATR</td>
</tr>
<tr>
<td>gwa- → gwa-ɔ-</td>
</tr>
<tr>
<td>kanaʃaa- → kanaʃɔ-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>-ATR</th>
<th>+ATR</th>
</tr>
</thead>
<tbody>
<tr>
<td>báts'á- → báts'ɔ-</td>
<td>áts'- → áts'-ɛ́s</td>
</tr>
<tr>
<td>gadárā- → gadárɔ-</td>
<td>bar- → bar-ɔn</td>
</tr>
<tr>
<td>gwa- → gwa-ɔ-</td>
<td>kán- → kán-ɛ́s</td>
</tr>
<tr>
<td>kanaʃaa- → kanaʃɔ-</td>
<td>ɲwaʃ- → ɲwaʃ-ɔn</td>
</tr>
<tr>
<td>ŋap- → ŋap-ɔ</td>
<td>tam- → tam-ɛ́s</td>
</tr>
<tr>
<td>ŋap- → ŋap-ɔ</td>
<td>tam- → tam-ɛ́s</td>
</tr>
<tr>
<td>-ATR</td>
<td>+ATR</td>
</tr>
<tr>
<td>báts'á- → báts'ɔ-</td>
<td>áts'- → áts'-ɛ́s</td>
</tr>
<tr>
<td>gadárā- → gadárɔ-</td>
<td>bar- → bar-ɔn</td>
</tr>
<tr>
<td>gwa- → gwa-ɔ-</td>
<td>kán- → kán-ɛ́s</td>
</tr>
<tr>
<td>kanaʃaa- → kanaʃɔ-</td>
<td>ɲwaʃ- → ɲwaʃ-ɔn</td>
</tr>
<tr>
<td>ŋap- → ŋap-ɔ</td>
<td>tam- → tam-ɛ́s</td>
</tr>
<tr>
<td>ŋap- → ŋap-ɔ</td>
<td>tam- → tam-ɛ́s</td>
</tr>
</tbody>
</table>
To account for one /a/ in both [ATR] environments, it is claimed here that the feature [+ATR] simply does not link to /a/. Instead, whenever /a/ figures into a [+ATR] morpheme, it just floats its [+ATR] autosegment. But if a recessive suffix is attached to such a root, the floating [+ATR] autosegment spreads its harmony to it. This analysis is illustrated below, where the symbol (’+) is used to signify the floating [+ATR] autosegment (on analogy with a floating tone). Note that for (8), vowel assimilation is shown to have already occurred at the docking of the [+ATR] autosegment:

\[
\begin{align*}
\text{(8)} & \quad \text{‘person’} & \quad \text{‘from the person’} \\
& \quad [+\text{ATR}] & \quad [+\text{ATR}] \\
\quad \text{ámá’} & \quad \text{ámɔ́} & \rightarrow \quad \text{ámó-o} \\
\end{align*}
\]

\[
\begin{align*}
\text{(9)} & \quad \text{‘yawn’} & \quad \text{‘to yawn’} \\
& \quad [+\text{ATR}] & \quad [+\text{ATR}] \\
\quad \text{áƙáf’} & \quad \text{áƙáf-on} & \rightarrow \quad \text{áƙáf-on} \\
\end{align*}
\]

By contrast, in [-ATR] roots, the autosegment can readily dock to /a/ and any recessive suffixes that may follow, as in:

\[
\begin{align*}
\text{(10)} & \quad \text{‘slime’} & \quad \text{‘from slime’} \\
& \quad [-\text{ATR}] & \quad [-\text{ATR}] \\
\quad \text{ɡaɗárə} & \quad \text{ɡaɗárɔ́} \\
\end{align*}
\]

\[
\begin{align*}
\text{(11)} & \quad \text{‘think’} & \quad \text{‘to think’} \\
& \quad [-\text{ATR}] & \quad [-\text{ATR}] \\
\quad \text{tam} & \quad \text{tam-ɛ́s} \\
\end{align*}
\]
3.1.2 Dominant suffixes

As already noted, Ik is a [+ATR]-dominant language. In principle then, all [+ATR] suffixes (in addition to roots) are also dominant. In reality though, some [+ATR] suffixes contain /a/ which blocks harmony spread back to the stem; it only spreads rightward to other suffixes. These opaque dominant suffixes are treated below in §3.1.3. The present section concerns the three non-opaque dominant suffixes. These are the pluractional aspect suffix {-í-}, the plurative I nominal pluralizer {-íkó-}, and the middle voice suffix {-ím-}. All three of these suffixes spread harmony in both directions until they encounter an /a/ (if any). Incidentally, they all have H tone:

(12) Ik dominant [+ATR] suffixes

<table>
<thead>
<tr>
<th></th>
<th>PLUR</th>
<th>Plurational</th>
<th>(§7.7.7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>{-í-}</td>
<td>PL</td>
<td>Plurative I</td>
<td>(§4.2.1)</td>
</tr>
<tr>
<td>{-ím-}</td>
<td>MID</td>
<td>Middle</td>
<td>(§7.8.5)</td>
</tr>
</tbody>
</table>

To illustrate the harmony spread of {-í-}, a set of verbs is given below. In the first column is found the [-ATR] verb root. This is then followed by a 1PL.EXC verb containing the pluractional suffix which gives the verb a nuance of habitualness or repetitiveness. The 1PL.EXC bound pronominal is the recessive {-ím(í-)} that is harmonized by the pluractional suffix. Note that if the root-final vowel is /a/, it vowel blocks [+ATR] spread from {-í-}:

(13) Vowel harmony spread by the pluractional {-í-}

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ber-</td>
<td>ber-í-ím</td>
<td>'We (always/usually) build.'</td>
</tr>
<tr>
<td>ibad-</td>
<td>ibad-í-ím</td>
<td>'We (always/usually) knock over.'</td>
</tr>
<tr>
<td>idím-</td>
<td>idím-í-ím</td>
<td>'We (always/usually) make.'</td>
</tr>
<tr>
<td>kóf-</td>
<td>kóf-í-ím</td>
<td>'We (always/usually) cry.'</td>
</tr>
<tr>
<td>zik-</td>
<td>zik-í-ím</td>
<td>'We (always/usually) tie.'</td>
</tr>
</tbody>
</table>

Then, to illustrate the harmony spread of the plurative {-íkó-}, a set of nouns is given below. The singular [-ATR] noun root is shown in the first
column. And this is followed by the plural bearing the plurative I suffix and then the recessive copulative case marker {-kɔ} in its non-final allomorph /-o/. Note the bi-directional [ + ATR] harmony spread out from {-ıkó-}:

(14)  

<table>
<thead>
<tr>
<th>Vowel harmony spread by the plurative {-ıkó-}</th>
</tr>
</thead>
<tbody>
<tr>
<td>kɔlà-</td>
</tr>
<tr>
<td>kɔrɛ́-</td>
</tr>
<tr>
<td>ñɛ́rá-</td>
</tr>
<tr>
<td>ɔrrɔ́-</td>
</tr>
<tr>
<td>welₐ-</td>
</tr>
<tr>
<td>kól-ıkó-o</td>
</tr>
<tr>
<td>kór-ıkó-o</td>
</tr>
<tr>
<td>ñér-ıkó-o</td>
</tr>
<tr>
<td>orór-ıkó-o</td>
</tr>
<tr>
<td>wél-ıkó-o</td>
</tr>
<tr>
<td>‘Is it uncastrated goats?’</td>
</tr>
<tr>
<td>‘Is it ladles?’</td>
</tr>
<tr>
<td>‘Is it mingling sticks?’</td>
</tr>
<tr>
<td>‘Is it smalls streams?’</td>
</tr>
<tr>
<td>‘Is it small openings?’</td>
</tr>
</tbody>
</table>

Lastly, to illustrate the harmony spread of the middle suffix {-ím-}, a sample of Ik verbs is given in (15). The first column contains [ - ATR] roots, while the second column shows the full harmonized stems. The middle suffix not only harmonizes leftward to the root but also rightward to the inchoative aspect marker {-ét} and the intransitive infinitive marker {-on}. However, harmony spread to the root is blocked by /a/ in the case of ɪraŋíméton:

(15)  

<table>
<thead>
<tr>
<th>Vowel harmony spread by the middle {-ím-}</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɪɓʊ́ts-</td>
</tr>
<tr>
<td>ɪlɔ́-</td>
</tr>
<tr>
<td>ɪráŋ-</td>
</tr>
<tr>
<td>kɔk-</td>
</tr>
<tr>
<td>tuɓʊ́n-</td>
</tr>
<tr>
<td>ɪɓuts-ím-ét-on</td>
</tr>
<tr>
<td>ilo-ím-ét-on</td>
</tr>
<tr>
<td>ɪraŋ-ím-ét-on</td>
</tr>
<tr>
<td>kok-ím-ét-on</td>
</tr>
<tr>
<td>tuɓun-ím-ét-on</td>
</tr>
<tr>
<td>‘to be mistaken’</td>
</tr>
<tr>
<td>‘to be defeated’</td>
</tr>
<tr>
<td>‘to be ruined’</td>
</tr>
<tr>
<td>‘to shut’</td>
</tr>
<tr>
<td>‘to close off’</td>
</tr>
</tbody>
</table>

3.1.3 Opaque dominant suffixes

Nine Ik suffixes are dominantly [ + ATR] but differ from those in (12) in that they contain /a/ as one or their only vowel. These ‘opaque dominant suffixes’ include the suffix {-a'}, which is identical as the nominative case and realis modality markers; the distributive adjectival suffix {-aₐₖ+}, the patientive {-amₐ+}, the stative adjectival suffix {-àn+}, the
hortative/optative {-ano’}, the 3pl. bound pronominal suffix {-áti-}, the accusative case suffix {-ka’}, and the present perfect aspect suffix {-’ka’}:

(16) Ik opaque dominant [+ATR] suffixes

<table>
<thead>
<tr>
<th>Suffix</th>
<th>Case</th>
<th>Description</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>{-a’-}</td>
<td>NOM</td>
<td>Nominative case</td>
<td>§6.3.2</td>
</tr>
<tr>
<td>{-a’-}</td>
<td>REAL</td>
<td>Realis modality</td>
<td>§7.6.2</td>
</tr>
<tr>
<td>{-áak’-}</td>
<td>DISTR</td>
<td>Distributive adjectival</td>
<td>§7.9.6</td>
</tr>
<tr>
<td>{-amá’-}</td>
<td>PAT</td>
<td>Patientive nominalizer</td>
<td>§7.2.4</td>
</tr>
<tr>
<td>{-án’-}</td>
<td>STAT</td>
<td>Stative adjectival</td>
<td>§7.9.3</td>
</tr>
<tr>
<td>{-ano’}</td>
<td>OPT</td>
<td>Hortative/optative</td>
<td>§7.7.4</td>
</tr>
<tr>
<td>{-áti-}</td>
<td>3PL</td>
<td>3-person plural</td>
<td>§7.4</td>
</tr>
<tr>
<td>{-ka’}</td>
<td>ACC</td>
<td>Accusative case</td>
<td>§6.3.6</td>
</tr>
<tr>
<td>{-’ka’}</td>
<td>PRF</td>
<td>Present perfect</td>
<td>§7.8.7</td>
</tr>
</tbody>
</table>

All nine of these suffixes harmonize [-ATR] vowels rightward (if no other /a/ intervenes) but not leftward. Apart from the hortative/optative suffix {-ano’} and the 3pl. bound pronominal {-áti-}, which have underlying [+ATR] vowels /o/ and /i/, these opaque suffixes have only a floating [+ATR] autosegment. Since [+ATR] is dominant, it spreads to any following suffixes, but it cannot spread through the /a/ back to the root.

The rightward-only dominance of the nominative case and realis modality suffix {-a’} is illustrated in the next two tables. In the nominal system, the remote past demonstrative/tense enclitic {=nɔɔ} is contrasted on nouns with and without the nominative case suffix:

(17) Rightward-only dominance of nominative {-a’}

<table>
<thead>
<tr>
<th>Nouns with {-a’}</th>
<th>Nouns without {-a’}</th>
</tr>
</thead>
<tbody>
<tr>
<td>ēb-a = nɔɔ⁰</td>
<td>ēbɔ-ɔ = ɔɔk³</td>
</tr>
<tr>
<td>‘that gun’</td>
<td>‘It was a gun.’</td>
</tr>
<tr>
<td>fiyɔ-a = nɔɔ⁰</td>
<td>fiyɔ-ɔ = ɔɔk³</td>
</tr>
<tr>
<td>‘that cow’</td>
<td>‘It was a cow.’</td>
</tr>
<tr>
<td>mutú-á = nɔɔ⁰</td>
<td>mutú-ɔ = ɔɔk³</td>
</tr>
<tr>
<td>‘that needle’</td>
<td>‘It was a needle.’</td>
</tr>
</tbody>
</table>
In the verbal system, the same tensed enclitic \( =\eta \) is contrasted on verbs with and without the realis suffix:

(18) **Rightward-only dominance of realis \{-a^+\}**

<table>
<thead>
<tr>
<th>Verbs with {-a^+}</th>
<th>Verbs without {-a^+}</th>
</tr>
</thead>
<tbody>
<tr>
<td>bɛr-a = nok’ ‘He built.’</td>
<td>bɛr-ukɔ = nok’ ‘He built with it.’</td>
</tr>
<tr>
<td>ƙɔ́ɗ-a = nok’ ‘He cried.’</td>
<td>ƙɔ́ɗ-ukɔ = nok’ ‘He cried from it.’</td>
</tr>
<tr>
<td>dʊ́b-a = nok’ ‘He caught.’</td>
<td>dʊ́b-ukɔ = nok’ ‘He caught with it.’</td>
</tr>
</tbody>
</table>

Moving on to the distributive adjectival suffix \{-aák+\}, its rightward-only harmony spread caused by /a/ is shown below. The first column of (19) contains [-ATR] verb roots. Then in the second column are verbs stems with \{-aák+\} followed by the recessive intransitive infinitive \{-ɔn\} and the completive aspect \{-ʊƙɔt\}. It is clear from these examples that the distributive suffix spreads harmony to the suffixes but not back to the root:

(19) **Rightward-only dominance of distributive \{-aák+\}**

<table>
<thead>
<tr>
<th></th>
<th>cr-aak-ón-ukot ‘to get full (of multiple people)’</th>
<th>ɗɔƙ-ɑak-ón-ukot ‘to become wet (of multiple entities)’</th>
<th>ɪ́bɔt-ɑak-ón-ukot ‘to become green (of multiple entities)’</th>
</tr>
</thead>
<tbody>
<tr>
<td>cr-</td>
<td>cr-aak-ón-ukot ‘to get full (of multiple people)’</td>
<td>ɗɔƙ-ɑak-ón-ukot ‘to become wet (of multiple entities)’</td>
<td>ɪ́bɔt-ɑak-ón-ukot ‘to become green (of multiple entities)’</td>
</tr>
<tr>
<td>ɗɔƙ-</td>
<td>ɗɔƙ-aak-ón-ukot ‘to become wet (of multiple entities)’</td>
<td>ɗɔƙ-ɑak-ón-ukot ‘to become wet (of multiple entities)’</td>
<td>ɗɔƙ-ɑak-ón-ukot ‘to become wet (of multiple entities)’</td>
</tr>
<tr>
<td>ɪ́bɔt-</td>
<td>ɪ́bɔt-ɑak-ón-ukot ‘to become green (of multiple entities)’</td>
<td>ɪ́bɔt-ɑak-ón-ukot ‘to become green (of multiple entities)’</td>
<td>ɪ́bɔt-ɑak-ón-ukot ‘to become green (of multiple entities)’</td>
</tr>
</tbody>
</table>

Next, the rightward-only dominance of the patientive nominalizer \{-amá+\} is illustrated in the following table. This [+ATR] suffix spreads harmony to the the non-final copulative case suffix \{-(k)ɔ\} but not back to the stem:

(20) **Rightward-only dominance of patientive \{-amá+\}**

<table>
<thead>
<tr>
<th></th>
<th>bít-it-amó-o ‘Is it (a) reproducible?’</th>
<th>díkw-amó-o ‘Is it a pillow?’</th>
<th>ɪ́bɔts-amó-o ‘Is it (a) curdlable (i.e. milk cream)?’</th>
</tr>
</thead>
<tbody>
<tr>
<td>bít-</td>
<td>bít-it-amó-o ‘Is it (a) reproducible?’</td>
<td>díkw-amó-o ‘Is it a pillow?’</td>
<td>ɪ́bɔts-amó-o ‘Is it (a) curdlable (i.e. milk cream)?’</td>
</tr>
<tr>
<td>ɪ́bɔts-</td>
<td>ɪ́bɔts-amó-o ‘Is it (a) curdlable (i.e. milk cream)?’</td>
<td>ɪ́bɔts-amó-o ‘Is it (a) curdlable (i.e. milk cream)?’</td>
<td>ɪ́bɔts-amó-o ‘Is it (a) curdlable (i.e. milk cream)?’</td>
</tr>
</tbody>
</table>

The stative adjectival suffix \{-án+\} also only harmonizes recessive vowels to its right. This is shown below with verb stems in the intransitive infinitive
(marked by {+on}). Observe that the verb stem before the stative may be [-ATR], but the infinitive suffix also surfaces as [+ATR]:

(21) **Rightward-only dominance the stative adjectival {-án‘}**

<table>
<thead>
<tr>
<th>verb</th>
<th>verb stem</th>
<th>3sg-stative stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɓɛl-</td>
<td>‘crack’</td>
<td>ɓɛlɛ́ɓɛ́l-áń ɓɛ́lɛ́ɓɛ́l-ón ‘to crack, chap’</td>
</tr>
<tr>
<td>cɛm-</td>
<td>‘fight’</td>
<td>cɛmɛk-áń cɛmɛk-ón ‘to be combative’</td>
</tr>
<tr>
<td>zɪ́k-</td>
<td>‘tie’</td>
<td>zɪ́kɪ́zɪk-áń zɪ́kɪ́zɪk-ón ‘to be all tied up’</td>
</tr>
</tbody>
</table>

As another opaque dominant morpheme, the hortative (or 1PL INCl optative) suffix {+ano‘} also only harmonizes rightward. Because it contains the [+ATR] vowel /o/, no floating [+ATR] autosegment is posited. The morpheme’s [+ATR] specification can be associated with /o/. The following table shows the invariability of /o/ on the one hand, and the failure of preceding [-ATR] stems to harmonize on the other hand:

(22) **Rightward-only dominance the hortative/optative {-ano‘}**

<table>
<thead>
<tr>
<th>verb</th>
<th>verb stem</th>
<th>3sg-hortative stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>cɛ-</td>
<td>‘kill’</td>
<td>cɛ-íƙɔ́t-ano‘ ‘Let’s kill (it).’</td>
</tr>
<tr>
<td>dʊ́b-</td>
<td>‘catch’</td>
<td>dʊ́b-ano‘ ‘Let’s catch (it).’</td>
</tr>
<tr>
<td>kɔk-</td>
<td>‘close’</td>
<td>kɔk-ɛ́t-ano‘ ‘Let’s close up.’</td>
</tr>
</tbody>
</table>

Like {-ano‘}, the 3PL subject-agreement pronominal {-áti-} also has a [+ATR] vowel /i/, provides a segment to which the morpheme’s [+ATR] autosegment can link to. In those verb paradigms that preserve /i/ on this suffix, it spreads harmony rightward in accordance with the language’s [+ATR] dominance.

In (23) below, the first column contains a [-ATR] verb. This is followed in column two by verb stems with {-áti-} and the recessive simultaneous aspect marker {-ke} in its non-final allomorph /-e/. The first example also has the completive aspect suffix {-ʊƙɔt} showing some vowel assimilation. What is evident from (23) is that any vowels to the right of {-áti-} surface as [+ATR], while any to the left may be [-ATR]. (And if they are [+ATR], it is because the root has spread its dominant harmony rightward):
The accusative case suffix {6ka} is yet another opaque dominant [+ATR] morpheme. Because no other suffix can follow {6ka}, its harmonizing behaviour can only be seen with enclitics. In the next table, the singular anaphoric demonstrative {=ꜜdɛ́ɛ́} is appended to the non-final accusative case allomorph /a/ on three nouns. Note that while the anaphoric enclitic is harmonized, the nominal stem preceding {6ka} remains [-ATR]:

(23) Rightward-only dominance of the accusative {6ka}

<table>
<thead>
<tr>
<th>Noun</th>
<th>Enclitic</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɪlɪ́6 ɪlɪ́6ɪ́ƙɔt6áti6e</td>
<td>ɦyɔɔ6 ɦyɔ6a=ꜜdɛ́</td>
<td>‘that cow’</td>
</tr>
<tr>
<td>kɔ́ɗɛ́d6 kɔ́ɗɛ́d6áti6e</td>
<td>ɪtsʊ́ŋ6 ɪtsʊ́ŋ6á=ꜜdɛ́</td>
<td>‘Has he burnt (with it)?’</td>
</tr>
<tr>
<td>ñɛtɛ́d- ñɛtɛ́d-ati6e</td>
<td>ƙɔɗ6 ƙɔɗ6á=ꜜdɛ́</td>
<td>‘Has he cried (for it)?’</td>
</tr>
</tbody>
</table>

The final opaque suffix to be discussed is the present perfect aspect marker {6ˊka}. In the following table, this suffix is placed on [-ATR] verbs and followed by the dummy pronoun enclitic {=ˊdɛ} in its non-final allomorph /=ˊɛ/. Observe how the present perfect suffix {6ˊka} harmonizes the dummy pronoun enclitic but cannot harmonize back to the verb due to /a/:

(24) Rightward-only dominance of the present perfect {6ˊka}

<table>
<thead>
<tr>
<th>Noun</th>
<th>Enclitic</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɛɛ-tɛ́kɛ́=e-</td>
<td>ɛɛ-tɛ́kɛ́=ëe-</td>
<td>‘Has he killed (with it)?’</td>
</tr>
<tr>
<td>ɪtsʊ́ŋ-</td>
<td>ɪtsʊ́ŋ-á=ˊdɛ́</td>
<td>‘Has he burnt (with it)?’</td>
</tr>
<tr>
<td>ƙɔɗ-</td>
<td>ƙɔɗ-á=ˊdɛ́</td>
<td>‘Has he cried (for it)?’</td>
</tr>
</tbody>
</table>

The human singulative suffix {6Vma} varies in its morphological [ATR] specification. With a [-ATR] value, it takes the form {6oma} as in kᵵn-šₘₐ- ‘someone (strange)’. And with a [+ATR] value, it takes the form {6ama-} as in ɲᵻₘᵢₖₙₖₐₙₖₐ₃ₐₙₖₐ₃ₐₘₐₖₐ₃ₐₖ₉ₖₙₖₐ₃ₐₖ₉ₖₚₖ₉ₖₘₐₖ₉ₖₚₖ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉ₖₙₖ₉ₖₚ₉₆-
3.1.4 Recessive suffixes

However, most Ik affixes are recessively [-ATR]. For a full list of these morphemes, the reader is referred to the Affix list at the book’s beginning. A few examples suffice here: 1) First, in (25), a comparative non-final form case paradigm with a plural [-ATR] noun and a plural [+ATR] noun—both marked by the pluralive III suffix {-ika-}. 2) Then in (26), a table comparing [-ATR] and [+ATR] verbs with three suffixes after the root: the causative {-it-}, the inchoative aspect {-ét}, and the transitive infinitive {-és}:

(25) **Comparative case paradigm illustrating recessive nominal suffixes**

<table>
<thead>
<tr>
<th>Case</th>
<th>Case suffix</th>
<th>[-ATR]</th>
<th>[+ ATR]</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL</td>
<td>-∅</td>
<td>kwet-ika</td>
<td>kwar-ika</td>
</tr>
<tr>
<td>NOM</td>
<td>-a</td>
<td>kwet-ika-a</td>
<td>kwar-ika-a</td>
</tr>
<tr>
<td>INS</td>
<td>-ɔ</td>
<td>kwet-ik-ɔ</td>
<td>kwar-ik-ɔ</td>
</tr>
<tr>
<td>ABL</td>
<td>-ɛ</td>
<td>kwet-ikɛ-ɔ</td>
<td>kwar-ikɛ-ɔ</td>
</tr>
<tr>
<td>GEN</td>
<td>-ɛ</td>
<td>kwet-ike-ɛ</td>
<td>kwar-ike-ɛ</td>
</tr>
<tr>
<td>ACC</td>
<td>-(k)a</td>
<td>kwet-ika-a</td>
<td>kwar-ika-a</td>
</tr>
<tr>
<td>DAT</td>
<td>-(k)ɛ</td>
<td>kwet-ike-ɛ</td>
<td>kwar-ike-ɛ</td>
</tr>
<tr>
<td>COP</td>
<td>-(k)ɔ</td>
<td>kwet-ikɔ-ɔ</td>
<td>kwar-ikɔ-ɔ</td>
</tr>
</tbody>
</table>

(26) **Verbs illustrating recessive verbal suffixes**

<table>
<thead>
<tr>
<th>[-ATR]</th>
<th>[+ ATR]</th>
</tr>
</thead>
<tbody>
<tr>
<td>bit-it-et-ɛs ‘to multiply’</td>
<td>aɛ-it-et-ɛs ‘to light’</td>
</tr>
<tr>
<td>ɛb-it-et-ɛs ‘to make cold’</td>
<td>dékw-it-et-ɛs ‘to rebuke’</td>
</tr>
<tr>
<td>iɬ-it-et-ɛs ‘to explain’</td>
<td>dɔd-it-et-ɛs ‘to show’</td>
</tr>
<tr>
<td>ñɛlɛ-it-et-ɛs ‘to disgust’</td>
<td>en-it-et-ɛs ‘to clarify’</td>
</tr>
<tr>
<td>ɪtsan-it-et-ɛs ‘to cause trouble’</td>
<td>fek-it-et-ɛs ‘to amuse’</td>
</tr>
<tr>
<td>ɪdz-it-et-ɛs ‘to compare’</td>
<td>fiyek-it-et-ɛs ‘to invigorate’</td>
</tr>
<tr>
<td>ṣk-it-et-ɛs ‘to feed’</td>
<td>irím-it-et-ɛs ‘to spin around’</td>
</tr>
<tr>
<td>ẓɛkw-it-et-ɛs ‘to settle’</td>
<td>kám-it-et-ɛs ‘to equate’</td>
</tr>
</tbody>
</table>
As long as no /a/ interferes, [+ATR] vowel harmony continues from the root rightward to the end of the phonological word. The two sentences below further illustrate this with longer verb stems:

(27)  
[-ATR]  ɗɔƙ- 'wet'  →  ɗɔƙ-ɪt-ɛ̀s-ʊ́ƙɔt-ɪ́m.⁰
  wet-CAUS-INT-COMP-1PL.EXC-REAL
  We will make (it) wet.

  [+ATR]  ɓoɓ- 'deep'  →  ɓoɓ-ɪt-ɛ̀s-ʊ́ƙɔt-ɪ́m.⁰
  deep-CAUS-INT-COMP-1PL.EXC-REAL
  We will make (it) deep.

3.1.5 Opaque recessive suffixes

Lastly, Ik has two [-ATR] suffixes opaque by virtue of containing /a/. These are the impersonal passive {-anĩ́} and the abstractive nominalizer {-ásĩ́}:

(28)  Ik opaque recessive [-ATR] suffixes

<table>
<thead>
<tr>
<th></th>
<th>IMP</th>
<th>Abst</th>
</tr>
</thead>
<tbody>
<tr>
<td>{-anĩ́}</td>
<td>Impersonal passive</td>
<td>(§7.8.3)</td>
</tr>
<tr>
<td>{-ásĩ́}</td>
<td>Abstractive nominalizer</td>
<td>(§7.2.3)</td>
</tr>
</tbody>
</table>

Both of these suffixes block harmony spread from either direction. This is illustrated in the next two tables. In (29), {-anĩ́} is suffixed to [+ATR] verbs and followed by the simultaneous aspect marker {-(k)c}. The fact that the simultaneous aspect marker remains [-ATR] throughout indicates that [+ATR] spread from the verb root has been blocked by the /a/ in {-anĩ́}:

(29)  [+ATR] harmony-blocking by {-anĩ́}

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>gon-</td>
<td>gon-anĩ́-é 'while looking'</td>
<td></td>
</tr>
<tr>
<td>i-</td>
<td>i-anĩ́-é 'while being (somewhere)'</td>
<td></td>
</tr>
<tr>
<td>ƙa+</td>
<td>ƙa-anĩ́-é 'while going'</td>
<td></td>
</tr>
<tr>
<td>mor-</td>
<td>mor-anĩ́-é 'while fleeing'</td>
<td></td>
</tr>
<tr>
<td>sár+</td>
<td>sár-anĩ́-é 'while still...'</td>
<td></td>
</tr>
</tbody>
</table>
Then in (30), five [+ATR] verb roots are listed in the first column. In the second column are given their simple intransitive infinitives to confirm their [+ATR] specification. After that, the abstractive nominalizer {ásí-} is suffixed to the bare verb roots and then followed by the non-final allomorph of the instrumental case suffix {-ɔ}. The fact that the case suffix consistently surfaces as [-ATR] shows the [+ATR] harmony from the root is blocked:

<table>
<thead>
<tr>
<th>Root</th>
<th>Infinitive</th>
<th>Abstract noun</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>da^+</td>
<td>do-on</td>
<td>da-as-ɔ́</td>
<td>‘with niceness’</td>
</tr>
<tr>
<td>gaan^+</td>
<td>gaan-ón</td>
<td>gáán-as-ɔ</td>
<td>‘with badness’</td>
</tr>
<tr>
<td>háb^+</td>
<td>háb-ón</td>
<td>háb-as-ɔ</td>
<td>‘with heat’</td>
</tr>
<tr>
<td>kom-</td>
<td>kom-ón</td>
<td>kom-ás-ɔ́</td>
<td>‘with multiplicity’</td>
</tr>
<tr>
<td>itión-</td>
<td>itión-ón</td>
<td>itión-as-ɔ</td>
<td>‘with difficulty’</td>
</tr>
</tbody>
</table>

### 3.1.6 Recessive enclitics

Up to this point, the lexical vowel harmony being discussed applied to the formation of grammatical words—roots with suffixes. But in the phonological word, post-lexical vowel harmony may also occur. The phonological word in Ik can coincide exactly with the grammatical word, but it may also include one of a set of enclitics. Among this set are found demonstratives, relative pronouns, tense markers, and adverbs. Recessive enclitics, the topic of this section, are fully harmonized by [+ATR] morphemes. Dominant [+ATR] enclitics (§3.1.7), harmonize leftward to the stem but only to the extent of one open phonetic syllable (CV or CVV).

The four enclitics that are harmonized by [+ATR] stems include the removed past tense marker =bɛɛ̂, the form =nɔɔ̂ which is the same for the singular remote past relative pronoun and remote past tense marker, the singular anaphoric demonstrative =Dé, and the sentential adverb =kɔtɔ.
The recessive enclitics in (31) are harmonized when attached to noun or verb stems whose final morpheme is [+ATR]. To illustrate this, in (32) the singular anaphoric demonstrative =dɛ́ɛ́ and the singular remote past demonstrative =nɔkɔ are shown following first a [-ATR] nominal stem and then a stem ending with the dominantly [+ATR] Nominative case {-a⁺-}:

(32) *Ik recessive nominal enclitics*

<table>
<thead>
<tr>
<th>[-ATR] stem</th>
<th>[+ATR] stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɲɛƙɔ6ɔ={dɛ́ɛ́} ‘from that hunger’</td>
<td>ɲɛƙ-a ‘dɛ́ɛ́ ‘that hunger’</td>
</tr>
<tr>
<td>ts’ɪƙɔ́6ɔ́={dɛ́ɛ́} ‘from that bee’</td>
<td>ts’ɪƙ-a ‘dɛ́ɛ́ ‘that bee’</td>
</tr>
<tr>
<td>ɲɛƙɔ6a={nɔkᵓ} ‘from that hunger’</td>
<td>ɲɛƙ-a=nokᵓ ‘that hunger’</td>
</tr>
<tr>
<td>ts’ɪƙ ɔ́6a=nɔkᵓ ‘from that bee’</td>
<td>ts’ɪƙ a=nokᵓ ‘that bee’</td>
</tr>
</tbody>
</table>

And for the case of verbs, the table in (33) shows the non-final removed past tense marker =bɛɛ and the sentential adverb =kɔtɔ first on [-ATR] verb stems and then on stems ending in the [+ATR] realis suffix {-a⁺-}:

(33) *Ik recessive verbal enclitics*

<table>
<thead>
<tr>
<th>[-ATR] stem</th>
<th>[+ATR] stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>ʃɪk-u-kɔ5 =ɔ =bɛɛ...</td>
<td>‘And he hung (it) from there (yesterday).’</td>
</tr>
<tr>
<td>ʃɪk-o =kɔtᵓ’</td>
<td>‘And then he hung (it).’</td>
</tr>
<tr>
<td>ʃɪká =bee...</td>
<td>‘He hung (it yesterday).’</td>
</tr>
<tr>
<td>ʃɪk-a =kɔtᵓ’</td>
<td>‘So he hangs (it).’</td>
</tr>
</tbody>
</table>
3.1.7 *Post-lexical /i,u/-dominance*

The recessive enclitics described in the previous section are harmonizable at the post-lexical level. But another type of post-lexical vowel harmony—/i,u/-dominance—is also operative in Ik. It involves [+ATR] harmony spreading leftward from to *one open phonetic syllable* (CV or CVV) from the high vowels /i/ or /u/ and only across a compound or clitic boundary.

The uni-directionality of Ik /i,u/-dominance is a natural syntactic constraint imposed by the position of the harmonizing morpheme: as the final one in the phonological word. The harmony spread does not go beyond one phonetic syllable, that is, not past the first encountered consonant. A similar condition is reported for the Kuliak language So, where “the scope of vowel harmony does not extend beyond a preceding or following syllable” (Carlin 1993:23). Lastly, the special status of /i/ and /u/ in this kind of post-lexical harmony recalls the nearby Surmic language Didinga whose vowels /i/ and /u/ are also more dominant than others (De Jong (2004:148).

Post-lexical /i,u/-dominance takes place in two syntactic environments: 1) between the two terms of a *(pro)nominal compound* and 2) between certain plural encitics and the preceding nominal stems. Each are described below.

As described in §4.3.1, Ik compounds consist of two or more *(pro)nominals* linked in an associative construction. The first element in the compound (*N₁*) is in the oblique case and therefore always ends in a vowel. Post-lexical harmony takes place in a compound if the following conditions are met: 1) the compound’s *N₁* is [-ATR] and 2) ends in a non-low vowel, 3) the compound’s *N₂* is [+ATR] and 4) begins with /i/. If these conditions are met, the final phonetic syllable of the *N₁* is harmonized to [+ATR]. In the examples below, the brackets [ ] are meant to signify post-lexical vowel harmony, not necessarily any other allophonic or allotonic specifications:
The second environment for post-lexical /i,u/-dominance involves enclitics. A number of Ik plural enclitics contain the high vowels /i/ or /u/. They are listed below in (35). All but the plural anaphoric demonstrative =دىí have two different grammatical functions (due to grammaticalization):

The enclitics in (35) cause /i,u/-dominance if the following conditions are met: 1) The preceding noun stem is [-ATR] and 2) ends in a non-low vowel. If these are met, the enclitic harmonizes the final phonetic syllable of the [-ATR] noun. The conditions are not so often met, because the two case suffixes often required on nouns are the nominative {-نا} and the accusative {-كا}, both of which obstruct the spread of [+ATR]. The examples in (36) consist of nouns—four of which have plural suffixes—with case suffixes and one example each of the [+ATR] clitics from (35):
3.2 Tone

Ik must be viewed as a ‘tone language’ because in Ik “the pitch of a word can change the meaning of the word. Not just its nuances, but its core meaning” (Yip 2002:1). The following lexical minimal or near-minimal pairs show how pitch (and therefore tone) creates meaningful contrasts:

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>céŋá- ‘joke’</td>
<td>bǔk- ‘enter’</td>
</tr>
<tr>
<td>cɛ́ŋá- ‘joke’</td>
<td>bǔk- ‘lift’</td>
</tr>
<tr>
<td>ēsá- ‘drunkenness’</td>
<td>dǔb- ‘catch in hand’</td>
</tr>
<tr>
<td>ēsá- ‘termites’</td>
<td>dǔb- ‘mix with water’</td>
</tr>
<tr>
<td>gwāá- ‘bird’</td>
<td>hɔ́n- ‘drive’</td>
</tr>
<tr>
<td>gwàà- ‘crop, stomach’</td>
<td>hɔ́n- ‘chase animals’</td>
</tr>
<tr>
<td>rɔ̄ɓá- ‘animal collar’</td>
<td>ɪ́tɪ́ŋ- ‘force’</td>
</tr>
<tr>
<td>rɔ̀ɓà- ‘people’</td>
<td>ɪ́tɪ́ŋ- ‘cook’</td>
</tr>
<tr>
<td>sɛ́w- ‘quartz’</td>
<td>rǔɓ- ‘groan’</td>
</tr>
<tr>
<td>sèà- ‘blood’</td>
<td>rǔɓ- ‘fall’</td>
</tr>
</tbody>
</table>
As a lexical tone language, Ik falls in the company of all the neighboring Surmic languages like Didinga, Eastern Nilotic languages like Teso-Turkana, Western Nilotic languages like Acholi and Lango, and Southern Nilotic languages like Pokot and Kupsabiny. But Ik differs from nearby ‘tonal accent’ languages like East Cushitic Dhaasanac that allow only one high tone per word (Tosco 2001:34). And from within the Kuliak group, Carlin “found no evidence of So being a tone language” but rather that “stress-accent is important in So, not on the paradigmatic level, but rather on the syntagmatic level” (1993:16). Tone data on Nyang’ía is not yet available.

Although Ik has a well developed lexical tonology, it does not have ‘grammatical tone’ in the sense of any morphemes consisting only of tone. This sets it apart from languages like Dhaasanac (Tosco 2001:93) and Turkana (Dimmendaal 1983:259) that mark case, for example, partially or exclusively with H tone/accent. Instead of grammatical tone per se, Ik shows ‘construction-specific tonology’ (Yip 2002:107) whereby various morphemes like pluratives, constructions like noun compounds, and verb paradigms combine segmental morphology with specific tone patterns.

3.2.1 Tones and allotones

Tucker identified three ‘significant’ level tones, two falling tones, and one rising tone for Ik (1971:342). Years later, Heine reduced the number of contrastive tones to two, noting that Tucker’s three levels can be derived from an underlying high and low (1999:18). In fact, both accounts are basically correct, but in different ways. In isolation, Ik words do exhibit two level, two falling, and one rising pitch. Since these pitches are found on words in isolation, they are ‘significant’ or ‘phonemic’ in the classic structuralist sense. While in a generativist sense, all this variation can be plausibly boiled down to two underlying tones (Keith Snider, p.c.). To see this, let us first look at pitch contrasts on some nouns and verbs in isolation:
At one’s first glance over the data in (38), it would appear that Ik has quite a few distinctive tones. But all the pitch contrasts shown there can be analyzed as deriving from two underlying tones: High (H) and Low (L). In other words, the various levels, falls, and rises are predictable based on modifications made to H and L in particular phonological environments. These variants, or ‘allotones’, are described in detail in (39) below:
Using (39) as a key, the pitch variations back in (38) can now be explained in the following manner: In neutral environments, a H tone on a noun or verb will surface as a high level pitch. But if a H directly precedes a depressor consonant (/b, d, dz, g, h, j, z, ʒ/), that consonant will depress the pitch giving the H tone a high-falling to low or mid, depending on whether another H follows in the same word. And if the H directly follows a depressor consonant, the consonant will delay the pitch rise to high, thereby creating a mid-to-high rising pitch on the TBU bearing the H tone.
As for L tone, on nouns and verb in isolation (e.g. the monosyllabic forms in 38), the L surfaces as low-falling pitch before a pause. Otherwise, if any H tone—whether linked or floating—follows the L in the same tonal domain, the L surfaces with a mid level pitch (L is realized in similar fashion in Somali; Hyman 2007:485). The extent of the relevant tonal domain is syntactically and pragmatically defined: It can consist of a single morpheme/word, a phrase, or a whole clause. The Ik prosodic template ‘scans’ ahead for any H that signals the speaker to raise all intervening L tones to mid pitch. In this way, mid pitch acts as the baseline of Ik prosody—pitch deviates up and down off the baseline mid.

What is not clear from (38) is that those nouns with a mid pitch have a lexical LH tonal pattern. In other words, the nouns surface with mid pitch because there is a floating H after them. And for the verbs with mid pitch, the imperative singular suffix {ɛˊ} has an associated floating H that raises the preceding L to mid pitch at the surface level (see §7.6.6 on imperatives).

In summary, as Heine claimed, all pitch variations in Ik can be derived from only two underlying tones: H and L. This provides a simple and elegant analysis of the tonal phenomena. The main drawback to this analysis, however, is its abstractness. There is considerable conceptual distance between the two underlying tones and their allotonic realizations. Nevertheless, in the example sentences and texts outside the present chapter on tone, only H tone will be marked with an acute accent (v́), while L tone will be left unmarked (except to indicate the L boundary tone of the interrogative intonational tune; see §3.3.5).

### 3.2.2 Lexical tone

Unlike pitch or tonal accent languages, Ik exhibits a wide range of lexical tone patterns or ‘melodies’. These melodies may or may not include a H tone, but there are no known restrictions on the number of H tones that may occur in a single word (tonal processes notwithstanding; see §3.2.4 below).
Since much of the Ik lexicon can be traced to Teso-Turkana, no doubt the tonologies of those languages have left an indelible mark on Ik. What follows here below is a basic inventory of tonal melodies on noun roots. This is given to show the full range of tonal possibilities. The tonal melodies of verbs, slightly more restricted, are presented in Chapter 7 on Verbs.

The lexical tone melodies given here are at the underlying level discussed in the previous section: H(igh) and L(ow). H is marked with an acute accent (́), and L is left unmarked. For details of surface realization (and pronunciation), please refer to the guide to allotones in (39) above.

On bisyllabic noun roots, all four possible melodic combinations are attested—H(H), HL, L(L), LH. Note the effect of depressor consonants in creating HL and the fact that with LH, the L will surface as mid pitch:

(40) **Tone melodies on disyllabic noun roots**

<table>
<thead>
<tr>
<th></th>
<th>H(H)</th>
<th>HL</th>
</tr>
</thead>
<tbody>
<tr>
<td>bɔ́lɛ́</td>
<td>'shin'</td>
<td>dɔ́ba- 'mud'</td>
</tr>
<tr>
<td>ɓóré-</td>
<td>'corral'</td>
<td>fádo- 'scale'</td>
</tr>
<tr>
<td>dómá-</td>
<td>'pot'</td>
<td>nébu- 'body'</td>
</tr>
<tr>
<td>fɔ́ɗɛ́</td>
<td>'loincloth'</td>
<td>rágo- 'ox'</td>
</tr>
<tr>
<td>ɗʊ́rō-</td>
<td>'heart'</td>
<td>rɛ́bɛ- 'millet'</td>
</tr>
<tr>
<td>ʝáká-</td>
<td>'elders'</td>
<td>sé́da- 'garden'</td>
</tr>
<tr>
<td>ƙwárá-</td>
<td>'scar'</td>
<td>sìbo- 'yeast'</td>
</tr>
<tr>
<td>ɲùnó-</td>
<td>'rope'</td>
<td>tóda- 'speech'</td>
</tr>
<tr>
<td>sá́tá-</td>
<td>'rock pool'</td>
<td>ts'úde- 'smoke'</td>
</tr>
<tr>
<td>tsɪ́tsá-</td>
<td>'honey-guide'</td>
<td>wídz- 'evening'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>L(L)</th>
<th>LH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɓiɓa-</td>
<td>'egg'</td>
<td>bɛfá- 'puff adder'</td>
</tr>
<tr>
<td>ɗɪɓa-</td>
<td>'well'</td>
<td>cekí- 'woman'</td>
</tr>
<tr>
<td>dzoni-</td>
<td>'butter-churn'</td>
<td>deké- 'hind-apron'</td>
</tr>
</tbody>
</table>
On trisyllabic noun roots, all eight possible melodies are attested:

(41) **Tone melodies on trisyllabic noun roots**

<table>
<thead>
<tr>
<th>Tone</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHH</td>
<td>dülélí- ‘Dulel River’</td>
</tr>
<tr>
<td>HHL</td>
<td>kásíta- ‘Hook-thorn acacia’</td>
</tr>
<tr>
<td>HLH</td>
<td>mókoló- ‘Ozorina insignis tree’</td>
</tr>
<tr>
<td>HLL</td>
<td>múmuta- ‘Selaginella phillipsiana moss’</td>
</tr>
<tr>
<td>LLL</td>
<td>poposa- ‘Agama lizard’</td>
</tr>
<tr>
<td>LLH</td>
<td>tsīrmū- ‘metal’</td>
</tr>
<tr>
<td>LHL</td>
<td>tiléŋi- ‘eye pupil’</td>
</tr>
<tr>
<td>LHH</td>
<td>jolílé- ‘Black kite (bird sp.)’</td>
</tr>
</tbody>
</table>

On nouns with four syllables, all sixteen possible tone melodies are attested. Even though these nouns are monomorphemic in today’s Ik, they most likely consisted of more than one morpheme in older Ik, or at least in the languages from which they were borrowed. For instance, many nouns with four or more syllables have the Teso-Turkana prefix {ɲV-}—still a gender marker in Toposa and Northern Turkana—which has no function in Ik.

(42) **Tone melodies on quadrisyllabic (4) noun roots**

<table>
<thead>
<tr>
<th>Tone</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHHH</td>
<td>lódīkóró- ‘scorpion’</td>
</tr>
<tr>
<td>HHHL</td>
<td>nícwépée- ‘Sugar-bush tree’</td>
</tr>
<tr>
<td>HHLH</td>
<td>pěěgbūtì- ‘waterbuck’</td>
</tr>
<tr>
<td>HLLL</td>
<td>pěěfěıkę- ‘tobacco variety’</td>
</tr>
<tr>
<td>HLHH</td>
<td>ts’úbuláti- ‘lip-plug’</td>
</tr>
<tr>
<td>HLHL</td>
<td>fírīts’áři- ‘bird sp.’</td>
</tr>
</tbody>
</table>
On nouns with five syllables, only twenty-five of the possible thirty-two melodies are attested. The missing melodies may be from a statistical gap or a limitation on tonal melodies in the source languages. In (43), note the high concentration of words borrowed from Teso-Turkana as evidenced by the gender prefix \{ɲV\} and the locative gender prefixes \{na\} and \{lo\}:

(43) **Tone melodies on pentasyllabic (5) noun roots**

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Noun</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHHHH</td>
<td>lókílóróŋó-</td>
<td>‘queen bee’</td>
</tr>
<tr>
<td>HHHHL</td>
<td>ɲɛ́kókótéc-</td>
<td>‘aggregate stone’</td>
</tr>
<tr>
<td>HHHLH</td>
<td>ɲɔ́sɔ́ɔ́ƙatá-</td>
<td>‘animal hole-trap’</td>
</tr>
<tr>
<td>HHLLL</td>
<td>ɲókólíƙeti-</td>
<td>‘tooth-paste (Colgate)’</td>
</tr>
<tr>
<td>HHLHH</td>
<td>lótórobétí-</td>
<td>‘plant species’</td>
</tr>
<tr>
<td>HHLHL</td>
<td>ɲɛ́ɛ́ƙɪɛ́ƙɪ-</td>
<td>‘rattle (musical instrument)’</td>
</tr>
<tr>
<td>HHLLH</td>
<td>ɲɛ́kʊ́raraá-</td>
<td>‘skin disease’</td>
</tr>
<tr>
<td>HLHHL</td>
<td>ɲákalááta-</td>
<td>‘metal basin’</td>
</tr>
<tr>
<td>HLHLH</td>
<td>ɲásanjáŋoó-</td>
<td>‘ground-bee species’</td>
</tr>
<tr>
<td>HLHLL</td>
<td>ɲovakáɗoo-</td>
<td>‘avocado’</td>
</tr>
<tr>
<td>HLLHH</td>
<td>kílootóró-</td>
<td>‘bird species’</td>
</tr>
<tr>
<td>HLLHL</td>
<td>kírýooróo-</td>
<td>‘White-crested helmet shrike’</td>
</tr>
<tr>
<td>HLLLL</td>
<td>tibolokoŋi-</td>
<td>‘finger/toe-nail’</td>
</tr>
<tr>
<td>LHHLH</td>
<td>lokitéŋi-</td>
<td>‘hard black stone’</td>
</tr>
<tr>
<td>LHLLH</td>
<td>napéelemú-</td>
<td>‘bird species’</td>
</tr>
</tbody>
</table>
Lastly, in nouns with six syllables, only twenty-nine of sixty-four possible tone melodies are attested. Nouns of this length are comparatively rare, and some of the melodies only have one representative that has been found.

(44) Tone melodies on sexisyllabic (6) noun roots

```
HHHLLL | násábúpářiši- | ‘sub-parish’
HHHLLL | nákáadóŋotí- | ‘cowbell’
HHHLLL | nédísíturiki- | ‘district’
HHHLLL | nákátiríbaá- | ‘wild fruit tree species’
HHHLLL | bílíkerété- | ‘spurfowl’
HHHLLL | nákálnknkti- | ‘metal-tipped stick’
HHHLLL | n'épiskóópii- | ‘bishop’
HHHLLL | nédifújioni- | ‘military division’
HHHLLL | nákacábwáátá- | ‘finger-ring’
HHHLLL | n'étpokidé- | ‘sunflower’
HHHLLL | nálukútújuú- | ‘caracal’
HHHLLL | némusalábaa- | ‘cross’
HHHLLL | nókolokoléti- | ‘wild fruit tree species’
HHHLLL | nókodçonjón- | ‘bird species’
HHHLLL | nódonjoulee- | ‘maize variety’
HHHLLL | lorónomómorí- | ‘tobacco variety’
HHHLLL | neúriánete- | ‘animal resting place’
```
3.2.3 Depressor consonants

Besides the underlying H-L tone contrast, another key facet of Ik tone is ‘depressor’ consonants. These consonants are those that behave as if they had L tone. In Africa, they usually comprise voiced obstruents (Yip 2002:157). This is true of Ik, where voiced obstruents /b, d, dz, g, j, z, ʒ/ and the glottal fricative /h/ make up a depressor consonant class. These consonants (hereafter ‘depressors’) depress pitch, causing ripples and cascades between otherwise relatively level pitch peaks on tone-bearing segments. Their effects are widespread, in some cases the pitch perturbations being so great that the tone system has phonologized them.

Phonetic effects of Ik depressors include 1) super-allotonic rises and falls on L tones and 2) allotonic rises and falls on H tones. The great pitch difference between that of a H tone and that of depressor has over time also led to phonological effects: 1) special lexical tone melodies, 2) downstep, and 3) high-tone repellence. These effects are all described in this section.

When a depressor is followed by a L tone, it simply creates a mini-rise as the pitch strives toward the syllable peak. And if a L tone is followed by a
depressor, the pitch takes a mini-dive after the syllabic peak. Depressor effects like these are minute, almost imperceptible except with speech analysis software. This is most likely because depressors themselves are associated with low pitch. However, a native speaker trained to whistle tone will produce very slight contour pitches even in these L tone environments. Nonetheless, the effects are so slight they are not even counted as allotonic.

In the following examples, contours are relative to the underlying tone. That is to say, [v] is meant to represent a ‘lower-low-low’ pitch contour, and [v] is meant to represent a ‘low-mid-low’ pitch contour. The notation here is necessarily a bit exaggerated in order to represent the ripples in pitch:

(45) **Depressor effects on L tones**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LL</td>
<td>baba [bâbâ] ‘armpit’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>bubu [bûbû] ‘abdomen’</td>
<td></td>
</tr>
<tr>
<td>LL(H)</td>
<td>ṇabitᵃ [ŋâbıt̪̥] ‘beads’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>gubes [gûbês] ‘thigh’</td>
<td></td>
</tr>
</tbody>
</table>

But, when a depressor is adjacent to a H-tone bearing segment, the effects are much more dramatic. This is because more of the pitch range is utilized going from a depressor to a high pitch and vice versa. As shown in (39), a H tone following a depressor is realized as a mid-to-high rising contour. This contour is considered allotonic due to its greater perceptibility:

(46) **Depressor effects on following H tones**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>bóʃ [bóʃ] ‘nightjar’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>dóm [dôm] ‘pot’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ġûr [ġûr̥] ‘heart’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>zîtᵃ [zît̪̥] ‘basket’</td>
<td></td>
</tr>
</tbody>
</table>

The most dramatic effects, though, happen when a depressor comes between a H and a L tone. Because the pitch produced with a depressor is low or
extra low, a great fall in pitch occurs going from the peak of a H-tone syllable through the depressor and on to the following L tone vowel, as in:

(47) **Depressor effects on preceding H tones**

<table>
<thead>
<tr>
<th>H</th>
<th>dêga*</th>
<th>[dê̄ga]</th>
<th>‘Tamarind seeds’</th>
</tr>
</thead>
<tbody>
<tr>
<td>kâʒw*</td>
<td>[kâʒwə]</td>
<td>‘torch, tassle’</td>
<td></td>
</tr>
<tr>
<td>néb*</td>
<td>[nêb̥ə]</td>
<td>‘body’</td>
<td></td>
</tr>
<tr>
<td>ts’úd*</td>
<td>[ts’ûd̥ə]</td>
<td>‘smoke’</td>
<td></td>
</tr>
</tbody>
</table>

This kind of effect—a falling contour from high to low or extra-low through a depressor—is one of those that have been phonologized in the system. Consider the fact that in the Ik lexicon, there is not a single instance of two syllables with H tone separated by a depressor. This means that at an underlying level, a H followed by a depressor must then be followed by a L tone. For example, the nouns in (48) all have a HL underlying tone melody:

(48) **Nouns with a HL melody**

<table>
<thead>
<tr>
<th>HL</th>
<th>dêga-</th>
<th>*dê̄ga-</th>
<th>‘Tamarind seeds’</th>
</tr>
</thead>
<tbody>
<tr>
<td>kâʒo-</td>
<td>*kâʒó-</td>
<td>‘torch, tassle’</td>
<td></td>
</tr>
<tr>
<td>nébu-</td>
<td>*nêbú-</td>
<td>‘body’</td>
<td></td>
</tr>
<tr>
<td>ts’ûde-</td>
<td>*ts’ûdé-</td>
<td>‘smoke’</td>
<td></td>
</tr>
</tbody>
</table>

Except for the marginal children’s words like báa- ‘food’ and káa- ‘water’, only bisyllabic noun roots with depressors show a HL melody. This suggests that the HL melody itself was created by depressors. This may not be tonogenesis per se, but it is the genesis of certain tone combinations. The HL melody is also found only with depressors on verbs roots of particular syllabic structures, for example VCVC-.

(49) **Tone melodies on VCVC- noun roots**

<table>
<thead>
<tr>
<th>HL</th>
<th>iban-</th>
<th>‘go in the evening’</th>
</tr>
</thead>
<tbody>
<tr>
<td>ūbot-</td>
<td>‘jump’</td>
<td></td>
</tr>
<tr>
<td>ígom-</td>
<td>‘bark (v)’</td>
<td></td>
</tr>
</tbody>
</table>
Although the verbs in (49) are only a sample, they illustrate that the HL melody on VCVC- verbal roots is found only with depressor consonants.

Other lexical melodies found only with depressors include the following:

| LH | ízid- | ‘speak little’ |
|    | ibúr- | ‘replant’ |
|    | ijók- | ‘lend’ |
|    | ikúts- | ‘ostracize’ |
|    | isír- | ‘decorate’ |
| LL | idók- | ‘multiply’ |
|    | ilan- | ‘evade’ |
|    | imets- | ‘take over’ |
|    | itiŋ- | ‘cook’ |

Although the verbs in (49) are only a sample, they illustrate that the HL melody on VCVC- verbal roots is found only with depressor consonants.

Other lexical melodies found only with depressors include the following:

(50) **Depressor-only lexical tone melodies**

| HLL (verbs) | ígulaʝ- | ‘to bubble up’ |
|            | tɪ́bɪɗɪl- | ‘to summersault’ |

| HLLLL (nouns) | tɪ́bolokoɲi- | ‘finger/toe6nail’ |
|               | tɪ́garamatsɪ- | ‘elder child’ |

To summarize, the pitch depression caused by depressor consonants between a H tone and a L tone has been phonologized in the form of certain *lexical* tone melodies. It has also been phonologized as downstep:

At a **post-lexical** level, depressors may occur between two H tones, but when they do, the second H is downstepped. The conditions for this arise from at least two sources: 1) high-tone anticipation (see §3.2.4) and 2) the presence of the anaphoric demonstratives (see §8.2.3). High-tone anticipation is when a tone-bearing unit (TBU) with L tone gets a H tone before a second TBU with H tone, so long as no consonant intervenes, as in:
(51) *Downstep with high-tone anticipation*

\[
\begin{align*}
\text{kédíé da} & \rightarrow \text{kédìì dà} \quad [\text{kễd̃ìì d̃à}] \quad \text{‘in a nice way’} \\
\text{ts'édéς} & \rightarrow \text{ts'édɔɔ̃} \quad [ts'ẽ̃dɔɔ̃] \quad \text{‘from there’}
\end{align*}
\]

In these two examples, the depressor /d/ falls between two H tones. In addition to causing a fall on the preceding vowel, the depressor lowers the pitch so much that the following H tone is downstepped (*'). Similar effects arise in the presence of the anaphoric demonstratives, as in the following:

(52) *Downstep with anaphoric demonstratives*

\[
\begin{align*}
\text{awéé=déé} & \rightarrow \text{awéé=ɗéé} \quad [\text{ăwêê d ŋéé}] \quad \text{‘at that home’} \\
\text{ɲɔtóó=díí} & \rightarrow \text{ɲɔtóó=ɗíí} \quad [\text{ɲɔ̄tóô d ɗíí}] \quad \text{‘from those men’}
\end{align*}
\]

Again, in these two examples, a depressor is found between two H tones, this time at the boundary between two words. The effect is that the fall in pitch caused by the depressor is too great for the second H to recover its full height. And so the depressor instigates downstep of any following H tones. This and other depressor effects reveal an important tonological fact about Ik—its strong intolerance for high pitch (H tone) after a depressor consonant. The phonetic motivation is obvious: The articulatory effort needed to climb out of an extra-low pitch trough to the pitch height prescribed by an underlying H tone is too inconvenient.

Also at the post-lexical level, the need to avoid depressor + H-tone sequences shows up in another way—through high-tone repellence. When word-level tone assignment or phrase-level tone sandhi places a H tone after a depressor, the H tone is automatically repelled to the preceding TBU. This is illustrated below in verb stems and simple clauses. In the first example, the 2pl. subject-agreement marker {it(i)} contrasts with the 2sg marker {id(i)} in that the latter contains the depressor /d/. The word-level assignment of H tones gets thwarted in the 2sg form because of /d/:
In the first place, the verb stem in (53) combines the verb root *fút*- ‘blow’ with the andative directional suffix {6ʊƙɔ(tɪ́)6}. This combination normally yields the tone melody HHL, as it does with the 2*pl* form above. Adding then the subject-agreement marker, with its H tones, the full stem melody surfaces as HHLHH. In the 2*sg* form, however, the HH tone sequence on the subject-agreement suffix is repelled by the presence of /d/, bouncing the HH sequence back on TBU. This results in a stem melody of HHHHL.

High-tone repellence often interacts with high-tone insertion (see §3.2.4). High-tone insertion stipulates that upon a sequence of four L tones across morpheme boundaries, a H tone must be inserted on the third TBU. If no depressor is involved, the H insertion has no obstacle. But if the consonant before the third TBU is a depressor, the inserted H gets repelled back onto the second TBU instead. In this light, compare the following two sentences:

(54) i-a kuwa-k*ɛ* → ia kúwak*ɛ*  
be-REAL grass-DAT  
It’s in the grass.

(55) i-a bosĩ-k*ɛ* → iá bosik*ɛ*  
be-REAL ear-DAT  
It’s in the ear.

Before leaving the topic of consonant-tone interaction, a comment is in order about the ejectives */k/ and */ts’/. While depressor consonants lower pitch significantly, these ejectives raise pitch slightly. It seems that the glottalic release of pressure of an ejective, accompanied by voicing in
following vowels, creates a slight rise in phonetic pitch. In the following examples, the phonetic pitch notation is only approximate:

(56)   *Enia ƙɔɓa ntsi.*  
[---]  
\[en-\text{i-a} \, ƙɔɓ-a \, ntsi-\emptyset\]  
\text{see-1SG-REAL navel-NOM he-GEN}  
I see his navel.

(57)   *Ats'oo ntsa sakamaa inoe.*  
[---\backslash---]  
\[\text{áts'-5-\text{o} nts-a sakámá-a inó-e}\]  
eat-3SG-SEQ he-NOM liver-ACC animal-GEN  
And he ate the animal’s liver.

3.2.4 Tone processes
The analysis of Ik tone processes presented in this section is preliminary. Ik tone, particularly at the post-lexical and phrasal levels, deserves a book-length treatment of its own. However, this section does present a few insights gained in the course of the grammatical study. Hopefully these insights will act as a springboard for whoever may take up the tonal mantle.

As shown back in §3.2.2, lexical roots in Ik have their own underlying tone melodies. Affixes do too, and these are revealed on an affix by affix basis in the following chapters. But when roots and affixes are put together in word, their tones may change in the local morpho-tonological environment. The present section summarizes some of the known—though surely not all—Ik tone processes, including the ones already mentioned in §3.2.3 that are caused by depressor consonants. Some of these processes have the feeling of being ad hoc, of not reflecting the core characteristics of the Ik tone system. Nonetheless, they represent the knowledge acquired up to this point.

These processes are summarized in the table in (58) below:
The last ‘process’, replacive grammatical tone (T8), is a catch-all category for tonal changes that take place with certain affixes or in certain verbal paradigms. For example, the pluralive I suffix {-ikó-} inexplicably gives a preceding L-toned noun root H tone, e.g. *paɗo- → pâɗ-ikó- ‘small caves’.
Downrift (T1), or ‘automatic downstep’, describes the lowering of the pitch register or ‘ceiling’ after an overt L tone. The result is that a H tone after a L tone will be lower in pitch than preceding H tones. Ik downrift must be qualified in two ways: 1) In order to cause downrift, the L tone must surface as a low or low-falling pitch, not a mid pitch. This means that an L surface as mid pitch cannot cause downdrift. So it is not any L, but a L near a tone phrasal boundary that causes downrift. And 2), a L tone does not cause downdrift if no H tones precede it. This is by definition, since ‘downdrift’ implies lowering of successive Hs:

(59) Sukuta aƙatikaa ntsi.
    sók-út-a’ akát-ika-a’ ntsí-∅
    itch-CAUS-REAL nostril-PL-ACC he-GEN
    He’s scratching his nose (pl. in Ik).

In (59), prosody and syntax align to define the relevant tonal phrase as made up of a clause constituent: verb, object NP, genitive NP. Because of this phrasal domain so defined, the realis suffix on the verb surfaces as low pitch, causing downdrift on the following object NP. Then, after the L tones on the subject NP (aƙatikaa) which surface with low pitch before the tone phrase boundary, downdrift lowers the H tone on the genitive NP.

(60) Dodetio oja inoe ariikaa eda.
    dód-ét-i-o’ śj-á ínó-e’ arí-ika-a’ edá
    show-VEN-3SG-SEQ wound-NOM animal-GEN intestine-PL-ACC only
    The animal’s wound showed only intestines.

Likewise in (60), after each major clause constituent—verb, subject NP, object NP—the downdrift occurs when the preceding constituent ends with a L tone. The head of the subject NP (śjd) does not cause downdrift in the following genitive modifier because śjd has no L tone.
When downdrift has been caused by a L tone at a tone phrasal boundary, the first L tone in the next tonal phrase (before any Hs) is at the same basic pitch level as the preceding L tone. But central to this analysis is the claim that the downdrifted L is actually a new mid pitch on a lower pitch register. This goes back to the analysis of underlying tones given in §3.2.1: Any L before a H in the same tone phrase surfaces with mid pitch. To illustrate this, the Downdrift in (59) is given here with a more phonetic notation:

(61) sʊ́ƙʊ́ta ꜜ aƙ átikaa ꜜ ntsí

Relative to each downdrifted H tone, the L tones(s) before it bear relatively mid pitch. Only that, because the whole pitch register has been lowered, downdrifted mid pitch is more or less the same height as the preceding L tone responsible for the downdrift in the first place. As shown, then, in (61), this is repeated as many times in the clause as downdrift occurs.

Despite these clear examples, downdrift is not such a hard and fast rule as to be completely predictable. There in fact many counter-examples where downdrift does not happen in what would seem to be applicable circumstances. Consider that, in the following example, neither the L at the end of the verb nor the one at the end of the head of the object NP seem to cause downdrift on any following H tones:

(62) Iriƙaini ekwitnia nti.

The example in (62) and many others like it suggest that prosodically defined tone phrases may vary in terms of the syntactic units they align with. In some cases, like in (59) and (60) above, the tone phrase matches the core clausal constituents. In other cases, like in (62), the tone phrase
matches the entire clause, such that tonal prosody ‘scans’ ahead across syntactic boundaries to find H tones that maintain the mid pitch of all Ls. This observation matches one made earlier, namely that mid pitch acts as a baseline in Ik discourse. All kinds of factors, yet largely unexplored, may affect the linking of the tonal tier to syntactic structure—from pragmatic considerations to discourse structure, semantics, speech rate, emotion, etc.

Downstep (T2), or ‘non-automatic downstep’, is the lowering of the pitch register after an unlinked or ‘floating’ L tone. Ik downstep was already mentioned under §3.2.3 in the discussion of depressor consonants. Those voiced obstruents (excluding /h/ for the moment), act as if they bear L tone. How one handles this depends on one’s theoretical orientation. It could be seen as a L linked to the depressor or floating in association with it instead. Either way, from a descriptive point of view, depressors cause downstep:

(63)  Toyaa dea ntsi.  
\[ \text{təyá-á  } \text{ 'də-a  ntsi-∅} \]  
\[ \text{bleed-REAL foot-NOM he-GEN} \]  
Her foot is bleeding.

(64)  Iya nda aka na kwats.  
\[ \text{i-a  } \text{ ń'da  aka=na  kwáts-∅} \]  
\[ \text{be-REAL with  mouth[OBL] = REL SG small-REAL} \]  
It has a small mouth.

In both (63) and (64), the depressor /d/ lowers the pitch register such that any following H tones are roughly the same height as a mid-pitch L tone before the depressor. But downstep is also found in the absence of depressor consonants. Observe the following instances:
The dog chews the bone.

There is a wound on his arm.

In both of these examples, there is a lowering of pitch register after an overt H tone. From a phonetic perspective, this could be understood as an instance of the cross-linguistic tendency of a falling contour to utilize the full available pitch range (Yip 2002:49): The transition from H to L goes a little lower than previous Ls, so low that following Hs do not fully recover. But from a phonological perspective, whence the L causing downstep? Possible answers seem to be that a) there is a L boundary tone between the subject NP and further arguments or b) that the tonal melody of nouns like nòkì- ‘dog’ and òjá- is actually HHL rather than simply HH. With no TBU to dock to, the L in HHL floats and causes downstep on the following TBUs.

High-tone insertion (T3) describes the tonal process of breaking up a sequence of four L tones with a H tone on the third TBU, as for example in:

He fears blood.
In both of these clauses, a L-tone verb is followed by a L-tone argument and so a H tone is inserted on the first TBU of the argument. The L tones in (68) after the inserted H remain mid pitch because it is a continuing sentence. According to some older Ik speakers, high-tone insertion is a more recent tonological development. As such, the examples above are also grammatical without the inserted H tone. It seems likely that floating-H docking on following syllables is being generalized and extended into domains such as these, but this remains to be seen from further investigations.

**High-tone repellence (T4)** describes the tonal process in which a H tone assigned to a TBU gets repelled leftward one TBU. This only happens when the onset of the syllable designated for the H is a depressor. In this way, the antinomy between high pitch and depressor consonants has been phonologized. High-tone repellence is illustrated below in two contexts: 1) when an inserted H gets repelled and 2) when a floating H gets repelled.

First, if an inserted H is assigned to a TBU directly preceded by a depressor, the inserted H is repelled one TBU leftward. In the example below, conditions for high-tone insertion arise, assigning H tone to the first syllable of *badon* ‘dying’. But because the onset of that syllable is /b/, the H tone gets repelled back onto the last syllable of the verb:

(69)  **Xeɓa badonu.**

\[
\text{Xeɓa} \quad \text{badonu} \rightarrow **\text{Xeɓa bádonu} \\
\text{fear-REAL} \quad \text{die-INF-ABL} \rightarrow \text{Xeɓá badonu} \quad \left[ \begin{array}{c} - \end{array} \right]
\]

He fears dying.
Second, a floating H may be repelled by a depressor consonant. The subordinating conjunction na’= ‘if/when’ has a floating H. This is deduced from the fact that when a L-tone verb follows it, the first TBU of the verb gets a H tone. But if the onset of the H-bearing TBU is a depressor like /g/, then H gets repelled back to the conjunction. Compare these examples:

(70) na=ŋ́k6ese... na=kɔ́k6ɛsɛ   ná=ɡon6ese
    CONJ = eat-SPS   CONJ = close-SPS   CONJ = look-SPS
    If____is eaten... If____is tied... If____is looked at...

*High-tone anticipation (T5)* is a tonal process in which a L-linked TBU directly before a H tone across a morpheme boundary also gets H tone, but only if no consonant intervenes. This is an example of ‘bonded spread’ or ‘tone doubling’ which is reportedly common in Africa (Yip 2002:69). In Ik, this process is observed both within and between words, as shown below:

(71) ...ƙaatie...
    ka-áti-e → káátie
    go-3PL-SIML
    ...as they go...

(72) ɗiimee
    dí-ime-e → dí-ime-e
    one.SG-DIM.SG-DAT
to this little one

(73) Na atsie,...
    na’=ats-i-e → na átsie → ná átsie
    CONJ = come-3SG-SIML
    When s/he came,...
High-tone suppression (T6) describes a tonal process in which the distance between tones or pitches is reduced. In Ik, this is already evident from the lexical and phrasal tone suppression that raises L tone to a mid pitch before a H tone. But a kind of ‘double tone suppression’ is also evident in Ik (Hyman 2007:503). After raising L tones to mid pitch before H, the H tone is then delinked. If another H follows the delinked H in the same tonal span, then nothing further happens. But if no other H follows the delinked H, it becomes a floating H at the end of the span (word, phrase, etc.). Double H-tone suppression is most evident in a variety of verb forms.

The sequential (§7.8.1) and optative (§7.7.4) verb paradigms, both partly irregular, exemplify high-tone suppression. This comes out particularly well in the 2 PL forms: The 2 PL subject-marker {i} gets suppressed to {i}, with its H tones delinked and sent floating at the right-edge boundary, as in:

(74)  *Na ŋusitio,*...
\[
\text{na'}=\text{ŋus}-\text{i}-\text{o} \quad \rightarrow \quad \text{na ŋúsito}' \quad [\text{-} \quad \text{-} \quad \text{-} \quad \text{-} \quad \text{-} \quad \text{-}]
\]
\[\text{CONJ} = \text{grab-2PL-SEQ}\]
If you (pl.) grab (sth.),...

(75)  *Alake ŋusiti*...
\[
\text{aláké} \quad \text{ŋus-} \quad \text{ít} \quad \text{i} \quad \rightarrow \quad \text{aláké ŋusiti}' \quad [\text{-} \quad \text{-} \quad \text{-} \quad \text{-} \quad \text{-} \quad \text{-}]
\]
then  \[\text{grab-2PL[OPT]}\]
Then you grabbed...

The chief difficulty with this analysis is that the floating H need not ever relink to any TBU. That is, even if one of these verbs is followed by an object with L tone, the putative floating H does not reappear. Perhaps it is sent to the right edge of the entire tonal phrase, however large it may be. Or perhaps the suppressed and delinked H disappears altogether. If the latter is true, this could mark the emergence of a third underlying tone, namely Mid, since the conditioning environment (floating H) may be being lost.
Another instance of high-tone suppression is found in the infinitive form of verbs with a LH lexical tone melody. In the isolation form of the infinitive (nominative case), transitive verbs with the melody LH, combined with the transitive infinitive suffix {-ési-}, surface with a M-M-M pitch. That is, the melody of the root (LH) combined with that of a suffix (HH) yield the melody LLL(H) instead of LHH(H) because of high-tone suppression:

(76) *High-tone suppression in transitive infinitives*

<table>
<thead>
<tr>
<th>Root</th>
<th>Infinitive</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>aŋír-ési</td>
<td>aŋiresˊ</td>
<td>‘to turn’</td>
</tr>
<tr>
<td>ɪtsán-ési</td>
<td>ɪtsanɛsˊ</td>
<td>‘to disturb’</td>
</tr>
<tr>
<td>tʊlʊ́ŋ-ési</td>
<td>tʊlʊŋɛsˊ</td>
<td>‘to abhor’</td>
</tr>
</tbody>
</table>

*Melodic template completion (T7)* refers to a tonal process in which a lexical tone melody that is greater than then number of TBUs offered by a certain lexeme gets completed or fully linked over a polymorphic stem. For example, shorter tone melodies like HH, LL, and LH, shown above in (40), can arguably be analyzed as truncated versions of HHL, LLL, and LHH found on trisyllabic nouns. This analysis explored in detail in Schrock 2012a.

The idea behind melodic template completion, then, is that the longer, three-tone melodies determine the tone pattern of a bisyllabic noun root combined with a monosyllabic case suffix. In other words, the case suffixes—all having L tone underlingly—will take a H or L tone according to a three-place tone melody. Consider the following examples:

(77) *Melodic template completion*

<table>
<thead>
<tr>
<th>Tone</th>
<th>Root</th>
<th>Infinitive</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>HH</td>
<td>ámá-</td>
<td>ámé-e</td>
<td>‘of a person’</td>
</tr>
<tr>
<td>HL</td>
<td>édi-</td>
<td>édi-e</td>
<td>‘of a name’</td>
</tr>
<tr>
<td>LL</td>
<td>roɓa-</td>
<td>roɓe-e</td>
<td>‘of people’</td>
</tr>
<tr>
<td>LH</td>
<td>imá-</td>
<td>imé-é</td>
<td>‘of a child’</td>
</tr>
</tbody>
</table>
In (77), the genitive suffix {-ɛ} surfaces with a H or L tone depending on the lexical tone melody of the noun to which it attaches. This type of tone process cannot simply be a case of H-tone or L-tone spreading because the tone of the case suffix need not be the same as the preceding root syllable. In principle, all the lexical melodies presented above in §3.2.2 could be extended by one tone to get the full underlying melody that is only realized on a case-inflected form. Then the melodies for trisyllabic nouns would provide the case-tone templates for the bisyllabic nouns; the quadrisyllabic nouns would provide the template for the trisyllabic nouns, etc.

Although case inflection is used here to exemplify melodic template completion, the process is observed in other areas of the grammar including compound nouns and verb infinitive formation. The factors governing the diachronic formation of these melodic templates are not yet discovered. Most likely, clues will be found in further historical comparative work in East African languages. It has been suggested that a metrical approach to Ik tone assignment may be a fruitful line of research (Mary Pearce, p.c.). There does seem to be some interaction between, for example, syllable weight and tone assignment, but any applicable rules have yet to be discovered.

Pitch-accent, ‘musical stress’, and ‘rule-governed prominence’ seem to be an areal feature of East Africa. For example, in Turkana, “tonal inflection is obligatory regardless of the underlying tone pattern of the noun stem (Dimmendaal 1983:52). Evidence suggests that in wider Nilotic—languages that have had a deep impact in Ik—‘quantitative’ metrical units based on syllable weight or mora-counting interact with tone assignment (Dimmendaal 2012). Despite recent strides in understanding Ik tonology, one still gets the impression that the key to the system lies just out of reach.
3.3.5 *Intonation*

In addition to lexical and phrasal tone, Ik also uses sentence-level tone or ‘intonation’ to express meaning. Intonation is understood here as the “the use of suprasegmental features to convey ‘postlexical’ or sentence-level pragmatic meanings in a linguistically structured way” (Ladd 1996:6, italics in the original). The suprasegmental feature Ik uses to alter pragmatic meaning is a boundary tone at the right edge of the relevant syntactic unit. Three intonational boundary tones (or lack thereof) create the following three ‘tunes’ (the symbol <%> being borrowed from Ladd 1996:80):

<table>
<thead>
<tr>
<th>#</th>
<th>Name</th>
<th>Defining boundary tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Indicative Tune</td>
<td>Ø%</td>
</tr>
<tr>
<td>2</td>
<td>Interrogative Tun</td>
<td>L%</td>
</tr>
<tr>
<td>3</td>
<td>Solicitive Tune</td>
<td>LH%</td>
</tr>
</tbody>
</table>

The *indicative tune* is the default, unmarked intonational pattern used for declarative statements. This tune is defined by an absence of change on the tone of a clause's final word. A morpho-syntactic correlate of this tune is that the final morpheme of the sentence will be in its final form. Take for example the two basic statements below, each with their pitch profiles:

(79) *J'eya naa awak.*
    çi-j-a = náa’ awá-kë
    stay-REAL = PST1 home-DAT
    S/he stayed at home.
In this example, the focus is on the final word, awákᵉ ‘at home’. With the indicative tune, this word, declined in the dative case, takes the normal pitch that its tone melody calls for: mid followed by high.

The following sentence gives another example of the indicative tune:

(80) *Kaata naa mun.*

\[\text{ka-á-t-a = naa ~ mun} \]

\[\text{go-3pl-real = pst1 ~ all} \]

They all went.
In (80), apart from the third person plural subject suffix {-át(i)-}, all the morphemes in this sentence have low tones. So here the indicative tune surfaces as a gradual declination of low tones ending on muɲ ‘all’.

The interrogative tune is the intonational pattern used for yes/no questions. This tune is defined by a low boundary tone that replaces any high tone on the final syllable. As a morpho-syntactic correlate of this tune, the final morpheme of the sentence must occur in its non-final form. This morphological open-endedness can be viewed as iconic of the fact that a question is pragmatically open-ended, expecting a response.

(81)  J’eʝa naa awee?
jej-a = náa’ awé-e (**awé-é)
stay-REAL = PST1 home-DAT
Did s/he stay at home?
The final form of ‘at home’ is awák⁶, as seen above in (81), while the usual non-final form is awéé. However, in questions with the interrogative tune, the low boundary tone replaces the high tone on the dative case suffix {-ɛ}.

On words like muɲ ‘all’ that already have a low tone, the interrogative tune’s low boundary tone leads to an extra-low decline at the end:

(82) Kaaŋa naa muɲu?
    ka-á-t-a = naa    muɲu
    go-3PL-REAL = PST1    all
    Did they all go?
The third intonational pattern, called the *solicitive tune*, is used to solicit agreement from the hearer. It is often heard in the following contexts: 1) making polite requests or gentle commands, 2) making statements subject to the hearer’s approval, and 3) ensuring the hearer’s attention. The solicitive tune can apply to both main clauses and subordinate clauses (even ones preceding the main clauses of declarative statements or questions.)

The solicitive tune is marked by a low-rising (LH) boundary tone. Unlike the indicative and interrogative tunes, the final morpheme of a clause can appear in either its non-final or final form. When the final form occurs, vowels normally devoiced surface as voiced so as to link to the low-rising tone to a tone-bearing unit. But because a) the LH boundary tone applies only to the clauses’s final vowel and b) contour tones in Ik must link to two phonological TBUs, the final vowel is doubled for the solicitive tune:

\[(83) \quad \text{J’eja naa aweee?} \]
\[
\begin{array}{cccc}
\text{jēj-a} & \text{=náá} & \text{awé-ee} & (\text{awá-keé}) \\
\text{stay-REAL=PST1} & \text{home-DAT} \\
\end{array}
\]

S/he stayed at home, (okay)?
Just as (83) shows the solicitive tune operating on a high-toned morpheme, (84) shows the same tune applying to the low-toned *muɲu* ‘all’:

(84)  *Kaata na muɲuu?*

ka-át-a = naa muɲúu

go-3PL-REAL = PST 1 all

They all went, (okay)?

[kaá ta naa muɲúu]
4 Nouns

As one of language’s ‘evolutionary primitives’ (Heine & Kuteva 2007:59), nouns comprise one of Ik’s two large open word classes (the other being verbs). The present chapter begins with an overview of noun roots (§4.1) moving on then to nominal suffixes (§4.2), compounds (§4.3), and several types of onomastics (§4.4-§4.5). Case marking, a crucial feature of the nominal system, is treated in Chapter 6 on the way to the wider grammar.

In Ik, a noun is any word whose primary function is to be the head of a noun phrase, which in turn functions as an argument of a verb. As the head of a noun phrase, a noun must be inflected for case to show its relation to other words. It may also take other nominal suffixes and may be joined to another noun or pronoun in a compound construction. A second function of an Ik noun is to be the head of the predicate. To fulfil this function, a noun must take the copulative case marker (§6.3.8), which is the functional equivalent of a copula and allows the noun to stand alone as a sentence.

Semantically, the prototypical Ik noun refers to inanimate and animate objects, people, and places—anything in the world that is viewed as an inherent non-event. However, the boundary between things named by nouns and events named by verbs is fuzzy. Many lexical event concepts can become nouns with noun morphology or verbs with verb morphology, e.g.:

<table>
<thead>
<tr>
<th>Lexemes ambiguously nominal or verbal</th>
</tr>
</thead>
<tbody>
<tr>
<td>botá- ‘migrate’</td>
</tr>
<tr>
<td>cooka- ‘shepherd’</td>
</tr>
<tr>
<td>dekú- ‘quarrel’</td>
</tr>
<tr>
<td>deƙaní- ‘weed’</td>
</tr>
<tr>
<td>epú- ‘sleep’</td>
</tr>
<tr>
<td>féí- ‘bathe’</td>
</tr>
</tbody>
</table>
Ik nominal morphology is minimal—four being the maximum number of morphemes a single noun can have (outside of compounds). Compare this to Turkana nouns which may have up to eleven morphemes (Dimmendaal 1983:208)! Any Ik noun in a post-lexical grammatical context consists minimally of a lexical root plus a case marker. Besides the case marker, the only other nominal suffixes are number and possession markers. The order in which these occur is ROOT-(NUMBER)-(POSSESSION)-CASE. Unlike Turkana and Dhaasanac, Ik has no grammatical gender marked on nouns. Ik compensates for its minimal noun inflection by joining nouns and pronouns together in a variety of compounds. Thus, meanings expressed by affixes in other languages are expressed by a compound construction in Ik.

In their basic underlying forms, every Ik nominal root and suffix ends in a vowel, without exception. This final vowel is unpredictable since it can be any of the language’s nine contrastive vowels. Because of this, these final vowels are treated universally as part of the root in Ik. Similar ‘terminal vowels’ in the East Cushitic Dhaasanac are only viewed as part of the stem in some cases where they “are by and large meaningless elements...[maybe] ancient desemanticized gender markers” (Tosco 2001:65). And like the Omotic language Dime (Mulugeta 2008), Ik has some nouns whose root-final vowel has two free variants, e.g. kɔl̩a~kɔl̩ɛ́ ‘goat’ and zɪn̩á~zɪn̩ɔ́ ‘zebra’. Such cases seem to arise along the lines of chronolecets and idiolects.
Root-final vowels like those shown above in (2) are deleted in three environments: 1) with the nominative case suffix {-a}, 2) with the instrumental case suffix {-ɔ}, and 3) with any of the number suffixes. The other six case markers preserve the stem-final vowel (see more in §6.2). This recalls the situation in the South Omotic language Dime, where any suffix beginning with a vowel first subtracts the noun-final vowel (Mulugeta 2008:38, 41). It is noteworthy that all but two Ik nominal suffixes that delete noun-final vowels also begin with a vowel. The two exceptions, the ablative {-ɔ} and the genitive {-ɛ}, may have lost their initial consonants.

As noted above, any post-lexical noun must have a case suffix. Six out of the eight Ik cases allow the stem-final vowel to persist. Only the nominative and the instrumental (as well as number suffixes) first subtract it. The practical problem is that the citation or isolation form of a noun in Ik takes the nominative case, thereby losing its final vowel. This means than unless a noun is given in one of the six non-subtractive cases, a non-native speaker

<table>
<thead>
<tr>
<th>Nominal root-final vowels</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>badi- ‘giant’</td>
<td>dakú- ‘wood’</td>
</tr>
<tr>
<td>cekí- ‘woman’</td>
<td>nébu- ‘body’</td>
</tr>
<tr>
<td>kurí- ‘shade’</td>
<td>ts‘úbu- ‘plant sp.’</td>
</tr>
<tr>
<td>aʝɪ- ‘pestle’</td>
<td>ɗamʊ́- ‘brain’</td>
</tr>
<tr>
<td>kɔnɪ́- ‘one’</td>
<td>jumʊ́- ‘soil’</td>
</tr>
<tr>
<td>sisí- ‘mead’</td>
<td>awá- ‘home’</td>
</tr>
<tr>
<td>dójá- ‘shrew’</td>
<td>kafʊ- ‘thorn’</td>
</tr>
<tr>
<td>bóré- ‘corral’</td>
<td>tsútsá- ‘fly’</td>
</tr>
<tr>
<td>diɗe- ‘donkey’</td>
<td>déró- ‘mouse’</td>
</tr>
<tr>
<td>rébe- ‘millet’</td>
<td>gůró- ‘heart’</td>
</tr>
<tr>
<td>gɔŋé- ‘stump’</td>
<td>fiyɔɔ- ‘cattle’</td>
</tr>
<tr>
<td>nkɛ- ‘hunger’</td>
<td>ƙis- ‘strap’</td>
</tr>
<tr>
<td>mɛsɛ- ‘beer’</td>
<td>sɔk- ‘hoof’</td>
</tr>
</tbody>
</table>
cannot guess the final vowel. For this reason, whenever the final vowel of a noun is relevant to a particular point or purpose (for example in Appendix B—Ik root lexicon), an abstract form of the noun is written with a hyphen.

4.1 Noun roots

The underived root of a noun is that basic part that cannot be analyzed into more than one morpheme based on current knowledge of Ik morphology. Most Ik nominal roots are comprised of two to four syllables. However, many Ik nouns that today have to be analyzed as monomorphemic were likely composed of more than one morpheme historically in the languages from which they were inherited or borrowed. These include the many nouns borrowed from Nilotic languages that still bear gender prefixes and are often polysyllabic. In addition to the older, shorter nouns and the newer, longer nouns, a number of partially and fully reduplicated forms are also attested. Each noun root type is examined below, starting with basic roots and then moving on to reduplicated and historically polymorphemic roots.

4.1.1 Basic roots

Basic noun roots in Ik include those that are shorter in length and those whose morphological composition, if there ever was one, is not currently recoverable. This section catalogues and gives examples of the syllable types and tone patterns found in a collection of roughly 1,900 noun roots.

Basic roots with a VV syllable shape are rare (<1%):

<table>
<thead>
<tr>
<th></th>
<th>VV noun roots</th>
</tr>
</thead>
<tbody>
<tr>
<td>LH</td>
<td>ef- ‘chyme’</td>
</tr>
<tr>
<td>LL</td>
<td>go- ‘leather bag’</td>
</tr>
</tbody>
</table>

Basic roots with a VCV syllable shape are also sparse (1.5%):
(4) **VCV noun roots**

<table>
<thead>
<tr>
<th>HH</th>
<th>ámá-</th>
<th>‘person’</th>
</tr>
</thead>
<tbody>
<tr>
<td>ínó-</td>
<td>‘animal’</td>
<td></td>
</tr>
<tr>
<td>HL</td>
<td>édi-</td>
<td>‘name’</td>
</tr>
<tr>
<td>ído-</td>
<td>‘breast’</td>
<td></td>
</tr>
<tr>
<td>LH</td>
<td>akó-</td>
<td>‘inside’</td>
</tr>
<tr>
<td>oní-</td>
<td>‘abandoned village’</td>
<td></td>
</tr>
<tr>
<td>LL</td>
<td>aji-</td>
<td>‘pestle’</td>
</tr>
<tr>
<td>ñfa-</td>
<td>‘cough’</td>
<td></td>
</tr>
</tbody>
</table>

Basic roots with a CVV syllable shape make up roughly 1.5% of Ik nouns:

(5) **CVV noun roots**

<table>
<thead>
<tr>
<th>HH</th>
<th>máó-</th>
<th>‘lion’</th>
</tr>
</thead>
<tbody>
<tr>
<td>séí-</td>
<td>‘quartz’</td>
<td></td>
</tr>
<tr>
<td>LH</td>
<td>cué-</td>
<td>‘water’</td>
</tr>
<tr>
<td>tsoé-</td>
<td>‘wild hunting dog’</td>
<td></td>
</tr>
<tr>
<td>LL</td>
<td>dau-</td>
<td>‘knife’</td>
</tr>
<tr>
<td>sea-</td>
<td>‘blood’</td>
<td></td>
</tr>
</tbody>
</table>

Basic roots with a CVCV syllable shape are considerably more plentiful (13%), so much so that Tucker was led to claim that “the overwhelming majority of words consist in CVC” roots...” (1971:343):

(6) **CVCV noun roots**

<table>
<thead>
<tr>
<th>HH</th>
<th>búré-</th>
<th>‘dust’</th>
</tr>
</thead>
<tbody>
<tr>
<td>m3dé-</td>
<td>‘ground-bee’</td>
<td></td>
</tr>
<tr>
<td>LH</td>
<td>d5ba-</td>
<td>‘mud’</td>
</tr>
<tr>
<td>ts’üde-</td>
<td>‘smoke’</td>
<td></td>
</tr>
<tr>
<td>LH</td>
<td>fetí-</td>
<td>‘sun’</td>
</tr>
<tr>
<td>Ṉorá-</td>
<td>‘cane rat’</td>
<td></td>
</tr>
<tr>
<td>LL</td>
<td>dífe-</td>
<td>‘donkey’</td>
</tr>
<tr>
<td>kafu-</td>
<td>‘thorn’</td>
<td></td>
</tr>
</tbody>
</table>
Basic roots with a VCVV syllable shape are also relatively rare (<1%):

(7) VCVV noun roots

<table>
<thead>
<tr>
<th>HHL</th>
<th>ísɛɛ-</th>
<th>‘Ise River’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ñwáa-</td>
<td>‘Iwa Place’</td>
</tr>
<tr>
<td>HLL</td>
<td>ódou-</td>
<td>‘day’</td>
</tr>
<tr>
<td></td>
<td>útɔɔ-</td>
<td>‘oil’</td>
</tr>
<tr>
<td>LHH</td>
<td>aríɛ́-</td>
<td>‘small intestine’</td>
</tr>
<tr>
<td></td>
<td>ñtàɛ́-</td>
<td>‘rainy reason’</td>
</tr>
<tr>
<td>LHL</td>
<td>ɔlì-</td>
<td>‘grass sp.’</td>
</tr>
<tr>
<td></td>
<td>otí-</td>
<td>‘divine mystery’</td>
</tr>
<tr>
<td>LLH</td>
<td>ɛkɛʊ́-</td>
<td>‘muscle fiber’</td>
</tr>
<tr>
<td></td>
<td>anɛɛ-</td>
<td>‘Vigna frutescens plant’</td>
</tr>
</tbody>
</table>

Basic roots with a VCVCV syllable shape are slightly more numerous than some of the shorter syllable types (3%):

(8) VCVCV noun roots

<table>
<thead>
<tr>
<th>HLH</th>
<th>ɔ́pʊsɪ́-</th>
<th>‘Opus Mountain’</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLL</td>
<td>ídeme-</td>
<td>‘snake’</td>
</tr>
<tr>
<td></td>
<td>óbijɔ-</td>
<td>‘rhinoceros’</td>
</tr>
<tr>
<td>LHH</td>
<td>akárɔ́-</td>
<td>‘palate’</td>
</tr>
<tr>
<td></td>
<td>isérɛ́-</td>
<td>‘jackal’</td>
</tr>
<tr>
<td>LHL</td>
<td>ewédi-</td>
<td>‘bitter wild tuber’</td>
</tr>
<tr>
<td></td>
<td>ɔlìɛ́-</td>
<td>‘female hyrax’</td>
</tr>
<tr>
<td>LLH</td>
<td>akatì-</td>
<td>‘nose, nostril’</td>
</tr>
<tr>
<td></td>
<td>ñfakì-</td>
<td>‘Portulaca quadrifida plant’</td>
</tr>
<tr>
<td>LLL</td>
<td>abɛta-</td>
<td>‘Sitatunga antelope’</td>
</tr>
<tr>
<td></td>
<td>oŋɔri-</td>
<td>‘elephant’</td>
</tr>
</tbody>
</table>

Basic roots with a CVCVV syllable shape are just a little more numerous than the VCVCV ones (5%):
(9) **CVCVV noun roots**

<table>
<thead>
<tr>
<th>Syllable Shape</th>
<th>Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHL</td>
<td>ʰiŋɔ-</td>
<td>‘chameleon’</td>
</tr>
<tr>
<td>HHL</td>
<td>rórɔ-</td>
<td>‘waist’</td>
</tr>
<tr>
<td>HLH</td>
<td>bìroó-</td>
<td>‘bird sp.’</td>
</tr>
<tr>
<td>HLH</td>
<td>lópeí-</td>
<td>‘small liver lobe’</td>
</tr>
<tr>
<td>HLL</td>
<td>kídɔ-</td>
<td>‘Tchagra bird’</td>
</tr>
<tr>
<td>HLL</td>
<td>kūrai-</td>
<td>‘Wait-a-bit acacia’</td>
</tr>
<tr>
<td>LHH</td>
<td>ɗukái-</td>
<td>‘mead residue’</td>
</tr>
<tr>
<td>LHH</td>
<td>timói-</td>
<td>‘tail’</td>
</tr>
<tr>
<td>LHL</td>
<td>girúu-</td>
<td>‘locust’</td>
</tr>
<tr>
<td>LHL</td>
<td>ɗolèɛ-</td>
<td>‘elbow’</td>
</tr>
<tr>
<td>LLL</td>
<td>mutuó-</td>
<td>‘needle’</td>
</tr>
<tr>
<td>LLL</td>
<td>tsarió-</td>
<td>‘weaver bird’</td>
</tr>
<tr>
<td>LLL</td>
<td>demio-</td>
<td>‘Wild olive tree’</td>
</tr>
<tr>
<td>LLL</td>
<td>serei-</td>
<td>‘big calabash bowl’</td>
</tr>
</tbody>
</table>

Basic roots with a CVCVCV syllable shape are also relatively rare (1%):

(10) **CVVCV noun roots**

<table>
<thead>
<tr>
<th>Syllable Shape</th>
<th>Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHL</td>
<td>ᵗiːr-</td>
<td>‘Acacia tree sp.’</td>
</tr>
<tr>
<td>HHL</td>
<td>tsúra-</td>
<td>‘White-thorn acacia’</td>
</tr>
<tr>
<td>HLH</td>
<td>mɔko-</td>
<td>‘mamba (snake)’</td>
</tr>
<tr>
<td>HLH</td>
<td>sbtɔ-</td>
<td>‘Large-leafed albizia’</td>
</tr>
<tr>
<td>LHH</td>
<td>gwaits’</td>
<td>‘giraffe’</td>
</tr>
<tr>
<td>LHH</td>
<td>kwaárá-</td>
<td>‘baboon troup’</td>
</tr>
<tr>
<td>LHL</td>
<td>keídzo-</td>
<td>‘wild tuber sp.’</td>
</tr>
<tr>
<td>LHL</td>
<td>leúzo-</td>
<td>‘charcoal’</td>
</tr>
<tr>
<td>LLL</td>
<td>caalí-</td>
<td>‘hearth-stone’</td>
</tr>
<tr>
<td>LLL</td>
<td>seekó-</td>
<td>‘broth’</td>
</tr>
<tr>
<td>LLL</td>
<td>meura-</td>
<td>‘Superb starling’</td>
</tr>
</tbody>
</table>

As mentioned, there are many roots with a CVCVCV syllable shape (19%):
### CVCVCV noun roots

<table>
<thead>
<tr>
<th>Shape</th>
<th>Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHL</td>
<td>cúrúku-</td>
<td>‘bull’</td>
</tr>
<tr>
<td></td>
<td>tsówíri-</td>
<td>‘Speckled mousebird’</td>
</tr>
<tr>
<td>HLH</td>
<td>mókoló-</td>
<td>‘hardwood tree sp.’</td>
</tr>
<tr>
<td></td>
<td>tábarí-</td>
<td>‘pool, puddle’</td>
</tr>
<tr>
<td>HLL</td>
<td>ɓɔ́kɔɲɪ-</td>
<td>‘bank, slope’</td>
</tr>
<tr>
<td></td>
<td>tíkoŋu-</td>
<td><em>Lantana trifolia</em> shrub’</td>
</tr>
<tr>
<td>LHH</td>
<td>dzibérí-</td>
<td>‘axe’</td>
</tr>
<tr>
<td></td>
<td>mmítá-</td>
<td>‘wild cat’</td>
</tr>
<tr>
<td>LHL</td>
<td>dofére-</td>
<td>‘water beetle’</td>
</tr>
<tr>
<td></td>
<td>terégi-</td>
<td>‘work’</td>
</tr>
<tr>
<td>LLH</td>
<td>bubúná-</td>
<td>‘hot coal’</td>
</tr>
<tr>
<td></td>
<td>tabaní-</td>
<td>‘wing’</td>
</tr>
<tr>
<td>LLL</td>
<td>ccmeri-</td>
<td>‘herb’</td>
</tr>
<tr>
<td></td>
<td>dokira-</td>
<td>‘old honeycomb’</td>
</tr>
</tbody>
</table>

Basic roots with a VCVCVV syllable shape are relatively sparse (1%):

### VCVCVV noun roots

<table>
<thead>
<tr>
<th>Shape</th>
<th>Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLHL</td>
<td>ɓlekkó-</td>
<td>‘plant sp.’</td>
</tr>
<tr>
<td></td>
<td>ñwoló-</td>
<td>‘Iwolo Place’</td>
</tr>
<tr>
<td>LHHL</td>
<td>alálá-</td>
<td>‘Augur buzzard’</td>
</tr>
<tr>
<td></td>
<td>isókói-</td>
<td><em>Euphorbia bussei</em> tree’</td>
</tr>
<tr>
<td>LHL</td>
<td>amózaa-</td>
<td>‘rain termite’</td>
</tr>
<tr>
<td></td>
<td>tdőke-</td>
<td>‘airplane (&lt; Swahili ndege)’</td>
</tr>
<tr>
<td>LLLH</td>
<td>iboboí-</td>
<td>‘bird sp.’</td>
</tr>
<tr>
<td></td>
<td>r̩ɔɔ̃í-</td>
<td><em>Maerua triphylla</em> plant’</td>
</tr>
<tr>
<td>LLLL</td>
<td>adabía-</td>
<td>‘plant sp.’</td>
</tr>
<tr>
<td></td>
<td>emusia-</td>
<td><em>Euclea schimperi</em> tree’</td>
</tr>
</tbody>
</table>

Roots with a VCVCVCV syllable shape are also relatively sparse (1.5%):
Basic roots with a CVCVCVC syllable shape are quite numerous (13%):

(13) **VCVCVCV noun roots**

<table>
<thead>
<tr>
<th>Shape</th>
<th>Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHLH</td>
<td>ókírotí-</td>
<td>‘bird sp.’</td>
</tr>
<tr>
<td>HLHL</td>
<td>flegúgu-</td>
<td>‘insect sp.’</td>
</tr>
<tr>
<td>LHHL</td>
<td>obóléni-</td>
<td>‘hip’</td>
</tr>
<tr>
<td></td>
<td>imánání-</td>
<td>‘Castor-oil plant’</td>
</tr>
<tr>
<td>LHLH</td>
<td>arágwaní-</td>
<td>‘moon’</td>
</tr>
<tr>
<td>LLHH</td>
<td>asünání-</td>
<td>‘African pencil cedar’</td>
</tr>
<tr>
<td></td>
<td>eruméní-</td>
<td>‘spear shaft’</td>
</tr>
<tr>
<td>LLLL</td>
<td>aŋarasá-</td>
<td>‘gravel’</td>
</tr>
<tr>
<td></td>
<td>oŋerepé-</td>
<td>‘Rufous beaked snake’</td>
</tr>
<tr>
<td>LLLL</td>
<td>adenesa-</td>
<td>‘bird sp.’</td>
</tr>
<tr>
<td></td>
<td>ifọ̀ọ́ta-</td>
<td>‘uncovered gourd’</td>
</tr>
</tbody>
</table>

(14) **CVCVCVCV noun roots**

<table>
<thead>
<tr>
<th>Shape</th>
<th>Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHHH</td>
<td>másálúká-</td>
<td>‘mashed white-ants’</td>
</tr>
<tr>
<td></td>
<td>mɛ́lɛ́kʊ́rá-</td>
<td>‘wild cowpeas’</td>
</tr>
<tr>
<td>HHLL</td>
<td>cükúɗumu-</td>
<td>‘male Mountain reedbuck’</td>
</tr>
<tr>
<td></td>
<td>kílìjìta-</td>
<td>‘bull elephant’</td>
</tr>
<tr>
<td>HHLH</td>
<td>sáɲamáti-</td>
<td>‘sandstone’</td>
</tr>
<tr>
<td></td>
<td>tükuléti-</td>
<td>‘small round gourd’</td>
</tr>
<tr>
<td>HLHL</td>
<td>fírits’ári-</td>
<td>‘bird sp.’</td>
</tr>
<tr>
<td>HLLL</td>
<td>bárítoní-</td>
<td>‘small black ant’</td>
</tr>
<tr>
<td>LHHL</td>
<td>boŋjóréni-</td>
<td>‘red-brown clay’</td>
</tr>
<tr>
<td></td>
<td>tsarátáni-</td>
<td>‘cleft’</td>
</tr>
<tr>
<td>LLLL</td>
<td>rutúduma-</td>
<td>‘pigeon’</td>
</tr>
<tr>
<td>LLHH</td>
<td>bɔ̀fɔ̀ƙɔ́rɛ́-</td>
<td>‘uncastrated goat’</td>
</tr>
<tr>
<td></td>
<td>malakóří-</td>
<td>‘Vigna frutescens’ plant’</td>
</tr>
<tr>
<td>LLHL</td>
<td>gadukúɲu-</td>
<td>‘Gad’ukuny clan’</td>
</tr>
<tr>
<td></td>
<td>porutéle-</td>
<td>‘Catholic friar’</td>
</tr>
<tr>
<td>LLLL</td>
<td>mozokoɗí-</td>
<td>‘tree sp.’</td>
</tr>
<tr>
<td></td>
<td>gomojoji-</td>
<td>‘Cyperus distans’ plant’</td>
</tr>
</tbody>
</table>
Only one example of noun root with a VCVCVCV syllable shape has been found: *adeŋelío* - ‘*Allophyllum* plant sp.’. Those with a VCVCVCV syllable type are slightly more numerous (<1%) and exhibit two tone melodies. The other six known members of this syllable group either involve reduplication or are clear cognates shared with Teso-Turkana:

(15) VCVCVCVCV noun roots

<table>
<thead>
<tr>
<th>Syllable Type</th>
<th>Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>LHHHH</td>
<td>okílóŋóró-</td>
<td>‘queen bee’</td>
</tr>
<tr>
<td>LLLHH</td>
<td>irutuméní-</td>
<td>‘animal foreleg’</td>
</tr>
</tbody>
</table>

Many of the nouns with a CVCVCVCVCV syllable shape (5%) involve reduplication, but those that do not include the following:

(16) CVCVCVCVCV noun roots

<table>
<thead>
<tr>
<th>Syllable Type</th>
<th>Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLLLL</td>
<td>tibolokoni-</td>
<td>‘fingernail’</td>
</tr>
<tr>
<td></td>
<td>tigmaramatsi-</td>
<td>‘elder child’</td>
</tr>
<tr>
<td>LLLLL</td>
<td>lelemukáni-</td>
<td>‘handle-less tool’</td>
</tr>
<tr>
<td></td>
<td>tikorótóti-</td>
<td>‘aloe vera’</td>
</tr>
<tr>
<td>LLLLLL</td>
<td>kimbórotsa-</td>
<td>‘tree sp.’</td>
</tr>
<tr>
<td></td>
<td>talalidomo-</td>
<td>‘Black-tipped mongoose’</td>
</tr>
</tbody>
</table>

Finally, basic noun roots with the syllable shape CVCVCVCVCV include such unanalyzable forms as *bɪ́lɪ́kɛrɛtɛ́ɛ* - ‘Yellow-necked spurfowl’ and *tsóɗitsónoó* - ‘bird species’. But most nouns with this many syllables or more fall into the the other categories of nouns to which we now turn.

### 4.1.2 Partially reduplicated roots

A fair number of Ik nouns were formed by partially or fully reduplicating a CV or CVC base. Partial reduplication is not a productive noun-building strategy in today’s Ik. This is shown, for one, by the fact that non-reduplicated counterparts no longer exist for the reduplicated forms. As an example, though the Ik word *joríjoro* - ‘cricket’ has a cognate *c’ooro* in the
Cushitic language Ts’amakko, there is no current form like *jooro or *jooro in Ik. This suggests that at one time, reduplication may have had a variety of meaning-enhancing functions like diminutivization. This section, then, is simply a comment on the historical origin of some synchronic noun roots.

Ik partial reduplication involves copying the first two segments of a basic CVCV root and placing them before the basic root. So the now archaic (*) formula for partially reduplicating noun roots is as follows:

\[(17) \quad *C_1V_1C_2V_2 \rightarrow *C_1V_1C_1C_2V_2\]

The words in (18) below exemplify nouns reduplicated in this way:

\[(18) \quad \text{Partially reduplicated noun roots} \]

<table>
<thead>
<tr>
<th>*H-HL</th>
<th>*bobosa-</th>
<th>‘Terminalia brownii perfume’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fofota-</td>
<td>‘trail’</td>
</tr>
<tr>
<td>*H-LL</td>
<td>dodo-</td>
<td>‘malnutrition’</td>
</tr>
<tr>
<td></td>
<td>mumuta-</td>
<td>‘moss sp.’</td>
</tr>
<tr>
<td>*L-HH</td>
<td>titiri-</td>
<td>‘forked pole’</td>
</tr>
<tr>
<td></td>
<td>tsitsina-</td>
<td>‘dipstick’</td>
</tr>
<tr>
<td>*L-LH</td>
<td>keker-</td>
<td>‘grasshopper’</td>
</tr>
</tbody>
</table>

In other instances, petrified affixes (borrowed from other languages) come a) before the reduplicated segments or b) after the reduplicated base. The proposed frozen affixes are shown in parentheses in the following table:

\[(19) \quad \text{Partially reduplicated noun roots with frozen affixes} \]

| *(H)-H-HL | (k)ibibita- | ‘brown lizard sp.’ |
|           | (si)laa'-ja'- | ‘Dwarf mongoose’ |
| *(L)-H-(LL) | sosobi- | ‘Sausage tree (Kigelia africana)’ |
| *(L)-L-LH | (kt)rapa'- | ‘layer of slime’ |
| *(L)-L-(LL) | kuku(eni)'- | ‘underground storage hole’ |
4.1.3 Fully reduplicated roots

Neither is full reduplication a productive noun-building process in today's language. But historically, a fair number of Ik nouns look to have been formed by fully reduplicating a CV or CVC base. The copied segments are placed to the left of the base, and any resulting consonant cluster is broken up with an epenthetic vowel (EV). The default epenthetic vowel in Ik is /ɪ, i/ (as it is in Turkana; Dimmendaal 1983:30), but occasionally the epenthetic vowel is an exact copy of the vowel in the reduplicated base. The epenthetic vowel /ɪ, i/ is subject to vowel backness and roundness assimilation, meaning that /u/ and /u/ are also common variants of this vowel. Lastly, if a petrified prefix is present, it remains at the beginning of the word, such that the copied segments come between it and the root:

\[(20) \quad (V6)C_1V_1V_2 \quad \rightarrow \quad (V6)C_1V_1C_1C_1V_2\]
\[(V6)C_1V_1C_2V_2 \quad \rightarrow \quad (V6)C_1V_1C_1C_1V_2\]

Some examples of full CV(V) reduplication include these below:

(21) **Fully deplicated CV(V) noun roots**

| *H-LL | dódoo- | ‘sheep’ |
| *L-HL | kókó- | ‘big gourd’ |
| *L-LH | cucué- | ‘moist chill’ |
| *L-LL | babaa- | ‘armpit’ |
|       | didii- | ‘weather’ |
|       | jejei- | ‘leather mat’ |

And this next set of nouns exemplifies full CVC(V) reduplication:

(22) **Fully reduplicated CVC(V) noun roots**

| *HL-HL | kárákára- | ‘Green wood hoopoe’ |
|        | náganága- | ‘monitor lizard’ |
| *(L)-HL-LH | akójñkjñ- | ‘bird sp.’ |
Like any language, Ik has borrowed vocabulary from neighboring languages over the centuries. In many cases, the morphology on borrowed words eroded and/or was lost completely. But in other cases, the origin of certain frozen affixes on Ik nouns can still be traced to their sources either in living languages or reconstructed ancestor languages. Among these affixes are Teso-Turkana gender prefixes, a Nilo-Saharan ‘definitizer’ prefix, a couple of singulative suffixes found areally in Nilo-Saharan and Afroasiatic, a handful of Cushitic singulatives, a couple of Surmic nominal suffixes, and a few other prefixes whose meaning and origin have yet to be discovered.

Many lexical parallels are found between Ik and Eastern Nilotic languages, particularly of the Teso-Turkana sub-group. These parallels account for up to fifty percent of the Ik nouns on record. Some of the parallels are only established through phonological reconstructions, while many others are evident from the now-frozen Teso-Turkana gender prefixes. Teso-Turkana languages have three gender prefixes in the singular and two in the plural:

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>na-</td>
<td>na-</td>
</tr>
<tr>
<td>pe/pe-</td>
<td>ni/ni-</td>
</tr>
<tr>
<td>ni/ni-</td>
<td>ni/ni-</td>
</tr>
<tr>
<td>feminine</td>
<td>feminine</td>
</tr>
<tr>
<td>masculine</td>
<td>masculine</td>
</tr>
<tr>
<td>neuter</td>
<td>neuter</td>
</tr>
</tbody>
</table>

4.1.4 Affixed roots
In some lects, like the central dialect of Turkana and Karimojong (e.g. the Dodoth dialect), the initial nasal of the singular prefixes is lost except in certain environments (Dimmendaal 1983:222). But in Northern Turkana and Toposa, all these nasals are retained, just as they are when Ik has borrowed from these languages over the generations. Ik absorbed so many nouns with these gender prefixes that it generalized the morphology into a synchronic marker of borrowing: Any noun borrowed into Ik today is given the prefixal syllable /ɲV-/ at the beginning (see ex. 28 below).

The prevalence of these gender prefixes in the Ik lexicon suggests the following historical scenarios: 1) Ik speakers interacted with and borrowed heavily from the more conservative members of the Teso-Turkana cluster (Toposa, Northern Turkana, Nyangatom?). This would rhyme with the oral tradition that Ik descended from Ethiopia by way of northwestern Kenya and southeastern Sudan. Or 2), Ik, like Toposa and Northern Turkana, retain the older Teso-Turkana prefixes that other members of the group have lost or are losing. Which scenario is more accurate depends, in large part, on the relative chronology of migrations for Teso-Turkana and the Kuliak group.

In any event, all the gender prefixes in (23), except the neuter singular, are attested in the Ik nominal lexicon. Despite the fact that many Ik speakers are bilingual in Ik and a Teso-Turkana language, words containing these gender prefixes are analyzed in this grammar as synchronically monomorphemic. This is because Ik grammar does not mark gender on other nouns, so it makes no sense to treat these prefixes as gender markers.

Below are some examples of the Teso-Turkana masculine singular ɲe- and feminine singular ɲa- on Ik nouns:

(24)  Ik noun roots with a Teso-Turkana singular gender prefix

<table>
<thead>
<tr>
<th>Masculine</th>
<th>Feminine</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɲébwáli-</td>
<td>ɲáɓaarátí-</td>
</tr>
<tr>
<td>ḷébúruɓúrí-</td>
<td>ɲaɓʊraɪ́-</td>
</tr>
</tbody>
</table>

‘lake’    ‘wrist-knife’
‘lowland’  ‘maize’
And then here are some examples of nouns with the plural gender prefixes:

(25) **Ik noun roots with a Teso-Turkana plural gender prefix**

<table>
<thead>
<tr>
<th>Masculine/Neuter</th>
<th>Feminine</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɲíkísilaá6</td>
<td>ɲákíɓukú6</td>
</tr>
<tr>
<td>ɲiléétsi6</td>
<td>ɲalɛ́pána6</td>
</tr>
<tr>
<td>ɲímúíi6</td>
<td>ɲátɔɔsaá6</td>
</tr>
<tr>
<td>ɲísilí-</td>
<td>ɲáturí-</td>
</tr>
<tr>
<td>ɲítsani-</td>
<td>ɲájábu-</td>
</tr>
<tr>
<td>ɲɛ́lɛlɪ́6</td>
<td>ɲakaú6</td>
</tr>
<tr>
<td>ɲɛɗɛkɛɛ́6</td>
<td>ɲákaasóó-</td>
</tr>
<tr>
<td>ɲetíɲáŋa6</td>
<td>ɲákápirtí-</td>
</tr>
<tr>
<td>ɲɛ́lɛlɪ́6</td>
<td>ɲakaú-</td>
</tr>
</tbody>
</table>

When one of these gender prefixes attaches to a noun root whose first vowel is /ɔ/ or /o/, the prefix vowel typically assimilates totally to the back vowel. This kind of assimilation also occurs in Dhaasanac where, for example, ɲekɔr ‘mongoose’ surfaces as ɲɔkɔr (Tosco 2001:29):

(26) **Vowel assimilation of Teso-Turkana gender prefixes on Ik roots**

- ɲɛkɔkɔ́r- → ɲɔkɔkɔ́r- ‘chicken’
- ɲɛkɔ́pɛɛ́6 → ɲɔ́kɔ́pɛɛ́6 ‘valley wall’
- ɲemórótoto6 → ɲomórótoto6 ‘python’
- ɲásomáa6 → ɲósomáa- ‘education’
- ɲétsorόnі- → ɲótsorόnі- ‘latrine’

Beyond the regular gender prefixes described above, Teso-Turkana also has locative forms for its singular gender prefixes. These are ɓ- for masculine and neuter and na- for feminine. They are common in place names like Lotim and Nacakunet and personal names like Lolem and Nakiru. These locative gender prefixes can be traced back to non-locative gender markers in earlier Eastern Nilotic; today they are still found in Lotuxo and Maa. Since the Teso-Turkana gender prefixes are a more recent innovation for
nominative and accusative cases, it seems that Ik absorbed some vocabulary in earlier times of contact with Eastern Nilotic (Dimmendaal, p.c.).

Though many Ik nouns with these older Eastern Nilotic prefixes are clearly borrowings, some may only coincidentally begin with the same sequence of segments (l- or na-). Without further etymological knowledge, it is not always possible to tell the origin of such nouns. But here are some examples:

(27) **Ik noun roots with Teso-Turkana locative gender prefixes**

<table>
<thead>
<tr>
<th>Masculine/neuter</th>
<th>Feminine</th>
</tr>
</thead>
<tbody>
<tr>
<td>lobúrúʝi6 'mold'</td>
<td>nadekwela 'watermelon'</td>
</tr>
<tr>
<td>1ɔɓaɓalí6 'drying rack'</td>
<td>nadépe- 'flea'</td>
</tr>
<tr>
<td>1ɔɓʊ́kɛʝɛ́nɪ6 'stunted growth'</td>
<td>nakariɓá- 'husks'</td>
</tr>
<tr>
<td>1ɔkaudé- 'weevil'</td>
<td>nakirií- 'sheath'</td>
</tr>
<tr>
<td>1ɔŋzɛtɛ- 'black fly'</td>
<td>nalíili- 'sorghum variety'</td>
</tr>
<tr>
<td>lopérení- 'ghost'</td>
<td>namɛɗɔɔ- 'back of head'</td>
</tr>
<tr>
<td>lɔtsɔ́ɡɔma6 'plant sp.'</td>
<td>narɛ́ʊ6 'viper sp.'</td>
</tr>
<tr>
<td>loúpalɪ́6 'cobra'</td>
<td>natúku- 'group discussion'</td>
</tr>
</tbody>
</table>

Despite the fact that the gender prefixes have no current grammatical meaning or function in Ik, they are markers of encyclopedic knowledge. Up until very recent times, knowledge of new, modern technologies and concepts only came to the Ik filtered through their Teso-Turkana neighbors. The table in (28) below presents a list of words borrowed into Ik from English and Swahili through Teso-Turkana, probably in the last 150 years:

(28) **Nouns borrowed into Ik from English or Swahili through Teso-Turkana**

<table>
<thead>
<tr>
<th>From English</th>
<th>From Swahili</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɲáɓáa6 'bar'</td>
<td>ɲabaáti- 'luck' (&lt;bahati)</td>
</tr>
<tr>
<td>ɲáɓákɛtɛ6 'bucket'</td>
<td>ɲáɓataá- 'duck' (&lt;bata)</td>
</tr>
<tr>
<td>ɲáʝálaá6 'jail'</td>
<td>ɲákalámu- 'pen' (&lt;kalamu)</td>
</tr>
<tr>
<td>ɲálaíni- 'line'</td>
<td>ɲámakásti- 'scissors' (&lt;makasi)</td>
</tr>
</tbody>
</table>
Besides the Teso-Turkana gender prefixes, the Ik nominal lexicon also exhibits a several singulative suffixes that have widespread areal parallels. The first pair of singulatives to be discussed have the form -ita- and -iti- (and their [-ATR] allomorphs -ita- and -itr-). An obvious parallel to these forms is found in Turkana (Dimmendaal 1983:227, 258), and Ik nouns borrowed from Teso-Turkana retain the singulative in the form of -iti-. But there seems to be some free variation between the two forms. For example, the word for ‘kind/type’ in Ik is bonita- in the singular, but in the variative plural it becomes boniti-iciká- where **bonita-iciká would be expected (§4.3.7). For the {-ita-} form, distant Afroasiatic connection is suggested by the Lowland Cushitic language Afar’s singulative -ta (Mahaffy, 36). Whatever their etymology, neither singulative is productive in Ik, and so they are both treated as lexicalized affixes. Based on their respective forms, Ik nouns containing them can be divided into two groups:

(29) **Ik nouns with the frozen singulative suffixes -ita- and -iti**

<table>
<thead>
<tr>
<th>{-ita-}</th>
<th>{-iti-}</th>
</tr>
</thead>
<tbody>
<tr>
<td>agita-</td>
<td>diiti-</td>
</tr>
<tr>
<td>gijita-</td>
<td>ikiti-</td>
</tr>
<tr>
<td>kásita-</td>
<td>pabáití-</td>
</tr>
<tr>
<td>kifínta-</td>
<td>pabálántí-</td>
</tr>
<tr>
<td>klíríta-</td>
<td>pédíntí-</td>
</tr>
<tr>
<td>lorítá-</td>
<td>náláajáíti-</td>
</tr>
<tr>
<td>munítá-</td>
<td>tsoriti-</td>
</tr>
<tr>
<td>‘metal bead’</td>
<td>‘bird sp.’</td>
</tr>
<tr>
<td>‘razor’</td>
<td>‘head-pad’</td>
</tr>
<tr>
<td>‘Hooked-thorn acacia’</td>
<td>‘dawn’</td>
</tr>
<tr>
<td>‘bull elephant’</td>
<td>‘soda ash’</td>
</tr>
<tr>
<td>‘Egyptian thorn tree’</td>
<td>‘tsetse fly’</td>
</tr>
<tr>
<td>‘plant sp.’</td>
<td>‘long grass sp.’</td>
</tr>
<tr>
<td>‘wild cat’</td>
<td>‘vein’</td>
</tr>
</tbody>
</table>
This singulative is also found on an old, formulaic expression that introduces narratives: *kón-ít-ó ódowí*, analyzed as one-SING-INS day-GEN, or, in translation ‘one day’ or ‘once upon a time’. As the singulative is no longer productive, but presumably once was, this saying must be quite ancient.

A second pair of lexicalized singulatives have the forms -*ata* and -*ati*- (with its [-ATR] allomorph -*at-). These reflect the So singulative -*at* which Carlin claims is borrowed from Karimojong (1993:74). Indeed, it is also attested in Turkana as -*ât* (Dimmendaal 1983:227). Possible Afroasiatic (Cushitic) parallels include the already mentioned -*ta/-tya* of Afar/Saho and the -*te/-at* of El Molo. Regardless of their provenance, this pair of singulatives is no longer productive in Ik today. Nouns containing them can be divided into two groups based on the form of the singulative:

<table>
<thead>
<tr>
<th>-<em>ata</em>-</th>
<th>-<em>ati</em>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>akatáti-</td>
<td>akatí-</td>
</tr>
<tr>
<td>kapuratá-</td>
<td>fotáti-</td>
</tr>
<tr>
<td>kwaatá-</td>
<td>gwaláti-</td>
</tr>
<tr>
<td>ìkatata-</td>
<td>ìkatí-</td>
</tr>
<tr>
<td>nalɔŋɪzatá-</td>
<td>ìlráti-</td>
</tr>
<tr>
<td>ɲɔ́sɔ́ɔ́katá-</td>
<td>sánamátí-</td>
</tr>
<tr>
<td>takata-</td>
<td>ts’óboláti-</td>
</tr>
</tbody>
</table>

In addition to roots like those in (30), the singulative -*at-* also shows up in a rather unexpected place—between some roots and the plurative I {-íkó-}. In this environment, it may surface as -*ati-* or the reduced form -*a-. This occurrence indicates that the singulative was at one time productive in Ik, was then lost, but was partially retained with some nouns and a particular plurative. This is analogous to the plurative II suffix {-ítiní-} which consisted historically of the dingulative -*it-* and the pluralive {-íni-}. In the following table, note that for *kɔrɔ́baiko* ‘calves’, the singulative allomorph -*a-* blocks vowel harmony from dominant [+ATR] pluralizer {-íkó-}:
Finally, it is interesting that in So, a Kuliak sister language of Ik, -at is used to singularize nouns that are cognate in Ik where they have general number. For example, the transnumeral síts’a ‘hair’ and tsúts’a ‘fly (n.)’ in Ik are cognate with So sij and cuc, respectively. But unlike in Ik, the So ones can be singularized with -at, as in sij-at ‘hair (sg.)’ and cuc-at ‘fly’ (Carlin 1993:74).

Switching now from Nilo-Saharan to Afroasiatic, a couple of endings on Ik noun roots recall various Singulatives found in Dhaasanac. These include -(V)c, -(V)n, -ac, and -qn (Tosco 2001:75). The next table shows two groups of Ik noun roots based on the general suffixal pattern of -(V)n and -(V)c:

<table>
<thead>
<tr>
<th>Ik noun roots with frozen Cushitic-like singulatives</th>
<th>-(V)n</th>
<th>-(V)c</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɓɔ́kɔɲɪ6 ‘slope, bank’</td>
<td>bakutsi- ‘chest’</td>
<td></td>
</tr>
<tr>
<td>gadukúɲu6 ‘Gad’ukuny clan’</td>
<td>baratsi- ‘morning’</td>
<td></td>
</tr>
<tr>
<td>ɪraɲi6 ‘corncob pieces’</td>
<td>buratsi- ‘Bat-eared fox’</td>
<td></td>
</tr>
<tr>
<td>kaɓaɲa6 ‘oblong gourd’</td>
<td>burukutsi- ‘knee-cap’</td>
<td></td>
</tr>
<tr>
<td>leweɲi6 ‘ostrich’</td>
<td>fokokutsi- ‘oblong gourd’</td>
<td></td>
</tr>
<tr>
<td>lósuaɲa6 ‘stone anvil’</td>
<td>ɗeretsa- ‘kindling’</td>
<td></td>
</tr>
<tr>
<td>lɔɓɛlɛɲɪ́6 ‘diseased millet’</td>
<td>galatsi- ‘Mt. Galats’</td>
<td></td>
</tr>
<tr>
<td>lɔwɪɲɪ́6 ‘small tree-bee’</td>
<td>iwótsi- ‘mortar’</td>
<td></td>
</tr>
<tr>
<td>nasoroɲí6 ‘large intestine’</td>
<td>karati- ‘stool’</td>
<td></td>
</tr>
<tr>
<td>ɲémiƙuɲi6 ‘ant sp.’</td>
<td>komótsa- ‘elephant trunk’</td>
<td></td>
</tr>
<tr>
<td>saŋaɲɪ́6 ‘person’s name’</td>
<td>ɲégetsi- ‘leg hairs’</td>
<td></td>
</tr>
<tr>
<td>tɔrɔmɲa6- ‘porcupine’</td>
<td>rúgetsi- ‘hard protrusion’</td>
<td></td>
</tr>
</tbody>
</table>
An alternative pathway for these frozen singulatives into Ik is through Didinga, a Surmic language that borders Ik to the northwest. Didinga has both a ‘rare nominalizer’ -etʃ and a singulative -otʃ (De Jong 2004:150-152). Since even today Surmic languages border Cushitic languages in southwest Ethiopia (not far from the present Ik homeland), the ultimate etymological origin of this type of singulative in Ik is not known. Both language groups have had substantial influence on the development of the Ik language.

Whether from Cushitic or Surmic (or both), what appear to be these singulatives show up in a few other Ik noun roots, but in glottalized form:

(33) *Ik nouns with a frozen glottalized singulative (-Vts’)*

<table>
<thead>
<tr>
<th>Noun</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>dililits’á-</td>
<td>‘bloodsucking gnat sp.’</td>
</tr>
<tr>
<td>dololots’í-</td>
<td>‘soaked sorghum’</td>
</tr>
<tr>
<td>gwaits’í-</td>
<td>‘giraffe’</td>
</tr>
<tr>
<td>kerets’ú-</td>
<td>‘ant-hill dirt spread to prevent enemies’</td>
</tr>
<tr>
<td>kálits’í-</td>
<td>‘jaw’</td>
</tr>
<tr>
<td>kuts’ats’í-</td>
<td>‘gland, lymph node’</td>
</tr>
</tbody>
</table>

Another likely historical prefix found on Ik noun roots is ki- or kr-. This frozen prefix may be related to the singulative-like prefix in contemporary Turkana that can be seen in the pair e-ki-dor ‘door’ versus nj-dor-in ‘doors’ and that has a potential origin in a Nilo-Saharan ‘definitizer’ (Dimmendaal 1983:252). Other regional parallels include the Proto-Southern-Nilotic deverbal marker *kz-* (Rottland 1980) and the Proto-Nilo-Saharan preposition/case marker *kt* (Dimmendaal, to appear):

(34) *Ik nouns with the frozen Nilotic prefix /kl-/*

<table>
<thead>
<tr>
<th>Noun</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>kibišita-</td>
<td>‘lizard sp.’</td>
</tr>
<tr>
<td>kilaláða-</td>
<td>‘wood dove’</td>
</tr>
<tr>
<td>kilootóró-</td>
<td>‘bird sp.’</td>
</tr>
<tr>
<td>kinoroti-</td>
<td>‘peg’</td>
</tr>
<tr>
<td>kiryooróo-</td>
<td>‘White-crested helmet shrike’</td>
</tr>
</tbody>
</table>
Yet another frozen nominal prefix has the form \textit{si}- or \textit{st}-.

Besides in Ik, this ‘pre-Nilotic’ prefix is also attested in Turkana in words like \textit{é-si-dỳ̀ńòríîj} ‘elbow’ and \textit{é-si-gì̀råíîj} ‘baboon crest’ (Dimmendaal 1983:253). The following Ik nouns provide a representative sample:

<table>
<thead>
<tr>
<th>\textbf{Ik nouns with the frozen pre-Nilotic prefix /si-/-}</th>
</tr>
</thead>
<tbody>
<tr>
<td>sídílèé-</td>
</tr>
<tr>
<td>símídídíí-</td>
</tr>
<tr>
<td>sílsljá-</td>
</tr>
<tr>
<td>sińílá-</td>
</tr>
<tr>
<td>sóťá-</td>
</tr>
</tbody>
</table>

Finally, three other likely frozen prefixes present themselves in the Ik nominal lexicon. These include /a-/, /o-, and /sl-/. Their source languages and original functions have yet to be discovered, but it seems like they may have been markers of gender or definiteness at some point:

<table>
<thead>
<tr>
<th>\textbf{Ik nouns with frozen prefixes of unknown origin}</th>
</tr>
</thead>
<tbody>
<tr>
<td>/a-/</td>
</tr>
<tr>
<td>abúba-</td>
</tr>
<tr>
<td>agita-</td>
</tr>
<tr>
<td>akínš-</td>
</tr>
<tr>
<td>aŋarasá-</td>
</tr>
<tr>
<td>asʊnání-</td>
</tr>
<tr>
<td>/-o/</td>
</tr>
<tr>
<td>obóléni-</td>
</tr>
<tr>
<td>ődòka-</td>
</tr>
<tr>
<td>odomori-</td>
</tr>
<tr>
<td>oklíñojóró-</td>
</tr>
<tr>
<td>oŋerepé-</td>
</tr>
</tbody>
</table>
None of the various prefixes described in this section are believed to have meaning or function in contemporary Ik (beyond possibly identifying a word as noun versus a verb). But they are included here to help the difficult task of reconstructing the linguistic and ethnic pre-history of East Africa.

Nominal affixes that do have meaning and function are what follows below.

### 4.2 Number

Grammatical number is reflected in the Ik nominal system in three ways. First, the base form of nouns is lexically specified for one of three numeric values: 1) singular, 2) plural, or 3) general (number neutral). Second, based on a noun’s lexically specified numeric value, the grammar requires number agreement on relative pronouns, demonstratives, and subject-agreement on verbs (except for 3\textsubscript{PL} in relative clauses). Third, number may be marked on nouns through a system of singulative and plurative inflectors. In Ik, as in Turkana (Dimmendaal 1983:223), the selection of some pluratives depends on the noun’s mora count rather than on semantics or any other factor.

Since the lexically assigned numeric value of a noun cannot necessarily be guessed on semantic grounds, number agreement provides the needed clues. For example, in (37) below, the non-past demonstrative clitics \{=na\} ‘this’ and \{=ni\} ‘these’ can reveal a number-neutral noun’s numeric value:

(37) Singular: \ámá\- ‘person’ \ámá=na ‘this person’

*\*\ámá=ni ‘these persons’
Numeric values like the ones evident in (37) are not always obligatorily marked in the nominal system. Number is commonly marked inflectionally with singulatives or pluratives or grammatically with relative pronouns, demonstratives, and subject-agreement, but it is still optional. For example, without modifiers of any kind, the object rié- ‘goat’ in (38) has two interpretations with regard to its grammatical number:

(38)   *Toŋolata naa riye*.  
  tɔŋɔ́l6át6a=naa     rié6kᵃ  
  slaughter-3PL-REAL=PST 1 goat-ACC  
  a) They slaughtered a goat.  
  b) They slaughtered goats.

If the noun in question is the subject, its number is marked with subject-agreement suffixes (3SG being null), but this type of marking is defective. For example, in unmarked main clauses, where the verb comes before the subject, both 3SG and 3PL overt subjects are marked as 3SG (null) on the verb. This is true whether grammatical number is encoded generally (39) or with a plural suffix (40):

(39)   *Bwaanukotaa inw.*  
  buan-uƙot-á-á     ínw-a  
  disappear-COMP[3SG]-REAL-PRF animal(s)-NOM  
  a) The animal has disappeared.  
  b) The animals have disappeared.
But if the subject is left implicit (41), or if it is a pronoun (42), then subject-agreement marking must reflect the number of the subject:

(41) *Bwaanukotaka.*  
    buan-ukot-á-k³  disappear-COMP[3SG]-REAL-PRF  
    It has disappeared.

(42) *Bwaanukotata nt.*  
    buan-ukot-át-a  disappear-COMP-3PL-REAL-PRF  
    They have disappeared.

Another interesting feature of Ik number-marking on verbs is what Serzisko called the ‘coordinated subject’ (1992:192). A coordinated subject is a singular subject marked as plural on the verb because it is extra-linguistically accompanied by one or more other entities. For example in (43) below, the subject of the clause is semantically plural (Teko and his wife), and this is reflected by the plural marking on the verb. But syntactically, the subject is singular (Tekoa), the accompaniment of his wife being encoded by the oblique case noun phrase ñ'da ntsícêk³:

(43) *Kaini Tekoa kedo kon nda ntsicek.*  
    ka-ini  go-SEQ[3PL]  Teko-NOM  unit-INS  one-REAL  with he-wife[OBL]  
    And Teko went together with his wife.
The kind of inherent number ambiguity shown in (37) is only an issue with nouns that have a general or neutral numeric value. For most nouns, a bare form (or one with a singulative) implies singularity, while a plurative (or bare plural form opposite a singulative) implies plurality. This is where the language’s nominal number-marking inflectional system comes into play.

Ik has a two-term inflectional system for marking number on nouns. At the notional level, this encodes singular and plural. Singular in this system means ‘one’, and plural means ‘more than one’. The two terms—singular and plural—can be mapped on the surface level using three different strategies: 1) a zero-marked, basic singular and a plurative-marked plural, 2) a possessive singulative-marked singular and a possessive plurative-marked plural, or 3) a singulative-marked singular with a basic, zero-marked plural. The table in (44) show how these strategies are mapped out:

(44) **Ik nominal number-marking strategies**

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy 1</td>
<td>-∅</td>
<td>-ɪk̂o-/ɪt̂ín̂i-/ɪka-</td>
</tr>
<tr>
<td>Strategy 2</td>
<td>(-ɛdɛ-)</td>
<td>ɪn̂i-</td>
</tr>
<tr>
<td>Strategy 3</td>
<td>-Vma-</td>
<td>-∅</td>
</tr>
</tbody>
</table>

The plurative {-ɪka} in Strategy 1 is the only fully productive number-marking nominal suffix in the language. It pluralizes polymoraic roots, and any newly borrowed noun is polymoraic by virtue of its having the frozen prefix njV-. By the same token, the other two Strategy 1 pluratives are non-productive, since the nouns they pluralize are in a fixed lexical set. Strategy 2 is semi-productive in that it only applies to semantically specified subsets of nouns. The parentheses around the singular form of Strategy 2 signify that while the plural is always the plural of the singular, the plural forms do not always have a singularized counterpart. Lastly, Strategy 3, while still operative in Teso-Turkana, is also no longer productive in the Ik of today.
These singulatives and pluratives are described in the next several sections. They are shown mostly in their underlying and therefore hyphenated forms to expose their final vowels that may be deleted in the nominative case (isoation form). All the Ik pluratives have parallels in wider Nilotic, for example Turkana. Like in Turkana, all Ik number-marking suffixes delete the final vowel of the nominal stem (Dimmendaal 1983:229-232). By way of introduction, these suffixes are summarized in the following table:

<table>
<thead>
<tr>
<th>Suffix</th>
<th>Abbrev.</th>
<th>Name</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>{-íkó-}</td>
<td>PL</td>
<td>Plurative I</td>
<td>[+ATR]-dominant</td>
</tr>
<tr>
<td>{-ítíni-}</td>
<td>PL</td>
<td>Plurative II</td>
<td>monomoraic stem</td>
</tr>
<tr>
<td>{-íka-}</td>
<td>PL</td>
<td>Plurative III</td>
<td>polymoraic stem</td>
</tr>
<tr>
<td>{-ínr-}</td>
<td>POSS.PL</td>
<td>Possessive plurative</td>
<td>possession</td>
</tr>
<tr>
<td>{-íde-}</td>
<td>POSS.SG</td>
<td>Possessive singulative</td>
<td>possession</td>
</tr>
<tr>
<td>{-Vma-}</td>
<td>SING</td>
<td>Human singulative</td>
<td>human nouns only</td>
</tr>
</tbody>
</table>

4.2.1 Plurative I

The Ik plurative I {-íkó-} is found pluralizing both monomoraic and polymoraic nominal stems. It is not productive: The nouns it pluralizes belong to a fixed lexical set that, as far as can be observed, does not admit new members. The plurative I seems to be a parallel of the Turkana pluralizer -íyó (Dimmendaal 1983:235), which if true, would suggest that the intervocalic /k/ was retained in Ik and lost in Turkana.

In both languages, these suffixes are dominantly [+ATR]. For Ik, this means that the [+ATR] harmony spreads leftward to the whole stem unless /a/ intervenes. In this case, the /a/ is an instance of the frozen singulative -á(t) (see ex. 31 above). The plurative I causes and undergoes tonal alternations. The tone changes it causes are due to replacive morphological tone, and the changes it undergoes are due to melodic template completion. For example, it changes the tones of wéla ‘small opening’ to H in wél-íkwa. And after the
noun *fátára*- with its HHL melody, the suffix surfaces as */-ikó-/. These and several other tone combinations are shown in the following table:

(46) *Plurative* I -{iko-} according to tone melody

<table>
<thead>
<tr>
<th>#</th>
<th>Singular</th>
<th>Plural</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HH</td>
<td>HH-H</td>
<td></td>
</tr>
<tr>
<td></td>
<td>kóré-</td>
<td>kór-íkó-</td>
<td>'ladle(s)'</td>
</tr>
<tr>
<td></td>
<td>nérá-</td>
<td>nér-íkó-</td>
<td>'mingling stick(s)'</td>
</tr>
<tr>
<td>2</td>
<td>HL</td>
<td>H-LH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>fádo-</td>
<td>fád-íkó-</td>
<td>'scale(s)'</td>
</tr>
<tr>
<td></td>
<td>wázo-</td>
<td>wáz-íkó-</td>
<td>'young female(s)'</td>
</tr>
<tr>
<td>3</td>
<td>LL</td>
<td>H-HH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>pado-</td>
<td>pád-íkó-</td>
<td>'small cave(s)'</td>
</tr>
<tr>
<td></td>
<td>wel-</td>
<td>wél-íkó-</td>
<td>'small opening(s)'</td>
</tr>
<tr>
<td>4</td>
<td>LH</td>
<td>H-HH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>kólá-</td>
<td>kól-íkó-</td>
<td>'castrated goat(s)'</td>
</tr>
<tr>
<td></td>
<td>ró-</td>
<td>ró-íkó-</td>
<td>'desert(s)'</td>
</tr>
<tr>
<td>5</td>
<td>HHL</td>
<td>HH-(L)LH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>cúrúku-</td>
<td>cúrúk-áikó-</td>
<td>'bull(s)'</td>
</tr>
<tr>
<td></td>
<td>fátára-</td>
<td>fátár-íkó-</td>
<td>'vertical ridge(s)'</td>
</tr>
<tr>
<td>6</td>
<td>LHL</td>
<td>LH-(L)LH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>korób-</td>
<td>korób-áikó-</td>
<td>'calf(ves)'</td>
</tr>
<tr>
<td></td>
<td>lokúu-</td>
<td>lokú-áikó-</td>
<td>'drinking gourd(s)'</td>
</tr>
<tr>
<td>7</td>
<td>LLH</td>
<td>LH-HH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>baratsó-</td>
<td>baráts-íkó-</td>
<td>'morning(s)'</td>
</tr>
<tr>
<td></td>
<td>ørøró-</td>
<td>ørór-íkó-</td>
<td>'stream(s)'</td>
</tr>
</tbody>
</table>

Since the final vowel of -{iko-} is non-low, it is susceptible to desyllabification in the nominative case (see §2.4.3 and §6.3.2). For example, this means that in the nominative case the word for 'bulls' surfaces as *cúrúkaikw* and the word for 'small openings' as *wélíkw*.
4.2.2 Plurative II

The plurative II {-ítíní-} is made up etymologically of the archaic singulative -it- and the plurative {-nt-}, both of which have parallels in Nilotic languages. But synchronically, this plurative is analyzed as monomorphemic in Ik because the corresponding singular forms do not bear the singulative -it-. For example, though the plural of ‘dog’ is ɲók-útn, the singular is ɲókə, not **ɲók-itⁿ. At some point in the past, the once-productive singulative attached to the plurative and then later dropped out of usage. This habit of retaining an archaic singulative that only appears with a plurative was also noted in the case of -a(t) attaching to {-ńkó-} (§4.2.1).

The plurative II suffix is recessive in terms of vowel harmony, making /-ítíní/- an allomorph on [+ATR] stems. And in terms of tone behavior, {-ítíní-} combines with bisyllabic noun roots to produce the five composite tone melodies shown in (47) below. Like the plurative I, the plurative II both causes and undergoes tonal alternations. The tone changes it causes are due to replacive morphological tone, and the changes it undergoes are due to melodic template completion. For example, it changes the tones of lara- ‘tobacco pipe’ to H in lár-útn. And after the noun ɪdó- ‘breast’ with its HL melody, the suffix surfaces as /-ítín/. An interesting distinction occurs below between #3 and #4: Although the root melody of the nouns in #4 are LL, they do not take a H tone with the plurative II as they do in #3, presumably because the depressor consonants /b/ and /ɡ/ prevent H-tone docking. But this is excepted by ɔ́jt-útn ‘chains’ which has both a H tone in the plural and begins with the depressor consonant /z/:

(47) Plurative II {-ítíní-} according to tone melody

<table>
<thead>
<tr>
<th>#</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HH → H-HHH</td>
<td>ɲókí- → ɲók-itíní- ‘dog(s)’</td>
</tr>
<tr>
<td>2</td>
<td>HL → H-LHH</td>
<td>ɔ́jt-ítíní- ‘wound(s)’</td>
</tr>
</tbody>
</table>
Plurative II is one of two Ik pluratives that is selected on the basis of mora-counting as a general principle. This principle stipulates that the pluralized stem have three moras in its isolation form (i.e. in the nominative case). The ‘stem’ in this case is a noun root minus its final vowel, since the final vowel is first subtracted by the plurative suffix. Plurative selection based on mora-counting is attested in wider Nilotic, for example in Dholuo and Turkana. But the mora-counting of Turkana pluratives differs from that of Ik in this regard: The pluralive a Turkana nominal stem selects depends on the input of pluralization—the singular stem’s (root plus gender prefix) mora count (plus a few other factors; see Dimmendaal 1983:226). But in Ik, it is the output, not the input of pluralization that is constrained by the mora count (Maarten Mous, p.c.). In other words, Ik morpho-phonology tries to keep the plural form of shorter noun roots at three moras, no more, no less:

(48)  **Mora-counting pluralisation in Turkana and Ik**

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 moras</td>
<td>CV-CVC-íñ</td>
<td>CV-CVC-íñ</td>
<td>3 moras</td>
</tr>
<tr>
<td>3 moras</td>
<td>CV-CVVC-à(-o)</td>
<td>CVVC-íñ</td>
<td>3 moras</td>
</tr>
<tr>
<td>3 moras</td>
<td>CV-CVVCVC-í`</td>
<td>CVCV(C)-íñ</td>
<td>3 moras</td>
</tr>
</tbody>
</table>
With regard then to the Ik plurative II, it accords with the Turkana plurative -in both in etymology and it producing plural nouns with three moras. What Ik lacks in terms of a mora-supplying gender prefix (that Turkana has), it makes up for by preserving the fossilized singulative -it along with -in.

The table below presents a sample nouns with different syllable structures pluralized with {itini}. Recall that the statement about mora-counting applies only to the isolation forms of plural nouns (nominative case, final form). This is because in other cases and contexts, the number of moras a pluralized stem has varies. For example, the non-final ablative case form of ‘dogs’ is njokitini, which has a total of five moras instead of three.

(49) **Plurative II {itini} according to syllable type**

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCV-</td>
<td>aká</td>
</tr>
<tr>
<td></td>
<td>édi</td>
</tr>
<tr>
<td></td>
<td>oní</td>
</tr>
<tr>
<td>CVV-</td>
<td>daú</td>
</tr>
<tr>
<td></td>
<td>kíí</td>
</tr>
<tr>
<td></td>
<td>séí</td>
</tr>
<tr>
<td>CVCV-</td>
<td>baro</td>
</tr>
<tr>
<td></td>
<td>nébu</td>
</tr>
<tr>
<td></td>
<td>njila</td>
</tr>
</tbody>
</table>

**4.2.3 Plurative III**

The plurative III {ika} is a likely reflex of both the Proto-Southern-Nilotic plurative -ika (Rottland 1980) and the Teso-Turkana -à (Dimmendaal 1983:235). As a counterpart of {itini}, {ika} is used to pluralize polysyllabic noun roots (minus final vowel), producing a nominative-case plural form with three moras (see ex. 48 above). Beyond this, it is the required plurative when pluralization yields an output with four or more moras. Since a) most words borrowed into Ik come through Teso-Turkana
and b) many Teso-Turkana words are polymoraic, the plurative III is the plurative of choice for borrowed words and therefore the only fully productive plurative in the Ik language today. The following table offers an overview of the syllable types of nouns that the plurative III pluralizes:

<table>
<thead>
<tr>
<th>⟨-ika-⟩</th>
<th>Syllable Type</th>
<th>Singular</th>
<th>Plural</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCVC</td>
<td>aƙatí-</td>
<td>→</td>
<td>áƙát-ika</td>
<td>‘nostril(s)’</td>
</tr>
<tr>
<td></td>
<td>itúbá-</td>
<td>→</td>
<td>itúb-ika</td>
<td>‘trough(s)’</td>
</tr>
<tr>
<td></td>
<td>ofúrū-</td>
<td>→</td>
<td>ofúr-ika</td>
<td>‘pouch(es)’</td>
</tr>
<tr>
<td>CVC</td>
<td>gósoou-</td>
<td>→</td>
<td>góso-ika</td>
<td>‘mist(s)’</td>
</tr>
<tr>
<td></td>
<td>kófɔ́ɔ-</td>
<td>→</td>
<td>kófɔ́-ika</td>
<td>‘calabash(es)’</td>
</tr>
<tr>
<td></td>
<td>mutoú-</td>
<td>→</td>
<td>mutó-ika</td>
<td>‘needle(s)’</td>
</tr>
<tr>
<td>CVCVC</td>
<td>karatsi-</td>
<td>→</td>
<td>kárás-ika</td>
<td>‘stool(s)’</td>
</tr>
<tr>
<td></td>
<td>késen-</td>
<td>→</td>
<td>késén-ika</td>
<td>‘shield(s)’</td>
</tr>
<tr>
<td></td>
<td>tsúrúmú-</td>
<td>→</td>
<td>tsúrúm-ika</td>
<td>‘metal(s)’</td>
</tr>
<tr>
<td>CVCVCV</td>
<td>cícọroí-</td>
<td>→</td>
<td>cícọro-ika</td>
<td>‘boundary(ies)’</td>
</tr>
<tr>
<td></td>
<td>naseméé-</td>
<td>→</td>
<td>nasémé-ika</td>
<td>‘oblong gourd(s)’</td>
</tr>
<tr>
<td></td>
<td>nètsúpáá-</td>
<td>→</td>
<td>nètsúpa-ika</td>
<td>‘bottle(s)’</td>
</tr>
<tr>
<td>CVCVCVC</td>
<td>ɓoliɓoli-</td>
<td>→</td>
<td>ɓolíɓól-ika</td>
<td>‘goiter(s)’</td>
</tr>
<tr>
<td></td>
<td>ñaŋalúrá-</td>
<td>→</td>
<td>ñaŋalúr-ika</td>
<td>‘kidneys’</td>
</tr>
<tr>
<td></td>
<td>tsúbúlútí-</td>
<td>→</td>
<td>tsúbúlút-ika</td>
<td>‘plug(s)’</td>
</tr>
</tbody>
</table>

The plurative III is recessive in terms of vowel harmony, making /-ika-/ an allomorph on [+ATR] stems. In terms of tonal behavior, the plurative III exhibits both melodic template completion and replacive grammatical tone. For example, although the underlying tone of ⟨-ika-⟩ is LL, it becomes LH after a LHH noun, as when titíríé ‘forked pole’ → titíríka- in the plural. And as an example of replacive grammatical tone, the L-toned noun cemér- ‘herb’ is pluralized with ⟨-ika-⟩ to produce cemér-ika-. These and several other plurative III melodies are presented below in (51):
### Plurative III (-ika) according to tone melody

<table>
<thead>
<tr>
<th>#</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HH-L</td>
<td>HH-LL</td>
</tr>
<tr>
<td>6óbós-</td>
<td>6óbós-ika-</td>
<td>‘Terminalia perfume(s)’</td>
</tr>
<tr>
<td>lóstó-</td>
<td>lóstó-ika-</td>
<td>‘tobacco(s)’</td>
</tr>
<tr>
<td>2</td>
<td>HL-L</td>
<td>HL-LL</td>
</tr>
<tr>
<td>nátur-</td>
<td>nátur-ika-</td>
<td>‘flower(s)’</td>
</tr>
<tr>
<td>námáli-</td>
<td>námáli-ika-</td>
<td>‘bullet(s)’</td>
</tr>
<tr>
<td>3</td>
<td>HLL</td>
<td>HL-LL</td>
</tr>
<tr>
<td>kúbura-</td>
<td>kúbura-ika-</td>
<td>‘big container(s)’</td>
</tr>
<tr>
<td>gózo-</td>
<td>gózo-ika-</td>
<td>‘mist(s)’</td>
</tr>
<tr>
<td>4</td>
<td>LHH</td>
<td>LH-HL</td>
</tr>
<tr>
<td>iwótsí-</td>
<td>iwótsí-ika-</td>
<td>‘mortar(s)’</td>
</tr>
<tr>
<td>lókúdá-</td>
<td>lókúdá-ika-</td>
<td>‘small granary(ies)’</td>
</tr>
<tr>
<td>5</td>
<td>LHL</td>
<td>LH-L</td>
</tr>
<tr>
<td>tsakúde-</td>
<td>tsakúde-ika-</td>
<td>‘firestick(s)’</td>
</tr>
<tr>
<td>kólé-</td>
<td>kólé-ika-</td>
<td>‘elbow(s)’</td>
</tr>
<tr>
<td>6</td>
<td>LLH</td>
<td>HH-L</td>
</tr>
<tr>
<td>fiyokúmú-</td>
<td>fiyokúmú-ika-</td>
<td>‘neck(s)’</td>
</tr>
<tr>
<td>kúlpúkü-</td>
<td>kúlpúkü-ika-</td>
<td>‘pestle(s)’</td>
</tr>
<tr>
<td>7</td>
<td>LLH</td>
<td>HL-L</td>
</tr>
<tr>
<td>gúbesí-</td>
<td>gúbesí-ika-</td>
<td>‘thigh(s)’</td>
</tr>
<tr>
<td>sugúrá-</td>
<td>sugúrá-ika-</td>
<td>‘wind(s)’</td>
</tr>
<tr>
<td>8</td>
<td>LLL</td>
<td>LH-HL</td>
</tr>
<tr>
<td>cemér-</td>
<td>cemér-ika-</td>
<td>‘herb(s)’</td>
</tr>
<tr>
<td>tsorití-</td>
<td>tsorití-ika-</td>
<td>‘vein(s)’</td>
</tr>
<tr>
<td>9</td>
<td>LLL</td>
<td>HH-L</td>
</tr>
<tr>
<td>porótí-</td>
<td>porótí-ika-</td>
<td>‘bent stick-tool(s)’</td>
</tr>
<tr>
<td>jirákú-</td>
<td>jirákú-ika-</td>
<td>‘toy spear(s)’</td>
</tr>
<tr>
<td>10</td>
<td>LLL</td>
<td>HL-L</td>
</tr>
<tr>
<td>búbü-</td>
<td>búbü-ika-</td>
<td>‘belly(ies)’</td>
</tr>
<tr>
<td>kabada-</td>
<td>kabada-ika-</td>
<td>‘rag(s)’</td>
</tr>
</tbody>
</table>
Some exceptions occur as to the notion that {-ika-} pluralizes only nouns with more than two syllables in the base form. All the recorded exceptions are listed below. In a few of them, for example gwasá- ‘stone’, the semi-vowel /w/ is found, suggesting that in these cases /w/ is counted as one mora when the plural is selected based on mora-counting. In others like sédá- ‘garden’ and hoo- ‘hut’, the depressor consonants /d/ or /h/ may also be counted as moraic. In others, though, like kijá- ‘land’, there is no synchronic hint as to why it is pluralized as kijik instead of **kijítin.

(52) **Plurative III (ika) with bisyllabic noun roots**

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>awá-</td>
<td>áw-ika-</td>
<td>‘home(s)’</td>
</tr>
<tr>
<td>gwasá-</td>
<td>gwas-ika-</td>
<td>‘stone(s)’</td>
</tr>
<tr>
<td>hoo-</td>
<td>ho-ika-</td>
<td>‘hut(s)’</td>
</tr>
<tr>
<td>kijá-</td>
<td>kij-ika-</td>
<td>‘land(s)’</td>
</tr>
<tr>
<td>kwará-</td>
<td>kwar-ika-</td>
<td>‘mountain(s)’</td>
</tr>
<tr>
<td>kwaza-</td>
<td>kwáz-ika-</td>
<td>‘item(s) of clothing’</td>
</tr>
<tr>
<td>kwetá-</td>
<td>kwet-ika-</td>
<td>‘arm(s)’</td>
</tr>
<tr>
<td>rijá-</td>
<td>rij-ika-</td>
<td>‘forest(s)’</td>
</tr>
<tr>
<td>séda-</td>
<td>séd-ika-</td>
<td>‘garden(s)’</td>
</tr>
</tbody>
</table>

4.2.4 **Suppletive plurals**

A handful of Ik plural nouns must be analyzed as suppletive in synchronic Ik grammar because the singular and plural terms are not derived from each other in any productive way. In the first, third, and fourth rows of (53), each term in the pair is unrelated to the other in any recognizable fashion. However, the second and fifth pairs suggest the following explanations: 1) The plural form of cekí- ‘woman’—cikámá—seems to have been formed historically by a plurative parallel to the Dhaasanac plurative -ia(a)m (Tosco 2001:83). And 2) the relationship between kürōbádi- ‘thing’ and kürūbádi- ‘things’ is a kind of ablaut found elsewhere in the grammar only between the singular demonstrative pronoun dí- and the plural dī- (see §5.5).
(53) Ik suppletive plural nouns

<table>
<thead>
<tr>
<th>Ik noun</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ámá-</td>
<td>‘person’</td>
</tr>
<tr>
<td>cekí-</td>
<td>‘woman’</td>
</tr>
<tr>
<td>ēakwá-</td>
<td>‘man’</td>
</tr>
<tr>
<td>imá-</td>
<td>‘child’</td>
</tr>
<tr>
<td>kɔ́rɔ́ɓádɪ-</td>
<td>‘thing’</td>
</tr>
<tr>
<td>roɓa-</td>
<td>‘people’</td>
</tr>
<tr>
<td>cɪkámá-</td>
<td>‘women’</td>
</tr>
<tr>
<td>ɲɔtɔ́-</td>
<td>‘men’</td>
</tr>
<tr>
<td>wicé-</td>
<td>‘children’</td>
</tr>
<tr>
<td>kúrúɓádi-</td>
<td>‘things’</td>
</tr>
</tbody>
</table>

4.2.5 Possessive plurative

The Ik possessive plurative {6ɪnɪ6} may be a parallel of the Teso-Turkana plurative -in (Dimmendaal 1983:225). It is the plurative operating under Strategy 2 introduced in (44) above, with {ɛdɛ6} as its singulative counterpart (see next section). The possessive plurative fuses plurality and possession into one morpheme. As a plurative, {6ɪnɪ6} pluralizes the stem to which it attaches, not the implied possessing entity. That entity can be singular or plural. For example, the word akéɪn can mean either a) ‘its den entrances’ or b) ‘their den entrances’. And since {6ɪnɪ6} is a marker of possession, ak-ɪn cannot simply mean ‘den entrances’ but rather ‘den entrances’ associated with some person, or in this case, some animal.

Although it connotes plurality, {6ɪnɪ6} alone cannot pluralize just any noun. Nouns that are pluralized by {6ɪka} must retain that suffix before the possessive plurative is added. For example, the word meaning ‘its branches’ must appear as kwɛt-ɪk-ɪn not **kwɛt-ɪn. But nouns that are pluralized with {6ɪ́tɪ́nɪ́6} must first drop that suffix before the possessive plurative is added. This seems to stem from a prohibition against having the morpheme {6ɪnɪ6} occurring twice in the same word. For example, the word meaning ‘their den entrances’ must appear as ak-ɪn rather than **ak-ɪtɪn-ɪn.

The possessive plurative is only semi-productive in that it pluralizes nouns restricted to certain semantically specified sets. These include schemas of inalienable possession like 1) whole-part relationships (e.g. body parts, 2)
kinship (blood and marriage relations), and 3) associated persons or things.

Examples of {-ini-} encoding a whole-part relationship include:

(54) **Possessive plurative and a whole-part relationship**

| ak-in     | ‘its/their openings’ |
| ekw-in    | ‘its/their seeds (lit. ‘eyes’) |
| ik-in     | ‘their heads’ |
| jir-in    | ‘its/their remainders’ |
| kwa-in    | ‘its/their edges’ |

And examples of {-ini-} encoding kinship relations include:

(55) **Possessive plurative and kinship relations**

| abáñ-in  | ‘my paternal uncles’ |
| momó-in  | ‘my maternal uncles’ |
| ŋgó-ím-in| ‘our siblings’ |
| táta-in  | ‘my paternal aunts’ |
| wik-in   | ‘his/her/their children’ |

And lastly, below are some examples of {-ini-} encoding associated persons.

When the possessive plurative is used to pluralize terms of associated people, it is usually translated as ‘those of X’ in Ugandan colloquial English, since there is no British or American equivalent. Other possible translation options include ‘X’s people’ or ‘those associated with X’:

(56) **Possessive plurative and associated persons**

| Ámɓa-in  | ‘those of Amber’ |
| Lomerí-in| ‘those of Lomeri’ |
| Lotsul-in | ‘those of Lochul’ |
| Nacwɛ́ɲ-in | ‘those of Nacweny’ |
| Tekó-in  | ‘those of Teko’ |
On the side of vowel harmony, the possessive plural is recessive, making /-ini-/ an allomorph on [+ATR] stems. The tone melodies it produces with noun stems are summarized in (57):

(57) **Possessive plural {-ini-} according to tone melody**

<table>
<thead>
<tr>
<th>#</th>
<th>Singular</th>
<th>Plural</th>
<th>Tone Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LH</td>
<td>L-LH</td>
<td>‘their heads’</td>
</tr>
<tr>
<td></td>
<td>iká-</td>
<td>ik-iní-</td>
<td>‘his/her/their children’</td>
</tr>
<tr>
<td></td>
<td>wicé-</td>
<td>wik-iní-</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>LL</td>
<td>H-HL</td>
<td>‘its/their rays/spots’</td>
</tr>
<tr>
<td></td>
<td>basa-</td>
<td>bás-íni-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>suwa-</td>
<td>sów-íni-</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>LHL</td>
<td>L-H-LL</td>
<td>‘its/their barbs’</td>
</tr>
<tr>
<td></td>
<td>leúzo-</td>
<td>leúz-iní-</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>LHL</td>
<td>L-H-HH</td>
<td>‘my fathers’</td>
</tr>
<tr>
<td></td>
<td>abáŋţi-</td>
<td>abáŋ-íni-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>tekóo-</td>
<td>tekó-íni-</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>LLH</td>
<td>H-L-LL</td>
<td>‘its/their flour’</td>
</tr>
<tr>
<td></td>
<td>kabasá-</td>
<td>kábas-íni-</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>HLL</td>
<td>H-L-HH</td>
<td>‘my paternal aunts’</td>
</tr>
<tr>
<td></td>
<td>tátaa-</td>
<td>táta-íni-</td>
<td></td>
</tr>
</tbody>
</table>

### 4.2.6 Possessive singulative

The possessive singulative {-edɛ-} has Cushitic parallels in Dhaasanac -êt, Somali eed, and Somali/Arbore -et’—all of which are related to possession (Tosco 2001:97). Like its plurative counterpart, the possessive singulative fuses singularity and possession into one morpheme. Its singularizes the stem to which it attaches and encodes the notion that the stem is associated with some entity. That entity may be singular or plural. For example, the word ak-ɛdɛ can mean either a) ‘its den entrance’ or b) ‘their den entrance’.
Also like the possessive pluralive, {-ɛdɛ-} is used to express a) whole-part relationships and b) relationships of association. Kinship relations are not as commonly encoded by {-ɛdɛ-} as they are with {-ɪm}, but some forms are found, for example ɗeƙ-ɛdᵃ ‘small child’ and jągw-ɛdᵃ ‘his/her/their daughter’. In the whole-part semantic schema, the {-ɛdɛ-} is often used in relational nouns (§4.3.8), for example in gwariɛda hoⁿ ‘the top of the house’.

(58) **Possessive singulative and semantic schemas**

<table>
<thead>
<tr>
<th>Whole-Part</th>
<th>Association</th>
</tr>
</thead>
<tbody>
<tr>
<td>áƙw-ɛdᵃ ‘its inner part’</td>
<td>ám-ɛdᵃ ‘its/their owner’</td>
</tr>
<tr>
<td>deɛdᵃ ‘its base (lit. ‘foot’’)</td>
<td>kiʝ-ɛdᵃ ‘his/her/their land (i.e. nationality)’</td>
</tr>
<tr>
<td>ik-ɛdᵃ ‘its head’</td>
<td>legɛ-ɛdᵃ ‘his/her madness (mental illness)’</td>
</tr>
<tr>
<td>kan-ɛdᵃ ‘its back (part)’</td>
<td>mucɛ-ɛdᵃ ‘its/their trail (animal tracks)’</td>
</tr>
<tr>
<td>kάts-ɛdᵃ ‘its front part’</td>
<td>tanɛɛ-ɛdᵃ ‘its/their companion’</td>
</tr>
</tbody>
</table>

The possessive singulative is recessive in terms of vowel harmony, making /-ɛdɛ-/ an allomorph on a [+ATR] stem. Tonally, it undergoes melodic template completion, for example when its LL melody changes to HL in áƙw-ɛdɛé ‘inside it’. It may also replace tones, as in nákáf-ɛdɛé ‘its point’:

(59) **Possessive singulative {-ɛdɛ} according to tone melody**

<table>
<thead>
<tr>
<th>#</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HH</td>
<td>H-HL</td>
</tr>
<tr>
<td></td>
<td>kijá-</td>
<td>kij-ɛd-</td>
</tr>
<tr>
<td>2</td>
<td>HL</td>
<td>H-LL</td>
</tr>
<tr>
<td></td>
<td>šza-</td>
<td>šz-ɛd-</td>
</tr>
</tbody>
</table>
The second singulative to be discussed is {-Vma-} and is called the ‘human singulative’ because it is found only with nouns referring to humans (Heine & König 1996:20). It seems to be related etymologically to the agentive (§4.3.4) and the patientive suffix (§7.2.4), both of which likely originate in the noun root ámbá- ‘person’. The first vowel in {-Vma-} is usually /a/ but can also be /ɔ/ when immediately preceded by /ɔ/. The human singulative singularizes bare plural nouns like these four in (60):
(60) **Human singulative {éVmaé}**

<table>
<thead>
<tr>
<th>Plural</th>
<th>Singular</th>
</tr>
</thead>
<tbody>
<tr>
<td>jáká- 'elders'</td>
<td>ják-áma- 'elder'</td>
</tr>
<tr>
<td>kéa- 'soldiers'</td>
<td>ké-ama- 'soldier'</td>
</tr>
<tr>
<td>læjstá- 'enemies'</td>
<td>læjst-šma- 'enemy'</td>
</tr>
<tr>
<td>ŋímɔ́kɔ́kaá- 'young men'</td>
<td>ŋímɔ́kɔká-áma- 'young men'</td>
</tr>
</tbody>
</table>

Because underived plural counterparts exist for the singularized forms in (60), the human singulative is treated as a synchronic morpheme. However, -Vma- sequences like this suffix are found on a number of nouns in the Ik for which basic plural forms have not been found. It seems probable, then, that this singulative has also been lexicalized in nouns like the following:

(61) **{-Vma-} as a frozen suffix**

<table>
<thead>
<tr>
<th>Noun</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>łoçgɔma-</td>
<td>‘grass sp.’</td>
</tr>
<tr>
<td>ɲékútama-</td>
<td>‘leather oil container’</td>
</tr>
<tr>
<td>ɲénamá-</td>
<td>‘cartilage’</td>
</tr>
<tr>
<td>rutúduma-</td>
<td>‘pigeon’</td>
</tr>
<tr>
<td>sakámá-</td>
<td>‘liver’</td>
</tr>
<tr>
<td>tatanáma-</td>
<td>‘what’s-his-name’</td>
</tr>
<tr>
<td>ts'ɔkɔ́má-</td>
<td>‘Sclerocarya birrea tree’</td>
</tr>
<tr>
<td>ts'ʊgʊramá-</td>
<td>‘medicinal tree sp.’</td>
</tr>
<tr>
<td>ugwamá-</td>
<td>‘sibling-in-law’</td>
</tr>
</tbody>
</table>

4.2.8 **Non-countable mass nouns**

A further subset of Ik nouns are singular in form but lexically specified as plural. They are interpreted as plural by any plural modifiers that may accompany them. These are non-countable mass nouns that include liquids, powders, and other particulate elements. Some of the more commonly heard non-countable mass nouns include the following, where the plural demonstrative {=ni} indicates that the grammar treats them as plural:
4.2.9 General number nouns

Lastly, many Ik nouns naming things in the natural world, like plants, birds, and animals, fall under the category of general number nouns. That is, they are not specified for a numeric value in the lexicon. They can be used either as singular or plural and then take the appropriate modifiers for either number. In the following data set, three representative general number nouns are given with both singular and plural non-past demonstratives:

<table>
<thead>
<tr>
<th>General number nouns</th>
<th>Plural { = ni }</th>
<th>Sing. { = na }</th>
</tr>
</thead>
<tbody>
<tr>
<td>áts'á = na</td>
<td>‘this Sycamore fig tree’</td>
<td></td>
</tr>
<tr>
<td>áts'á = ni</td>
<td>‘these Sycamore fig trees’</td>
<td></td>
</tr>
<tr>
<td>bìba = na</td>
<td>‘this egg’</td>
<td></td>
</tr>
<tr>
<td>bìba = ni</td>
<td>‘these eggs’</td>
<td></td>
</tr>
<tr>
<td>gwa = na</td>
<td>‘this bird’</td>
<td></td>
</tr>
<tr>
<td>gwa = ni</td>
<td>‘these birds’</td>
<td></td>
</tr>
</tbody>
</table>

Such number neutrality on nouns is characteristic of Cushitic languages (Mous 2012:361) and may reflect their ancient influence on Ik.
4.3 Compounds

Besides the number-marking suffixes described in §4.2 and the case suffixes described in §6.2, Ik has no other nominal affixes in the strict sense. The grammar compensates for this relative dearth of nominal morphology by making extensive use of compounds. The analytical division between suffixes and the second (or final of three) term in a compound (N\textsubscript{2}) is made on the basis of the following points: 1) A suffix subtracts the stem-final vowel, while the N\textsubscript{2} does not. 2) A suffix may (and often does) cause tonal changes on the stem, while the N\textsubscript{2} never does. An exception to the suffix-N\textsubscript{2} distinction is found in those case suffixes that preserve the root-final vowel, thereby violating point (1) above. However, those same case suffixes do not cause tonal changes on the root (see §6.2). As discussed in §6.2.2, the case suffixes may in fact be eroded N\textsubscript{2} postpositions, now representing perhaps an intermediary point between an N\textsubscript{2} and a suffix.

And so the division drawn in this chapter on nouns between suffixated nouns (§4.2) and compounds (§4.3) is structural rather than semantic. Some semantic notions straddle the suffix-N\textsubscript{2} division. For example, plurality is encoded both by the plurative suffixes described in §4.2 and the plurative compound constructions described in this section. The semantic notions of diminutiveness and agentiveness, as two further examples, are encoded by compounds whose N\textsubscript{2} are the words for ‘child/children’ and ‘person/Ik’, respectively. But it is difficult to tell whether and to what degree the diminutive ‘child’ is being grammaticalized since it also exists as a free lexeme on its own. That is why, instead of treating the diminutive as a suffix on the basis of possible grammaticalization, it and other constructions like it are all handled in this chapter devoted to compounds, formally defined.

4.3.1 Formal properties

As a noun-building strategy, Ik compounding involves joining two or more (pro)nominal elements together in an associative construction with special formal and semantic characteristics. The formal characteristics include the
following: 1) a phonological word profile with inter-nominal vowel harmony, 2) a tone melody applying over the whole compound rather than its individual elements, 2) a reversed word order—modifier before head—where head before modifier is the norm elsewhere, and 3) a unique case marking whereby the first noun ($N_1$) take the oblique case and the second noun ($N_2$) takes whatever case the syntax requires for the whole compound. These formal features show that the construction cannot be called mere ‘juxtaposition’ as it has been in the literature (e.g. Heine & König 1996:35).

The first formal property of compounds to be discussed is vowel harmony. A compound comprises a phonological word which, by definition, allows a degree of vowel harmony (see §3.1.7). The domain of vowel harmony in Ik compounds is across the boundary between $N_1$ and $N_2$. If the first segment of $N_2$ is the [+ATR] vowel /i/, then it can harmonize the last vowel (if CV-) or the last two vowels (if CVV-) of the $N_1$. This is a surface level condition and so is not represented elsewhere in the grammar unless particularly relevant:

\[
\begin{array}{|c|c|c|}
\hline
& \text{Lexical} & \text{Post-lexical} \\
\hline
\text{ŋjítúní-wik} & \{\text{ŋjítúní-wik]\} & \text{‘small sores’} \\
\text{kɔʃɔ̃-im} & \{\text{kɔʃɔ̃-i\m̥]\} & \text{‘small gourd’} \\
\text{ɲɔkɔkɔrɔ̃-im} & \{\text{ɲɔkɔkɔrɔ̃-i\m̥]\} & \text{‘chick’} \\
\hline
\end{array}
\]

Secondly, when two (pro)nominial elements are linked up in a compound, the compound as a whole takes on its own tone melody. Compound-induced tone changes are an instance of melodic template completion: A compound’s melody is determined by the tone melody of the $N_1$ and the changes its effects on the tone of the $N_2$. Some of the different composite melodies that arise in compounds are exemplified in the following tables.

First, when the $N_1$ is a bisyllabic noun with a HH melody, any bisyllabic nouns it takes as its $N_2$ will have a LL melody, regardless of its input melody (HH, LH, LL, etc.). This is evidence of a HH-LL tonal template:
(65) *Compound tone melodies with a HH N₁ melody*

<table>
<thead>
<tr>
<th>N₁</th>
<th>N₂</th>
<th>Compound</th>
</tr>
</thead>
<tbody>
<tr>
<td>HH</td>
<td>HH</td>
<td>→ HH-LL</td>
</tr>
<tr>
<td>ínó- ‘animal’</td>
<td>síts’á- ‘hair’</td>
<td>→ ínó-síts’a- ‘fur’</td>
</tr>
<tr>
<td>ŋókí- ‘dog’</td>
<td>tsútsá- ‘fly’</td>
<td>→ ŋókí-tsutsa- ‘dog-fly’</td>
</tr>
<tr>
<td>HH</td>
<td>LH</td>
<td>→ HH-LL</td>
</tr>
<tr>
<td>kijá- ‘earth’</td>
<td>imá- ‘child’</td>
<td>→ kijá-imá- ‘fairy’</td>
</tr>
<tr>
<td>ŋókí- ‘dog’</td>
<td>ets’i- ‘feces’</td>
<td>→ ŋókí-ets’i- ‘ear-wax’</td>
</tr>
<tr>
<td>HH</td>
<td>LL</td>
<td>→ HH-LL</td>
</tr>
<tr>
<td>ínó- ‘animal’</td>
<td>kwaza- ‘clothing’</td>
<td>→ ínó-kwaza- ‘leather’</td>
</tr>
<tr>
<td>dáŋá- ‘white-ant’</td>
<td>kitsa- ‘heap’</td>
<td>→ dáŋá-kitsa- ‘ant-hill’</td>
</tr>
</tbody>
</table>

Second, when the N₁ is a bisyllabic noun with a LH melody, any bisyllabic nouns it takes as its N₂ will also have a HL melody, regardless of its input melody (HH, LH, LL, etc.). This is evidence of a LH-HL tonal template:

(66) *Compound tone melodies with a LH N₁ melody*

<table>
<thead>
<tr>
<th>N₁</th>
<th>N₂</th>
<th>Compound</th>
</tr>
</thead>
<tbody>
<tr>
<td>LH</td>
<td>HH</td>
<td>→ LH-HL</td>
</tr>
<tr>
<td>aká- ‘mouth’</td>
<td>ámá- ‘person’</td>
<td>→ aká-áma- ‘talker’</td>
</tr>
<tr>
<td>ekú- ‘eye’</td>
<td>síts’á- ‘hair’</td>
<td>→ ekú-síts’a- ‘eyelash’</td>
</tr>
<tr>
<td>LH</td>
<td>LH</td>
<td>→ LH-HL</td>
</tr>
<tr>
<td>dakú- ‘tree’</td>
<td>kwétá- ‘arm’</td>
<td>→ dakú-kwétá- ‘branch’</td>
</tr>
<tr>
<td>fetí- ‘sun’</td>
<td>ekú- ‘eye’</td>
<td>→ fetí-éku- ‘East’</td>
</tr>
<tr>
<td>LH</td>
<td>LL</td>
<td>→ LH-HL</td>
</tr>
<tr>
<td>dikwá- ‘dance’</td>
<td>hoo- ‘house’</td>
<td>→ dikwá-hoo- ‘dance hall’</td>
</tr>
<tr>
<td>icé- ‘Iñ’</td>
<td>hoo- ‘house’</td>
<td>→ icé-hoo- ‘Iñ house’</td>
</tr>
</tbody>
</table>

Third, when the N₁ is a bisyllabic noun with a LL melody, any bisyllabic nouns it takes as its N₂ will also have a LL melody, regardless of its input melody (HH, LH, LL, etc.). This is evidence of a LL-LL tonal template:
Lastly, when the \(N_1\) is a bisyllabic noun with a HL(L) melody, any bisyllabic nouns it takes as its \(N_2\) will have a LL melody, regardless of its input melody (HH, LH, LL, etc.). This is evidence of a HL-LL tonal template:

\[
\begin{array}{ccc}
\text{Compound tone melodies with a } \text{HL(L)} N_1 \text{ melody} \\
\hline
N_1 & N_2 & \text{Compound} \\
\hline
\text{HLL} & \text{HH} & \rightarrow \text{HL-LL} \\
\text{dóóoo- ‘sheep’} & \text{síts’á- ‘hair’} & \rightarrow \text{dóó-síts’a- ‘wool’} \\
\text{HLL} & \text{LH} & \rightarrow \text{HL-LL} \\
\text{dóóoo- ‘sheep’} & \text{imá- ‘child’} & \rightarrow \text{dóó-imá-} \\
\text{HLL} & \text{LL} & \rightarrow \text{HL-LL} \\
\text{dóóoo- ‘sheep’} & \text{kwaza- ‘cloth’} & \rightarrow \text{dóó-kwaza- ‘wool cloth’} \\
\end{array}
\]

The data shown above are only representative of a vast array of melodic combinations found in compounds. For a more detailed (but ultimately problematic) discussion of compound tone changes, see Schrock 2011a.

Moving on to compound structure: Compounds reverse the normal noun phrase word order in which modifiers follow the heads they modify. In compounds, the modifier appears as \(N_1\) followed by the head as the \(N_2\).
Take the compound in (69), for instance, where the noun *dakú*—*tree* is used as the modifying N\(_1\). Then compare the word order of the compound with that of a normal noun phrase having the same meaning:

<table>
<thead>
<tr>
<th>Compound versus noun phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>dakú(<em>{MOD})–bù lá(</em>{HEAD})</td>
</tr>
<tr>
<td>tree–shin: NOM</td>
</tr>
<tr>
<td>‘tree trunk’</td>
</tr>
</tbody>
</table>

As a third structural feature, compounds involve a special case marking: The N\(_1\) takes the oblique case while the N\(_2\) takes whatever case the syntax requires for the whole construction. In the oblique case, the form of the N\(_1\) is usually an exact representation of its underlying lexical form. An exception to this statement is that a noun ending in a VV sequence will lose its final vowel when joined to another noun in a compound. In the following examples, the noun *bubuu*—*belly* is compounded with *aƙɔ́*—*interior*. Observe that the final vowel of *bubuu* is lost and that only the case of the N\(_2\), *aƙɔ́*, changes with different clausal argument structures:

(70) **Doda bubuaƙw.**
    dód-a bubu-aƙɔ́-\( ^a \)
    hurt-REAL belly[obl]-interior-NOM
    (My) inner belly hurts.

(71) **Iya bubuaƙok.**
    i-á bubu-aƙɔ́-k\( ^e \)
    be-REAL belly[obl]-interior-DAT
    ‘It’s inside the belly.’

As a fourth structural feature, almost all Ik compounds are endocentric: The N\(_2\) is always in the same grammatical category as the compound as a whole. This is true of its word class (nominal) as well as its syntactic function. That is, the morpho-syntactic function of the N\(_2\) in a compound is always the
same as that of the whole compound. The $N_1$, however, can be a pronoun, noun, or an even a verb (in a special form), for example:

(72) **Word class of compound $N_1$**

<table>
<thead>
<tr>
<th>Word class</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pronoun</td>
<td>ɲ́ci-ƙʊlɛ́</td>
<td>‘my elbow’</td>
</tr>
<tr>
<td>Noun</td>
<td>tsɔ́rá-ƙʊlɛ</td>
<td>‘baboon’s elbow’</td>
</tr>
<tr>
<td>Verb</td>
<td>takani-ƙʊlɛ́</td>
<td>‘Appearing-Elbow (place name)’</td>
</tr>
</tbody>
</table>

Two exceptional exocentric compounds are ámá-ze ‘big person (i.e. one in charge)’ and roɓa-zeık ‘big people (ones in charge)’. The $N_2$ of these compounds is the verb ze- ‘be big’, the -ık in zeık is the adjectival plural suffix (§7.10.5). These lexical compound are so rare it is believed they are calques of the Teso-Turkana ‘positioner’ nouns ɛ́kápólóni̥ ‘big person’ and ɲɪ́kápólók ‘big people’ (e.g. in Dimmendaal 1983:274-276). The Ik calque of ɛ́ká-pöl-óni̥ ‘big person’ has another instantiation as ámá-ze-ám, a tri-nominal compound with the structure PERSON-BIG-PERSON. This seems to be an even more direct, structurally identical, calque of the Teso-Turkana equivalent.

As a fifth structural feature, each term in an Ik compound can be pluralized. Semantics, though, may restrict which nouns this may apply to. For example, there are no recorded examples of a plural $N_1$ modifying a singular $N_2$. Otherwise, the first, second, or both compounded nouns are pluralized with the same pluratives they have in non-compounded environments:

(73) **Pluralization of compound nouns**

<table>
<thead>
<tr>
<th>Type</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG-SG</td>
<td>dakú-kwét*</td>
<td>‘branch (tree-arm)’</td>
</tr>
<tr>
<td>SG-PL</td>
<td>dakú-kwétik*</td>
<td>‘branches (tree-arms)’</td>
</tr>
<tr>
<td>PL-PL</td>
<td>dakwitini-kwétik*</td>
<td>‘branches (tree-arms)’</td>
</tr>
<tr>
<td>**PL-SG</td>
<td>*<em>dakwitini-kwet</em></td>
<td>‘branch (trees-arm)’</td>
</tr>
</tbody>
</table>
4.3.2 Semantic properties

Compounds also have special semantic properties. The combined meaning of the two compounded elements is either 1) more specific or 2) completely different than the meanings of the individual constituents. For example, the compound *icé-ám* ‘Ik person’ narrows the reference of the compound head *ám* ‘person’. And the fact that the compound *fâdi-gur* ‘bitter-heart’ refers to a type of pungent grass species is not automatically known from the meanings of the two component parts.

These semantic properties predispose Ik compounds to further semantic developments. For example, their ability to narrow the reference of the compound head has lead to the (partial?) grammaticalization of *imá-* ‘child’ and *wicé-* ‘children’ into diminutive markers (§4.3.3), as well as the grammaticalization of *ámá-* ‘person’ and *icé-* ‘Ik/people’ into agentive markers (§4.3.4). And with a subset of compound heads, compounding has also lead to several locative expressions used as general place names, to the gender specification of birds and animals, and to whole-part relationships including body parts and their semantic extension as relational nouns.

A limited subset of compound heads with locative meanings is used for general place names. These nouns, like *akó-* ‘interior’, *awá-* ‘home/place’, and *hoo-* ‘hut’, function like postpositions or even incipient case markers (indeed some Ik case markers may have arisen from compound heads or postpositions; see §6.4). Examples include the following:

<table>
<thead>
<tr>
<th>Compound common place names</th>
<th>Meaning (lit.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>aŋarasá-ákw³</td>
<td>gravelly area (‘gravel-interior’)</td>
</tr>
<tr>
<td>awá-ákw³</td>
<td>compound/yard (‘home-interior’)</td>
</tr>
<tr>
<td>dzígw-aw³</td>
<td>market (‘commerce-home’)</td>
</tr>
<tr>
<td>girésí-aw³</td>
<td>storage place (‘storing-home’)</td>
</tr>
<tr>
<td>wáána-ho</td>
<td>church (‘prayer-hut’)</td>
</tr>
</tbody>
</table>
Another subset of compound heads act to specify the gender of birds and animals. These include words like cikó- ‘male’, ɲwaá- ‘female’, and others:

(75) **Compound gender specifications**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Meaning</th>
<th>Literal Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>dide-cürük¹</td>
<td>‘male donkey’</td>
<td>(lit. ‘donkey-bull’)</td>
</tr>
<tr>
<td>dide-ɲwa</td>
<td>‘female donkey’</td>
<td>(lit. ‘donkey-female’)</td>
</tr>
<tr>
<td>dide-waz</td>
<td>‘young female donkey’</td>
<td>(lit. ‘donkey-young fem.’)</td>
</tr>
<tr>
<td>ɲóki-cikw²</td>
<td>‘male dog’</td>
<td>(lit. ‘dog-male’)</td>
</tr>
<tr>
<td>ɲóki-ɲwa</td>
<td>‘female dog’</td>
<td>(lit. ‘dog-female’)</td>
</tr>
</tbody>
</table>

Single body part terms can be combined with other body part terms or other nouns to create compounds with more specific anatomical references:

(76) **Compound anatomical specifications**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Meaning</th>
<th>Literal Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>aká-kwáɛⁿ</td>
<td>‘lip’</td>
<td>(lit. ‘mouth-tooth’)</td>
</tr>
<tr>
<td>dcá-mórók²</td>
<td>‘ankle’</td>
<td>(lit. ‘leg-throat’)</td>
</tr>
<tr>
<td>ekú-sits⁹</td>
<td>‘eyelash, eyebrow’</td>
<td>(lit. ‘eye-hair’)</td>
</tr>
<tr>
<td>gubesí-ɔk²</td>
<td>‘thighbone’</td>
<td>(lit. ‘thigh-bone’)</td>
</tr>
<tr>
<td>sea-mucé</td>
<td>‘blood vessel’</td>
<td>(lit. ‘blood-path’)</td>
</tr>
</tbody>
</table>

Some body part terms are also used extensively in compounds as whole-part locative expressions often called ‘relational nouns’ (e.g. in König 2002:73-75). These relational nouns are dealt with further below in §4.3.8.

The ability of compounds to express meanings greater or different than that of the sum of their parts has made possible 1) creative coinages for newly-encountered technologies, 2) the lexicalization of names for things like plants and animals, and 3) colorful idiomaticization.

As a productive word-building strategy, compounding is often used to coin new terms for new technology. For example, a tripod is called leweɲí-ɛdɛ ‘ostrich-foot’ due to its three-pronged structure. A small vehicle is colloquially called kae-im or ‘little tortoise’. And several modern tools like
pliers and prongs are given the colorful title tilokotsi-ak ‘hornbill-beak’. In a reverse process, sometimes newly borrowed words replace older compounds, for example námaket ‘market’ in place of dzígw-aw.

A fair number of plant and place names are made up of compounds. Though these compounds have been lexicalized, presumably in the past they were coinages with meanings referencing the meanings of each of the two compounded elements. Some examples include:

(77) **Compound plant names**

<table>
<thead>
<tr>
<th>Name</th>
<th>Plant Name</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>befá-cémér</td>
<td><em>Cissus rhodesiae</em></td>
<td>(lit. ‘puff adder-herb’)</td>
</tr>
<tr>
<td>dide-ŋam</td>
<td>‘sorghum var.’</td>
<td>(lit. ‘donkey-sorghum’)</td>
</tr>
<tr>
<td>fadí-qur</td>
<td><em>Fadigura</em></td>
<td>(lit. ‘bitter-heart’)</td>
</tr>
<tr>
<td>gasara-kwats</td>
<td><em>Plectranthus sp.</em></td>
<td>(lit. ‘buffalo-urine’)</td>
</tr>
<tr>
<td>kulaɓá-kák</td>
<td><em>Fuerstia africana</em></td>
<td>(lit. ‘bushbuck-leaf’)</td>
</tr>
</tbody>
</table>

(78) **Compound place names**

<table>
<thead>
<tr>
<th>Name</th>
<th>Place Name</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>caalí-im</td>
<td>‘Little Hearthstone’</td>
<td>(lit. ‘hearthstone-child’)</td>
</tr>
<tr>
<td>icé-kíja</td>
<td>‘Ikland’</td>
<td>(lit. ‘Ik-land’)</td>
</tr>
<tr>
<td>lera-afw</td>
<td>‘Among White Thorns’</td>
<td>(lit. ‘Whitethorn-inside’)</td>
</tr>
<tr>
<td>ogori-aw</td>
<td>‘Elephant Place’</td>
<td>(lit. ‘elephant-home’)</td>
</tr>
<tr>
<td>takani-kolé</td>
<td>‘Appearing Elbow’</td>
<td>(lit. ‘appears-elbow’)</td>
</tr>
</tbody>
</table>

Lastly, some compounds take on the status as idioms once they are repeatedly used in creative, colorful ways. Here are a few examples:

(79) **Compound idioms**

<table>
<thead>
<tr>
<th>Name</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>díba-am</td>
<td>‘Turkana person’</td>
</tr>
<tr>
<td>dide-kwats</td>
<td>‘beer’</td>
</tr>
<tr>
<td>kae-taƙá</td>
<td>‘rubber tire shoe’</td>
</tr>
<tr>
<td>lokú-ák</td>
<td>‘beer drinking’</td>
</tr>
<tr>
<td>loukú-ɛts</td>
<td>‘ancestor’</td>
</tr>
</tbody>
</table>
4.3.3 Diminutive

The nouns *imá*—‘child’ and *wicé*—‘children’ may convey the notion of diminutiveness when acting as the head (N₂) of a compound. But the degree to which these nouns have been grammaticalized as diminutive suffixes is difficult to ascertain. They can have both a grammaticalized diminutive sense, as in *ŋókí-im* ‘puppy (dog-child)’ or a normal lexical sense, as in *ɛdɛ́-im* ‘my brother’s child’—not ‘my little brother’. Examples of the semi-grammaticalized usage of these suffixes include the following:

(80) **Diminutive entities**

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>baro-imá-</td>
<td>bárítíni-wicé-</td>
<td>‘small herd(s)’</td>
</tr>
<tr>
<td>emútí-imá-</td>
<td>emútíka-wicé-</td>
<td>‘little story(ies)’</td>
</tr>
<tr>
<td>ké₇-dí-imá-</td>
<td>—</td>
<td>‘a little bit’</td>
</tr>
<tr>
<td>kɔfɔ́-imá-</td>
<td>kɔfɔ́ści-wicé-</td>
<td>‘small gourd(s)’</td>
</tr>
<tr>
<td>ɔ́ʝá-imá-</td>
<td>ɔ́ʝíti-ni-wicé-</td>
<td>‘small sore(s)’</td>
</tr>
</tbody>
</table>

When compounded with terms for birds and animals, *imá*—‘child’ or *wicé*—‘children’ convey a sense somewhere between grammatical dimunitiveness and the lexical meaning of young offspring:

(81) **Diminutive animals**

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>boroku-imá-</td>
<td>boroku-wicé-</td>
<td>‘bush-piglet(s)’</td>
</tr>
<tr>
<td>dide-imá-</td>
<td>dide-wicé-</td>
<td>‘donkey colt(s)’</td>
</tr>
<tr>
<td>dōɗo-imá-</td>
<td>dōɗo-wicé-</td>
<td>‘lamb(s)’</td>
</tr>
<tr>
<td>nɔ́kɔkɔ́r₅-ima-</td>
<td>nɔ́kɔkɔ́r₅-wicé-</td>
<td>‘chick(s)’</td>
</tr>
<tr>
<td>ŋɔ́kí-imá-</td>
<td>ŋɔ́kítíni-wicé-</td>
<td>‘puppy(ies)’</td>
</tr>
</tbody>
</table>

Some compounds containing *imá*—‘child’ or *wicé*—‘children’ as their head have been lexicalized as names for types of people or spirits, for example:
### Diminutive animate beings

<table>
<thead>
<tr>
<th>Name</th>
<th>Translation</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>dùné-im</td>
<td>'old woman'</td>
<td>(lit. 'age-child')</td>
</tr>
<tr>
<td>ìdeme-im</td>
<td>'earth-worm'</td>
<td>(lit. 'snake-child')</td>
</tr>
<tr>
<td>kíjà-im</td>
<td>'forest fairy'</td>
<td>(lit. 'earth-child')</td>
</tr>
<tr>
<td>ñedéké-im</td>
<td>'evil spirit'</td>
<td>(lit. 'sickness-child')</td>
</tr>
</tbody>
</table>

### 4.3.4 Agentive

Like the diminutive, the agentive compound involves a pair of lexical nouns that seem to be on the way to being grammaticalized as agentive suffixes. These are ámda- ‘person’ for singular and icé- ‘Ik’ for plural. As an analogy with the diminutive, one might expect the plural agentive to be the lexical plural of ‘person’, which is roɓa- ‘people’, but it is not. That icé- is also the Ik’s name for themselves suggests that it may have once had a more general meaning like ‘people’. Heine has made the plausible suggestion that the agentive icé- is derived from the diminutive wicé- (Heine & König 1996:20).

While in Dime and Sheko, both Omotic languages not so far from Ik, the agentive is derived from a form of the word for ‘father’ (Mulugeta 2008:59).

‘Agentive’ is used here in a broad sense, not just for the semantic role of ‘agent’ but for anyone characterized by the reference of the N₁. The equivalent of the Ik agentive in Turkana is called a ‘positioner noun’ and is divided up into such categories as ‘agentive’, ‘processor’, and ‘essive’ (Dimmendaal 1983:274), but this is not done here. In its most basic conception, the Ik agentive means ‘the X person’ or ‘the X-people’. It can also be translated as ‘the person/people who X’ or ‘X-er(s)’, depending on the compound’s N₁, which can be a noun or a nominalized verb. So the agentive, broadly defined, covers a range of nuances like 1) a person doing an action, 2) a person characterized by a state, 3) a person characterized by a thing, and 4) a person belonging to a group, particularly an ethnic group.

The N₁ of an agentive compound can be a noun or nominalized verb. The following are examples of agentives with nouns as the N₁:
(83) **Agentives with a nominal Nₙ**

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>cooká-ama</td>
<td>cooká-icé</td>
<td>‘shepherd(s)’</td>
</tr>
<tr>
<td>dcá-áma</td>
<td>dcá-icé</td>
<td>‘messenger(s)’</td>
</tr>
<tr>
<td>dzú-áma</td>
<td>dzú-icé</td>
<td>‘thief(ves)’</td>
</tr>
<tr>
<td>ɛ́sá-ama</td>
<td>ɛ́sá-icé</td>
<td>‘drunkard(s)’</td>
</tr>
<tr>
<td>kaːka-ama</td>
<td>kaːka-icé</td>
<td>‘hunter(s)’</td>
</tr>
<tr>
<td>tɔkɔba-ama</td>
<td>tɔkɔba-icé</td>
<td>‘farmer(s)’</td>
</tr>
</tbody>
</table>

But in the majority of agentive compounds, the Nₙ is a nominalized verb, either transitive or intransitive. In principle, there is no restriction on the number of affixes found on such Nₙ verbs. For many deverbal agentives, the best English translation usually involves the suffix -er(s):

(84) **Agentives with a deverbal Nₙ**

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>asínítoni-ama</td>
<td>asínítoni-icé</td>
<td>‘dreamer(s)’</td>
</tr>
<tr>
<td>bůkóni-ama</td>
<td>bůkóni-icé</td>
<td>‘adulterer(s)’</td>
</tr>
<tr>
<td>ɪrɪtsɛ́sɪ́-ama</td>
<td>ɪrɪtsɛ́sɪ́-icé</td>
<td>‘keeper(s)’</td>
</tr>
<tr>
<td>iwóróni-ama</td>
<td>iwóróni-icé</td>
<td>‘wanderer(s)’</td>
</tr>
<tr>
<td>tůbesi-ama</td>
<td>tůbesi-icé</td>
<td>‘follower(s)’</td>
</tr>
</tbody>
</table>

For other intransitive verbs acting as Nₙ, especially adjectival ones, the best translation into English often involves adjective modifiers e.g.:

(85) **Agentives with an intransitive/adjectival deverbal Nₙ**

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>baroni-ama</td>
<td>baroni-icé</td>
<td>‘rich person(s)’</td>
</tr>
<tr>
<td>botibotosí-áma</td>
<td>botibotosí-icé</td>
<td>‘migrant(s)’</td>
</tr>
<tr>
<td>budámóni-ama</td>
<td>budámóni-icé</td>
<td>‘black person(s)’</td>
</tr>
<tr>
<td>ɓets’oni-ama</td>
<td>ɓets’oni-icé</td>
<td>‘white person(s)’</td>
</tr>
<tr>
<td>zeoni-ama</td>
<td>zeoni-icé</td>
<td>‘big person(s)’</td>
</tr>
</tbody>
</table>
Many Ik ethnonyms for other groups are composed of agentive compounds:

(85) **Agentives as ethnonyms**

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allá-áma-</td>
<td>Allá-ícé-</td>
<td>‘Muslim(s)’</td>
</tr>
<tr>
<td>Gwágwa-ama-</td>
<td>Gwágwa-ícé-</td>
<td>‘Dodoth(s)’</td>
</tr>
<tr>
<td>H’yɔ-ama-</td>
<td>H’yɔ-ícé-</td>
<td>‘foreigner(s)’</td>
</tr>
<tr>
<td>Icé-áma-</td>
<td>(Icé-)</td>
<td>‘Ik(s)’</td>
</tr>
<tr>
<td>Pakó-áma-</td>
<td>Pakó-ícé-</td>
<td>‘Turkana(s)’</td>
</tr>
</tbody>
</table>

4.3.5 **Pronominal**

Compounds are also made with pronouns serving as N₁, N₂, or both. These pronominal compounds include the personal possessive (§5.1.2), the emphatic (§5.1.3), and the impersonal possessum (§5.2):

(86) **Pronominal compounds**

| Personal possessive | áci-rago- | I[OBL]-ox | ‘my ox’ |
| Emphatic           | áci-nebu- | I[OBL]-body | ‘myself’ |
| Impersonal possessum | nj-éni- | I-PSSM | ‘mine’ |

4.3.6 **Internal plurative**

The internal plurative -aŋíká- is a complex compound N₂ composed of the unknown root aŋ- and the pluralive III {ɪka-}. Because of its function as a plurative, a tempting analysis is to treat it as a suffix. However, because a) it does not delete the stem-final vowel, and b) it does not change the stem tone melody, it must be viewed as the N₂ of a compound construction.

The internal plurative expresses the meaning ‘the interior of more than one X’. The root aŋ- has not been identified as an independent noun. But both form and meaning suggest a connection with the noun aŋš- ‘inside/interior’, which when pluralized (aŋšɔ́wĩ́-) and used in compounds, has a similar
meaning as the internal plurative. The internal plurative is not often used, but three examples of it are given below:

<table>
<thead>
<tr>
<th>Plural</th>
<th>Internal Pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>áw-ik³</td>
<td>áw-ïka-ajiká- ‘in/among homes’</td>
</tr>
<tr>
<td>ríʝ-ik³</td>
<td>ríʝ-ïka-ajiká- ‘in/among forests’</td>
</tr>
<tr>
<td>séd-ik³</td>
<td>séd-ïka-ajiká- ‘in/among gardens’</td>
</tr>
</tbody>
</table>

4.3.7 **Variative plurative**

The variative plurative -iciká³ is also a complex N₂ possibly composed of the sequence -ic- and the plurative III {-ïka-}. Like the internal plurative, it may be tempting to view this N₂ as a suffix instead, but it does not a) subtract the stem-final vowel nor b) alter the stem tone melody. So for those reasons, it is analyzed here as (semi-) grammaticalized N₂.

The variative plurative expresses the meaning ‘kinds of X’ or ‘various X’. Structurally, it seems to be either a) a reduplication of the plurative III {-ïka-} or b) a combination of the diminutive/agentive (w)icé- and the plurative III {-ïka-}. Regardless of its etymology, -iciká³ is often used to pluralize nouns not normally (re-)pluralizable, for example 1) general number nouns, 2) nouns not pluralizable with any other pluralive, 3) inherently plural nouns, 4) nominalized verbs, 5) and pluralized nouns.

<table>
<thead>
<tr>
<th>Noun</th>
<th>Variative plurative</th>
</tr>
</thead>
<tbody>
<tr>
<td>gwa ‘bird(s)’</td>
<td>gwa-iciká³ ‘various (kinds of) birds’</td>
</tr>
<tr>
<td>ínw³ ‘animal(s)’</td>
<td>ínw-iciká³ ‘various (kinds of) animals’</td>
</tr>
<tr>
<td>cɛm ‘fight’</td>
<td>cɛm-iciká³ ‘various fights (war)’</td>
</tr>
<tr>
<td>didi ‘weather’</td>
<td>didi-iciká³ ‘kinds of weather’</td>
</tr>
<tr>
<td>ɲakuj³ ‘God’</td>
<td>ɲakuj-iciká³ ‘(various) gods’</td>
</tr>
</tbody>
</table>
Variative plurative with inherently plural nouns

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>men</td>
<td>‘issues’</td>
</tr>
<tr>
<td>se</td>
<td>‘blood’</td>
</tr>
</tbody>
</table>

Variative plurative with nominalized verbs

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>dôd-et-és</td>
<td>‘to point’</td>
</tr>
<tr>
<td>wet-és</td>
<td>‘to drink’</td>
</tr>
</tbody>
</table>

Lastly, the variative plurative can add a variative meaning to nouns already pluralized with another plurative. (92) gives the only recorded example:

Variative plurative with already pluralized nouns

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>dakú</td>
<td>‘tree’</td>
</tr>
<tr>
<td>dakw-ítíní-</td>
<td>‘trees’</td>
</tr>
<tr>
<td>dakw-ítíní-icíká-</td>
<td>‘various (kinds of) trees’</td>
</tr>
</tbody>
</table>

### 4.3.8 Relational nouns

A number of Ik body-part terms are used in whole-part expressions as ‘relational’ nouns (König 2002:73-75). These nouns are found in two morpho-syntactic positions: 1) as the N₂ of a compound (hence their being treated in this section on compounds) and 2) as a noun phrase head with a) the possessive singulative and b) a genitive modifier (which may be implied). Though synchronically they still function as full nouns (that can take any of the eight morphological cases), the relational nouns exhibit a very ‘preposition-like’ function, particularly as the noun phrase head. The following two tables compare singular and plural relational nouns:

Relational nouns, singular and plural

<table>
<thead>
<tr>
<th>‘tooth’</th>
<th>Relational sense</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexical</td>
<td>kwačá-</td>
</tr>
<tr>
<td>As N2</td>
<td>mucé-kwačá-</td>
</tr>
<tr>
<td>As NP head</td>
<td>kwe-eda mucéé</td>
</tr>
</tbody>
</table>
‘teeth’

<table>
<thead>
<tr>
<th>Lexical</th>
<th>kwa-tfíní-</th>
<th>‘edges’</th>
</tr>
</thead>
<tbody>
<tr>
<td>As N2</td>
<td>mucé-kwá-mi-</td>
<td>‘path-edges’</td>
</tr>
<tr>
<td>As NP head</td>
<td>kwa-na muceé</td>
<td>‘edges of the path’</td>
</tr>
</tbody>
</table>

(94) presents a full list of the known body-part relational nouns:

(94) **Body-part relational nouns**

<table>
<thead>
<tr>
<th></th>
<th>Lexical meaning</th>
<th>Relational meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>aká-</td>
<td>‘mouth’</td>
<td>‘opening, entrance’</td>
</tr>
<tr>
<td>akatí-</td>
<td>‘nose’</td>
<td>‘stem, handle’</td>
</tr>
<tr>
<td>akó-</td>
<td>‘head?’</td>
<td>‘inside’</td>
</tr>
<tr>
<td>bakutsí-</td>
<td>‘chest’</td>
<td>‘front side’</td>
</tr>
<tr>
<td>bubuu-</td>
<td>‘belly, abdomen’</td>
<td>‘under, below’</td>
</tr>
<tr>
<td>bɔlɛ́-</td>
<td>‘shin’</td>
<td>‘trunk, column’</td>
</tr>
<tr>
<td>dcá-</td>
<td>‘foot, leg’</td>
<td>‘base, foot’</td>
</tr>
<tr>
<td>ekú-</td>
<td>‘eye’</td>
<td>‘point, center’</td>
</tr>
<tr>
<td>ëba-</td>
<td>‘horn’</td>
<td>‘long, thin tool’</td>
</tr>
<tr>
<td>gúró-</td>
<td>‘heart’</td>
<td>‘core, essence’</td>
</tr>
<tr>
<td>gwaríi-</td>
<td>‘?’</td>
<td>‘top, above’</td>
</tr>
<tr>
<td>iká-</td>
<td>‘head’</td>
<td>‘top, head’</td>
</tr>
<tr>
<td>kaná-</td>
<td>‘back’</td>
<td>‘back’</td>
</tr>
<tr>
<td>komosí-</td>
<td>‘buttock’</td>
<td>‘back part’</td>
</tr>
<tr>
<td>kwafá-</td>
<td>‘tooth’</td>
<td>‘edge, side’</td>
</tr>
<tr>
<td>kwaní-</td>
<td>‘penis’</td>
<td>‘sharp part’</td>
</tr>
<tr>
<td>kwetá-</td>
<td>‘hand, arm’</td>
<td>‘branch, appendage’</td>
</tr>
<tr>
<td>koléɛ-</td>
<td>‘elbow’</td>
<td>‘bent, curved part’</td>
</tr>
<tr>
<td>morókú-</td>
<td>‘throat’</td>
<td>‘narrow part’</td>
</tr>
<tr>
<td>ɲabérí-</td>
<td>‘rib’</td>
<td>‘side’</td>
</tr>
<tr>
<td>ɔká-</td>
<td>‘bone’</td>
<td>‘hard part, shell’</td>
</tr>
<tr>
<td>ɔ́za-</td>
<td>‘bottom (pubic)’</td>
<td>‘back, bottom’</td>
</tr>
<tr>
<td>sɔkɔ́-</td>
<td>‘hoof’</td>
<td>‘base, root’</td>
</tr>
</tbody>
</table>
For the word *gwarí*- ‘top’, with its common variant *gwaría*-, no original lexical meaning has been recovered. It has been lexicalized in the term *didi-gwarí* ‘weather-top’, an important cultural concept meaning ‘sky, heaven’ or ‘God’. And the only known possible lexical meaning for the commonly used relational noun *aƙɔ́*- ‘inside’ comes from Gumuz word *(á)k’w(á)* ‘head’.

In principle, the terms listed in (94) are productive, but in practice, many of them have set up into lexicalized expressions like the following. Herein lies the main source—apart from borrowing—of Ik lexical nominal enrichment:

(95) **Relational compounds**

<table>
<thead>
<tr>
<th>Ik Form</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>arágwané-ékü-</td>
<td>‘full moon’</td>
</tr>
<tr>
<td>bubu-akɔ-</td>
<td>‘inner abdomen’</td>
</tr>
<tr>
<td>dakú-s̄kɔ-</td>
<td>‘tree root’</td>
</tr>
<tr>
<td>dánjá-aka-</td>
<td>‘opening to white-ant hill’</td>
</tr>
<tr>
<td>dɔdî-ekü-</td>
<td>‘cervix’</td>
</tr>
<tr>
<td>dómó-ɔza-</td>
<td>‘bottom of a pot’</td>
</tr>
<tr>
<td>fátára-bakutsí-</td>
<td>‘front side of the vertical ridge’</td>
</tr>
<tr>
<td>fetí-ekü-</td>
<td>‘east’</td>
</tr>
<tr>
<td>gido-ɔka-</td>
<td>‘sky’</td>
</tr>
<tr>
<td>iwótsí-ɔza-</td>
<td>‘bottom of a mortar’</td>
</tr>
<tr>
<td>kaideí-ákátí-</td>
<td>‘pumpkin stem’</td>
</tr>
<tr>
<td>kuɓa-gwarí-</td>
<td>‘hilltop’</td>
</tr>
<tr>
<td>kwará-dea-</td>
<td>‘base of a mountain’</td>
</tr>
<tr>
<td>kwará-gwarí-</td>
<td>‘mountaintop’</td>
</tr>
<tr>
<td>kwaré-ekü-</td>
<td>‘saddle between two mountain peaks’</td>
</tr>
<tr>
<td>óɗe-ekü-</td>
<td>‘river ford’</td>
</tr>
<tr>
<td>simá-ákátí-</td>
<td>‘knot’</td>
</tr>
<tr>
<td>tabá-dea-</td>
<td>‘base of a rock’</td>
</tr>
<tr>
<td>tóde-ekü-</td>
<td>‘word’</td>
</tr>
<tr>
<td>ts’adî-áka-</td>
<td>‘flame’</td>
</tr>
<tr>
<td>ts’adî-ekü-</td>
<td>‘fireplace, nuclear family’</td>
</tr>
<tr>
<td>wídze-ekü-</td>
<td>‘dusk, late evening’</td>
</tr>
</tbody>
</table>
4.4 Kinship terms

Kinship terms in Ik are affected by the structure of kinship relations. For example, Ik kinship relations are patrilocal: New wives are brought in from outside a man’s clan to his parents’ home area. They are also patrilineal: All one’s relatives are understood in relation to one’s father and paternal uncles. For instance, the term *abáŋi* meaning ‘my father’ applies not only to one’s birth father but also to any of his brothers. So one may essentially have more than one ‘father’. But the brother of one’s birth mother is referred to as *momóo* or ‘uncle’ rather than ‘father’.

A second feature of the Ik kinship terminology is that it is based on reference to person (i.e. 1st, 2nd, and 3rd person). The term needed to refer to a particular relative depends on whether it is the relative of the speaker, the addressee, or a third-person non-speech-act participant. For example, if the speaker names her father, she will call him *abáŋ* ‘my father’, but if she names her addressee’s father, she will say *bábo* ‘your father’. And if she refers to someone else’s father, she will say *babat* ‘his/her father’.

Morphologically, Ik kinship terms exhibit a couple of notable features. First, many of them are made up of compounds. They may join two nouns, as in *momó-cek* ‘maternal aunt (lit. ‘uncle-wife’)’ or *totó-im* ‘maternal cousin (lit. ‘maternal aunt’s child’)’. Others may join a pronoun and a noun, as in *ŋgó-im* ‘younger sibling (lit. ‘our child’)’ or *bi-emetá* ‘your in-law’. Secondly, in the Ik person-based kinship reference system, one can find traces of archaic person-marking morphology that has been completely lost in the rest of the grammar. Compare the following forms:

<table>
<thead>
<tr>
<th>Person</th>
<th>‘father’</th>
<th>‘mother’</th>
<th>‘grandmother’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td><em>abáŋi</em>-</td>
<td><em>yáŋi</em>-</td>
<td><em>dadáŋi</em>-</td>
</tr>
<tr>
<td>2SG</td>
<td><em>báboo-</em></td>
<td><em>ŋóo-</em></td>
<td><em>dádo</em></td>
</tr>
<tr>
<td>3SG</td>
<td><em>babatí-</em></td>
<td>*ŋwaatí-</td>
<td><em>dadati</em>-</td>
</tr>
</tbody>
</table>
That the forms in (96) retain old possessive suffixes is most clearly seen in the words for ‘father’ and ‘grandmother’. These suffixes are *-áŋi- for first person, *(o)o- for second, and *-atí- for third person (which may come from an old singulative; see (28) above)—all singular. With this in mind, these kinship terms can be re-analyzed as follows in order to highlight their historical morphology (which has now been lexicalized):

(97) *Archaic possessive suffixes in analysis*

<table>
<thead>
<tr>
<th>Person</th>
<th>‘father’</th>
<th>‘mother’</th>
<th>‘grandmother’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>(*b)b-áŋi-</td>
<td>y-áŋi-</td>
<td>dad-áŋi-</td>
</tr>
<tr>
<td>2SG</td>
<td>bá-oo-</td>
<td>n-ó-o-</td>
<td>dá-oo-</td>
</tr>
<tr>
<td>3SG</td>
<td>bab-atí-</td>
<td>nw-atí-</td>
<td>dad-atí-</td>
</tr>
</tbody>
</table>

The old root *bab*, meaning ‘father’, presumably lost its initial /b/ in the first-person reference at some point in time. In the case of ‘mother’, it seems that based on the second and third-person reference, the old root is *ŋo*. For second person, the possessive suffix *(o)o- is shortened, possibly due to Ik’s dislike for sequences of three vowels. And for third person, the root desyllabifies and causes compensatory lengthening on the suffix. When it comes to the first person, it is not clear how *ŋo* could be related to *y*.

The old possessive prefixes shown in (96) are found elsewhere in the kinship terminology but in an even more eroded form. Often the second and third-person suffixes are the only ones remaining:

(98) *Archaic possessive suffixes on other kinship terms*

<table>
<thead>
<tr>
<th>Person</th>
<th>‘brother’</th>
<th>‘sister’</th>
<th>‘grandfather’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>(edé-)</td>
<td>ye-áa-</td>
<td>bob-áa-</td>
</tr>
<tr>
<td>2SG</td>
<td>lé-ó-</td>
<td>yá-óo-</td>
<td>bó-oo</td>
</tr>
<tr>
<td>3SG</td>
<td>le-atí</td>
<td>ye-atí</td>
<td>bob-atí-</td>
</tr>
</tbody>
</table>
Before the loss of lateral fricatives in Ik, the root for ‘brother’ used to be *ɬɪ- (Heine & König 1996:17). And if there ever was a proto-form *le-ɗɪ- for ‘my brother’, it has been replaced by the unrelated ɛdɛɛ-. Elsewhere in (98), the first-person suffix -ɗɪ- has lost its velar nasal, giving rise to the variant -ɗá.

The following table presents a set of kinship terms including the ones shown in (96) and (98). These terms are from the point of view of Ego or ‘I’—that is, the first person. Second and third-person forms can be extrapolated from these. Moreover, they are all listed in the lexicon in Appendix B. To change person, either the archaic (frozen) possessive suffixes can be changed (as when going from bobá ‘my grandfather’ to bóbo ‘your grandfather’) or the N₁ pronouns in compounds (as in fici-cek’a ‘my wife’ to ntsí-cék’a ‘his wife’). The literal meaning of compounded terms is also given when known:

(99) **Ik kinship terms from Ego’s (1sg) point-of-view**

<table>
<thead>
<tr>
<th>Term</th>
<th>Natural sense</th>
<th>Literal sense</th>
</tr>
</thead>
<tbody>
<tr>
<td>abáŋi-</td>
<td>‘my father’</td>
<td></td>
</tr>
<tr>
<td>bobáa-</td>
<td>‘my grandfather, ancestor’</td>
<td></td>
</tr>
<tr>
<td>dadáŋi-</td>
<td>‘my grandmother’</td>
<td></td>
</tr>
<tr>
<td>fici-emetáa-</td>
<td>‘my parent-in-law’</td>
<td>I⁻?</td>
</tr>
<tr>
<td>ɛdɛɛ-</td>
<td>1) ‘my older brother’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2) ‘my older paternal cousin’</td>
<td></td>
</tr>
<tr>
<td>ɛdɛɛ-ceki-</td>
<td>‘my older brother’s wife’</td>
<td>brother-wife</td>
</tr>
<tr>
<td>imá-cékí-</td>
<td>‘my son’s wife’</td>
<td>child-wife</td>
</tr>
<tr>
<td>momóo-</td>
<td>1) ‘my maternal uncle’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2) ‘son of my sister’</td>
<td></td>
</tr>
<tr>
<td>momó-ceki-</td>
<td>‘my maternal uncle’s wife’</td>
<td>uncle-wife</td>
</tr>
<tr>
<td>momó-ima-</td>
<td>‘my maternal cousin’</td>
<td>uncle-child</td>
</tr>
<tr>
<td>fici-ɡáni-</td>
<td>1) ‘my husband’s other wife’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2) ‘my husband’s brother’s wife’</td>
<td></td>
</tr>
<tr>
<td>fici-namúí-</td>
<td>1) ‘my husband’s sister’</td>
<td>I⁻?</td>
</tr>
<tr>
<td></td>
<td>2) ‘my brother’s wife’</td>
<td></td>
</tr>
<tr>
<td>fici-ugwámá-</td>
<td>‘my sibling-in-law’</td>
<td>I⁻?</td>
</tr>
</tbody>
</table>
Ik kinship terms function grammatically as any other noun in the language. They inflect for all eight cases and can be modified and pluralized to a limited extent. A variety of pluralization strategies are used for kinship terms, depending on their morphological structure, semantics, etc., as in:

(100) **Pluralization strategies for kinship terms**

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plurative I</td>
<td>namúí ‘brother’s wife’</td>
<td>namú-át-ikwa³</td>
</tr>
<tr>
<td>Possessive Plurative</td>
<td>abáŋ ‘my father’</td>
<td>abáŋ-in</td>
</tr>
<tr>
<td>Pluralize N₂</td>
<td>jíci-im ‘my child’</td>
<td>jíci-wik²</td>
</tr>
</tbody>
</table>

Finally, when one wants to express the relation of a relative to more than one person (e.g. 1PL or 2PL)—and if the relevant term is one from above that takes the archaic possessive suffixes—then the 3SG form of the term is used. This is observed, for example, in jínte-leat³ ‘our (inc.) brother’ and biti-babal³ ‘your (pl.) father’. The reason for this has yet to be discovered.
4.5 Proper Nouns

In addition to all the common nouns that have been the major topic of this chapter so far, Ik also has a full range of proper nouns. These include names for specific people, tribes, and places—entities in the world that have a unique reference. Proper nouns as names are discussed in the following sections: §4.5.1 on onomastics (people names), §4.5.2 on ethnonyms (tribal names), and §4.5.3 on toponyms (place names).

For the most part, Ik proper nouns function grammatically just like common nouns. They can function as a clause's core or peripheral argument, and they inflect for all of the eight cases. But they also differ grammatically from common nouns. For example, proper names for people cannot be pluralized:

(101) Ńgorokᵃ Ńórókikᵃ
      Ngorok  Ngoroks

Due to the fact that Ik relative clauses are only the restrictive type, proper nouns can only be modified by relative clauses if it is very clear from the context that two or more entities/persons with the same name are involved:

(102) Nteenoo Ńgorokuǐ? Ńgoroka na zikib.
     which-6  Ńgorok-6  Ńgorok-a = na zikib-6
     Which Ngorok? The Ngorok who is tall.

And though they can be modified by a possessor in the genitive case, the possessor and possessum must be separated by a relative pronoun:

(103) Ńgoroka na ɲci. ** Ńgoroka ɲci.
     Ńgorok-a = na ɲci-6 ** Ńgorok-a ɲci-6
     Ńgorok-NOM = REL-SG I-GEN ** Ńgorok-NOM I-GEN
     The Ngorok who is mine. **My Ngorok.
4.5.1 Onomastics

Most Ik people nowadays have three or four names each. They will have an Ik name, a Christian (‘baptismal’) name, and a nickname called éda awá ‘house name’. In addition, most men have a rágw-ed³ ‘bull name’ that goes along with their bull songs. Beyond this, many people seem to have several secret names that only their friends or in-members of the community know.

When filling out official forms or introducing themselves to outsiders, Ik people typically give two names: 1) an Ik name, and 2) a Christian name. The Ik names are the main topic of this section. Christian names are taken at birth or at baptism in the Roman Catholic or Anglican churches. They include names like Philip, Daniel, Peter, Simon, and Hillary for boys and men, and Cecilia, Maria, Esther, Rose, and Veronica for girls and women.

Bull names are totems chosen by young men for a bull whose color patterns they admire. This cultural practice is in line with that of the Teso-Turkana and may have been borrowed from them. Though the Ik no longer keep livestock, men still take bull names and sing their bull songs. Bull names usually consist of the Teso-Turkana word apá ‘father’ plus one or more words describing the color and patterns of a particular bull. Most bull names, even for the Ik, are actually Teso-Turkana names, like Apá Lposikiira ‘the father of the striped bull’ and Apá Lokiryon ‘the father of the black bull’. A few other bull-names heard among the Ik are listed here below. For more on this topic, see Dimmendaal (1983:300-302).

(104) Some Ik (Teso-Turkana) bull-names

<table>
<thead>
<tr>
<th>Apá Kapéliɓok⁹</th>
<th>Apá Lolúk⁹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apá Komólíŋnaŋ</td>
<td>Apá Lomaruƙɔ</td>
</tr>
<tr>
<td>Apá Łɔkamutɔ</td>
<td>Apá Łomerí</td>
</tr>
<tr>
<td>Apá Łokwáŋ</td>
<td>Apá Łɔŋɔ́r</td>
</tr>
</tbody>
</table>
Besides bull names, many other Ik names are Teso-Turkana in origin. This is evident from the Teso-Turkana gender prefixes *na-* for feminine gender and *lo-* for masculine (see Dimmendaal 1983:215), which are not productive morphemes in present-day Ik (see also §4.1.4). These names are formed with the prefix plus some feature in the environment that indicates what time of year or during what event the person bearing the name was born. For example, Lokiru (*lo+akiru* ‘rain’) was born during the rainy season. (105) provides a sampling of Ik people names with Teso-Turkana origins:

(105) Some Ik (Teso-Turkana) personal names

<table>
<thead>
<tr>
<th>Masculine</th>
<th>Root meaning</th>
<th>Feminine</th>
<th>Root meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locápu-</td>
<td>‘Weeding’</td>
<td>Nákíruu-</td>
<td>‘Rain’</td>
</tr>
<tr>
<td>Locómo-</td>
<td>‘Baboon’</td>
<td>Nakɔŋʊ́-</td>
<td>‘Eye’</td>
</tr>
<tr>
<td>Lokwaŋá-</td>
<td>‘White’</td>
<td>Namɔ́ɪ-</td>
<td>‘Enemies’</td>
</tr>
<tr>
<td>Lolému-</td>
<td>‘Harvest’</td>
<td>Náŋólii-</td>
<td>‘White Patch’</td>
</tr>
<tr>
<td>Lómúria-</td>
<td>‘Star Grass’</td>
<td>Nápíyoo-</td>
<td>‘Defeat’</td>
</tr>
<tr>
<td>Lopéyókó-</td>
<td>‘Guest’</td>
<td>Naróto-</td>
<td>‘Road’</td>
</tr>
</tbody>
</table>

A few other Ik names appear with the Teso-Turkana ‘associative linker’ *ka*- (Dimmendaal 1983:302), for example, *Kalmapó̱st-* and *Kalɔyáŋ*. And still others are Teso-Turkana parallels but have distinctively Ik phonology. For example, the phoneme /tʃ/ in Teso-Turkana names (written as <ch>) usually (but not obligatorily) appears as /ts/ in corresponding Ik names:

(106) Teso-Turkana names with adapted phonology

<table>
<thead>
<tr>
<th>Teso-Turkana</th>
<th>Ik</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achok</td>
<td>Atsóko-/Acóko-</td>
</tr>
<tr>
<td>Machu</td>
<td>Matsúu-/Macúu-</td>
</tr>
<tr>
<td>Nachem</td>
<td>Natsíamu-/Naciámu-</td>
</tr>
<tr>
<td>Chila</td>
<td>Tsláa-/Ciláa-</td>
</tr>
</tbody>
</table>
Finally, the following smattering of Ik people names contains some with Teso-Turkana parallels and some with unknown origins:

(107) **Some other Ik personal names**

<table>
<thead>
<tr>
<th>Aríkóo-</th>
<th>Ilókóli</th>
<th>Maarukó-</th>
<th>Pulókóli-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceğemú-</td>
<td>Kinimée-</td>
<td>Modíñji-</td>
<td>Saññáñji-</td>
</tr>
<tr>
<td>Dakár-</td>
<td>Kócí-</td>
<td>Ɲákaleesí-</td>
<td>Sířééx-</td>
</tr>
<tr>
<td>Erupeé-</td>
<td>Ɲuskému-</td>
<td>Ɲeletsaá-</td>
<td>Tekóo-</td>
</tr>
<tr>
<td>Gutú-</td>
<td>Lemúu-</td>
<td>Pelééni-</td>
<td>Títtoo-</td>
</tr>
</tbody>
</table>

### 4.5.2 Ethnonyms

The Ik language does not have a word that means ‘tribe’ specifically, except now for ĕŋákaɓítica which was borrowed from Swahili kabila ‘tribe’. Other words for this domain include asaka- ‘clan’ (also ‘door’) and roɓa-icíká- ‘kinds of people’ or ‘various peoples’. This lack of a generic word for ‘tribe’ is made up for by a versatile system of tribal names (ethnonyms).

Ik uses three morphological strategies for forming ethnonyms: 1) the Ik way, 2) the Teso-Turkana way, and 3) a hybrid Ik/Teso-Turkana way. The genuinely Ik way of making ethnonyms is to take a word characteristic of a certain ethnic group and make an agentive compound out of it.

So for instance, the Jie, a Karimojong sub-tribe to the southeast of the Ik, are called the Fetí-ík⁰ because they are from the East, where the sun comes up (fetí- means ‘sun’ and fetí-ékú ‘sun-eye’ means ‘east’). The Turkana, the tribe to the northeast of the Ik are called the Pakó-ík⁰ after pakó- ‘cave’ probably because the word eturkan means ‘cave’ in the Turkana language. Lastly, the Napore, who live in the mountains west of the Ik, are called the Tɔbɔŋɔ́-ík⁰ after tɔbɔŋɔ́ ‘maize mush’ because of all the food they have:
Ik agentive compound ethnonyms

<table>
<thead>
<tr>
<th>Ik form</th>
<th>English Meaning</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fetí-áma-</td>
<td>‘Jie person’</td>
<td>sun-person</td>
</tr>
<tr>
<td>Fetí-ícé-</td>
<td>‘Jie people’</td>
<td>sun-people</td>
</tr>
<tr>
<td>Icé-áma-</td>
<td>‘Ik person’</td>
<td>Ik-person</td>
</tr>
<tr>
<td>Icé-</td>
<td>‘Ik people’</td>
<td>Ik-people</td>
</tr>
<tr>
<td>Pakó-áma-</td>
<td>‘Turkana person’</td>
<td>cave-person</td>
</tr>
<tr>
<td>Pakó-ícé-</td>
<td>‘Turkana people’</td>
<td>cave-people</td>
</tr>
<tr>
<td>Tɔbɔŋɔ́-áma-</td>
<td>‘Napore person’</td>
<td>maize mush-person</td>
</tr>
<tr>
<td>Tɔbɔŋɔ́-ícé-</td>
<td>‘Napore people’</td>
<td>maize mush-people</td>
</tr>
</tbody>
</table>

A second way Ik has created ethnonyms is to borrow them directly from Teso-Turkana. These ethnonyms retain the plural grammatical gender prefix ŋié that is a productive morphological marker in Teso-Turkana (but is no longer in Ik, if it ever was; see §4.1.4), as in the following:

Ik ethnonyms with a Teso-Turkana plural gender prefix

<table>
<thead>
<tr>
<th>Ik form</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ŋíɗiŋaá-</td>
<td>‘Didinga’</td>
</tr>
<tr>
<td>ŋímadí-</td>
<td>‘Ma’di’</td>
</tr>
<tr>
<td>ŋítépesí-</td>
<td>‘Tepeth’</td>
</tr>
<tr>
<td>ŋíɓɔ́kɔraá-</td>
<td>‘Bokora’</td>
</tr>
</tbody>
</table>

The third way Ik has formed ethnonyms is to combine the Ik use of agentive compound with the Teso-Turkana plural forms, as in:

Ik agentive ethnonyms with a Teso-Turkana plural gender prefix

<table>
<thead>
<tr>
<th>Ik form</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ŋíjaluwóí-ícé-</td>
<td>‘Luo people’</td>
</tr>
<tr>
<td>ŋíkátsolí-ícé-</td>
<td>‘Acholi people’</td>
</tr>
<tr>
<td>ŋímeninji-ícé-</td>
<td>‘Mening people’</td>
</tr>
<tr>
<td>ŋímólóí-ícé-</td>
<td>‘Elmolo people’</td>
</tr>
</tbody>
</table>
4.5.3 Toponyms

Ik place names (toponyms) can be divided up between those that have Teso-Turkana origins and those that have an Ik origin. Those borrowed from Teso-Turkana are known by their lexicalized locative prefixes (see §4.1.4). Many original Ik place names are formed by compounds (see §4.3), while others consist of a single word or simple phrase. These place names may refer to areas, rivers, mountains, or other geographical features.

Most toponyms borrowed into Ik from Teso-Turkana languages consist of the lexicalized Teso-Turkana locative prefixes or associative marker plus a noun or verb that characterizes the named place in some way. For example, a volcanic plug in Kaabong District called *Locom*, 'Baboon Place', is made up of the masculine/neuter locative prefix `lo-` plus the noun root `-com` meaning 'baboon'. (111) presents a sampling of this type of Ik place name:

<table>
<thead>
<tr>
<th>Ik toponyms with Teso-Turkana origins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masculine/neuter</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>Locótoó-</td>
</tr>
<tr>
<td>Loodóí-</td>
</tr>
<tr>
<td>Loúsúnaa-</td>
</tr>
<tr>
<td>Locárákwatì-</td>
</tr>
<tr>
<td>Lïkití-</td>
</tr>
</tbody>
</table>

Mountain names borrowed from Teso-Turkana are often formed with the root `-moru` ‘mountain/rock’ used in a compound with another root, as in:

<table>
<thead>
<tr>
<th>Ik mountain names from Teso-Turkana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moru-anjákiní-</td>
</tr>
<tr>
<td>Morú-atapá-</td>
</tr>
<tr>
<td>Morú-érisá-</td>
</tr>
<tr>
<td>Moru-koyaní-</td>
</tr>
<tr>
<td>Morú-janjá-</td>
</tr>
</tbody>
</table>
The Ik use Teso-Turkana place names for several possible reasons. First, some places, like Kaabong or Kasile, are far enough outside the Ik homeland not to warrant a name other than the Teso-Turkana name. Second, while interacting with Teso-Turkana neighbours, perhaps the Ik found it easier to use the more widely known toponyms. And third, though this would contradict some versions of Ik history in the literature, the Ik may have settled in their current homeland after the Teso-Turkana tribes had arrived and given names to the landscape (see Schrock 2009).

A fair number of Ik place names are made of compounds. For some, the compound $N_2$ is a general locative noun like $aká$- ‘mouth’, $aƙɔ́$- ‘inside’, $awá$- ‘place/home’, or $kíʝá$- ‘land’, as in:

\[\begin{array}{l|l}
\text{Ik compound toponyms with general locative } N_2 \\
\hline
\text{Borotsa-aka-} & \text{'Borotsa Mouth'} \\
\text{Icé-kíja-} & \text{'Ik Land'} \\
\text{Isókói-ako-} & \text{'In the Euphorbia'} \\
\text{Lera-aƙɔ-} & \text{'In the White-Thorn Acacia'} \\
\text{Lotóƙíka-awa-} & \text{'Rain-Shelter Place'} \\
\text{Onőri-awa-} & \text{'Elephant Place'} \\
\text{Tsutsuka-awa-} & \text{'Tanning Place'} \\
\end{array}\]

Other place names consisting of compounds involve an $N_2$ with more specific locative reference, as in:

\[\begin{array}{l|l}
\text{Ik compound toponyms with more specific } N_2 \\
\hline
\text{Kakótá-kuríi-} & \text{'Kakuta Shade'} \\
\text{Kwarika-bubúika-} & \text{'Lower Mountainsides'} \\
\text{Kurá-hoó-} & \text{'Kura House'} \\
\text{Mileti-sabáa-} & \text{'Mileti River'} \\
\text{Órí-boo-} & \text{'Ori's Escarpment'} \\
\text{Séítíní-kokóró-} & \text{'White Quartz Ridge'} \\
\text{Tiritiri-kwái-} & \text{'Tiritiri Edge'} \\
\end{array}\]
And still other places names consist of compounds that join two non-locative nouns, such as the ones in (115). Not all the meanings are known:

(115) **Other Ik compound toponyms**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dumáná-mériʃ-</td>
<td>‘Spotted Duman’</td>
</tr>
<tr>
<td>Dúné-morókú-</td>
<td>‘Dune Throat’</td>
</tr>
<tr>
<td>Kae-híʃ-</td>
<td>‘Tortoise Chameleon’</td>
</tr>
<tr>
<td>Ɲera-dzoɡa-</td>
<td>‘Girls Tree (sp.)’</td>
</tr>
<tr>
<td>Turkware-ekú-</td>
<td>‘Turkware Eye’</td>
</tr>
</tbody>
</table>

Some place names have stories associated with them, for example, the name **Takani-kołɛ́ɛ** from the verb takán- ‘be visible’ and kołɛ́ɛ- ‘elbow’. The story goes that at this place, an old woman tried to hide from enemies who were attacking her neighbourhood. But at the place where she hid, her elbow was visible, and the enemies spotted her because of that.

The Ik equivalent of the Teso-Turkana mountain names beginning with the root -moru are formed with the Ik roots gwasá- ‘rock’, kokoró- ‘ridge’, kuɓa- ‘hill’ or kwárá- ‘mountain’. Such names include the following:

(116) **Ik mountain names**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irika-kokoró-</td>
<td>‘Irika Ridge’</td>
</tr>
<tr>
<td>Kọpa-kwara-</td>
<td>‘Vulture Mountain’</td>
</tr>
<tr>
<td>Mọkoró-gwasa-</td>
<td>‘Rock-Pool Stone’</td>
</tr>
<tr>
<td>Palúu-kuɓa-</td>
<td>‘Palu’s Hill’</td>
</tr>
<tr>
<td>Segerí-kwár-</td>
<td>‘Tree (sp.) Mountain’</td>
</tr>
<tr>
<td>Séítín-kokóró-</td>
<td>‘White Quartz Ridge’</td>
</tr>
<tr>
<td>Taɓá-kókóró-</td>
<td>‘Boulder Ridge’</td>
</tr>
</tbody>
</table>

Finally, many Ik place names are simply single words. For some of them, their meanings are still recoverable, while for others, they are not:
(117) *Single-word Ik toponyms*

<table>
<thead>
<tr>
<th>Ik Word</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aŋatář-</td>
<td>‘Ang’atar’</td>
</tr>
<tr>
<td>Burukái-</td>
<td>‘Kenya’</td>
</tr>
<tr>
<td>Cerúbe-</td>
<td>‘Cherub’</td>
</tr>
<tr>
<td>Cucueika-</td>
<td>‘Damp Chills’</td>
</tr>
<tr>
<td>Dódofa-</td>
<td>‘Dodof’</td>
</tr>
<tr>
<td>Ɗasoƙo-</td>
<td>‘Uganda (lit. ‘flatness’)’</td>
</tr>
<tr>
<td>Ɗómoko-</td>
<td>‘D’omok’</td>
</tr>
<tr>
<td>Galatsi-</td>
<td>‘Galats’</td>
</tr>
<tr>
<td>Íséc-</td>
<td>‘Ise’</td>
</tr>
<tr>
<td>Íwolóɔ-</td>
<td>‘Iwolo’</td>
</tr>
<tr>
<td>Kɛ́tɛ́la-</td>
<td>‘Ketel’</td>
</tr>
<tr>
<td>Laatsoó-</td>
<td>‘Laatso’</td>
</tr>
<tr>
<td>Muƙei-</td>
<td>‘Muk’e’</td>
</tr>
<tr>
<td>Nofo-</td>
<td>‘Nof’</td>
</tr>
<tr>
<td>Oŋóriza-</td>
<td>‘Ong’oriz’</td>
</tr>
<tr>
<td>Puɗápúɗa-</td>
<td>‘Puɗ’apud’</td>
</tr>
<tr>
<td>Seketé-</td>
<td>‘Seket’</td>
</tr>
<tr>
<td>Siƙák’e</td>
<td>‘In-the-Dew’</td>
</tr>
<tr>
<td>Tsíŋaka-</td>
<td>‘Tsigak’</td>
</tr>
<tr>
<td>Wúsé-</td>
<td>‘Wus’</td>
</tr>
</tbody>
</table>
5 Pronouns

The term 'pronoun' is used here rather loosely. This chapter describes words and affixes that truly represent missing or implied nouns. But it also includes certain nouns and affixes that have meanings like the pronouns in other languages (e.g. English). In some cases, it is not easy to tell whether a particular item is a grammatical word with a pronominal function or a full lexical noun with a pronoun-like meaning. For example, *sai* means 'some more' or 'some other', although it inflects fully for case and can take a nominal complement as in *saa róɓa* ‘some other people'. So is it a noun or a pronoun? The goal of this chapter is to describe anything identified as either a pronoun or noun with pronominal meanings or functions.

Ik pronominals comprise a) independent words, b) words found only in compounds, c) clitics, and d) suffixes. All pronominals inflect for case, except for relative pronouns, clitics and verbal suffixes. Some of the pronominals are invariable in terms of grammatical number, while others have suppletive plurals or can be pluralized with one of the language's pluratives. When it comes to personal pronouns, Ik is a pro-drop language, requiring minimally only bound pronominal subject-agreement suffixes.

5.1 Personal pronouns

The Ik personal pronominal system has a 1/2/3 personal reference. Each grammatical person can be either singular or plural. Like the neighboring Teso-Turkana languages, Ik makes a distinction between first person plural exclusive (excluding the addressee) and first person plural inclusive (including the addressee). But unlike in the Teso-Turkana languages, grammatical gender is not reflected in any part of the Ik pronominal system. Lastly, Ik has both free personal pronouns and bound pronominal suffixes on verbs. Both types are described in the following two sections.
5.1.1 Free personal pronouns

The Ik free personal pronouns are free grammatical words. The hyphenated forms in (1) signify not prefixation but rather roots in need of case suffixes:

(1) Ik free personal pronouns

<table>
<thead>
<tr>
<th></th>
<th>1SG</th>
<th>2SG</th>
<th>3SG</th>
<th>1PL.EXC</th>
<th>1PL.INC</th>
<th>2PL</th>
<th>3PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL</td>
<td>Ɫci-</td>
<td>bi</td>
<td>ntsi</td>
<td>ŋgo</td>
<td>ŋjíni</td>
<td>biti</td>
<td>Ɫtí</td>
</tr>
<tr>
<td>NOM</td>
<td>ŋk-a</td>
<td>bi-a</td>
<td>nts-a</td>
<td>ŋgw-a</td>
<td>ŋjín-a</td>
<td>bit-a</td>
<td>ſtí-a</td>
</tr>
<tr>
<td>INS</td>
<td>ŋk-o</td>
<td>bu-o</td>
<td>nts-o</td>
<td>ŋ-o</td>
<td>ŋjín-o</td>
<td>bit-o</td>
<td>ſtí-o</td>
</tr>
<tr>
<td>ABL</td>
<td>ņcu-o</td>
<td>bu-o</td>
<td>ntsú-ó</td>
<td>ŋgó-ó</td>
<td>ŋjíní-o</td>
<td>bitu-o</td>
<td>ſtíú-o</td>
</tr>
<tr>
<td>GEN</td>
<td>űci-e</td>
<td>bi-e</td>
<td>ntsi-é</td>
<td>ŋgó-é</td>
<td>ŋjíní-e</td>
<td>biti-e</td>
<td>ſtí-e</td>
</tr>
<tr>
<td>ACC</td>
<td>űci-a</td>
<td>bi-a</td>
<td>ntsi-á</td>
<td>ŋgó-á</td>
<td>ŋjíní-a</td>
<td>biti-a</td>
<td>ſtí-a</td>
</tr>
<tr>
<td>DAT</td>
<td>űci-e</td>
<td>bi-e</td>
<td>ntsi-é</td>
<td>ŋgó-é</td>
<td>ŋjíní-e</td>
<td>biti-e</td>
<td>ſtí-e</td>
</tr>
<tr>
<td>COP</td>
<td>ņcu-o</td>
<td>bu-o</td>
<td>ntsú-ó</td>
<td>ŋgó-ó</td>
<td>ŋjíní-o</td>
<td>bitu-o</td>
<td>ſtíú-o</td>
</tr>
</tbody>
</table>

Case suffixation produces the inflectional variety shown in the next table. (2) presents a non-final form case paradigm for all seven free personal pronouns. The nominative and instrumental case forms for 1SG reflect the morpho-phonological de-affrication described in §2.5.2. And in the ablative and copulative cases, there is some variation in the degree to which the pronoun-final /i/ assimilates to the case suffix consisting of /o/ (§2.5.4):

(2) Case paradigm for Ik free personal pronouns

<table>
<thead>
<tr>
<th></th>
<th>1SG</th>
<th>2SG</th>
<th>3SG</th>
<th>1PL.EXC</th>
<th>1PL.INC</th>
<th>2PL</th>
<th>3PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL</td>
<td>űci-</td>
<td>bi</td>
<td>ntsi</td>
<td>ŋgo</td>
<td>ŋjíni</td>
<td>biti</td>
<td>ſtí</td>
</tr>
<tr>
<td>NOM</td>
<td>ōk-a</td>
<td>bi-a</td>
<td>nts-a</td>
<td>ŋgw-a</td>
<td>ŋjín-a</td>
<td>bit-a</td>
<td>ſtí-a</td>
</tr>
<tr>
<td>INS</td>
<td>ōk-o</td>
<td>bu-o</td>
<td>nts-o</td>
<td>ŋ-o</td>
<td>ŋjín-o</td>
<td>bit-o</td>
<td>ſtí-o</td>
</tr>
<tr>
<td>ABL</td>
<td>ņcu-o</td>
<td>bu-o</td>
<td>ntsú-ó</td>
<td>ŋgó-ó</td>
<td>ŋjíní-o</td>
<td>bitu-o</td>
<td>ſtíú-o</td>
</tr>
<tr>
<td>GEN</td>
<td>ŋci-e</td>
<td>bi-e</td>
<td>ntsi-é</td>
<td>ŋgó-é</td>
<td>ŋjíní-e</td>
<td>biti-e</td>
<td>ſtí-e</td>
</tr>
<tr>
<td>ACC</td>
<td>ŋci-a</td>
<td>bi-a</td>
<td>ntsi-á</td>
<td>ŋgó-á</td>
<td>ŋjíní-a</td>
<td>biti-a</td>
<td>ſtí-a</td>
</tr>
<tr>
<td>DAT</td>
<td>ŋci-e</td>
<td>bi-e</td>
<td>ntsi-é</td>
<td>ŋgó-é</td>
<td>ŋjíní-e</td>
<td>biti-e</td>
<td>ſtí-e</td>
</tr>
<tr>
<td>COP</td>
<td>ņcu-o</td>
<td>bu-o</td>
<td>ntsú-ó</td>
<td>ŋgó-ó</td>
<td>ŋjíní-o</td>
<td>bitu-o</td>
<td>ſtíú-o</td>
</tr>
</tbody>
</table>
In terms of internal reconstruction, there appears to be a morphological relationship between the first person free pronouns: the singular ɲci- ‘I’, and the plural ɲɡó- and ɲjíní- ‘we’. It looks like the 1PL.INC.ɲjíní- is a pluralization of the first person singular ɲci-. Recall from §4.2.5 that the possessive plurative {-ɪnɪ} may be used to pluralize a possessed or associated person or object. In light of this, the 1PL.INC.ɲjíní- can be analyzed as ɲc + ɪnɪ → ɲc-ɪnɪ → ɲjíní-. The change in voicing from /c/ to /j/ is seen in modern Ik in another pronominal form: ɲjéɛ́nɪ́ ‘mine’, where ɛ́nɪ́ is an impersonal possessum marker (§5.2). Semantically, the first person plural inclusive pronoun may have grammaticalized from a word meaning something like ‘my Xs’ or ‘those associated with me’, i.e., including you the addressee(s).

Second, there also seems to be a morphological relationship between the first person plural exclusive ɲɡó- and both ɲci- and ɲjíní-. While the link between ɲci- and ɲjíní- hinges on the voicing alternation /c/~/j/, a link between ɲjíní- and ɲɡó- is suggested by the de-affrication described in §2.5.2. In short, affricates tend to surface as stops before the vowels /a/ or /ɔ/, and /j/~/ɡ/ is a well-attested example. So the pronoun ɲjíní- could alternatively be a pluralization of ɲɡó-, where ɲj- is the underlying morpheme, hardened to ɲɡ- before /o/. So although the evolutionary direction taken by these three first-person pronouns cannot yet be determined, it seems that a proto-morpheme *ɲj/ɲc/ɲɡ underlies them all.

Then, in terms of areal and possibly genetic parallels, the 1SG pronoun ɲci-recalls the 1SG possessive cā of Dhaasanac (Tosco 2001:64), and in its nominative form (ŋk-) the Eastern Semitic anaku and East Cushitic ani/anu. Tucker even suggested a link between Ik pronouns and ‘Erythraic’, using Middle Egyptian as a reference point (1967b:675). The Ik 1PL.EXC ɲɡó-closely resembles the 1PL.INC ṇwɔnɪ́ of Turkana (Dimmendaal 1983:207). Although these two pronouns differ in clusivity, their relationship looks promising. Otherwise, the Ik free pronouns most closely resemble those of the other Kuliak languages, as shown below (in comparison with Turkana):
Isomorphy among Kuliak free pronouns is indicated with encircling in (3). The paradigm shows significant unity among the Kuliak languages, but some marked influence from Teso-Turkana, particularly in 1SG and 1PL.EXC.

Syntactically, the free personal personal pronouns behave like full nouns. Their ability to inflect for case allows them to replace any noun operating as any clausal argument. As shown below, they can even be modified by demonstratives (3) and relative clauses (4):

(3) **Kuliak free personal pronouns**

<table>
<thead>
<tr>
<th></th>
<th>Carlin 1993</th>
<th>Heine 1975a</th>
<th>Dimm. 1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ik</td>
<td>ñci-</td>
<td>aya</td>
<td>ay</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ñyóŋ</td>
</tr>
<tr>
<td>So</td>
<td>bi-</td>
<td>bia</td>
<td>bi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ñyóŋ</td>
</tr>
<tr>
<td>Nyang’í</td>
<td>ntsí-</td>
<td>ica</td>
<td>ikiet</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ñesi</td>
</tr>
<tr>
<td>Turkana</td>
<td>ñgó-</td>
<td>isia</td>
<td>mis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ñwá</td>
</tr>
<tr>
<td>1PL.EXC</td>
<td>njini-</td>
<td>inia</td>
<td>gin</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ñwáni</td>
</tr>
<tr>
<td>1PL.INC</td>
<td>biti-</td>
<td>bita</td>
<td>biyó</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ñesi</td>
</tr>
<tr>
<td>2PL</td>
<td>ñti-</td>
<td>itia</td>
<td>it</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>keći</td>
</tr>
</tbody>
</table>

Like we here (for example)...

(4) **Bita ni mudükanaakit,...**

<table>
<thead>
<tr>
<th></th>
<th>you,PL-NOM</th>
<th>REL,PL</th>
<th>blind,STAT-DISTR</th>
<th>2PL-REAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>bit-a = ni</td>
<td>mudük-án-aak-ít.²</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You who are blind,...

Ik is a pro-drop language, so the free personal pronouns are not required if their referent is a subject or object. They can be used in addition to the pronominal subject-agreement suffixes if more emphasis is needed.
5.1.2 **Personal possessive pronouns**

Ik has no other personal possessive pronouns than those presented in (1). Possession is expressed in two ways through those personal pronouns: 1) The first way is to mark possession by putting the pronoun (pro) in the genitive case as an NP modifier, following the possessum NP head. 2) The second way is to put the pronoun in the oblique case as the first element in a possessive compound. Both ways are illustrated below. No semantic difference is known to exist between the two, though pragmatic, discursive or rhythmic preferences may lead a speaker to choose one over the other.

(5) **Pronominal possessive strategies**

<table>
<thead>
<tr>
<th>#1</th>
<th>#2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ox pro-gen</td>
<td>pro[obl]-ox</td>
</tr>
<tr>
<td>rágwa pci.⁴</td>
<td>fici-rágw⁴</td>
</tr>
<tr>
<td>rágwa bi.⁴</td>
<td>bi-rágw⁴</td>
</tr>
<tr>
<td>rágwa ntsí.⁴</td>
<td>ntsí-rágw⁴</td>
</tr>
<tr>
<td>rágwa ngó.⁴</td>
<td>ngó-rágw⁴</td>
</tr>
<tr>
<td>rágwa njíni.⁴</td>
<td>njíni-rágw⁴</td>
</tr>
<tr>
<td>rágwa biti.⁴</td>
<td>biti-rágw⁴</td>
</tr>
<tr>
<td>rágwa ntí.⁴</td>
<td>ntí-rágw⁴</td>
</tr>
<tr>
<td></td>
<td>‘my ox’</td>
</tr>
<tr>
<td></td>
<td>‘your (sg.) ox’</td>
</tr>
<tr>
<td></td>
<td>‘his/her ox’</td>
</tr>
<tr>
<td></td>
<td>‘our (exc.) ox’</td>
</tr>
<tr>
<td></td>
<td>‘our (inc.) ox’</td>
</tr>
<tr>
<td></td>
<td>‘your (pl.)’</td>
</tr>
<tr>
<td></td>
<td>‘their ox’</td>
</tr>
</tbody>
</table>

5.1.3 **Emphatic pronominal compound**

An emphatic pronominal compound can be formed by combining any of the personal pronouns with the words nébu- ‘body’ or nèbitíní- ‘bodies’. Such compounds draw special emphasis to the person referenced by the pronoun. Although these compounds are glossed in English as ‘self/selves’, they do not have a reflexive meaning. Reflexivity in Ik is expressed by the pronoun así- which is covered below in §5.7. The paradigm of emphatic pronominal compounds for all person and numbers is presented in (6):
(6) **Emphatic pronominal compounds**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɲ́ci-nebu-</td>
<td>‘myself’</td>
</tr>
<tr>
<td>bi-nébu-</td>
<td>‘yourself’</td>
</tr>
<tr>
<td>ntsí-nébu-</td>
<td>‘his/herself’</td>
</tr>
<tr>
<td>ŋgó-néb-itíní-</td>
<td>‘ourselves (EXC)’</td>
</tr>
<tr>
<td>ɲjíní-neb-itíní-</td>
<td>‘ourselves (INC)’</td>
</tr>
<tr>
<td>biti-neb-itíní-</td>
<td>‘yourselves’</td>
</tr>
<tr>
<td>ŋtí-neb-itíní-</td>
<td>‘themselves’</td>
</tr>
</tbody>
</table>

In the following example, the Emphatic compound ɲ́ci-nebⁿ with my body’ emphasizes the fact that it is ‘I’ who am going, not you, or anyone else. The context may be that the addressee or someone else had refused to go:

(7) **Keesia ncineb.**

Ke-es-i-á ɲ́ci-nebⁿ

go INT 1SG-REAL I[OBL]-body-INS

I will go myself (with my own body)!

Although usually formed with personal pronouns, emphatic compounds may also involve full nouns. In the following example, the compound roɓa-nebitíní ‘people themselves (people-bodies)’ adds a certain degree of finality and/or concreteness to the fact of people dying:

(8) **Naƙwaa riye n da roɓanebitini tséatik.**

nakwa-a rié-é ŋda roɓa-neb-itíní tsé-áti-kⁿ
even NOM goats GEN and people-body-PL[OBL] die[PL]-3PL-SIML

Even goats…and people themselves dying.

5.1.4 **Bound personal pronouns**

The Ik bound personal pronouns are verbal suffixes. For this reason, they are also treated under §7.4, where their verbal properties are discussed. They have the same person and number distinctions as their free
counterparts. They are viewed as suffixes because 1) they cannot stand alone as a word, and 2) they can be preceded or followed by other verbal suffixes (unlike most clitics). Their grammatical function is to cross-reference the subject of the clause. (9) presents the Ik bound personal pronouns in the unmarked [-ATR] and marked [+ATR] allomorphs:

\[(8) \quad \text{Ik bound pronominal suffixes}\]

<table>
<thead>
<tr>
<th></th>
<th>[-ATR]</th>
<th>[+ATR]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>-íí</td>
<td>-íí</td>
</tr>
<tr>
<td>2SG</td>
<td>-ídí</td>
<td>-idi</td>
</tr>
<tr>
<td>3SG</td>
<td>-í</td>
<td>-i</td>
</tr>
<tr>
<td>1PL.EXC</td>
<td>-ímí</td>
<td>-ímí</td>
</tr>
<tr>
<td>1PL.INC</td>
<td>-ísíí</td>
<td>-ísíí</td>
</tr>
<tr>
<td>2PL</td>
<td>-ítí</td>
<td>-ítí</td>
</tr>
<tr>
<td>3PL</td>
<td>-áti</td>
<td>—</td>
</tr>
</tbody>
</table>

A few comments are in order for the forms in (8). First, the 2SG pronominal suffix {-ídí} has the tone melody HL due to the presence of the depressor consonant /d/. Depending on the verb stem it attaches to, it can surfaces as LL but never as HH. Along the same lines, the 3PL suffix {-áti-} also has a HL tone melody. It can surface as LL but never as HH. Although it does not contain a depressor consonant currently, it seems quite likely that the /t/ in {-áti-} has developed historically from /d/ as in *-ádi. This cannot be proven, but such a development would help explain the HL tone melody. The 3PL suffix is also dominantly [+ATR] as described back in §3.1.3.

As is common cross-linguistically, the Ik bound pronominal suffixes are probably eroded forms of (at least some of) the free forms shown in (1). The devolution of *fici- to {-íí}, for example, may have involved the reinterpretation of /p/ as the high front vowel /i/ leading to [íí]. (In this vein, compare the Ik free form ntsí- ‘he/she/it' to the So oblique 3SG pronominal ici- (Carlin 1993:79)). The loss of /c/ from *fici- could then have happened as a result of a process similar to the ‘/c/ to [i]’ variation found in
So (McKinney 2009). This would have then created a form like [íí] which then could have become [í-í]. The change in [ATR] in this speculative scenario, if true, would have to be explained by other means.

Secondly, the correlation between the 2PL free form bití- and the bound form {-iti} is suggestive, apart from the problem of tone difference. If the bound pronoun is an eroded remnant of the free form, then this would reflect an historical '/b/-drop' sound change (*biti → -iti) that must have affect the 2SG form as well (*bi(d)i → -idi). The latter postulation, of course, requires positing a lost /d/ as well as a lost /b/ for the 2SG pronoun. Historical /b/-dropping is elsewhere attested among archaic kinship terms (see §4.4.).

The current shape of the 1PL.EXC pronominal {-ímí} bears noteworthy resemblance to the Nyang’ía 1PL.EXC pronomoun mis (Heine 1975a), the loss of /s/ notwithstanding. And in the case of the Ik 1PL.INC pronominal {-isíni}, a simple change of /j/ to /s/ could have produced it from the free form njíní (with changes in tone and [ATR]). The plausability of these proposals will have to be judged as further comparative evidence comes to light.

### 5.2 Impersonal possessum pronoun

In addition to the personal possessive pronouns shown above in (5), Ik also has a pronoun that expresses possession without reference to grammatical person. This impersonal possessum pronoun (PSSM) has the form -éní- (no plural). It occurs as the second element (N₂) of a compound, where the N₁ is the possessing entity. The pronoun itself is used to reference a possessum that may or may not also be explicitly mentioned, as in bi-en ‘yours’ versus bi-en áwá ‘your home’. If the possessum is explicitly mentioned, as in bi-ená áwá ‘your home’, it comes after impersonal possessive compound and takes the genitive case (as in ‘you-PSSM home-GEN’).
In combination with a personal pronoun, the impersonal possessum is roughly equivalent in translation to the independent English possessive pronouns, like 'mine', 'yours', 'its', as in:

(9) **Ik impersonal possessum pronoun**

<table>
<thead>
<tr>
<th>Ik form</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɲj-ɛ́nɪ́6</td>
<td>'mine'</td>
</tr>
<tr>
<td>bi-ɛ́nɪ́6</td>
<td>'yours (sg.)'</td>
</tr>
<tr>
<td>nts-ɛ́nɪ́6</td>
<td>'his/hers/its'</td>
</tr>
<tr>
<td>ɲɡó-ɛ́nɪ́6</td>
<td>'ours (exc.)'</td>
</tr>
<tr>
<td>ɲjíní-ɛnɪ6</td>
<td>'ours (inc.)'</td>
</tr>
<tr>
<td>biti-ɛnɪ́6</td>
<td>'yours (pl.)'</td>
</tr>
<tr>
<td>ńtí-ɛnɪ́6</td>
<td>'theirs'</td>
</tr>
</tbody>
</table>

The tone of -ɛnɪ́ changes according to the melody of the compound’s N₁. But because it is in a compound, the dominant [+ATR] value of the N₁ does not spread across the morpheme boundary. The impersonal possessum is analyzed as an N₂ instead of a suffix because, as a general rule: a) It does not alter the tone of the N₁, b) it does not delete the final vowel of the N₁, and c) it is not harmonized for [ATR] by the N₁. Nevertheless, it remains somewhat of a hybrid between suffix and N₂ in that: a) It accompanies a tone change of the N₁ in the case of the 1SG (ɲcí- → ɲjˊ) and b) it deletes the final vowel of the 1SG and 3SG N2 pronouns (ɲcí- → ɲjˊ and ntsí- → ntsˊ).

The impersonal possessum pronominal also combines with full nouns, as in:

(10) **Impersonal possessum with nouns/nominalized verbs**

<table>
<thead>
<tr>
<th>Ik form</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɗaf-oni-ɛ́nɪ́6</td>
<td>the third time (lit. ‘to be three’s)</td>
</tr>
<tr>
<td>cikámá-ɛ́nɪ́6</td>
<td>the womens’</td>
</tr>
<tr>
<td>icé-ɛ́nɪ́6</td>
<td>the Iks’ (language, customs, etc.</td>
</tr>
<tr>
<td>ɲatš-ɛ́nɪ́6</td>
<td>the mens’</td>
</tr>
<tr>
<td>wicé-ɛ́nɪ́6</td>
<td>the children’s</td>
</tr>
</tbody>
</table>
5.3 Indefinite pronouns

Ik has eight indefinite pronouns, listed in (11). But most of the indefinite pronouns are bimorphemic or compounds. The first four in the table are formed on the basis of *koní-* ‘some, another’ which is related to the verb *kon-‘be one’. The next three are based on *kíní-* ‘some (pl.)’, the plural counterpart to *koní-. The last pronoun in the table (*sái-*) is the only free form apart from *koní-. All these indefinite pronouns can a) be fully inflected for case, and b) some can occur with or without explicit nominal complements.

(11) Ik indefinite pronouns

<table>
<thead>
<tr>
<th>Ik indefinite pronouns</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>koní-</td>
<td>‘some, another’</td>
</tr>
<tr>
<td>koní-áí-</td>
<td>‘somewhere’</td>
</tr>
<tr>
<td>koní-áma-</td>
<td>‘somebody (strange)’</td>
</tr>
<tr>
<td>koní-áni-</td>
<td>‘a, some (sg.)’</td>
</tr>
<tr>
<td>kíní-áni-</td>
<td>‘some’</td>
</tr>
<tr>
<td>kíní-ámena-</td>
<td>‘some (strange) issues’</td>
</tr>
<tr>
<td>kíní-robá-</td>
<td>‘some (strange) people’</td>
</tr>
<tr>
<td>sái-</td>
<td>‘some more, some other’</td>
</tr>
</tbody>
</table>

The indefinite notion of ‘any’ is conveyed in Ik with the invariable quantifier *munj*, as in ódowa *munj* ‘any day’.

Four of the eight pronouns listed in (11) can occur with or without a nominal complement. These are *koní-, kíní-áni-, kíní-áni-, and sái-. The other four do not take complements because, as compounds, they already contain a head and modifier (with the exception of *koní-áma-, which because of its morphological structure, must be analyzed as a singulative form):

(12) Atsaa kon.

ats-á-á kon-∅

come-REAL-PRF one-NOM

Another has come.
(13) *Atsa kona amae.*
    ats-á-á  kon-a  ámá-
    come-REAL-PRF one-NOM  person-GEN
    Another person has come.

(14) *Beđa koneenik.*
    béd-á  kóní-éní-k\(^n\)
    want-REAL  one-PSSM-ACC
    She wants some(thing).

(15) *Beđa koneenia kwazae.*
    béd-á  kóní-éní-a  kwaza-
    want-REAL  one-PSSM-ACC  clothing-GEN
    She wants some (piece of) clothing.

(16) *Atsaa sa.*
    ats-á-á  sa-∅
    come-REAL-PRF  some.others-NOM
    Some others have come.

(17) *Atsaa saa robae.*
    ats-á-á  sa-a  roba-
    come-REAL-PRF  some.others-NOM  people-GEN
    Some other people have come.

The pronouns *kón-šma-* ‘somebody’, *kéní-mena-* ‘some issues’, and *kéní-roba-* ‘somebodies’ are not equivalent in meaning to their English glosses. They denote a referent that is unknown and often malevolent—strangers and strange things. The English ‘somebody’ is usually rendered in Ik just as *ám* ‘person’ or *kéní-éna  ámá* ‘some person’. Examples of the strangeness nuance of these indefinite pronominal compounds include the following two:
(18)  *Kawa konoma rijaa ntitia, roba?*

    kaw-a     kón-3m-a    ríjá-a     ntíía     róba
    cut-REAL    some-SING-NOM    forest-ACC    how    people[OBL]

Is some unknown person cutting the forest like that, folks?

This second example, taken from Text 5 in Appendix A, comes from an animal fable where a sick lion is eating the animals that go to visit him. Witnessing the carnage, a rabbit on the outside thinks to himself:

(19)  *Iya kinimena itiyooosa pakwaako.*

    i-a     kíní-men-a    itíyá-ós-á    pakó-áƙɔ-∅
    be-REAL    some-issues-NOM    do-PASS-REAL    cave-inside-ABL

There are some strange things being done inside the cave.

5.4 Interrogative pronouns

Ik makes use of five interrogative pronouns that all inflect fully for case:

(20)  **Ik interrogative pronouns**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>isi-</td>
<td>‘what?’</td>
</tr>
<tr>
<td>nít-/ndaí-</td>
<td>‘where?’</td>
</tr>
<tr>
<td>ndo-</td>
<td>‘who?’</td>
</tr>
<tr>
<td>níté-éni-</td>
<td>‘which (sg.)?’</td>
</tr>
<tr>
<td>níté-éni-</td>
<td>‘which (pl.)?’</td>
</tr>
</tbody>
</table>

Apart from *isi-*, these interrogative pronouns all are built on a proto-interrogative particle like *nd(V)*- or *nt(V)*-. This particle combined historically with a variety of other morphemes to produce the interrogative pronouns of today. For example, the word *ndaí- ‘where’ combines *ndV*- with the nominal root aí- ‘side’. And níté-éni- ‘which (sg.)’ and níté-éni- ‘which (pl.)’ combine the particle with the impersonal possessum pronominal.
Two interrogative concepts are conspicuously absent from (20): ‘when?’ and ‘why?’. As Serzisko observed (1992:200), the word translated into Ik as ‘when?’ (ńté-ódo-o) is a combination of the proto-interrogative *ntV- with the nominal root ódou- ‘day’ in the instrumental case. This is in itself a shorter version of the phrase ńté-énọ ódoue ‘on which day’. Actually, when translated into Ik, the word ‘when’ must be specified for the intended time span, as in ‘which day?’ (ńté-énọ ódoue), ‘which hour?’ (ńté-énọ pásáati), etc.

As for the concept ‘why?’ it is expressed through the word isi- ‘what’ in the dative case (for what?) or ablative case (from what?). It is often combined with the impersonal possessum particle, as in isi-eni-k’. When left-dislocated as in (21), isi- ‘what’ leaves a trace in the form of the dummy pronoun (DP) which marks the movement of a non-core argument. As a non-core argument, isi- could signify purpose (dative) or cause (ablative):

(21)  *Isio naa moo wicea kọdáti*

    isi-o = náá    mo-o    wicé-á    kọdáti
    what-COP = PST1    not-SEQ:DP    children-ACC    cry-3PL

    Why did the children not cry?

(22)  *Bíraa ɗiɗa atsa biyak. Isienik?*

    bráa    ki-d-a    ats-a    biá-k’    isi-eni-k’
    lack-REAL    DEF = one-NOM    come-REAL    outside-DAT    what-PSSM-DAT

    Not a one comes back out. Why?

The normal position for these interrogative pronouns is in a left-dislocated, clause-initial slot where they take the copulative case. But they may also occur in the slot where their referent would appear. (23)-(26) exemplify this flexibility. Note once again that when a fronted pronoun presents a non-core argument, as in (24), the dummy pronoun must mark its absence:
The pronouns *isi*- ‘what’, *ńtí-ńnì* - ‘which (sg.)’, and *ńtí-ńnì* - ‘which (pl.)’ all can occur alone or with nominal complements, as in (27)-(30) below:

(23) *Isio beɗid?*  

\[
\text{isi-o \quad béd-id-∅} \\
\text{what-COP \quad want-2SG-REAL}
\]

What do you want?

(24) *Bedîda is?*  

\[
\text{béd-id-a \quad is-∅} \\
\text{want-2SG-REAL \quad what-NOM}
\]

You want what?

(25) *Ndayoo keesidad?*  

\[
\text{ndai-ó \quad ke-es-id-a = dⁿ} \\
\text{where-COP \quad go-INT-2SG-REAL = DP}
\]

Where are you going?

(26) *Keesida ndaik?*  

\[
\text{ke-es-id-a \quad ndai-kⁿ} \\
\text{go-INT-2SG-REAL \quad where-DAT}
\]

You are going where?

(27) *Isiementiy?*  

\[
\text{isi-emúti-o \quad iⁿ} \\
\text{what-story-COP \quad be-REAL}
\]

What news is there?

(28) *Isiicoo dan?*  

\[
\text{isi-icó-ó \quad d-a = n} \\
\text{what-AGT.PL-COP \quad PRO.PL-NOM = DEM.PL}
\]

What (kind of) people are these?
(29)  Nteenoo amee da?
   ŋtɛ́ɛ̃ɛ́-ọ́  àmɛ́-e  d-a
   which-PSSM-COP person-GEN  PRO.SG-NOM
   Which person is this?

(30)  Ntienoo roɓee da?
   ŋtî-ɛ̃ɛ̃-o  roɓé-é  d-a
   which[PL]-PSSM-COP people-GEN  PRO.PL-NOM
   Which people are these?

Only ndo- can be pluralized and is done so as ndo-íń- ‘who (pl.)?’:

(31)  Ndoo kîdaa?
   ndo-o  kî = dá-á
   who-COP  DIST = PRO.SG-NOM
   Who is that?

(32)  Ndoinio kîdaa?
   ndo-íń-o  kî = dá-á
   who-COP  DIST = PRO.PL-NOM
   Who are those?

In the ablative case, the pronoun ndai- ‘where?’ takes the unexpected form n’déé ‘from where?’. The historical changes that yielded n’déé as the ablative form of ndai- are not really understood. A form closer to what one would expect—ndóó—is instead used in the sense of ‘what about’, as in ndóó ŋkⁿ ‘what about me?’. The following two sentences illustrate the suppletive form n’déé compared with the normal left-dislocated form of ndai- ‘where?’:

(33)  Atsida ndee?
   ats-îd-a  n’déé
   come-2SG-REAL  where.ABL
   You’re coming from where?
(34) *Ndáyyoo atsidad?*

Where are you coming?

When the question ‘Where?’ is asked in isolation, the interrogative pronoun *ńté* is used instead of *ndaíë*, in its nominative case form as *ńtéá*. For example, if someone yells *ntsúó kíɗá* ‘There it is!’ a questioning reply would be *ńtá* ‘Where?’ rather than *ndaikë* ‘where:DAT?’.

5.5 Demonstrative pronouns

*Ik* has a suite of demonstrative pronouns based on the forms *ɗí’* for singular and *ɗí’* for plural. The only phonological difference between them is their [ATR] value. This is one of the rare instances in the language when contrast is made strictly with [ATR]. And based on their underlying forms, the tone melody posited for these pronouns is LH. But, high-tone anticipation changes this to HH in five out of the eight cases. Combined with a proclitic and tone changes, the demonstrative pronouns have three deictic points of reference: proximal, medial, and distal. The table in (35) presents the full case paradigm for the singular demonstrative *ɗí’*:

(35) *Ik* singular demonstrative pronouns

<table>
<thead>
<tr>
<th>Case</th>
<th>Proximal</th>
<th>Medial</th>
<th>Distal</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL</td>
<td><em>ɗí’</em></td>
<td><em>kí = dí</em></td>
<td><em>kí = dí’</em></td>
</tr>
<tr>
<td>NOM</td>
<td><em>ɗí’</em></td>
<td><em>kí = dí’</em></td>
<td><em>kí = dí’</em></td>
</tr>
<tr>
<td>INS</td>
<td><em>ɗí’</em></td>
<td><em>kí = dí’</em></td>
<td><em>kí = dí’</em></td>
</tr>
<tr>
<td>ABL</td>
<td><em>ɗí’</em></td>
<td><em>kí = dí’</em></td>
<td><em>kí = dí’</em></td>
</tr>
<tr>
<td>GEN</td>
<td><em>ɗí’</em></td>
<td><em>kí = dí’</em></td>
<td><em>kí = dí’</em></td>
</tr>
<tr>
<td>ACC</td>
<td><em>ɗí’</em></td>
<td><em>kí = dí’</em></td>
<td><em>kí = dí’</em></td>
</tr>
<tr>
<td>DAT</td>
<td><em>ɗí’</em></td>
<td><em>kí = dí’</em></td>
<td><em>kí = dí’</em></td>
</tr>
<tr>
<td>COP</td>
<td><em>ɗí’</em></td>
<td><em>kí = dí’</em></td>
<td><em>kí = dí’</em></td>
</tr>
</tbody>
</table>
The trait distinguishing the medial and distal forms of ɗɪ- is tone: Medial forms have a LH melody in the nominative, instrumental, and oblique cases, while the distal forms have LL instead. Both medial and distal forms have the singular distal demonstrative ƙɛ attached as a proclitic. In this unstressed position, the vowel /ɛ/ changed to /ɪ/. (35) also exhibits vowel assimilatory processes at work, for example ɗɪ-Ʉ → ɗɄ-Ʉ and ɗɪ-ɛ → ɗɛ-ɛ.

The next table presents the case paradigm for the plural demonstrative pronoun ɗɪ- in its proximal, medial, and distal forms:

<table>
<thead>
<tr>
<th></th>
<th>Proximal</th>
<th>Medial</th>
<th>Distal</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOM</td>
<td>ɗ-ɑ’</td>
<td>ki=ɗ-ɑ’</td>
<td>ki=ɗ-ɑ’</td>
</tr>
<tr>
<td>INS</td>
<td>ɗ-ɑ’</td>
<td>ki=ɗ-ɑ’</td>
<td>ki=ɗ-ɑ’</td>
</tr>
<tr>
<td>ABL</td>
<td>ɗ-ɑ’</td>
<td>ki=ɗ-ɑ’</td>
<td>ki=ɗ-ɑ’</td>
</tr>
<tr>
<td>GEN</td>
<td>ɗ-ɑ’</td>
<td>ki=ɗ-ɑ’</td>
<td>ki=ɗ-ɑ’</td>
</tr>
<tr>
<td>ACC</td>
<td>ɗ-ɑ’</td>
<td>ki=ɗ-ɑ’</td>
<td>ki=ɗ-ɑ’</td>
</tr>
<tr>
<td>DAT</td>
<td>ɗ-ɑ’</td>
<td>ki=ɗ-ɑ’</td>
<td>ki=ɗ-ɑ’</td>
</tr>
<tr>
<td>COP</td>
<td>ɗ-ɑ’</td>
<td>ki=ɗ-ɑ’</td>
<td>ki=ɗ-ɑ’</td>
</tr>
<tr>
<td>OBL</td>
<td>ɗ-ɑ’</td>
<td>ki=ɗ-ɑ’</td>
<td>ki=ɗ-ɑ’</td>
</tr>
</tbody>
</table>

As with the singular demonstrative pronoun, the medial and distal forms of the plural ɗɪ- are distinguished on the basis of tone alone. And they are also built off the proximal base by adding the plural distal demonstrative ƙi as a proclitic. The paradigm in (36) also shows partial vowel assimilation in the ablative and copulative cases, when ɗɪ-Ʉ becomes ɗɄ-Ʉ for both.

The demonstrative pronouns can stand alone, without determiners, as in:

(37) J’eja bee ƙiɗa jii.
    jej-ɑ=‘bee ki=ɗ-ɑ=jjj
    stay-REAL=PST2 MED=one-NOM=also
    That one also stayed yesterday.
And then you sleep in those (ones, i.e. ‘huts’).

But they are often also modified by various spatial determiners such as the singular proximal demonstrative = na and plural distal = ki (§8.2.1):

(39)  *Xeɓa doo na.*

ʃɛɓ-a       ɗɔ́=na
fear-REAL   one-ABL = DEM.SG
She’s afraid of this (one).

(40)  *Beɗia kidá ki.*

bɛ́ɗ-i-a            ki = d-a = ki
want-1SG-REAL     DIST = ones-NOM = DIST.DEM.PL
I want those (ones).

If the demonstrative pronouns are modified by a relative clause, the usual relative pronouns (see §5.4) are not used. This may be due to a prohibition against two pronouns occurring one after another, for example:

(41)  *Mita di zea aƙwedoo ngoe.*

mɪtá     di  ze-a        áƙw-ɛdɔ-ɔ   ŋɡó.ᵉ
be-REAL one[OBL] big-REAL inside-PSSR.SG-ABL we.EXC-GEN
It’s the important one from among us.

Normally, in a sentence like (41), a singular relative pronoun like na would be required between *dị* and *zea*, as in *āmá na ze* ‘person who (is) big’.

Ik has another demonstrative pronoun, *kidása‘*, which is a combination of three elements: 1) the distal plural demonstrative *ki*, 2) the plural demonstrative pronoun in the accusative case (*dịd*), and 3) the indefinite
pronoun saí-. As with the distal demonstrative pronouns listed in (36), the distal demonstrative ki is analyzed here as a proclitic. By contrast, the combination of diá and saí- can be treated as a sort of compound.

As mentioned in §5.3, the pronoun saí- has the indefinite sense of ‘some others’. However, when it comes to kidiásaí-, the distal demonstrative ki (which is inherently definite) has the effect of making this complex pronoun more definite. This accords well with the cross-linguistically attested grammaticalization of a demonstrative to a definite marker (Heine & Kuteva 2007:88). And so a reasonable gloss of kidiásaí- seems to be ‘the others’:

(42)  Taɓolétini kidiásaik.
      taból-ét-ini       ki =diásaí-k’
      celebrate-VEN-SEQ    the =others-DAT
      And they celebrated to (i.e. in front of) the others.

(43)  Na kidiásayaa iwatie ɲakaloa,...
      na =ki =diásaí-á    iw-áti-e ɲakalo-áá
      CONJ =the =others-ACC  hit-3PL-SIML alarm-ACC
      When the others sounded the alarm,...

5.6 Relative pronouns

The Ik relative pronouns are identical in form to the non-final demonstratives (see §8.2). Since demonstratives have a more basic and non-recursive function than relative pronouns, it is assumed that the Ik relative pronouns are a grammaticalization of the demonstratives (cf. Heine & Kuteva 2007:89). One possible chain of grammaticalization for Ik relative pronouns is shown in (44), where there is evolution going from simple noun phrase to stative relative clause to transitive relative clause:
Grammaticalization from demonstratives → relative pronouns

| ámá = na | ‘this person’ |
| ámá = na maráŋ | ‘person who (is) good’ |
| ▼ ámá = na bédá ŋkák’a | ‘person who wants food’ |

Ik relative pronouns are analyzed as enclitics attaching to the main clause argument they are relativizing. This analysis is based on the lexical (§3.1.6) and the post-lexical (§3.1.7) vowel harmony that occurs between the relativized argument and the relative pronoun. More specifically, a lexically [+ATR] relativized argument spreads harmony to the singular remote past relative pronouns =nɔɔ, as in ámoo = noo badukot’a ‘the person who died’. Then, at the post-lexical level, all the plural relative pronouns harmonize the last phonetic syllable of the preceding word if [-ATR], for example when mesce = ni ɓar ‘the beer that is sour’ surfaces as [mesee = ni ɓar].

The Ik relative pronouns not only introduce relative clauses but also fill the slot of the common argument (CA) shared by the main clause and relative clause. They convey the grammatical number of the CA as well as the tense of the relative clause. Tensed relative pronouns may be rare but are not unheard of (Dixon 2010:346). It is no accident that the recent past and remote past demonstratives and relative pronouns are identical in form to the recent and remote past tense clitics (see §7.10.1 and §8.2.2).

The relative pronouns are presented in (45):

<table>
<thead>
<tr>
<th>Ik relative pronouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singular</td>
</tr>
<tr>
<td>Non-past</td>
</tr>
<tr>
<td>Recent past</td>
</tr>
<tr>
<td>Removed past</td>
</tr>
<tr>
<td>Remote past</td>
</tr>
</tbody>
</table>
As (45) shows, the relative pronouns express the grammatical number of their referent, as well as the tense of the relative clause. Besides a general non-past, the pronouns also flesh out the whole three-term past tense system: recent, removed, and remote past. This system of tensed relative pronouns allows the grammar to communicate nuances like the following:

(46)  

| Tensed relative clauses | \( \text{áámá na tódá zuk}^{u} \) | ‘person who talks a lot (now or generally)’ |
| | \( \text{áámá náa tódá zuk}^{u} \) | ‘person who talked a lot (earlier today)’ |
| | \( \text{áámá sma tódá zuk}^{u} \) | ‘person who talked a lot (yesterday)’ |
| | \( \text{áámá noo tódá zuk}^{u} \) | ‘person who talked a lot (a while ago)’ |

In a synchronic description of these relative pronouns, it does little good to analyze them further morphologically. And it is not known whether Ik speakers think of them as including more than one unit of meaning. Nevertheless, at least historically, relative pronouns (singular and plural) at three of the four tense levels do contain more than one morpheme.

To begin with some background information, consider the non-final and final forms of Ik singular and plural tensed demonstratives (cf. §8.2.1):

(47)  

| Ik tensed demonstratives | \( \text{SG} \) | \( \text{PL} \) |
| | \( \text{NF} \) | \( \text{FF} \) | \( \text{NF} \) | \( \text{FF} \) |
| Non-past | \( \text{na} \) | \( \text{n(a)} \) | \( \text{ni} \) | \( \text{n(i)} \) |
| Recent past | \( \text{ná-a} \) | \( \text{ná-k}^{a} \) | \( \text{ní-i} \) | \( \text{ní-k}^{1} \) |
| Removed past | \( \text{sí-na} \) | \( \text{sí-n} \) | \( \text{sí-ni} \) | \( \text{sí-n} \) |
| Remote past | \( \text{nó-ó} \) | \( \text{nó-k}^{0} \) | \( \text{nu-u} \) | \( \text{nu-k}^{u} \) |

Note from (47) that the non-final forms for both singular and plural are identical to the relative pronouns in (45) above. Also note that the element \( \text{na} \) \( (nɔ \text{ with vowel assimilation}) \) in the non-past tense forms a base for all the
other tenses in the singular, just as *ni* (or *nu*) does in the plural. In the final forms of singular recent and remote past, the -kₜ and -kᵣ remind one of the accusative and copulative case suffixes, respectively. Looking at the basic elements *na/nɔ* in the singular and *ni/nu* in the plural, along with what appear to be grammaticalizations of case suffixes (§6.4.2), it seems likely that the tensed demonstratives involve more than one morpheme.

In light of this, the following analysis of the relative pronouns should prove more useful for someone undertaking historical-comparative research. See §8.2.1 for further comments on the morphological makeup of these forms:

(48) **Ik relative pronouns in diachronic analysis**

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-past</td>
<td><em>na</em></td>
<td><em>ni</em></td>
</tr>
<tr>
<td>Recent past</td>
<td><em>ná-a</em></td>
<td><em>ní-i</em></td>
</tr>
<tr>
<td>Removed past</td>
<td><em>si-na</em></td>
<td><em>si-ni</em></td>
</tr>
<tr>
<td>Remote past</td>
<td><em>nɔ-ɔ</em></td>
<td><em>nu-u</em></td>
</tr>
</tbody>
</table>

5.7 Reflexive pronoun

Ik expresses reflexivity with the special free pronoun *así-*, which is undoubtably related to the So word *as* ‘body’ (cf. the Ik word for body, *nébu-*). This form has been analyzed as a verbal particle (Heine & König 1996:47), but the fact that it inflects for case discounts this view. The Ik reflexive pronoun is ‘informative’ in that it communicates the grammatical number (but not person) of its ‘controller’ (Dixon 2012:154). Its controller can be of any grammatical person (1-2-3). If the controller is plural, then the pronoun reflects this by being pluralized with the plurative III (*-ika*). Being a free pronoun, the reflexive is inflected for all cases in the singular and plural:
In a reflexive transitive clause, the controller and the reflexive pronoun are co-referential semantically. At the surface level, the controller is encoded as an agent (A) in the nominative case, while the reflexive can be an object or peripheral argument, depending on the verb. Then the O is encoded by the reflexive pronoun \( as\). It always follows the verb and any overt subject in the clause but may be followed itself by peripheral arguments or adverbs:

\[
\begin{array}{cccc}
\text{NF} & \text{FF} & \text{NF} & \text{FF} \\
\text{NOM} & as-a & as-a^a & ás-šk-a & ás-šk-a^a \\
\text{INS} & as-\circ & as-\circ^a & ás-šk-\circ & ás-šk-\circ^a \\
\text{ABL} & asú-\circ & asú-\circ^a & ás-šk\circ-\circ & ás-šk\circ-\circ^a \\
\text{GEN} & así-\circ & así-\circ^e & ás-šk-e & ás-šk-e^e \\
\text{ACC} & así-á & así-k^a & ás-šk-a & ás-šk-k^a \\
\text{DAT} & así-\circ & así-k^e & ás-šk-e & ás-šk-k^e \\
\text{COP} & asú-\circ & asú-k^a & ás-šk\circ-\circ & ás-šk\circ-k^a \\
\text{OBL} & asi & asl & ás-šk & ás-šk^a \\
\end{array}
\]

(49) **Case inflection of the Ik reflexive pronoun**

In a reflexive transitive clause, the controller and the reflexive pronoun are co-referential semantically. At the surface level, the controller is encoded as an agent (A) in the nominative case, while the reflexive can be an object or peripheral argument, depending on the verb. Then the O is encoded by the reflexive pronoun \( as\). It always follows the verb and any overt subject in the clause but may be followed itself by peripheral arguments or adverbs:

(50) **Iyadaikotoo ntsa asik.**

\[
\text{ŋyádá-ikót-\circ-\circ} \quad \text{nts-a} \quad \text{así-k^a} \\
\text{put.aside-AND-3SG-SEQ} \quad \text{he-NOM} \quad \text{self-ACC}
\]

And he put himself aside.

(51) **Eja kawukoida asa nemeleku.**

\[
\text{ej-á} \quad \text{kaw-ukó-íd-a} \quad \text{as-a} \quad \text{némelékó-∅} \\
\text{not-REAL} \quad \text{cut-AND-2SG-REAL} \quad \text{self-NOM} \quad \text{hoe-INS}
\]

Don’t cut yourself with the hoe.

(52) **Iturata asikak.**

\[
\text{itúr-út-át-a} \quad \text{ás-ška-k^a} \\
\text{praise-CAUS-3PL-REAL} \quad \text{self-PL-ACC}
\]

They praise themselves.
As seen in these examples, any transitive verb can be given a reflexive meaning with this pronoun. To show this lexically, the following verb pairs are given in the infinitive with the reflexive object in the genitive:

(53) **Non-reflexive and reflexive verb pairs**

<table>
<thead>
<tr>
<th>Verbs</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>balés</td>
<td>‘to ignore’</td>
</tr>
<tr>
<td>balésá así</td>
<td>‘to ignore oneself’</td>
</tr>
<tr>
<td>daitetés</td>
<td>‘to make to look nice’</td>
</tr>
<tr>
<td>daitetésá así</td>
<td>‘to make oneself look nice’</td>
</tr>
<tr>
<td>ɗɔtsɛtɛ́s</td>
<td>‘to join’</td>
</tr>
<tr>
<td>ɗɔtsɛtɛ́sá así</td>
<td>‘to join oneself’</td>
</tr>
<tr>
<td>hoɗetés</td>
<td>‘to free’</td>
</tr>
<tr>
<td>hoɗetésá así</td>
<td>‘to free oneself’</td>
</tr>
<tr>
<td>ɪrɪtsɛ́s</td>
<td>‘to take care’</td>
</tr>
<tr>
<td>ɪrɪtsɛ́sá así</td>
<td>‘to take care of oneself’</td>
</tr>
</tbody>
</table>

### 5.8 Distributive pronouns

Ik has two distributive pronouns, the free pronoun *ŋana*- and the bound pronoun *ké*. The first, *ŋana*- , can be roughly glossed as ‘each one’, while the second can be glossed as ‘each’ since it must take a nominal complement. The pronoun *ké*- is odd in that it behaves like a nominal prefix (which present-day Ik does not have) or a proclitic. But since it can change the tone on the nominal complement, it is treated here as a reduced noun functioning as the N₁ of special nominal compound, glossed as ‘each X’. Examples of both distributive pronouns include the following few sentences:
Each one should go to his brother/sister.

Each one of us came and took a stab (at a bull).

Each and every person will go for the census.

Each man holding his own spear.

5.9 Cohortative pronouns

The Ik cohortative pronouns are complex: *taŋɛ́ɛ́dɛ* in the singular and *taŋá-ik-mu*- in the plural. They consist of the root *taŋá-* plus the singular and plural possessive suffixes (§4.2.5-4.2.6). The root *taŋá-* does not occur alone anywhere else in the language. This pronoun is called ‘cohortative’ because it refers to any other member of some group, or even just a pair. As such, the best single gloss for it in English would be ‘co-’ or ‘cohort’, although that obviously does not fit all contexts. Better glosses may be ‘colleague’, ‘age-mate’, ‘mate’, ‘sibling’, etc. depending on circumstances.

The two sentences below illustrate the use of the cohortative pronouns:
(58)  *Isio minidee iŋitiesia taŋeede?*

\[
\text{isi-o mɪ́n6ɪ́d6ɛ=ɛ iŋit6i6esí6a taŋɛ́6ɛ́dɛ6∅}
\]

what-COP love-2SG-REAL = DP imitate-PLUR-INF-ACC cohort-PSSR-GEN

Why do you love to imitate your sister (i.e. co-child)?

(59)  *Atsuo taŋaikin.*

\[
\text{ats6u6o taŋá6ɪ́k6ɪn6∅}
\]

come-3SG-SEQ cohort-PL-PSSR.PL-NOM

And their relatives (i.e. co-people) came.

### 5.10 Dummy pronoun

Ik uses the pronominal enclitic =ˊe to stand in as a ‘dummy’ for a peripheral argument that is missing from its expected place in a clause. Heine was the first to identify this morpheme and give it its current label (1983:§2.3.5). In form and function, the dummy pronoun (DP) largely coincides with the Turkana subjunctive marker -rɛ̀ (Dimmendaal 1983:189), though other parallels have been found in Cushitic and Omotic (see §7.5). The dummy pronoun is underlyingly [-ATR] but is harmonized by [+ATR] stems. Its floating H tone is posited on the basis of the tone changes it causes on the preceding stem. The floating H may be a lexicalization of high-tone insertion meant to counteract the effects of the depressor /d/.

The dummy pronoun (DP) attaches to the end of verbs and is analyzed as a clitic rather than a suffix because it always comes last, regardless of preceding verbal suffixes. But in any case, it could just as well be treated as a suffix without any problems. Because it attaches to verbs, the dummy pronoun is also discussed ahead in §7.5. This enclitic can be difficult to recognize because its non-final form /=ˊe/ is highly susceptible to vowel harmony and assimilation. Two of its many allomorphs are shown below:
Then they came with it.

And people started (saying) woo, woo, woo…

The dummy pronoun refers anaphorically back to a non-core argument mentioned earlier in the discourse, either in the same clause or in one or more clauses earlier. Heine & König state that the DP marks any missing verbal complement (1996:53), but my data show that it only marks non-core arguments. Moreover, a ‘core argument’ in Ik is defined in this grammar as an argument that does not leave behind the DP upon syntactic movement.

Speakers may use the DP to avoid having to repeat an understood argument, or the syntax may simply require it when an argument has been fronted for syntactic reasons. In examples (62) and (64) below, there are simple clauses with a peripheral locative (sédak') and a comitative argument (daɗo ɲci). In (63) and (65), note how the DP is used to fill in for the missing argument:

I don’t go (there, i.e. the garden) regularly.
But there are also instances where the syntax of subordinate clauses rearranges the usual order of clausal constituents. Temporal subordinate clauses in Ik have the form of a relative clause (§9.9.1), and Ik time expressions are often encoded in the instrumental case (i.e. as a non-core argument). These two factors combined mean that a temporal subordinate clause without an overt time word marks its verb with the DP. This is because the syntax is interpreting the temporal conjunction as a relative pronoun whose common argument is peripheral argument that in fact does not exist. So in the following two examples, the DP is present on the verb to show that the missing argument—a time expression—is accounted for:

(66)  **Noo kwatsiad,...**

  noo  kwáts-í-á = d°
  CONJ.PST3  small-1SG-REAL = DP

  When I was small,...

(67)  **Sina iyanee Kamionok,...**

  si-na  i-an-é = e  kámióno-k°
  CONJ.PST2  be-IPS-REAL = DP  Kamion-DAT

  When people were in Kamion yesterday,...

Likewise, if the common argument (CA) or head of a normal relative clause is a peripheral argument in the relative clause, then the dummy pronoun
must be attached to the verb. This is because the relative pronoun representing the CA of the relative clause comes before the verb in Ik, meaning it has been fronted from what would be its normal position after the verb. This fulfills the requirements for the use of the dummy pronoun:

\[(68)\] \(\text{Duo nui didia watad.}\)
\[
\begin{array}{llll}
\text{ɗu-} = \text{nui} & \text{didi-a} & \text{wat-} = \text{d vowed} \\
\text{PRO.PL-COP} = \text{REL.PL.PST3} & \text{weather-ACC} & \text{rain-REAL = DP}
\end{array}
\]
It’s the ones (i.e. reasons) which it rained for.
‘That’s why it rained.’

\[(69)\] \(\text{Odoiciko ni atsiimad.}\)
\[
\begin{array}{llll}
\text{ódo-icík-} = \text{ni} & \text{ats-í-ím-a = d vowed} \\
\text{day-PL-INS} = \text{REL.PL} & \text{come-PLUR-1PL.EXC-REAL = DP}
\end{array}
\]
During the days which we usually come on.
‘The days when we usually come.’

\[(70)\] \(\text{Da nui biraad, mayuode emuti dee.}\)
\[
\begin{array}{llll}
\text{ɗ-} = \text{nui} = \text{nu-u} & \text{bíra-} = \text{d vowed} | \\
\text{ones-NOM = REL.PL-PST3} & \text{lack-REAL = DP}
\end{array}
\]
Those it was missing from,
\[
\begin{array}{llll}
\text{ma-íó = 'de} & \text{emuti = 'd éé} \\
\text{give-IMP.PL = DP} & \text{story[OBL] = ANPH.SG}
\end{array}
\]
give them that story!

In (68), the CA of the main clause (a copular cleft construction) and the relative clause is the cause or reason for rain. Since it is left-dislocated out of the relative clause, it is marked with the DP. In (69), the CA of main and relative clauses is a time expression. In (70), the DP is used twice: 1) First, it marks the source object of the verb \text{bíraa} ‘it lacks’ that has been fronted (things lack \text{from} in Ik), and 2) second, it marks the recipient object of the imperative verb \text{maíó} ‘give (pl.)’ that is in the previous clause \((\text{ɗa} = \text{nui})\).
The description of Ik ‘case’ is placed here between nouns and verbs because as a meta-categorial system, it applies to both these major word classes. Case is the backbone of Ik grammar. It permeates nearly every grammatical subsystem, such that a good grasp of it is key to knowing the language. Thus, beyond giving an overview of the case system (§6.1), this chapter’s aim is to lay out the details of case in the nominal system (§6.2-6.3) and grammaticalized ‘case’ in other systems, particularly that of verbs (§6.4).

As far as case languages in Africa go, Ik is a magnificent specimen. The following artificially elicited (but fully grammatical) sentence illustrates this by making use of all eight morphological cases: Nominative\(^1\), Copulative\(^2\), Accusative\(^3\), Ablative\(^4\), Dative\(^5\), Genitive\(^6\), Instrumental\(^7\), and Oblique\(^8\):

\[
\text{Benia ntsa amoo noo cea inwaa}
\]
\[
\text{not.be-REAL he-NOM}^1 \text{ person-COP}^2 = \text{REL.SG.PST3 kill-real animal-ACC}^3
\]

He is not the person who killed the animal

\[
\text{rijaakoo sedee ntsie biso nda nc.}
\]
\[
\text{forest-inside-ABL}^4 \text{ garden-DAT}^5 \text{ he-GEN}^6 \text{ spear-INS}^7 \text{ with I[OBL]}^8
\]

from the forest in his garden with a spear with me.

A complex sentence like this one embodies the language’s full-fledged morphological case-marking system. In addition to word order and connectives like \( \text{nda} \) ‘with’, Ik uses this case system to mark grammatical relations and encode semantic roles in an integral and efficient manner.
6.1 Case overview

“The case marking typology of a language is surely its most central
typological parameter, since almost all other parts of the grammar
must interact with it.”—Talmy Givón, quoted by Serzisko (1992:50)

All Ik nominals must be inflected for case, and formal parallels of nominal
case markers are found in other diverse parts of the grammar. Due to its
grammatical centrality, the Ik case system has already been the subject of
several works (e.g. Heine 1990, König 2002, König 2008, and Schrock
2014). As König defines it, “a case system is an inflexional system of
marking nouns or noun phrases for the type of relationship they bear to
their heads... expressed by affixes, tone, accent shift, or root reduction...”
(2008:5). Out of the above list, Ik uses a combination of affixes and stem
reduction to encode case relations. The affixes are suffixes, and stem
reduction means the stem-final vowel is deleted before some case suffixes.

Ik employs eight cases to encode grammatical relations between verbs and
their arguments, or between arguments and modifiers (genitive). In König’s
African case typology, Ik is a Type 2 split-accusative system in which both the
nominative and accusative cases are marked (2008:10). It is ‘accusative’ in
that when core clausal arguments are marked differently from each other, S
and A take the nominative case, while O takes the accusative case. And it is
‘split’ in that this accusativity only occurs when the subject (A) is third
person. The objects (O) of first and second person subjects (A/S) take the
nominative case. And when a subject (A/S) is preposed before the verb, for
example in most types of subordinate clauses, it also takes the accusative.

(2) 1/2 person subjects 3 person subjects

A S O NOM A S O ACC
Blake defines case as a typical system of “marking the relationship of a noun to a verb at the clause level or of a noun to a preposition, postposition or another noun at the phrase level” (1994:1). True to this definition, Ik case encodes the grammatical relations between a verb and its core arguments and any non-core arguments. And though in Ik the genitive case can mark arguments for some verbs, its main function is to mark the relationship between a noun phrase and a possessive nominal modifier.

A ‘core argument’ in Ik is generally defined as any verbal argument that cannot be represented by the dummy pronoun (§5.10). Normally such arguments are encoded with the nominative, accusative, or copulative cases, but as explained below, various complications occur. And as its label suggests, the ‘oblique’ case straddles the simple divide between ‘core’ and ‘non-core’ cases: It actually encodes all core arguments in imperative and optative clauses, as well as a variety of peripheral argument roles in other types of clauses, but it cannot be represented by the dummy pronoun. The basic case-marking scheme for clausal arguments in Ik is presented in (3):

(3) Basic case-marking scheme on clausal arguments

<table>
<thead>
<tr>
<th>Core</th>
<th>NOM, ACC, COP, (OBL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-core</td>
<td>INS, ABL, DAT, GEN, (OBL)</td>
</tr>
</tbody>
</table>

Subjects (A/S) of indicative clauses always bear the nominative case suffix:

(4) Epa ŋok.
    ep-a  ŋók-a
    sleep[3SG]-REAL dog-NOM
    The dog is sleeping.

(5) Ats’a ŋoka okak.
    áts'-á ŋók-á  ṣká-k
    gnaw[3SG]-REAL dog-NOM bone-ACC
    The dog is gnawing a bone.
Subjects (A/S) of conditional/hypothetical subordinate clauses with a sequential verb form are also marked with the nominative case. (This is because the syntax is interpreting the conjunction *na* as filling the verbal slot; indeed it can be followed by both tense and adverbial enclitics as any typical verb would. For more on subordinate clause syntax, see §9.9):

(6)  *Na bia iryameiduo kaudzo,*…

\[
\begin{align*}
na & = bi-a_s \\
iryám-é-idu-o & = kaúdzo-e \\
\text{CONJ} & = youl.SG-NOM \\
\text{get-VEN-2SG-SEQ} & = \text{money-DAT}
\end{align*}
\]

If you come across money,…

(7)  *Na feta nketoobia,*…

\[
\begin{align*}
na & = fet-a_s \\
ŋk̄et̄o-ɔ & = bi-a \\
CONJ & = sun-NOM \\
edt-INCH-3SG-SEQ & = youl.SG-ACC
\end{align*}
\]

If you get thirsty,… (lit. 'If the sun starts eating you,…)

But subjects (A/S) of all other types of subordinate clauses take the accusative case. In such clauses, the constituent order is SV/AVO, a deviation from the language’s unmarked VS/VAO order. For yet unknown reasons, Ik syntax marks preverbal subjects (with the above exceptions of sequential subordinate clauses) with the accusative case, as in:

(8)  *Noo ncia kwatsiyaad,*…

\[
\begin{align*}
noo & = fci-a_s \\
kwatsí-i-a & = d” \\
\text{CONJ.PST} & = 1-ACC \\
\text{small-PLUR-1SG-REAL} & = \text{DP}
\end{align*}
\]

When I was small,…

(9)  *Naa ojoria wetetie koinia,*…

\[
\begin{align*}
náa & = ojori-a_s \\
wét-ét-i-e & = kófñá-a \\
\text{CONJ} & = \text{elephant-ACC} \\
\text{drink-VEN-3SG-SIML} & = \text{scent-ACC}
\end{align*}
\]

When the elephant catches the scent,…
However, the subjects (A/S)—or ‘vocatives’ if one prefers—of imperative and optative clauses take the oblique case:

(10)  *Kae bi demus!*

    ka-é    bi₃   demus
    go-IMP.SG you.SG[OBL] quickly

    You go quickly!

(11)  *Gokaaketano njin!*

    gok-aak-ét-ano    njín₃₆
    seated-DISTR-INCH-OPT we.INC[OBL]

    Let us be seated!

The direct object (O) of a transitive clause in the indicative mood, with a first or second person subject, also takes the nominative case:

(12)  *Ats’ukotima naa njur.*

    áts’-ókót-im-á = naa    þur₃°₉
    eat-COMP-1PL.EXC-REAL = PST1 cane.rat-NOM

    We ate the cane rat up.

(13)  *Rebida nk.*

    réb-id-a    þk₃°₉
    deny-2SG-REAL  I-NOM

    You’re denying me (i.e. withholding sth. from me).

But the direct object (O) of 1) any clause with a third-person subject or 2) any transitive subordinate clause takes the accusative case:

(14)  *Ats’a kweta ncik.*

    áts’-á   kwet-a  þci-k₃°₉
    eat[3SG-REAL] arm-NOM  I-ACC

    My arm is hurting me.
(15)  *Isio rebidee ncik?*

\[
\begin{align*}
\text{isi-o} & \quad [\text{réb-id-e} = \text{e} \quad \text{nci-k}^3_\text{o}]_{\text{SUBORD}} \\
\text{what-COP} & \quad \text{deny-2SG-REAL} = \text{DP I-ACC}
\end{align*}
\]

Why are you denying me?

Direct objects (O) of imperative or optative clauses take the oblique case:

(16)  *Duƙwee mese ni ʝakak.*

\[
\begin{align*}
\text{d-uƙo-e} & \quad \text{mese}_\text{o} = \text{ni} \quad \text{jáká-k}^6 \\
\text{take-AND-IMP.SG} & \quad \text{beer}[\text{OBL}] = \text{DEM.PL elders-DAT}
\end{align*}
\]

Take this beer to the elders.

(17)  *Ogoe ziƙoti riy.*

\[
\begin{align*}
\text{ógo-e} & \quad \text{zi-ƙɔt-t} \quad \text{ri}_\text{o} \\
\text{let-IMP.SG} & \quad \text{tie-COMP-3SG}[\text{OPT}] \quad \text{goat}[\text{OBL}]
\end{align*}
\]

Let him tie up the goat.

The subject of a copula clause (CS) is also marked with the nominative case. For a full list of examples, see §10.4. And the complement of a copula-of-identity clause (CC) is marked with the oblique case:

(18)  *Mitima ngwa ɲot.*

\[
\begin{align*}
\text{mit-im-á} & \quad \text{ŋgw-a}_{\text{CS}} \quad \text{ɲɔt}_{\text{CC}} \\
\text{be-1PL.EXC-REAL} & \quad \text{we.EXC-NOM} \quad \text{men}[\text{OBL}]
\end{align*}
\]

We are men.

Lastly, in copula clauses, the copula subjects (CS) are marked with the nominative and the copula complements (CC) with the copulative case:

(19)  *J’akamoo nk.*

\[
\begin{align*}
\text{ják-ámo-o}_{\text{CC}} & \quad \text{ŋk}^6_{\text{CS}} \\
\text{elders-SING-COP} & \quad \text{I-NOM}
\end{align*}
\]

‘An elder am I.’
Thus are the core clausal arguments marked with case in Ik. When it comes to non-core (peripheral) arguments, their relations to the verb are encoded by five different cases (including the oblique). A representative example for each non-core case is provided in the next sentences, with an indication of some of the prototypical semantic roles they express. More detailed treatments of each non-core (and core) cases follow in the sections below.

(20) Oblique:  
\begin{equation} \begin{aligned} \text{Cemata waako nda fek.} \\
\text{crm-á-t-a wáá-k-o ŋda fek₁ ADDITION} \\
\text{fight-3PL-REAL play-INS and laughing[OBL]} \\
\end{aligned} \end{equation}
They are playing and laughing.

(21) Instrumental:  
\begin{equation} \begin{aligned} \text{Djualte ṅoki sew.} \\
\text{dalút-e ṅókí sew₃ INSTRUMENT} \\
\text{hit-IMP.SG dog[OBL] stick-INS} \\
\end{aligned} \end{equation}
Hit the dog with a stick.

(22) Ablative:  
\begin{equation} \begin{aligned} \text{Atsima awao.} \\
\text{ats-ǐm-á awá-o SOURCE} \\
\text{come-1PL.EXC-REAL home-ABL} \\
\end{aligned} \end{equation}
We’re coming from home.

(23) Genitive:  
\begin{equation} \begin{aligned} \text{Beɗa ɗawaa ntsi.} \\
\text{bɛ́ɗá ɗawá-a ntsí-∅ POSSESSION} \\
\text{want[3SG]-REAL knife-ACC s/he-GEN} \\
\end{aligned} \end{equation}
He’s looking for his knife.

(24) Dative:  
\begin{equation} \begin{aligned} \text{Meesia bitik.} \\
\text{me-es-i-á biti-k₃ RECIPIENT} \\
\text{give-INT-1SG-REAL you.PL-DAT} \\
\end{aligned} \end{equation}
I will give (it) to you.

The following table presents a grammatical summary of the eight cases:
<table>
<thead>
<tr>
<th>Case</th>
<th>Grammatical relation(s)</th>
<th>Semantic role(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOM</td>
<td>1) Subject (A/S) of indicative main clauses and sequential subordinate clauses</td>
<td>Agent, Donor, Speaker, Cogitator, Perceiver, Experiencer, Theme, Patient (passive)</td>
</tr>
<tr>
<td></td>
<td>2) Object of indicative clauses with 1-2 person subjects</td>
<td>Patient, Stimulus, Complement</td>
</tr>
<tr>
<td>INS</td>
<td>Non-core argument</td>
<td>Instrument, Path, Manner, Comitative, Time, Progressive</td>
</tr>
<tr>
<td>ABL</td>
<td>Non-core argument</td>
<td>Source, Location, Cause, Stimulus</td>
</tr>
<tr>
<td>GEN</td>
<td>1) Modifier of noun phrase head</td>
<td>Possession</td>
</tr>
<tr>
<td></td>
<td>2) Complement of simulative clause</td>
<td>Stimulus</td>
</tr>
<tr>
<td>DAT</td>
<td>Non-core argument</td>
<td>Recipient, Beneficiary...</td>
</tr>
<tr>
<td>Case</td>
<td>Description</td>
<td>Location</td>
</tr>
<tr>
<td>------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Goal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Purpose</td>
</tr>
<tr>
<td>ACC</td>
<td>1) Object of indicative transitive clauses with 3SG or 3PL subjects</td>
<td>Patient</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stimulus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Complement</td>
</tr>
<tr>
<td></td>
<td>2) Subject (A/S) of all but sequential subordinate clauses</td>
<td>(Same as NOM)</td>
</tr>
<tr>
<td>COP</td>
<td>1) Complement of Identity copula clauses</td>
<td>Identity</td>
</tr>
<tr>
<td>OBL</td>
<td>1) Non-core argument</td>
<td>Addition</td>
</tr>
<tr>
<td></td>
<td>2) Complement of quotative clause</td>
<td>Message</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thought</td>
</tr>
<tr>
<td></td>
<td>3) Complement of Identity copula clause</td>
<td>Identity</td>
</tr>
<tr>
<td></td>
<td>3) Subject of imperative and optative clauses</td>
<td>(Same as NOM)</td>
</tr>
<tr>
<td></td>
<td>4) Object of imperative and optative clauses</td>
<td>(Same as ACC)</td>
</tr>
</tbody>
</table>
6.2 Case suffixes

Ik case morphemes are suffixes that consist of a single vowel (-V), a -CV sequence, or a zero realization (Ø). These morphemes are analyzed as suffixes rather than clitics because they always attach directly to the head and not the edge of the noun phrase. And they are analyzed as suffixes rather than postpositions or compound Ns because a) they are highly eroded and b) cannot take any suffixes themselves.

The case suffixes have L tone but undergo tone changes coming from the stem to which they attach. Though there are eight cases, only six are distinct suffixes. Two other case suffixes (the instrumental and the ablative) are identical in form but differ in whether they subtract the stem-final vowel. This difference creates the seventh case marker. Finally, an eighth case (the oblique) is zero-marked. The eight case suffixes are given in (26):

(26) *Ik case suffixes*

<table>
<thead>
<tr>
<th>Case</th>
<th>Abbreviation</th>
<th>Case suffix</th>
<th>Stem reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominative</td>
<td>NOM</td>
<td>-a</td>
<td>Yes</td>
</tr>
<tr>
<td>Instrumental</td>
<td>INS</td>
<td>-ɔ</td>
<td>Yes</td>
</tr>
<tr>
<td>Ablative</td>
<td>ABL</td>
<td>-ɛ</td>
<td>No</td>
</tr>
<tr>
<td>Genitive</td>
<td>GEN</td>
<td>-ɛ</td>
<td>No</td>
</tr>
<tr>
<td>Dative</td>
<td>DAT</td>
<td>-kɛ</td>
<td>No</td>
</tr>
<tr>
<td>Accusative</td>
<td>ACC</td>
<td>-ka</td>
<td>No</td>
</tr>
<tr>
<td>Copulative</td>
<td>COP</td>
<td>-kɔ</td>
<td>No</td>
</tr>
<tr>
<td>Oblique</td>
<td>OBL</td>
<td>-Ø</td>
<td>No</td>
</tr>
</tbody>
</table>

6.2.1 Case allomorphy

The Ik case suffixes undergo intricate morphophonological variations that have confounded earlier attempts to analyze and describe the case system as a whole. From Crazzolara 1967 all the way to Schrock 2014, the literature reveals a progressing understanding of Ik case. Some of these tricky morphophonological variations include pre-pause devoicing (§2.3.1), inter-
vocalic consonant deletion (§2.9.3), vowel assimilation (§2.9.4), and vowel harmony (§3.1). A good way to become familiar with the variations is to look at the case declensions of several nouns, starting with ŋókí- ‘dog’:

(27) **Case inflection of ŋókí- ‘dog’**

<table>
<thead>
<tr>
<th>Case</th>
<th>Non-final (/____#)</th>
<th>Final (/____#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOM</td>
<td>ŋók-á</td>
<td>ŋók-a</td>
</tr>
<tr>
<td>INS</td>
<td>ŋók-ó</td>
<td>ŋók-o</td>
</tr>
<tr>
<td>ABL</td>
<td>ŋókú-o</td>
<td>ŋókú-∅</td>
</tr>
<tr>
<td>GEN</td>
<td>ŋókí-e</td>
<td>ŋókí-∅</td>
</tr>
<tr>
<td>DAT</td>
<td>ŋókí-e</td>
<td>ŋókí-∅</td>
</tr>
<tr>
<td>ACC</td>
<td>ŋókí-a</td>
<td>ŋókí-k°</td>
</tr>
<tr>
<td>COP</td>
<td>ŋókú-o</td>
<td>ŋókú-k°</td>
</tr>
<tr>
<td>OBL</td>
<td>ŋókí</td>
<td>ŋók1</td>
</tr>
</tbody>
</table>

As shown in (27), Ik case suffixes have non-final and final forms. This division entails different things for different groups of case suffixes. First, all suffixes undergo devoicing in final, pre-pause environments (§2.3.1). Suffixes that consist of vowels only (NOM, INS, ABL, GEN) are devoiced or deleted, depending on the preceding consonant or vowel (see §2.3.1). For suffixes that consist of a -CV sequence (DAT, ACC, COP), their final vowel is also devoiced or deleted under the same conditions. For the one case that is zero-marked (OBL), the final vowel of the noun root or stem is devoiced. Second, all the suffixes that contain the segment /k/ (DAT, ACC, COP) lose the /k/ in their non-final forms. This deletion of /k/ is part of a larger, language-wide tendency to delete consonants in non-final positions (§2.9.3).

All case suffixes undergo vowel harmony (§3.5). Though the underlying forms of the case suffixes are posited as [-ATR], all the suffixes but NOM in (27) are [+ATR] because they have been harmonized by the [+ATR] ŋókí- ‘dog’. Also, when a case suffix involving back vowels /ɔ, o/ follows a root with a high front vowel /ɪ, i/, the high front vowel is backed to /ʊ, u/. Vowel harmony and assimilation occur whether a /k/ intervenes or not.
Another variation—total vowel assimilation—occurs when a [-ATR] noun ending in /a/, like ŋʊrá- ‘cane rat’, is inflected for all eight cases:

(28) **Case inflection of ŋʊrá- ‘cane rat’**

<table>
<thead>
<tr>
<th>Case</th>
<th>Non-final (/____...#)</th>
<th>Final (/____#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOM</td>
<td>ŋʊr-a</td>
<td>ŋʊr-∅</td>
</tr>
<tr>
<td>INS</td>
<td>ŋʊr-ɔ</td>
<td>ŋʊr-ɔ</td>
</tr>
<tr>
<td>ABL</td>
<td>ŋʊrɔ́-ɔ́</td>
<td>ŋʊrá-ɔ́</td>
</tr>
<tr>
<td>GEN</td>
<td>ŋʊrɛ́-ɛ́</td>
<td>ŋʊrá-ɛ́</td>
</tr>
<tr>
<td>DAT</td>
<td>ŋʊré-ɛ́</td>
<td>ŋʊrá-ḱ</td>
</tr>
<tr>
<td>ACC</td>
<td>ŋʊrá-á</td>
<td>ŋʊrá-k₇</td>
</tr>
<tr>
<td>COP</td>
<td>ŋʊr5-ɔ̥</td>
<td>ŋʊrá-k₅</td>
</tr>
<tr>
<td>OBL</td>
<td>ŋʊra</td>
<td>ŋur</td>
</tr>
</tbody>
</table>

The data in (28) show how the non-final forms of the ablative, genitive, dative, and copulative cases totally assimilate the root-final /a/ of ŋʊrá-. Total assimilation of this type is widespread in the language (§2.9.4) and is an important key to unlocking the case system as a whole.

Finally, the [+ATR] noun dakú- ‘tree’, when inflected for all the cases, brings out a few more morphophonological variations, as discussed below:

(29) **Case inflection of dakú- ‘tree’**

<table>
<thead>
<tr>
<th>Case</th>
<th>Non-final (/____...#)</th>
<th>Final (/____#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOM</td>
<td>dakw-a</td>
<td>dakw-₇</td>
</tr>
<tr>
<td>INS</td>
<td>dak-ɔ</td>
<td>dak-ɔ</td>
</tr>
<tr>
<td>ABL</td>
<td>dakú-ɔ (dakw-ɔ̥)</td>
<td>dakú-ɔ̥</td>
</tr>
<tr>
<td>GEN</td>
<td>dakú-ɛ (dakw-ɛ̇)</td>
<td>dakú-ɛ̇ (dakw-ɛ̇)</td>
</tr>
<tr>
<td>DAT</td>
<td>dakú-ɛ (dakw-ɛ̇)</td>
<td>dakú-ɛ̇</td>
</tr>
<tr>
<td>ACC</td>
<td>dakú-á (dakw-á̃)</td>
<td>dakú-ā</td>
</tr>
<tr>
<td>COP</td>
<td>dakú-ɔ (dakw-ɔ̥)</td>
<td>dakú-ɔ̥</td>
</tr>
<tr>
<td>OBL</td>
<td>daku</td>
<td>dak</td>
</tr>
</tbody>
</table>
One thing to note from (29) is that in the nominative case, the root *dakú-'tree' does not surface *dakéa/dakéᵃ ‘tree-NOM’. This goes against what is normally expected from stem reduction. In fact, a small number of nouns ending in a back vowel retain them as the semi-vowel /w/. To see a list of other such exceptions to the rule, skip ahead to §6.3.1 on the nominative.

A second thing to note is that in the five cases that involve the full underlying noun root and a suffix consisting of a vowel only, a root-final back vowel may be optionally desyllabified to /w/ (§2.4.2). When this happens, the back vowel gives up its mora to the following case suffix, which results in the compensatory lengthening of that suffix.

Lastly, in the final form of the genitive case, when the genitive case suffix {-ɛ, e} follows a high back vowel, the high back vowel may raise it to /ɪ, i/.

### 6.2.2 Case origins

The precise origin of the Ik case suffixes is not known, but a clue may come from how they affix to nominal stems. As noted earlier, the case suffixes can be grouped according to their suffixation ‘strategy’—subtracting or preserving the stem-final vowel. These different suffixation strategies may point to two different origins for the suffixes. Ik syllable structure does not allow consonant clusters, so those case suffixes that begin with /k/ (accusative {-ka}, dative {-kɛ}, and copulative {-kɔ}) require the stem-final vowel to remain to prevent a CC sequence. It seems likely, then, that the ablative {-ɔ} and genitive {-ɛ} may have once contained a consonant as well, since they preserve the stem-final vowel. The nominative {-a} and instrumental {-ɔ} suffixes, though, seem to have originated as single vowels since they do not require the stem-final vowel to break up a CC sequence.

In terms of ultimate origin, according to Heine & Kuteva, there are three known pathways for the evolution of case markers (2007:62, 75, 91):
Evolutionary pathways for case markers

1. Noun > (adposition) > case marker
2. Verb > case marker
3. Adposition > case marker

As a working hypothesis, Ik case markers may have originated from N₁-N₂ compounds where the N₂ first desemanticized slightly to become an adposition. The adposition (postposition) then desemanticized further and eroded phonetically to become the language’s present-day case morphemes. Even today, compounding is the language’s primary nominal word-building mechanism (see §4.3.). Lexical compounds join nouns to nouns, as in:

Lexical compounds

<table>
<thead>
<tr>
<th>Noun (Ik)</th>
<th>English</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>bɛfá-cɛ́mɛ́r</td>
<td>'Cissus rhodesiae herb'</td>
<td>(puff adder-herb)</td>
</tr>
<tr>
<td>aká-kwá‘</td>
<td>‘lip’</td>
<td>(mouth-edge)</td>
</tr>
<tr>
<td>dĩde-ŋwa</td>
<td>‘female donkey’</td>
<td>(donkey-female)</td>
</tr>
<tr>
<td>lɛra-akʷa</td>
<td>‘White-Thorn place’</td>
<td>(White Thorn-inside)</td>
</tr>
<tr>
<td>wáána-ho</td>
<td>‘church’</td>
<td>(prayer-hut)</td>
</tr>
</tbody>
</table>

In principle, any noun in the language can be a compound’s N₂ (though not all will be semantically acceptable), but a smaller subset of nouns are more productive and seem to be in the process of shifting from the status of full nouns to nominal adpositions or even suffixes. They include the following:

Grammaticalizing compound N₂s

<table>
<thead>
<tr>
<th>Noun (Ik)</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>akɔ́‘</td>
<td>‘interior’ &gt; Inessive case suffix?</td>
</tr>
<tr>
<td>ámá‘</td>
<td>‘person’ &gt; Agentive singular suffix?</td>
</tr>
<tr>
<td>icé‘</td>
<td>‘(Ik) people’ &gt; Agentive plural suffix?</td>
</tr>
<tr>
<td>imá‘</td>
<td>‘child’ &gt; Diminutive singular suffix?</td>
</tr>
<tr>
<td>wicé‘</td>
<td>‘children’ &gt; Diminutive plural suffix?</td>
</tr>
</tbody>
</table>

The nominals in (32), while today still full nouns in their own right, also function in compounds with semi-grammatical functions. It looks like a slow
transition from noun to adposition or inflectional morpheme is currently underway. Admittedly a matter of speculation, this idea is given just as a possible scenario for how Ik case suffixes developed. And unfortunately, it is not known whether any of the Ik case suffixes could be tied to any nouns with full lexical status synchronically; these have yet to be identified.

In terms of areal parallels for the Ik case system, the closest place to look is Teso-Turkana. Dimmendaal’s description of the Turkana case system reveals a few similarities with Ik but also substantial differences (1983:66-67). With six cases (absolutive, nominative, genitive, instrumental, locative, and vocative), Turkana has almost as many as Ik. But a crucial difference is that Turkana cases are marked with tone rather than affixes. Also, while Ik is both a marked nominative and marked accusative language, Turkana is only a marked nominative language: Direct objects, indirect objects, and a noun’s citation form are all unmarked as absolutive. But post-verbal clauses subjects take the tonally marked nominative case. So if Teso-Turkana had influence on the development of the Ik case system, it was through syntax only and not morphology. Tone plays no role at all in Ik case marking.

As a putative close relative of Ik, the Kuliak So exhibits substantial morphological decay of an older Kuliak case system that Ik has more fully retained (Carlin 1993:90-93). The table in (33) presents the author’s analysis of the current overlap between the case systems in both languages. Namely, the So ‘goal’ case morpheme -Vk is a relic of the Ik dative case morpheme {-kɛ} but has taken only some of its semantic roles (goal and recipient). The Location role of the Ik dative case has been assumed by the So ‘locative’ case -a/o. But this case now also shares roles handled by the Ik ablative case {-o} (e.g. location) and in one of its allomorphs shares the form as well. The So ‘circumstantial’ case seems to take its current form (-uk) from the Ik copulative case, which, in combination with a verb-final vowel often looks like -uk’. The So circumstantial case shares the semantic roles of instrument and cause with the Ik ablative case:
6.3 Case on nouns

The present section presents details of each of the eight cases as they apply to their function in the nominal system. Formal parallels to case suffixes and their functions in other grammatical subsystems are treated in §6.4.

6.3.1 Oblique

The oblique case is the only zero-marked (Ø) case in Ik. As such, it segmentally mirrors a noun’s basic underlying lexical form. But in their non-final forms, nouns with a tone melody LH surface as LL. That is, tone may minorly distinguish the oblique case from the lexical base of some nouns. In the oblique case, stem-final vowels are devoiced or deleted before a pause.

The paradigm for oblique, as well as those for the other cases, show nine nouns each ending with one of the language’s nine contrastive vowels:

(34) Oblique case paradigm

<table>
<thead>
<tr>
<th>Basic form [OBL]</th>
<th>Non-final</th>
<th>Final</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɲóki-Ø</td>
<td>ɲóki</td>
<td>ɲók’</td>
<td>‘dog’</td>
</tr>
<tr>
<td>sisi-Ø</td>
<td>sisi</td>
<td>sis</td>
<td>‘honey-beer’</td>
</tr>
</tbody>
</table>
Despite the near identity of a noun's basic form and oblique case form, the Oblique must be maintained as a proper case of its own. This is because it is required for specific, unique grammatical relations and semantic roles.

The Ik oblique case marks out the following seven grammatical functions:

<table>
<thead>
<tr>
<th>Oblique case grammatical functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The subject of imperative and optative clauses.</td>
</tr>
<tr>
<td>2. The object of imperative and optative clauses.</td>
</tr>
<tr>
<td>3. The complement of identity copula clauses.</td>
</tr>
<tr>
<td>4. The first element in a nominal compound.</td>
</tr>
<tr>
<td>5. The nominal complement of a quotative clause.</td>
</tr>
<tr>
<td>6. A vocative.</td>
</tr>
<tr>
<td>7. A noun after a preposition</td>
</tr>
</tbody>
</table>

The first function of the oblique case—marking the subject (A/S) of an imperative or optative clause—is illustrated in the two following examples:

(36) Kae bi awak.

\[
\begin{array}{ll}
\text{ka-é} & \text{biₜ} & \text{awá-k⁹} \\
go\text{-IMP.SG} & \text{you.sg[OBL]} & \text{home-DAT} \\
\end{array}
\]

You go home!
The second function—marking the object (O) of an imperative or optative clause—is illustrated in (38) for imperative and (39) for optative:

(38) *Dee di nak.*

de-e =diko=nak

*Bring the one of earlier!* 

(39) *Nesibano nai na.*

nesib-anonai_o=na

*Let’s listen here* (i.e. ‘Let’s listen to this.’) 

The third function of the oblique case—marking the complement of an identity copula clause—is shown in the next two examples. In an Ik copula clause of identity, the copula *mitu* ‘be (sth. or sb.)’ links the copula subject (CS) with the copula complement (CC). As seen below, the copula subject occurs in the nominative case, while the complement occurs in the oblique:

(40) *Mitiya noo terega ntsie ɗusesi ts’ikae.*

mit-i=a=noo tereg-a_cs ntsi-e dus-esi_cc ts’ikae_e

*His work used to be to collect bees* (i.e. to ‘dip’ honey).

(41) *Mita noo kija otae.*

mit-a=noo kij-a_cs ota_cc

The land was wet season* (i.e. it was wet season).*
The fourth function of the oblique case is to mark the first element \(N_1\) of a nominal compound. The first nominal element must be in the oblique case, while the second element takes whatever case the syntactic context calls for. In this grammar, compounds are identified with a hyphen between the two nouns or pronouns in question. (42) gives two examples of compounds in isolation, and (43)-(44) give two in complete sentences:

(42) \(\text{derocemer} \quad \text{epuaw}\)
    \(\text{rat[OBL]-herb-NOM} \quad \text{sleep[OBL]-place-NOM}\)
    \(\text{rat poison} \quad \text{sleeping place}\)

(43) \(\text{Kaini kaatie mariŋikagwariik.}\)
    \(\text{ka-ini} \quad \text{ká-áti-e} \quad \text{maríŋ-ika-qwarí-ík.}^{0}\)
    \(\text{go-SEQ} \quad \text{go-3PL-SIML} \quad \text{fence-PL[OBL]-top-PL-INS}\)
    \(\text{And they went, going by the fence-tops.}\)

(44) \(\text{Zekwesoo jaka dakudeao.}\)
    \(\text{zekw-es-ɔ-ɔ} \quad \text{ják-á} \quad \text{dák-ů-da-ɔ}^{3}\)
    \(\text{sit-IPFV-3SG-SEQ} \quad \text{elders-NOM} \quad \text{tree[OBL]-foot-ABL}\)
    \(\text{And the elders were sitting at the foot of the tree.}\)

The fifth function of the oblique case is to mark the complement of a quotative clause if the complement is a single noun, usually isi: ‘what’:

(45) \(\text{Kutia naa bie is?}\)
    \(\text{kut-i-a = naa} \quad \text{bi-e} \quad \text{[is]_quot_complement}\)
    \(\text{say-1SG-REAL} = \text{PST1} \quad \text{you.SG-DAT} \quad \text{what[OBL]}\)
    \(\text{I said to you what?}\)

The sixth function of the oblique case is to mark the ‘vocative’, that is, any noun referring to a person being called. Take the following examples:
(46)  *Ee wice!*  *Iyida, abáŋi?*

\begin{tabular}{ll}
  éé & wice  \\
  INTJ & children\[OBL\]  \\
  be-2SG-REAL & my.father\[OBL\]
\end{tabular}

Hey, children!  Hello, father (lit: ‘Are you there?’!)

The seventh function of the oblique case is to mark nouns coming after any of the following five prepositions: *ak[^{ilɔ}* ‘instead of’ and *(i)kóteré* ‘because of’ (from Teso-Turkana), *gone* ‘until/up to’, *it[^{i}*[da* ‘and/with’, and *páka* ‘until/up to’ (from Swahili). Three other prepositions take the genitive case (see §8.5). The fact that the oblique case is used after mostly-borrowed prepositions confirms that the oblique is a case for ‘left-over’ case functions.

Examples of *páka*, *(i)kóteré*, and *gone* are shown below with the oblique:

(47)  *Tubini ntsia toroɓo paka ak.*

\begin{tabular}{llll}
  túb6ini & ntsí6á & toroɓ6ó & páka \& ak³  \\
  follow-SEQ & he-ACC & breastbone-INS & until \[mouth\[OBL\]
\end{tabular}

It (i.e. urine) followed the center of his torso down to his mouth.

(48)  *Napei nee Lokinenee paka Lopokok...*

\begin{tabular}{llllll}
  ɲápeí & né6é & lokinéné²é & páka & lopokók*e...  \\
  from \[here\[DAT\] & Lokinene-GEN & until \[Lopokok\[OBL\]
\end{tabular}

From here in Lokinene up to Lopokok...

(49)  *Kotere is? Kotere kainika ni gaan.*

\begin{tabular}{llllll}
  kóteré & is & kóteré & kam-i̲ka = ní & gaan-²*  \\
  because.of \[what\[OBL\] & because.of \[year\[PL\][OBL\] = REL.PL & bad-REAL  \\
  Because of what? Because of bad years.
\end{tabular}

(50)  *Iryametia fiyekesie ncie kotere kiroti nci.*

\begin{tabular}{llllll}
  iring-δ̄t6-ə & fiyek-es̄i-̲ę & jči-ɛ & kóteré & kiroti jči-²*  \\
  get-VEN-1SG-REAL & live-INF-DAT & I-GEN & b’se.of \[sweat\[OBL\] & I-GEN
\end{tabular}

I get my livelihood because of my own sweat.
(51)  
Koyaa gone at, gone seda jakamae.

And I went up to the, um...the garden of the elder.

(52)  
Atsini gone ndai?

And they came up to where?

The preposition 'nde 'and/with' is often used elsewhere as a connective to join whole independent clauses (see §10.1.10. But the following examples show it preposed to nouns or noun phrases taking the oblique case:

(53)  
Atsese gone awa torobo nda noropuo...

And people came up to home with the breastbone and the organs...

(54)  
Kaini kot nda kokesi hoikee dii.

And then they went and closed up those houses.

In some instances, though, a noun in another case other than the oblique can be found after 'nde. This happens when a verb 'sees through' 'nde to assign a case role. In the following example, the verb egin assigns the dative case to mark its conjoined complex indirect object (with a Goal role):

(55)  
Egin guritinie nda natametaak.

And they put (it) in their hearts and thoughts.
6.3.2 Nominative

The nominative case suffix {a} has engendered more than its share of confusion in the descriptive literature. Referring to this morpheme, Heine & König state that “Like Crazzolara, we consider the ‘complemental suffix’ to be a functionally empty appendage of nouns...in their unmarked form. Accordingly, it is interpreted as a morphologically redundant ending...” (1996:137). Later, the segmental similarity between the nominative {a} and the accusative {ka} led to the following comment (König 2008:73):

“The final vowel -a has a unique value in the system. All words or particles of the language end by default in the vowel -a, and so are nominative and accusative case forms (in the non-final form). It remains unclear whether the -a of the nominative and accusative is triggered by the general rule of the language to use vowel -a as a default ending of each word or whether -a has the value of an independent case suffix encoding nominative or accusative.”

By contrast, the claim made in this grammar is that the morpheme {a} is functionally very significant, as both a marker of nominative case and realis modality in the verbal system (§7.6.2). This morpheme has a L tone but assimilates to the tone melody projected by the stem it attaches to (T7). It is one of the language’s opaque dominant suffixes (§3.1.3), and as such can also be represented as {a’}. One if the nominative’s characteristics that has produced confusion in the past is its subtraction of stem-final vowels. It and the instrumental case suffix {ɔ} are the only two cases that do this. Before pauses, the nominative surfaces as /-a/ or /-a/. Lastly, if a noun’s final vowel is a back vowel, it may desyllabify before (a):
### Nominative case paradigm

<table>
<thead>
<tr>
<th>Basic form-NOM</th>
<th>Non-final</th>
<th>Final</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ŋókí-a</td>
<td>ŋók-á</td>
<td>ŋók-∅</td>
<td>‘dog’</td>
</tr>
<tr>
<td>sisí-a</td>
<td>sis-a</td>
<td>sis-∅</td>
<td>‘honey-beer’</td>
</tr>
<tr>
<td>bóré-a</td>
<td>bór-á</td>
<td>bór-∅</td>
<td>‘corral’</td>
</tr>
<tr>
<td>ɲɛƙɛ-a</td>
<td>ɲɛƙ-a</td>
<td>ɲɛƙ-∅</td>
<td>‘hunger’</td>
</tr>
<tr>
<td>ɲurá-a</td>
<td>ɲur-a</td>
<td>ɲur-∅</td>
<td>‘cane rat’</td>
</tr>
<tr>
<td>zin5-a</td>
<td>zin-a</td>
<td>zin-∅</td>
<td>‘zebra’</td>
</tr>
<tr>
<td>déró-a</td>
<td>dérw-á</td>
<td>dérw-∅</td>
<td>‘rat’</td>
</tr>
<tr>
<td>kafu-a</td>
<td>kaf-∅</td>
<td></td>
<td>‘thorn’</td>
</tr>
<tr>
<td>dakú-a</td>
<td>dakw-∅</td>
<td></td>
<td>‘tree’</td>
</tr>
</tbody>
</table>

On stems with back vowels (/ɔ, o, u/) as their final vowel, one cannot predict whether the vowel will be deleted or desyllabified. Out of a sample of sixty-eight nouns ending in a back vowel, only the following fifteen (22%) underwent desyllabification (in order of root-final back vowel):

### Desyllabification of back vowels in the nominative case

| cikó- | → cikw-a | male-NOM |
| diyo- | → diyw-a | lookout-NOM |
| ído- | → ídw-a | milk-NOM |
| ínó- | → ínw-á | animal-NOM |
| natsiko- | → natsikw-a | granary.cover-NOM |
| padó- | → padw-a | small.cave-NOM |
| pakó- | → pakw-a | cave-NOM |
| tsikó- | → tsikw-a | tree.species-NOM |
| míʒíʒá- | → míʒíʒw-a | tree.species-NOM |
| dáu- | → dáw-a | knife-NOM |
| káú- | → káw-á | ash-NOM |
| dakú- | → dakw-a | tree-NOM |
| ekú- | → ekw-a | eye-NOM |
| buƙú- | → buƙw-a | marriage-NOM |
| ekeú- | → ekw-a | muscle.fiber-NOM |
Contrary to the nouns in (57), most nouns ending in a back vowel lose the vowel entirely in the nominative and instrumental cases (see next section), as in sɔkɔ́ → sɔk-a ‘root-NOM’ and habu- → hab-a ‘tree-NOM’. Looking at nouns that delete their final vowel versus those that desyllabify it, the reason for this discrepancy is not obvious. It likely represents a historical morphological change toward or away from desyllabification. That nominative-case desyllabification is lexical and not post-lexical is shown by the fact that compensatory lengthening does not occur on the case suffix. Back vowels also desyllabify after the non-final accusative case allomorph /-a/, but when they do, compensatory lengthening occurs. For example, compare dakú- ‘tree’ as dakw-a ‘tree-NOM’ and as dakw-áá ‘tree-ACC’.

The nominative case marks out the following five grammatical functions:

(58) **Nominative case grammatical functions**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The citation or isolation form of nouns.</td>
</tr>
<tr>
<td>2</td>
<td>The subject (A/S) of indicative main clauses.</td>
</tr>
<tr>
<td>3</td>
<td>The subject (A/S) of sequential subordinate clauses.</td>
</tr>
<tr>
<td>4</td>
<td>The object (O) of transitive clauses with 1-2 person subjects.</td>
</tr>
<tr>
<td>5</td>
<td>A fronted (left-dislocated or apposed) argument.</td>
</tr>
</tbody>
</table>

The first function—marking a noun’s citation or isolation form—is clearly seen with isolated nouns (57 above) or in response to Isio ɗa ‘What is it?’:

(59) Isio ɗa? ‘What is it?’ → Ŋókᵃ ‘a dog’

The second function—marking the subject (A/S) of indicative main clauses—is the most common function of the nominative case, e.g.:

(60) **Kaa naa roɓa ndaik?**

    ka-ɑ = náa  roɓ-aŋ₃ ndai-kᵃ
    go-REAL = PST1  people-NOM  where-DAT

    Where did the people go?
(61) *Iya noo koto neka zuk.*

\[
\begin{align*}
\text{i-a} &= \text{nno} = \text{kóto} & \text{nek-a}_{s} &= \text{zuk''} \\
\text{be-REAL = PST3 = ADV} &= \text{hunger-NOM very}
\end{align*}
\]

There was a lot of hunger then.

(62) *H’yea noo ntsiceka jii naperitik.*

\[
\begin{align*}
\text{fiye-a} &= \text{nno} & \text{ntsí-cék-a}_{s} &= \text{ju} & \text{napéríti-k}_{o}
\end{align*}
\]

\text{know-REAL PST3 he-woman-NOM = also camp-ACC}

His wife also knew the campsite.

The third function of the nominative is to mark the subject (A/S) of preposed (non-chained) subordinate clauses with sequential verbs:

(63) *Na kija betsukuto,...*

\[
\begin{align*}
\text{na} &= \text{kíj-á} & \text{bets'-úkót-u-o}
\end{align*}
\]

\text{CONJ = land-NOM white-COMP-3SG-SEQ}

When the land gets light,…

(64) *Na tsora iwuo leŋaa,...*

\[
\begin{align*}
\text{na} &= \text{tsɔ́r-á} & \text{iw-u-o} & \text{leŋá-á}_{o}
\end{align*}
\]

\text{CONJ = baboon-NOM hit-3SG-SEQ ratel-ACC}

When the baboon hit the ratel,…

The fourth function—marking the object of first or second person subjects—is illustrated below. As further discussed in §6.3.6, a third person subject always takes an object in the accusative case. But in clauses with first or second-person subjects, both A and O are in the nominative:

(65) *Nta nka wetiii idw.*

\[
\begin{align*}
\text{ńt-á} & \text{ŋk-a}_{s} & \text{wet-í-í} & \text{idw-â}_{o}
\end{align*}
\]

\text{not-REAL I-NOM drink-PLUR-1SG milk-NOM}

I don't usually drink milk.
The fifth function of the nominative case—marking a fronted argument (often followed by a pronoun in the copulative case)—is illustrated below:

(66) H'yeida ama na.
fiye-ıd-a ám-å = na
know-2SG-REAL person-NOM = DEM.SG
You know this person.

(67) Bedima koona Kaabonje ts’oo.
béd-im-a ko-on-å kaabónji-e ts’o
want-1PL.EXC-REAL go-INF-NOM Kaabong-DAT now
We want to go to Kaabong now.

(68) Roɓa nii, ntuo bee ƙaata Kalapataak.
roɓ-a = nií ńtú-o = bee ƙá-at-a kalapataa-k’e
people-NOM = DEM.PL they-COP = PST2 go-3PL-REAL Kalapata-DAT
These people, it was they who went to Kalapata yesterday.

(69) Oŋoraa, sabukotaa noo muŋu Icekiʝao.
oŋor-aa sáɓ-úkot-a-a = noo muŋu icé-kíja-o
elephant-NOM kill[PL]-COMP-IPS-REAL = PST3 all Ik-land-ABL
Elephants, they were all killed off in Ikland.

6.3.3 Instrumental
The instrumental case suffix {-ɔ} may have an areal parallel in the South Omotic language Dime’s locative suffix -ó (Mulugeta 2008:55)—no other possible links have been identified. Regardless, the Ik suffix has L tone but may take a H projected by the noun stem’s melody. It is a recessive suffix harmonizable to /-ɔ/ by a [+ATR] stem. Like the nominative, it deletes the noun stem’s final vowel. Before a pause, the instrumental suffix is devoiced to /-ɔ/ or /-ɔ/. And in these final form allomorphs, it may be reduced
phonetically to mere labialization on the stem-final consonant (especially nasals). Often, the labialization is not audible at all but only visible.

An interesting further trait of the instrumental suffix is that, while it is devoiced before a pause, it is never deleted. Even if devoiced, it minimally leaves a trace of labialization. So this is an example where the grammar overrides its tendency to delete devoiced vowels for the sake of meaning. For if {-ɔ} was allowed to be deleted, it would be ambiguous with the nominative case suffix which may be fully deleted. The following table shows the presence of the suffix, irrespective of the preceding consonant:

(70) Instrumental case paradigm

<table>
<thead>
<tr>
<th>Basic form-INS</th>
<th>Non-final</th>
<th>Final</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ŋók-ɔ</td>
<td>ŋók-ó</td>
<td>ŋók-⁄</td>
<td>‘dog’</td>
</tr>
<tr>
<td>sis-ɔ</td>
<td>sis-ɔ</td>
<td>sis-⁄</td>
<td>‘honey-beer’</td>
</tr>
<tr>
<td>bór-ɔ</td>
<td>bór-ó</td>
<td>bór-⁄</td>
<td>‘corral’</td>
</tr>
<tr>
<td>ɲɛk-ɔ</td>
<td>ɲɛk-ɔ</td>
<td>ɲɛk-⁄</td>
<td>‘hunger’</td>
</tr>
<tr>
<td>ɲur-ɔ</td>
<td>ɲur-ɔ</td>
<td>ɲur-⁄</td>
<td>‘cane rat’</td>
</tr>
<tr>
<td>zin-ɔ</td>
<td>zin-ɔ</td>
<td>zin-⁄</td>
<td>‘zebra’</td>
</tr>
<tr>
<td>dér-ɔ</td>
<td>dér-ó</td>
<td>dér-⁄</td>
<td>‘rat’</td>
</tr>
<tr>
<td>kaf-ɔ</td>
<td>kaf-ɔ</td>
<td>kaf-⁄</td>
<td>‘thorn’</td>
</tr>
<tr>
<td>dak-ɔ</td>
<td>dak-ɔ</td>
<td>dak-⁄</td>
<td>‘tree’</td>
</tr>
</tbody>
</table>

The instrumental case has the grammatical function of marking a non-core argument expressing any of the following six semantic roles:

(71) Instrumental case semantic roles

1. Instrument/Means
2. Path
3. Comitative
4. Manner
5. Time
6. Occupative Aspect
First, the instrumental case is used to encode peripheral arguments that denote an Instrument or Means by which an action is realized. The following two sentences illustrate this specifically ‘instrumental’ case role:

(72)  \textit{Kokese akina makulik.}
\begin{tabular}{ll}
kɔkɛsɛ & ak-in-a \\
\text{close-SPS} & \text{mouth-POSS.PL-NOM grass.over-PL-INS} \\
\end{tabular}
And its openings were closed with grass covers.

(73)  \textit{Taa buƙa noo bia ino tana?}
\begin{tabular}{llll}
taa & buƙ-a = noo & bi-a & fn-ó taná-
\end{tabular}
QUOT marry-REAL = PST3 you-ACC animal-INS how.many-REAL
So he married you with how many animals?

A culturally relevant usage of the instrumental case to encode the Means role involves the verb \textit{bɪ́rɛ́s} ‘to avail, assist with’. In Ik collective society, one is expected to share any acquired resources, from snuff tobacco to meat to clothing to water, etc. The preferred phrase used to acquire assets from another person is constructed with the formula \textit{bɪ́rɛ́ NP[OBL] NP-INS}, in other words “Assist me/us with X.” A couple of examples will suffice:

(74)  \textit{Bire nci cwo.}
\begin{tabular}{ll}
bɪ́rɛ́ & ŋci cu-
\end{tabular}
\text{assist-IMP.SG I[OBL] water-INS}
‘Assist me with water (or ‘Give me water.’).

(75)  \textit{Biroo ngo nƙaƙ.}
\begin{tabular}{ll}
bɪ́r-ɔ́ɔ & ŋgo \ŋkáƙ-
\end{tabular}
\text{assist-IMP.PL we.EXC[OBL] food-INS}
‘Assist us with food (or ‘Give us food.’).

When requests like the one in (74) are made, the peripheral argument may be dropped. This formulaic request is so often used it is typically
phonetically reduced to something like [brjnc']. Such a reduced surface form seems to have given rise to the phrase *brinji lotop* ‘Give me tobacco’ of Colin Turnbull’s fame (1972:299). His phrase can actually be parsed as:

\[
(76) \quad \text{“Brinji lotop.”} \\
\text{bfr-ɛ} \quad \text{jći} \quad \text{lɔ́tɔ́ɓ6ᵓ} \rightarrow \quad \text{[brjntʃi̥ lɔ́tɔ́ɓ ̥̚]} \\
\text{assist-IMP.SG} \quad \text{I[OBL] tobacco-INS} \\
\text{‘Assist me with tobacco (or ‘Give me tobacco.’).}
\]

Second, the instrumental case is used to encode peripheral arguments that denote a Path: a place by or through which a motion or action is realized:

\[
(77) \quad \text{Atsimaa sabo didik.} \\
\text{ats-ima-a} \quad \text{sab-o} \quad \text{didi-k⁶} \\
\text{come-IPL.EXC-SEQ} \quad \text{river-INS} \quad \text{up-DAT} \\
\text{And we came up by way of the river.}
\]

\[
(78) \quad \text{Ijatiini awoo xaino gai.} \\
\text{ŋat-i-ín} \quad \text{awó-ó} \quad \text{ʃa-in-o} \quad \text{‘gáí} \\
\text{run-PLUR-SEQ} \quad \text{home-ABL} \quad \text{direction-POSS.PL-INS} \quad \text{both} \\
\text{And they ran from the home by way of both directions.}
\]

Thirdly, the instrumental case is used to encode peripheral arguments that denote an entity with which an agent goes somewhere. This role is ‘instrumental’ in that the agent takes an object somewhere by the hand to thereby achieve some goal. This case role is most common with inanimate objects or animate entities that have little control over the event. The following two sentences show this Comitative role of the instrumental case:

\[
(79) \quad \text{Koyaa naa kuruɓad.} \\
\text{kọ́-i-a} = \text{naa} \quad \text{kúrúɓád}⁷ \quad \text{.} \\
\text{go-1SG-REAL=PST1} \quad \text{things-INS} \\
\text{I went with (my) things.}
\]
(80) *Atsuo eakwa kayuo nk, zeiike jik.*

\[
\begin{array}{ll}
\text{ats-u-o} & \text{čakw-a} \\
\text{ka-i-o} & \text{ŋk-o} \\
\text{ze-í-ke} & \text{jik'}
\end{array}
\]

The use of the instrumental case in (80) indicates that once a dowry was paid, the woman had less control over her going since she was being led away as the property of the man. If she had gone fully on her own accord, it may have been worded instead as *ń’da nc* ‘with me’.

Fourthly, the instrumental case is used to encode peripheral arguments that denote the Manner or the way in which an action is accomplished. Such arguments have an adverbial function in that they modify the semantics of the main verb, giving information on how an action is realized:

(81) *Raʝetuo ebitini nayee ɲeryanje batanon.*

\[
\begin{array}{ll}
\text{raʝ-6t6úó} & \text{ɛ́b6ɪtɪ́} \\
\text{na6-i6} & \text{ɲɛryaŋɪ́-é} \\
\text{batán-6ón} & \text{-w}
\end{array}
\]

Turn in the guns to the government easily (i.e. without problems).

(82) *Sea ni ɗuo kutanee Hyotodo ŋapeon.*

\[
\begin{array}{ll}
\text{se-a=ni} & \text{dů-ó} \\
\text{kut-an-6é} & \text{fiyɔ-tod-6} \\
\text{ŋapeon} & \text{-n}
\end{array}
\]

As shown in (82), ‘in X language’ is rendered in Ik with the name of the language plus the instrumental case, here “by ‘cow talk’”, i.e. Karimojong.

Fifthly, the instrumental case is used to encode peripheral arguments that denote the Time during which an activity or state takes place. This case role is ‘instrumental’ in that a given period of time is used as chronological space through which an event or activity can be achieved:
Lastly, the instrumental case is used to mark arguments in a special syntactic construction used to express Occupative Aspect (§9.5.3). The construction is made up of the verb *cem* ‘fight’ and a nominalized verb in the instrumental case. So a clause like ‘He is working’ is rendered in Ik as ‘He is fighting with work’. The following three sentences illustrate this role:

(85)  *Cema saa ibito waicikae.*

\[
\text{cem-a sa-a ibit-o wa-iciká}^{\circ}
\]

fight-REAL some-NOM planting-INS greens-PL-GEN

Some (others) are planting greens (i.e. ‘fighting with planting’).

(86)  *Cemesoo didia wat.*

\[
\text{cem-és-5-ɔ didi-a wat}^{\circ}
\]

fight-IPFV-3SG-SEQ weather-NOM raining-INS

And it was raining (i.e. ‘fighting with raining.’).

(87)  *Cemtoo imad.*

\[
\text{cem-ét-ɔ imád}^{\circ}
\]

fight-INCH-3SG-SEQ dressing-INS

And he began dressing (a wound) (i.e. ‘fighting with dressing’).
### 6.3.4 Ablative

Like the instrumental, the ablative case suffix has the form {-ɔ}. It has a likely parallel in the Lowland Cushitic language Saho where the suffix -ko is the bound form of a 'source marker' (Banti & Vergari 2005:14). If these forms are cognate, that would explain why the Ik ablative suffix does not subtract the stem-final vowel: In an older form as *kɔ, it would have required that vowel to break up a disallowed CC cluster. Another potential parallel is the locative suffix -ʌ in South Omotic Dime (Mulugeta 2008:55).

The ablative case suffix has a L tone but may take a H depending on the tone melody of the stem (T7). It is recessive in terms of vowel harmony, but harmonizes to /ʌ/ when attached to a [+ATR] stem. The crucial morphological difference between the ablative and instrumental suffixes is that, unlike the instrumental, the ablative does not subtract the nominal stem-final vowel. Instead, the final vowel remains. Before a pause, the ablative suffix is devoiced to /ʌ/ or /ʌ/. And if the ablative suffix attaches to a stem ending in a high back vowel (/ɔ, ɔ, ʊ, u/) before a pause, it may not be heard audibly at the surface level of pronunciation (i.e. [-ɬ]):

### Ablative case paradigm

<table>
<thead>
<tr>
<th>Basic form-ABL</th>
<th>Non-final</th>
<th>Final</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ŋókí-ɔ</td>
<td>ŋókí-o</td>
<td>ŋókú-∅</td>
<td>'dog'</td>
</tr>
<tr>
<td>sisí-ɔ</td>
<td>sisí-ɔ</td>
<td>sisú-∅</td>
<td>'honey-beer'</td>
</tr>
<tr>
<td>bóré-ɔ</td>
<td>bóré-o</td>
<td>bóré-ʌ</td>
<td>'corral'</td>
</tr>
<tr>
<td>ɲɛkɛ-ɔ</td>
<td>ɲɛkɔ-ɔ</td>
<td>ɲɛkɛ-ʌ</td>
<td>'hunger'</td>
</tr>
<tr>
<td>ɲurá-ɔ</td>
<td>ɲurá-ɔ</td>
<td>ɲurá-ʌ</td>
<td>'cane rat'</td>
</tr>
<tr>
<td>zinɔ-ɔ</td>
<td>zinɔ-ɔ</td>
<td>zinɔ-ʌ</td>
<td>'zebra'</td>
</tr>
<tr>
<td>dërő-ɔ</td>
<td>dërő-o</td>
<td>dërő-∅</td>
<td>'rat'</td>
</tr>
<tr>
<td>kafʊ-ɔ</td>
<td>kafʊ-ɔ</td>
<td>kafʊ-∅</td>
<td>'thorn'</td>
</tr>
<tr>
<td>dakú-ɔ</td>
<td>dakú-ɔ</td>
<td>dakú-∅</td>
<td>'tree'</td>
</tr>
</tbody>
</table>
As (88) shows, the ablative suffix is involved in several kinds of vowel assimilations (see §2.9.4). For example, if the final vowel of a nominal stem in a phrase-medial position is /i/ or /a/, these two vowels get totally assimilated to the ablative suffix (see sis ‘honey-beer’ and ɲur ‘cane rat’). Also, if the final vowel of a nominal stem in a phrase-final position is /i/ or /ɯ/, these vowels get partially assimilated to /u/ and /ʊ/ respectively.

In terms of grammatical function, the ablative case is used to mark non-core clause arguments with ‘from’ or ‘at’ semantic roles including the following:

(89) Ablative case semantic roles

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Source</td>
</tr>
<tr>
<td>2</td>
<td>Cause</td>
</tr>
<tr>
<td>3</td>
<td>Stimulus</td>
</tr>
<tr>
<td>4</td>
<td>Location</td>
</tr>
<tr>
<td>5</td>
<td>Experiencer</td>
</tr>
</tbody>
</table>

First, the ablative case is used to mark peripheral arguments that encode the physical or geographical Source of an action or motion. The following sentences illustrate this prototypical ablative role:

(90) Atsia naa awoo ne
    ats-ɪ-á = naa awó-ó = ne
    come-1SG-REAL = PST1 home-ABL = DEM.SG.MED
    I came from that home.

(91) Kanetaa jumujumasia cuako.
    kan-et-á-á jumujum-así-a cuá-áɓ-ɔ
    take-VEN-REAL-PRF sand-ABST-ACC water-inside-ABL
    He has taken sand out of the water.
Second, the ablative case is used to mark peripheral arguments that encode the Location of an action or state. The first two sentences below illustrate this role with intransitive verbs, while the second two do it with transitives:

(92)  *Sarata epa hoikao.*

\[
\begin{array}{lll}
\mathrm{sá-r-á-t-a} & \mathrm{ep-a} & \mathrm{hó-íka-}^o \\
\text{still-3PL-REAL} & \text{sleep-REAL} & \text{hut-PL-ABL}
\end{array}
\]

They are still sleeping in the huts.

(93)  *Iwiya ceŋa nee ɓeƙesanee muceeo.*

\[
\begin{array}{lll}
\mathrm{iw-i-a} & \mathrm{ceŋ-a} & \text{née ɓeƙés-án-é =e muceé-}^o \\
\text{hit-PLUR-REAL} & \text{woodpecker-NOM} & \text{CONJ walk-IPS-REAL =DP path-ABL}
\end{array}
\]

The woodpecker makes a call when people are walking on the path.

(94)  *Ceyoo fetiekuǃ*

\[
\begin{array}{ll}
\mathrm{cɛ-í-ɔ́} & \mathrm{fetí-ékú-}^o \\
\text{kill-IMP} & \text{sun-eye-ABL}
\end{array}
\]

Kill from the East (lit. 'sun-eye')ǃ

(95)  *Italiana nƙaƙa ɗaɗee dakugwariao.*

\[
\begin{array}{llll}
\mathrm{ɪtál-í-a} & \mathrm{ŋƙá-á} & \text{ɗaɗe-e} & \text{dakú-gwaría-}^o \\
\text{forbid-PLUR-IPS-REAL} & \text{eating-NOM} & \text{honey-GEN} & \text{tree-top-ABL}
\end{array}
\]

It is forbidden to eat honey in the top of the tree.

Third, the ablative case is used to mark peripheral arguments with the semantic role of Cause, which can be animate or inanimate. The next two sentences illustrate the role of Cause with animate entities. Keep in mind that this construction is susceptible to interpretation as encoding the demoted agent of a passive. This view is perpetuated, for example, in Heine & König (1996:33), but Ik speakers insist that strictly cause, not agency, is in expressed by the ablative. Cause and agency are semantically related, of course. But while an agent is also a cause, a cause need not also be an agent:
(96) Detosa waicika ni ncu.

det-ós-á        wa-icik-a = ni       jncu-∅
bring-PASS-REAL  greens-PL-NOM = DEM.PL  I-ABL

These greens are brought because of me (**by me).

(97) Kawimetaa tsuura na ntsu.

kaw-im-et-á-á     tsʊ́ʊ́r-a=na         ntsú-∅
cut-MID-INCH-REAL-PRF  acacia.sp-NOM = DEM.SG   he-ABL

This acacia has been cut down because of him (**by him).

And the next two sentences illustrate Cause with inanimate entities:

(98) Baduƙota noo ɲedekeeo.

bad-úƙót-a = noo      ɲedekeɛ-∅
die-COMP-REAL = PST3  disease-ABL

He died from disease.

(99) Boretiaa ɓekesu.

bɔ́r-ɛ́t6ɪ́6a6a       ɓɛkɛςʊ́6∅
tire-INCH-1SG-REAL-PRF  walk-INF-ABL

I am tired from walking.

The fourth semantic role encoded by the ablative is the Stimulus role. For example, the verbs mor- ‘fear, respect’ and ʃɛɓ- ‘be shy, afraid’ take a peripheral argument in the ablative case. This peripheral argument provides the Stimulus for the sensation of fear or timidity, as in:

(100) Itaamana moriduo baboo nda ɲo.

ɪtámáán-á       mor-ɪdʊ-o     bábo-o     ɲdə ɲo
behoove-REAL  fear-2SG-SEQ your.father-ABL  and your.mother[OBL]

You must respect your father and your mother.
Fifth, the ablative case is used to mark non-core arguments that encode the semantic role of Experiencer, a metaphorical extension of Location. The Experiencer in this usage senses or perceives something and forms an opinion of it. The following two sentences illustrate this ablative case role:

(102)  Daa aminu.

da-a      ám-ínu-∅
nice-REAL  person-POSS.PL-ABL
It's nice to those concerned.

(103)  Gaana ncu.

gaan-á     ɲ́cu-∅
bad-REAL   1-ABL
It's bad to me.

Finally, the verb *birá* ‘to lack’ or ‘to not be there’ selects the ablative case to mark animate (Experiencer) or inanimate locations of lack (Location or Source). The two sentences below illustrate this important semantic role:

(104)  Biraa cikama ntu.

bira-a     cikám-á ńtú-∅
lack-REAL  women-NOM they-ABL
They don't have wives.

(105)  Biraa ta awikoo ni mupn.

brá-át-a   aw-iko-o = ni  mupn
lack-3PL-REAL  home-PL-ABL = DEM.PL all
They are lacking in all these homes.
6.3.5 Genitive

The genitive case suffix has the form {-ɛ}. It is possible that this morpheme is a reflex of the ancient Eastern Sudanic genitive case marker *-i/i (Dimmendaal 2010:34). A similar form (-i) is found in the Cushitic languages Afar, Beja, and Bilin. Another promising connection is with the Shabo (Nilo-Saharan or unclassified) genitive marker -ke (Teferra 1991:9). This connection is appealing because it could help explain why the Ik genitive suffix does not subtract the stem-final vowel. If an older form was *-ke, then the stem-final vowel would be kept to prevent a CC cluster.

The genitive suffix has a L tone but can take a H depending on the melody of the preceding stem (T7). It is recessively [-ATR] but can harmonize to /-e/ when affixed to [+ATR] stems. Like the ablative, the genitive suffix does not subtract the stem-final vowel. And before a pause, the genitive is devoiced to /-ɛ/ or /-e/. When the stem ends in non-low front vowel, it is usually inaudible [-∅]. And when a noun stem ends in a high back vowel, that vowel may desyllabify to [w] causing compensatory lengthening on the following genitive suffix. Lastly, the genitive suffix may totally assimilate a stem-final /a/ or other [-ATR] vowel in non-final noun forms.

(106) Genitive case paradigm

<table>
<thead>
<tr>
<th>Basic form-GEN</th>
<th>Non-final</th>
<th>Final</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ṇokí-ɛ</td>
<td>Ṇokí-ɛ</td>
<td>Ṇokí-∅</td>
<td>‘dog’</td>
</tr>
<tr>
<td>Sísí-ɛ</td>
<td>Sísí-ɛ</td>
<td>Sísí-∅</td>
<td>‘honey-beer’</td>
</tr>
<tr>
<td>Bóré-ɛ</td>
<td>Bóré-ɛ</td>
<td>Bóré-∅</td>
<td>‘corral’</td>
</tr>
<tr>
<td>Ṛekɛ-ɛ</td>
<td>Ṛekɛ-ɛ</td>
<td>Ṛekɛ-∅</td>
<td>‘hunger’</td>
</tr>
<tr>
<td>Ṇurá-ɛ</td>
<td>Ṇurá-ɛ</td>
<td>Ṇurá-∅</td>
<td>‘cane rat’</td>
</tr>
<tr>
<td>Zinş-ɛ</td>
<td>Zinş-ɛ</td>
<td>Zinş-∅</td>
<td>‘zebra’</td>
</tr>
<tr>
<td>Déro-ɛ</td>
<td>Déro-ɛ</td>
<td>Déro-∅</td>
<td>‘rat’</td>
</tr>
<tr>
<td>Ḋafu-ɛ</td>
<td>Ḋafu-ɛ/仟w-ɛ</td>
<td>Ḋafw-∅</td>
<td>‘thorn’</td>
</tr>
<tr>
<td>Dakü-ɛ</td>
<td>Dakü-ɛ/仟kw-ɛ</td>
<td>Dakw-∅</td>
<td>‘tree’</td>
</tr>
</tbody>
</table>
The genitive case in Ik has two grammatical functions:

(107) *Genitive case grammatical functions*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>To mark the nominal modifier of a noun phrase head</td>
</tr>
<tr>
<td>2</td>
<td>To mark the complement of a similative clause</td>
</tr>
</tbody>
</table>

In the genitive’s first function—to mark a noun dependent on its noun phrase head—the genitive-marked noun encodes Possession broadly construed, including notions of ownership, whole-part, kinship, attribution, orientation, association, and nominalization; see also §9.2:

(108) **Ownership:** *Kisanini kurubadiikaa nti.*

\[
\begin{array}{ll}
\text{kisán-} & \text{n} \\
\text{divide-SEQ} & \text{things-VAR.PL-ACC} \\
\text{they-GEN} & \\
\end{array}
\]

And they divided up their various things.

(109) **Whole-part:** *Zikini deikaa ntsi.*

\[
\begin{array}{ll}
\text{zík-} & \text{n} \\
\text{tie-SEQ} & \text{leg-PL-ACC} \\
\text{he-GEN} & \\
\end{array}
\]

And they tied up his legs.

(110) **Kinship:** *Naƙwita imaa ntsi.*

\[
\begin{array}{ll}
\text{naƙw-} & \text{it-n} \\
\text{suck-CAUS-REAL} & \text{child-ACC} \\
\text{s/he-GEN} & \\
\end{array}
\]

She nurses her child.

(111) **Attribution:** *Gaana nepitea dee bie.*

\[
\begin{array}{ll}
\text{gaan-} & \text{nepite-a = ‘dée} \\
\text{bad-REAL} & \text{manner-NOM = ANPH.SG} \\
\text{you.SG-GEN} & \\
\end{array}
\]

That behavior of yours is bad.
(112) **Orientation:** *iya kanedee awae.*  
\[
\begin{align*}
\text{i-a} & \quad \text{kán-é’dé-e} & \quad \text{awá-e} \\
\text{be-REAL} & \quad \text{back-POSS.SG-DAT} & \quad \text{home-GEN}
\end{align*}
\]
It's at the back of the home.

(113) **Association:** *Eja ceida logotoma ngoe.*  
\[
\begin{align*}
\text{ej-á} & \quad \text{ce-íd-a} & \quad \text{logót-óm-a} & \quad \text{ŋó-e} \\
\text{not-REAL} & \quad \text{kill-2SG-REAL} & \quad \text{enemy-SING-NOM} & \quad \text{we.EXC-GEN}
\end{align*}
\]
Don't kill our enemy (the one we captured)ǃ

(114) **Nominalization:** *Nda ikamesukoti pokokoroe.*  
\[
\begin{align*}
\text{ń’da} & \quad \text{ikam-és-ókti} & \quad \text{njókókó-ró-e} \\
\text{and} & \quad \text{catch-INF-PREP} & \quad \text{chicken(s)-GEN}
\end{align*}
\]
And they caught the chickens.

In Ik, nouns with the genitive case can also modify a noun phrase head that is left implicit. The omitted NP must be the complement of a copular verb like *mut-* ‘be sb. or sth.’ or *beni-* ‘not be sb. or sth.’, for example:

(115) **Benia ngoe.**  
\[
\begin{align*}
\text{beni-á} & \quad \text{ŋó-e} \\
\text{not.be-REAL} & \quad \text{we.EXC-GEN}
\end{align*}
\]
It is not ours (lit. 'It is not X of ours').

(116) **Mita roɓee ni wetiat.**  
\[
\begin{align*}
\text{mit-a} & \quad \text{róɓ-e = ni} & \quad \text{wet-í-át-e} \\
\text{be-REAL} & \quad \text{people-GEN = REL.PL} & \quad \text{drink-PLUR-3PL-REAL}
\end{align*}
\]
It (i.e. tobacco) is of people who snuff (lit. 'drink') regularly.

One of the language's strategies for coordinating and subordinating clauses is to nominalize a clause's verb into an infinitive (as in example 114 above). When this happens, the subject and object (if present) of the nominalized verb follow it in the genitive case, as shown in (117) and (118) below:
(117) **Arutetona ebee,**...
    arút-ét-on-a       éɓe-é
    sound-INCH-INF-NOM gun-GEN
    At the sound of a gunshot (lit. ‘the sounding of a gun’),...

(118) **Nda kooni ntie sabak.**
    níɗa ko-oni ŋtí-e saba-kᵉ
    and go-INF[OBL] they-GEN river-DAT
    And they went to the river (lit. ‘and the going of them to the river’).

In another special construction, the roles of the NP head and genitive modifier can be reversed so that the possessor is now the head. The sentence in (119) shows the noun ámá- ‘person’ modified by the ‘one’ (kɔnɪ-), even though it is ámá- that is in the genitive case. Then in (120), the pronominal form ntsɛnɪ modifies neburyanjí, though the latter is in the genitive:

(119) **Atsuo kona amae.**
    ats-u-o kɔn-a ámá-e
    come-3SG-SEQ one-NOM person-GEN
    Another person should come.

(120) **Ịjana nda ntsení neburyanjí.**
    ụn-a níɗa nts-ění ɲeɓuryanjí-∅
    each-NOM with s/he-PSSM[OBL] container-GEN
    Each person with his or her own (snuff) container.

Besides Possession, the second grammatical function of the genitive is to mark the complement of a similitative clause. Similative clauses in Ik are formed with the special verb ƙám- ‘be like’ (cf. Swahili *kama* and West Rift Cushitic *qoom*). Similative clauses have the schema ‘X is like Y’, where X is in the nominative case and Y in the genitive case. This is interesting example of a genitive used as a clausal argument instead of an NP modifier:
(121) *Kamata dziberikae.*

\[
káḿ-á- \text{ dzibér-íka-}^* \\
\text{be.like-3PL-REAL} \quad \text{axe-PL-GEN}
\]

They are like axes.

(122) *Bira keda kamad.*

\[
brá-a \quad ké’d-a \quad káḿ-á = d^e \\
\text{not.be-REAL} \quad \text{way-NOM} \quad \text{be.like-REAL = DP}
\]

There is nothing it is like.

In (122), the verb *káḿ-* is in a relative clause (without a relative pronoun) modifying the word *ké’d* ‘way, manner’. Because the complement of the simulative relative clause is missing from the relative clause, the dummy pronoun (DP) is used to mark its absence (see §5.10).

6.3.6 Accusative

The accusative case suffix has the form {-ka}, and as such, is one of three Ik case suffixes that consist of /k/ plus a vowel (the other two being the dative and the copulative, described below). Potential parallels for this suffix are widespread in the general Ethio-Sudanic language area. For Nilo-Saharan accusative cases, “the widest-spread marker is a velar, occurring in at least six of twelve families; it seems safe to assume this is a reflex of the protoform” (Dimmendaal 2010:30), which Ehret reconstructs as *-kɔ̀ (2001:203). Besides Ik, Shabo (Nilo-Saharan or unclassified) has -*kak or -k as an object/accusative marker (Teferra 1991:9). And the Cushitic language Afar marks objects on the verb with the morpheme -*aka (Mahaffy n.d., p. 29).

The Ik accusative suffix has a L tone but may take a H tone according to the stem’s tone melody (T7). It is one of the language’s opaque dominant [+ATR] suffixes and thus can also be represented as {-ka’}. Any recessive enclitic following the accusative suffix will surface as [+ATR].
It does not delete the final vowel of the stem but instead attaches directly to it. Before a pause, the vowel of the suffix devoices, changing the suffix to /-kʰ/ or /-k'/. And within a phrase, the suffix loses the /k/, changing the suffix simply to /-a/. If the stem-final vowel is a high back vowel, it may desyllabify and cause the accusative suffix to lengthen in compensation:

(123) **Accusative case paradigm**

<table>
<thead>
<tr>
<th>Basic form-ACC</th>
<th>Non-final</th>
<th>Final</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ŋóki-ka</td>
<td>ŋóki-a</td>
<td>ŋóki-kʰ</td>
<td>‘dog’</td>
</tr>
<tr>
<td>sisí-ka</td>
<td>sisí-á</td>
<td>sisí-kʰ</td>
<td>‘honey-beer’</td>
</tr>
<tr>
<td>bóré-ka</td>
<td>bóré-a</td>
<td>bóré-kʰ</td>
<td>‘corral’</td>
</tr>
<tr>
<td>ɲɛkɛ-ka</td>
<td>ɲɛkɛ-a</td>
<td>ɲɛkɛ-kʰ</td>
<td>‘hunger’</td>
</tr>
<tr>
<td>ɲurá-ka</td>
<td>ɲurá-á</td>
<td>ɲurá-kʰ</td>
<td>‘cane rat’</td>
</tr>
<tr>
<td>zmɔ́-ka</td>
<td>zmɔ́-á/zmɔ́-áá</td>
<td>zmɔ́-kʰ</td>
<td>‘zebra’</td>
</tr>
<tr>
<td>dɛrō-ka</td>
<td>dɛrō-á/dɛrō-áá</td>
<td>dɛrō-kʰ</td>
<td>‘rat’</td>
</tr>
<tr>
<td>kafu-ka</td>
<td>kafu-a/kafu-aa</td>
<td>kafu-kʰ</td>
<td>‘thorn’</td>
</tr>
<tr>
<td>dakú-ka</td>
<td>dakú-á/dakú-áá</td>
<td>dakú-kʰ</td>
<td>‘tree’</td>
</tr>
</tbody>
</table>

In terms of grammatical function, the accusative case in Ik is used to mark core clausal arguments, namely the following:

(124) **Accusative case grammatical functions**

1. Direct object (O) of a transitive clause with a 3SG/PL subject
2. Direct object (O) of all subordinate clauses
3. Subject (A/S) of any subordinate clause (except sequential)

First, the accusative marks the direct objects (O) of transitive clauses with third person subjects. If the subject of the clause is first or second person, then both the subject and the object(s) take the nominative case (§6.3.1). See, for example, the pattern in the following paradigm, in which the accusative case (underlined) is found only with the third person verb forms:
(125) **Number-based differential accusative marking**

<table>
<thead>
<tr>
<th>Number Type</th>
<th>Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>bédía ɲák-k³</td>
<td>‘I want food.’</td>
</tr>
<tr>
<td>2SG</td>
<td>bédída ɲák-k³</td>
<td>‘You want food.’</td>
</tr>
<tr>
<td>3SG</td>
<td>bédá ɲáká-k³</td>
<td>‘S/he wants food.’</td>
</tr>
<tr>
<td>1PL.EXC</td>
<td>bédíma ɲák-k³</td>
<td>‘We want food.’</td>
</tr>
<tr>
<td>1PL.INC</td>
<td>bédísina ɲák-k³</td>
<td>‘We want food.’</td>
</tr>
<tr>
<td>2PL</td>
<td>bédíta ɲák-k³</td>
<td>‘You want food.’</td>
</tr>
<tr>
<td>3PL</td>
<td>bédáta ɲáká-k³</td>
<td>‘They want food.’</td>
</tr>
</tbody>
</table>

Taken from narratives, the following two sentences show the accusative marking the object (O) of transitive clauses with 3SG/PL person subjects:

(126) **Tsidíteta naa inok.**

<code>tsídzt-eta = náá ɪnó-k³</code>

*carry-CAUS-VEN-REAL=PST1 animal-ACC*

He flushed out an animal (from a thicket).

(127) **Damatini awaa bubun.**

<code>dámát-ini awá-á bubún-k³</code>

*shoot-SEQ home-ACC coal-INS*

And they opened fire on the home (with ‘coals’ = bullets).

As noted in the Case Overview (§6.1), Ik is classified as a split-accusative language due to this type of number-based differential object marking. While this is the descriptive fact, can any explanation be offered for it? Some attempts can be made, though none are conclusive. König suggests that accusative marking comes into play when cross-referencing ‘fails’ on the verb (2008:85). That is, if the subject is not cross-referenced on the verb, case is needed to show grammatical relations. But this explanation falls short on two accounts: 1) First, clausal constituent order is not flexible enough to admit the kind of ambiguity implied by König’s analysis. 2) The ‘failure’ of cross-reference (i.e. a zero morpheme) is in itself cross-reference.
Even if a 3sg subject is not cross-referenced—or is so with zero marking—constituent order would tell a speaker what the subject and object were:

(128) *Cea ama idemek.*

\[
\begin{array}{llll}
\text{ce-a} & \text{ám-á} & \text{ideme-k}^a \\
\text{kill-REAL} & \text{person-NOM} & \text{snake-ACC}
\end{array}
\]

A person kills a snake.

(129) **Cea idemea am.**

**\[
\begin{array}{llll}
\text{ce-a} & \text{ideme-a} & \text{ám-∅} \\
\text{kill-REAL} & \text{snake-ACC} & \text{person-NOM}
\end{array}\]**

**A person kills a snake.**

These two sentences illustrate that even with accusative marking, the order of subject and object cannot be reversed. At least synchronically, constituent order is fixed enough to prevent any hypothetical ambiguity arising from case ‘defectiveness’. So the split-accusativity of Ik cannot be based only on a need to make up for a failure in subject cross-referencing on the verb.

Taking a different tack, some African languages show a special sensitivity to the notion of ‘speech-act participant’. For example, in Turkana, the marking of a direct or indirect object on a verb depends on whether it is a speech-act participant. If it is (1/2 person), it is marked with the verbal prefix *k*. If not (3 person), no prefix is present (Dimmendaal 1983:124). Inversely, but with the same attention to speech-act participants, the Ik accusative suffix is only present if the clause’s subject is *not* a speech-act participant (i.e. 3 person).

Related to this is the idea of ‘prototypical transitivity’. According to Naess (2007, quoted in Dimmendaal 2010:39), the prototypical Agent has the semantic features [+volitional], [+instigating], and [-affected]. The converse of this is that the prototypical Patient is [-volitional], [-instigating], and [+affected]. Dimmendaal (2010) explores the application of this for Differential Object Marking (DOM) in Nilo-Saharan.
The claim is that objects that have a more prototypical Patient role are more likely to be marked differently (e.g. with an accusative case) than those without it. Since prototypical Patients are [-volitional], and since volition implies animacy, it is claimed that objects further down the cline toward inanimacy are more likely to be marked differentially (Dimm. 2010:39).

The concept of prototypical transitivity seems applicable to Ik split-accusativity, but along slightly different lines. In Ik, volition, instigation, affectedness, and animacy alone do not determine whether an object will be marked with the accusative case or nominative case. By contrast, the only relevant factor is whether the Agent of a transitive clause is present in the conversation, i.e. is a speech-act participant (3 person). If the Agent (animate or inanimate) is not speaker or addressee, then the object must take the accusative case. Thus, taking Ik into account, the feature [±participant] can be added to Næss' definition of prototypical transitivity. An Agent that is not a speech-act participant (3 person) embodies a greater degree of transitivity because its intention (if animate) or capability (if inanimate) is inaccessible and therefore not knowable or assessable. This puts greater semantic ‘distance’ between the Agent and Patient than if the Agent was a speech-act participant who could be negotiated with. This, then, is one further attempt to make sense of Ik’s person-based split-accusativity.

Another question relevant to the Ik accusative case is what semantic roles the object of a transitive clause can take. This question applies to transitive objects generally, including those marked in the nominative case. Ik direct objects encode the expected semantic role of Patient, but they can also encode Direction and/or Purpose. Three Ik verbs of motion—ats- ‘come’, ka- ‘go’, and itd- ‘reach’—are unusual in that they can behave like transitive verbs. Similar motion-verb properties have been reported as common in Cushitic and Omotic languages (Dimmendaal 2003:100). Old Nubian is reported to have marked Patients and Directions with the suffix -ka, while the Semitic language Tigrinya uses its accusative prefix ni-/nā- to mark Patients, Directions, and many other roles (Dimmendaal 2010:41).
The following sentences are examples of a) Ik motion verbs functioning as transitive verbs and b) object case (NOM or ACC) marking Direction/Purpose:

(130)  *Atsaa kanesia kurubadi ntsi.*

    ats-á-á    kan-ésí-o       kúrúbádí-e   ntsí-o
    come-REAL-PRF get-INF-ACC things-GEN he-GEN

He has come to get his things.

(131)  *Ƙaa naa dzigwa nƙakae.*

    ka-a = náa     dzí gw-o       nƙáká-e
    go-REAL = PST 1 buy-ACC food-GEN

He went to buy food.

(132)  *Iteesa Kaabongia ts’oo.*

    ìtɛ́-s-á     kaábóngí-o     ts’óo
    reach-INT-REAL Kaabong-ACC soon

He’ll reach Kaabong soon.

In none of the preceding three sentences would the dative case be grammatical on the direct object (O) encoding Direction and/or Purpose. These examples are interesting in that the dative case (next section) is used more generally to encode both Purpose and Goal/Direction. It is only the unique combination of these roles that transitivize the verb and objects.

Back to the grammatical functions of the accusative: Its second function is to mark the overt subject (A/S) of any subordinate clause (except those with sequential verb forms). In many subordinate clauses, the subject may be left implicit, though it is always cross-referenced on the verb. When the subject of a subordinate clause is explicit, it comes before the verb, as opposed to after the verb like unmarked main clauses. Turkana is also a VSO language. And it also marks its preverbal subjects with object case, which for it is the ‘absolutive’, the equivalent of the Ik accusative (Dimmendaal 1983:260).
The next three sentences below illustrate the accusative case marking and preverbal syntactic position of subordinate clause subjects (A/S):

(133) *Naa naɓalaŋitia iwidimetik,...*
\[
\text{náá naɓáláŋɪtɪ́6á iwiɗ-ím-ét-i-} \text{kó}
\]
CONJ soda.ash-ACC pulverize-MID-INCH-3SG-SIML
When the soda ash is ground to a fine powder,...

(134) *Ɗuo nuu didia watad,...*
\[
\text{ɗú-ó=nuu didi-aₚ wat-á=dó}
\]
ones-ABL=REL.PL.PST3 weather-ACC rain-REAL = DP
Because it was raining,...

(135) *Naa nee ameđea bedee ŋuesia,...*
\[
\text{náá nɛ́ɛ́ ám-ɛde-aₚ bɛ́ɗɛ́=ɛ ŋʊ-ɛsɪ́ₐa}
\]
CONJ CONJ person-POSS.SG-ACC want-REAL = DP grind-INF-ACC
Whenever the owner wants to grind (some tobacco),...

The third function of the accusative is to mark the direct object of any non-sequential subordinate clause, regardless of the person of the subject. In (136), the object (O) *kóné-ɛnì*- 'some-X' is in the accusative case, even though the subject is second person singular. Also, in (137), the object *ţići*- 'I' is in the accusative, even though the subject is second person plural:

(136) *Nee rebidee koneenia amae,...*
\[
\text{néé réb-ɛd-} \text{e=ɛ kóñé-ɛnì-aₜ ámá=} \text{ó}
\]
CONJ deny-2SG-REAL = DP one-PSSM-ACC person-GEN
When you deny someone (tobacco, that is),....

(137) *Isio tubiittee ncia ījìk?*
\[
\text{isi-̨ó túb-american=ɛ ncì-aₜ ījìk}
\]
what-COP follow-PLUR-2PL-REAL = DP I-ACC always
Why do you follow me always?
6.3.7 Dative

The dative case suffix has the form {-ke}. Potential areal parallels for it include the Cushitic language Saho’s goal/source marker -k (Banti & Vergari 2005:14) and the Dhaasanac ‘core adposition’ -(k)i that encodes dative, benefactive, and instrumental roles (Tosco 2001:232).

The Ik dative suffix has L tone but can take a H tone spread from the preceding stem (T7). It is a recessive suffix with the [+ATR] allophone /-ke/ after [+ATR] stems. In terms of suffixation strategy, the dative suffix preserves the stem-final vowel, ostensibly to avoid a disallowed CC cluster. Before a pause, the dative suffix is reduced to /-kᵋ/ or /-k̚/, and its clause-medial allomorph, losing the /k/, has the form /-ɛ/ or /-e/. If the stem-final vowel is /a/, /ɛ/ or /ɔ/, it may be totally assimilated by the dative suffix. And if the final vowel of a stem is a high back vowel, it may desyllabify and cause the dative suffix to lengthen in compensation:

(138) Dative case paradigm

<table>
<thead>
<tr>
<th>Basic form-DAT</th>
<th>Non-final</th>
<th>Final</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
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<td>ŋókí-kɛ</td>
<td>ŋókí-ɛ</td>
<td>ŋókí-kᵋ</td>
<td>‘dog’</td>
</tr>
<tr>
<td>sisí-kɛ</td>
<td>sisí-ɛ/sisí-ɛ'</td>
<td>sisí-kɛ'</td>
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<td>bóré-kᵋ</td>
<td>‘corral’</td>
</tr>
<tr>
<td>ṅɛkɛ-kɛ</td>
<td>ṅɛkɛ-ɛ</td>
<td>ṅɛkɛ-kᵋ</td>
<td>‘hunger’</td>
</tr>
<tr>
<td>Ṉurá-kɛ</td>
<td>Ṉurá-ɛ</td>
<td>Ṉurá-kᵋ</td>
<td>‘cane rat’</td>
</tr>
<tr>
<td>zimɔ́-kɛ</td>
<td>zimɔ́-ɛ/zimɔ́-ɛ'</td>
<td>zimɔ́-kɛ'</td>
<td>‘zebra’</td>
</tr>
<tr>
<td>dėró-kɛ</td>
<td>dėró-ɛ/dėrw-ɛɛ</td>
<td>dėró-kᵋ</td>
<td>‘rat’</td>
</tr>
<tr>
<td>kafʊ-kɛ</td>
<td>kafʊ-ɛ/kafw-ɛɛ</td>
<td>kafʊ-kᵋ</td>
<td>‘thorn’</td>
</tr>
<tr>
<td>dakú-kɛ</td>
<td>dakú-ɛ/dakw-ɛɛ</td>
<td>dakú-kᵋ</td>
<td>‘tree’</td>
</tr>
</tbody>
</table>

In terms of grammatical function, the dative case is used to mark peripheral arguments that most prototypically encode a Goal for motion or action verbs and Location for static verbs. These have literal and more metaphorical applications as evidenced by the following seven roles:
Dative case semantic roles

1. Recipient/Benefactor
2. Experiencer
3. Destination/Goal
4. Location
5. Possessor
6. Purpose
7. Second object of the causative

First, the dative marks peripheral arguments that encode an entity receiving something from an Agent. This includes Recipients and Benefactors, e.g.:

(140) **Kisanese koto ɲekinerika roɓak.**
    kisán-ese=kótó ɲekínér-ik-a roɓa-kᵉ
    distribute-SPS=ADV meat.cuts-PL-NOM people-DAT
    Then the meat cuts are distributed to people.

(141) **Duƙwee kidiasaik.**
    d-ukw-ee ki=diásái-kᵉ
    take-AND-IMP.SG DEF=others-DAT
    Take (it) to the others!

Second, the dative marks peripheral arguments that encode an Experiencer receiving something from a Stimulus, for example with verbs of speech:

(142) **Kutini naɓo ntsie,...**
    kut-ŋi naɓó ntsí-é
    say-SEQ again he-DAT
    And they said again to him,...

Third, the dative case in Ik is to mark peripheral arguments that encode the Destination or Goal of an action or motion, as for example in:
(143) *Buƙotio honesika riƙaƙok.*

buƙó-t-o        hän-ésí-ik-a        riƙá-aƙo-k'  
enter-AND-3SG-SEQ drive-INF-AGT.PL-NOM bush-inside-DAT  
And the animal-drivers enter the bush.

(144) *Keese koto awak.*

ke-esé=koto     awá-k'  
go-SPS=ADV   home-DAT  
Then (people) went home.

(145) *Kaa naa roɓa ndaik?*

ka-a=náá    roɓ-a    ndaí-k'  
go-REAL PST1   people-NOM where-DAT  
Where did the people go?

Fourth, the dative marks a peripheral argument encoding the Location of a state or action not including a sense of motion, as in the following:

(146) *Nda iyiima noo Baratiawak.*

ń'da    i-í-fm-a = noo    baratí-áwa-k'  
and   be-PLUR-1PL EXC-REAL = PST3 fig.tree-place-DAT  
And we were (staying) at Fig Tree Place.

(147) *Ibookotuo noropua asakagwariik.*

íbo-okot-u-o    norópú-a    asaka-gwarii-k'  
keep.overnight-COMP-3SG-SEQ organs-ACC door-top-DAT  
And he kept the organs over the door till morning.

(148) *Hakaikiaa lorokona moderipak.*

hakaik-í-a-a    lorokon-a    mísé-ripa-k'  
forget-1SG-REAL-PRF adze-NOM   ground.bee-hole-DAT  
I've forgotten the adze in the ground-bee hole.
Fifth, the dative is used to mark a peripheral argument that encodes the Possessor of someone or something. In this function, the locative copula *i*-‘be (somewhere)’ must be present, making the Possessor role a natural extension of the Location role illustrated above.

(149) *Iya kaudza bie ts’oo.*

*i-a kaúdz-a bi-e ts’ɔɔ*

*be-REAL money-NOM YOU.SG-DAT now*

Do you have money now (lit. ‘Is there money to you now’)?

(150) *Iya ŋokitina leɓetse ncik.*

*i-a ŋók-itín-á leɓetse ŋci-k*

*be-REAL dog-PL-NOM two I-DAT*

I have two dogs (lit. ‘There are two dogs to me’).

Despite examples like the ones above, the more common way Ik expresses possession with the locative copula *i*- is with the connector *ń’dá* ‘and/with’, as in *iía ń’dá ŋókitíná leɓets* ‘I have (lit. ‘am with’) two dogs’.

Sixth, the dative case is used to mark peripheral arguments that encode Purpose. In this function, the argument denoting purpose is usually a nominalized verb (infinitive) declined in the dative case.

(151) *Waana nkanesie toboŋoe.*

*ó-án-a ŋkan-i-esí-e tɔbɔŋɔ́ɛ*

*call-IPS-REAL get-PLUR-INF-DAT maize.mush-GEN*

They are invited to get (or ‘for getting’) maize mush.

(152) *Ǐweese paka itemuko[to] juresuktok.*

*ŋu-c-ɛsɛ́ pákə itém-ųkot-u-o ɔ̥r-ɛs-ųkɔtɪ-k*

*grind-ING-COM-INS until suitable-COMP-3SG-SEQ snuff-INF-COMP-DAT*

And it’s ground up until it becomes suitable for snuffing.
The dative case is also used in a construction called ‘verb intensification’ or ‘verb strengthening’. Since verb strengthening is also found in Teso-Turkana (e.g. Dimmendaal 1983:423), the Ik construction is likely a calque of it. Verb strengthening is when an imperative verb is followed by the same verb in the infinitive and in the dative case. It can be translated as ‘X for X-ing’, that is, for the reason of X and no other. Examples include the following:

(153)  Kae koonik!
      ka-e   kó-oni-k
     go-IMP.SG go-INF-DAT

      Get the hell out of here (lit. ‘Go for going’)!  

(154)  Ipasoetia ipasoonik.
      ipaso-et-i-a-a   ipásó-oni-k
     be.idle-VEN-1SG-REAL-PRF be.idle-INF-DAT

      I just wandered over here for no reason at all.

The final function of the dative case to be described here has to do with causative verbs (see also §7.9.1). In Ik, if an intransitive verb is made a causative with the causative suffix {-ɪt}, the subject (S) of the original verb is treated as the object (O) of the now causative verb.

(155)  Tsidzetaa kotor.
      tsídz-et-á-á   kótá-r-∅s
     carry-VEN-REAL-PRF    oribi-NOM

      An oribi (antelope) has flushed out!

(156)  Tsidzitetaa kotorak.
      tsídz-it-et-á-á   kótárá-k∅o
     carry-CAUS-VEN-REAL-PRF    oribi-ACC

      He has flushed out an oribi.
Going a step further, when a transitive verb is made into a causative, the subject (A) of the original verb is treated as an object (O) of the now-causative verb. But, the object (O) of the original verb is now treated as a second object or extension (E) in the new causative construction. The data below shows what happens when the transitive verb *wet* - ‘drink’, which requires an agent (A) and a patient (O), is causativized:

(157)  *Wetuo ima cemerik.*  
\[
\begin{array}{ll}
\text{wet-u-o} & \text{im-a₅} \ cɛmɛrᵣ⁻kᵣₐ₉ \\
\text{drink-3SG-SEQ} & \text{child-NOM} \ herb-ACC \\
\end{array}
\]
And the child drank the medicine.

(158)  *Wetituƙotuo imaa cemerik.*  
\[
\begin{array}{ll}
\text{wet-it-ƙöt-u-o} & \text{imá-₉₉} \ cɛmɛrᵣᵣ₉ \\
\text{drink-CAUS-COMP-3SG-SEQ} & \text{child-ACC} \ herb-DAT \\
\end{array}
\]
And she made the child take the medicine.

In (157)-(158), the subject (A) of the first clause (*im* ‘child’) becomes the patient (O) in the second, now causative clause. And the patient (O) of the first clause (*cemer* ‘herb’) becomes a second or extended object (E) in the second clause. So in a sense, through a metaphorical extension of the Location role, the extended object becomes the ‘site’ of the causation.

As a side topic, it is worth mentioning that the Ik verb *iryám-ét-oni* - ‘to get’ (cf. Teso-Turkana *a-ryam-un*) always takes an argument in the dative case:

(159)  *Iryameida bee njisanie?*  
\[
\begin{array}{ll}
\text{iryam-é-id-a} & \text{bee} \ njɪtsanɪ-e \\
\text{get-VEN-2SG-REAL} & \text{PST2} \ troubles-DAT \\
\end{array}
\]
Did you get trouble yesterday?

At first glance, it would appear that this is an instance where a core argument is marked with the dative, a non-core-marking case. However, it
is more likely that despite the English translation of this verb as ‘get’, it is really an intransitive verb, making the object in fact a peripheral argument. A clue for this comes from Teso-Turkana, where a-ryam-un ‘to get’ is related to aki-ryam-un ‘to meet with’. As such, this Ik verb may carry more the idea of ‘meeting with sth.’ (e.g. ‘acquiring’) as opposed to merely ‘getting’ it.

Finally, on the basis of example (160) below, König has claimed that the verb form bɪra-ε shows a ‘petrified’ form of the dative case on the verb bɪrá- ‘not there’. She analyzes this verb form as bɪra-DAT and suggests that it has been lexicalized into a ‘preposition’ meaning ‘without’ (2002:255):

(160)  ...ɠo-ɪ-a kakum-e ɛɗá bɪra-ɛ ɪŋar-ɛsí-kə
          go-1SG-a Kakuma-DAT alone be.NEG-DAT help-INF-ACC
  I went alone to Kakuma without any help.

But this analysis is flawed due to incorrect morphological parsing. The verb form in question is not bɪra-ε analyzed as bɪra-DAT but rather bɪrá-ɪ-ɛ analyzed as bɪrá-3SG-SIML. This form is not a noun or verb fossilized into a preposition but rather an instance of the impersonal, 3SG adverbial simultaneous verbs used in clause chains (§11.2.2). It is true that this verb form is often best translated as ‘without’ into English, but it does not follow that it has become a ‘preposition’. The example sentence in (160), taken from König (2002:255) is reanalyzed and glossed here as follows:

(161)  Koyaa Kakumee ɛɗa, birayee iŋaaresik.
          kó-ia-a kákumé-ɛ ɛɗá birá-ɪ-ɛ iŋa-ɛsí-kə
          go-1SG-SEQ Kakuma-DAT alone lack-3SG-SIML help-INF-ACC
  I went to Kakuma alone without (lit. ‘it lacking’) any help.
6.3.8 Copulative

The Ik copulative case suffix has the form {-kɔ}. In terms of parallels, the wider Cushitic language family abounds with possibilities. Sidaamo has -ho/hu as a copulative suffix (Lamberti 1984:5), and Arbore has an interrogative copula with the form -ko (Hayward 1984:122). An interrogative copula with the form -ko is also found in the Southern Cushitic languages Alagwa and Burunge (Mous 2012:398). Suggesting a link with the Ik copulative's focalizing function, Eastern Cushitic's Dhaasanac has an enclitic =u called a ‘nominal focus marker’ (Tosco 2001:60, 268-269).

The copulative case suffix is L-toned but can take a H tone from a preceding stem (T7). It is a recessive suffix that harmonizes to /-ko/ after a [ +ATR] stem. The copulative does not delete stem-final vowels but rather affixes directly to them. Before a pause, the it is devoiced to /-kᵪ/, /-k̚/ or /-k̅/. When the it attaches to a stem-final /i/, the /i/ is backed to /u/ in partial assimilation to the vowel in the case suffix. And if the stem-final vowel is /i/ or /a/, it may be partially or totally assimilated by the case suffix. Lastly, if a stem ends in a high back vowel (/ʊ/ or /u/), that vowel may desyllabify, causing the non-final copulative suffix to lengthen in compensation.

(162) Copulative case paradigm

<table>
<thead>
<tr>
<th>Basic form-COP</th>
<th>Non-final</th>
<th>Final</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɲókí-ko</td>
<td>ɲókú-o</td>
<td>ɲókú-k̚</td>
<td>‘dog’</td>
</tr>
<tr>
<td>sisí-ko</td>
<td>sisí-ʃ</td>
<td>sisú-k̚</td>
<td>‘honey-beer’</td>
</tr>
<tr>
<td>bóré-ko</td>
<td>bóré-o</td>
<td>bóré-k̚</td>
<td>‘corral’</td>
</tr>
<tr>
<td>ɲɛƙɛ-ko</td>
<td>ɲɛƙɔ-o</td>
<td>ɲɛƙɔ-k̚</td>
<td>‘hunger’</td>
</tr>
<tr>
<td>ɲʊrá-ko</td>
<td>ɲʊrɔ-ʃ</td>
<td>ɲʊrɔ-k̚</td>
<td>‘cane rat’</td>
</tr>
<tr>
<td>zɪnɔ-ko</td>
<td>zɪnɔ-ʃ</td>
<td>zɪnɔ-k̚</td>
<td>‘zebra’</td>
</tr>
<tr>
<td>dёрó-ko</td>
<td>dёрó-ɔ</td>
<td>dёрó-k̚</td>
<td>‘rat’</td>
</tr>
<tr>
<td>kafʊ-ko</td>
<td>kafʊ-ɔ</td>
<td>kafʊ-k̚</td>
<td>‘thorn’</td>
</tr>
<tr>
<td>dakú-ko</td>
<td>dakú-ɔ</td>
<td>dakú-k̚</td>
<td>‘tree’</td>
</tr>
</tbody>
</table>
The copulative case has the following three grammatical functions:

1. Mark focus in a cleft construction
2. Mark the complement of a verbless copula
3. Mark the complement of a negative identity copula

The first function of the copulative is to mark an argument that has been brought into discursive focus by being fronted before the main verb. The result is a cleft-construction that means something like ‘It is X (that)...’. The fronted constituent can be a subject, object, or any peripheral argument:

(164) Subject:  
\[ \text{Ngoo naa ikamem.} \]  
\[ \text{ŋgó-ó = naa ikam-ct-im-ö} \]  
\[ \text{we.EXC-COP = PST1 catch-VEN-1PL.EXC-REAL} \]  
\[ \text{It is we (who) captured (him).} \]

(165) Object:  
\[ \text{Mesoo beďim.} \]  
\[ \text{mɛsɔ-ɔ beď-ım-ö} \]  
\[ \text{beer-COP want-1PL.EXC-REAL} \]  
\[ \text{Is is beer (that) we want.} \]

(166) Peripheral:  
\[ \text{Ntsuo tomoranee nda kidiásaí.} \]  
\[ \text{ntsú-ó tomɔ́r-án-é = e ñ́da kidiásaí} \]  
\[ \text{it-COP share-IPS-REAL = DP with others[OBL]} \]  
\[ \text{It is (why) it is shared with others.} \]

The second function of the copulative is to mark nouns functioning as the complements of verbless copula clauses (VCC). VCCs provide an example of when a noun non-canonically functions as a clause’s predicate. The copulative case makes this possible by verbalizing the noun. No corresponding subject is needed, though it may be inferred contextually:
The third function of the copulative is to mark the complement of a copula clause (CC) with the negative copula *bení*. If the copula subject (CS) is mentioned, as in (169) and (170), then it appears in the nominative case:

(168) *Benía ja ngok.*

| beni-a = já | ngó-k°cc |
| not.be-REAL = ADV | we.EXC-COP |
| It’s really not us. |

(169) *Benía noo cwoo kidaa.*

| beni-a = noo | cuó-ócc | ki = dá-ács |
| not.be-REAL = PST3 | water-COP | MED = ones-NOM |
| That was not water. |

(170) *Benía njinio dà gokisina nee ne?*

| beni-a | njiní-occ | d-a Cs | gok-ósin-a | né-é = ne |
| not.be-REAL = WE.INC-COP | one-NOM | sit-1PL.INC-REAL | here-DAT = DEM |
| Are we not the ones seated here? |

Despite what the preceding sentences show, complements of the negative copula of identity *bení* can also appear in the nominative case. Or perhaps in the following two examples, the nouns in the nominative case are in fact the copula subjects whose complements are understood from the context:

(171) *Benía ja nk.*

| beni-a = já | ñk°cs/cc |
| not.be-REAL = ADV | I-NOM |
| It’s just not me. |
(172) beni-á d-a\_cs/cc njíni-e
not.be-REAL one.SG-NOM we.INC-GEN
Is it not (the one of) ours?

In closing, the question must be asked: Is the Ik ‘copulative’ really a case? As mentioned above, Cushitic parallels for the Ik copulative case suffix {-kɔ} are analyzed variously as suffixes, clitics and ‘markers’ more generally. In strictly morphological terms, the morpheme {-kɔ} certainly patterns like all the other Ik case suffixes: 1) It has an identical segmental shape as that of the dative and accusative cases, 2) it undergoes identical morphophonological alternations as the others suffixes, and 3) it fills the same nominal suffixal position as the other case suffixes. Then in syntactic terms, it patterns with other cases in that it is required to mark a unique argument (complement) in a specific clause type: a negative copula of identity clause. Thus it is analyzed in this grammar as a ‘case’ proper, synchronically.

Nevertheless, the copulative case has some peculiar properties that set it apart from all the other cases. First, apart from its function in marking a copular complement, the copulative does not encode grammatical relations of a noun with a predicate or a noun with another noun in a noun phrase. When it marks a noun, either in a cleft-construction or in a verbless copula clause, the noun fills the predicate slot. In that position, the noun with the copulative suffix can be followed by adverbial and tense-marking enclitics that otherwise come directly after true verbs. So in this sense, the copulative has a function more characteristic of a verbal morpheme.

As discussed below in §6.4.1, König has traced a chain of grammaticalization from an old focus marker (cf. the Cushitic parallels) to both the copulative suffix in the nominal system and the sequential aspect marker in the verbal system (2002:349-361). And so it would seem that the Ik copulative case shows the traits of a transitional form between a nominal and verbal morpheme. This might help explain its cross-categorial behavior.
6.4 ‘Case’ and grammaticalization

Formal parallels or homophones of the nominal case suffixes are found in other subsystems of Ik grammar. These are most richly attested in the verbal system (§6.4.1), though they are also found on demonstratives, relative pronouns, and tense particles (§6.4.2). This homophony has led to claims that Ik case is marked on ‘conjunctions, postpositions, prepositions, adverbs, and even verbs’ (König 2008:81). But this is misleading because most of these word classes are really nouns or verbs in Ik. The notion that nominal case suffixes grammaticalized into verbal inflectional affixes is one of the key claims of König 2002. Using her methodology, Schrock 2013 traces out several other potential grammaticalization pathways going from nominal case suffix to verbal affix. The picture emerging from this work is that due to its near ubiquity, ‘case’ is a unifying structural element in the language.

Unless the traditional definition of case is revised to include functors outside the nominal system, it is useful to speak of ‘case’ and ‘Case’ in Ik. The former is a way the language encodes grammatical relations, and the latter is a meta-categorial or mono-systemic archi-morphology whose precise origin and path of grammaticalization is not always known. In some instances, there is a demonstrable semantic link between a form in one system and its parallel in another, but in other instances, there is not.

Up to now it seems to have been assumed in the literature that nominal case suffixes are prior, being the source of parallels found elsewhere. A less explored but equally possible scenario is that all the various formal parallels in the different subsystems all come from a yet undiscovered source. Until much more descriptive and historical-comparative work is done in the Horn of Africa, the origin of these morphological types may remain out of sight.

6.4.1 ‘Case’ on verbs

König 2002 argued that Ik has grammaticalized nominal case suffixes into TAM verbal suffixes. The most prominent examples of this are 1) the dative
suffix turned marker of the simultaneous aspect (‘subjunctive’ in König’s terminology) and 2) the copulative suffix turned marker of the sequential aspect (‘narrative’ in König’s terminology). Consider these examples:

(173) **Grammaticalization of dative into simultaneous**

<table>
<thead>
<tr>
<th>Dative</th>
<th>Simultaneous</th>
</tr>
</thead>
<tbody>
<tr>
<td>bóré-kek⁶ corral-DAT</td>
<td>ats-i-kek⁶ come-3SG-SIML</td>
</tr>
<tr>
<td>sisí-kek⁶ mead-DAT</td>
<td>k₆dᵪ-i-kek⁶ cry-3SG-SIML</td>
</tr>
</tbody>
</table>

(174) **Grammaticalization of copulative into sequential**

<table>
<thead>
<tr>
<th>Dative</th>
<th>Sequential</th>
</tr>
</thead>
<tbody>
<tr>
<td>bóré-kek⁶ corral-COP</td>
<td>ats-u-kek⁶ come-3SG-SEQ</td>
</tr>
<tr>
<td>sisú-kek⁶ mead-COP</td>
<td>k₆dᵪ-ů-kek⁶ cry-3SG-SEQ</td>
</tr>
</tbody>
</table>

The data in (173) show that the dative case suffix and the simultaneous aspect suffix are identical in form ({-ke} and its various allomorphs). And as shown in (174), the copulative case suffix and the sequential aspect suffix are also identical in form ({-ko} and its allomorphs). König establishes the putative grammaticalization link between these nominal and verbal suffixes based on the following five points (adapted from 2002:318-319, 414):

(175) **Evidence of case > verbal suffix grammaticalization**

1. Their forms are identical.
2. Their morphophonological behavior is identical.
3. Their position in the word (i.e. always at the end) is identical.
4. The simultaneous and sequential suffixes show similar syntactic behavior (e.g. they are both used in subordinate clauses).
5. They exhibit other similar characteristics, such as:
   a. Their non-final/final forms.
   b. Their form consisting of /k/ plus a silent vowel.
   c. Their deletion of /a/ in the preceding stem.
   d. Their exclusion from negated verb forms.
In König’s view, both the copulative case suffix and the sequential (‘narrative’) aspect marker were later developments from a nominal focus marker that was also a development from a copular suffix on nouns (2002:349-361). Paradoxically, she concludes that a focus marker encoding discontinuity developed into a ‘narrative’ mood marker encoding discourse continuity (2002:360). From a synchronic point of view, the copulative case in the nominal system and the sequential aspect in the verbal system do seem to focus attention on a given noun or verb. For nouns, this attention has a focal or copular function. For verbs, this attention simply highlights the point-by-point sequence of a text. In both systems, the morpheme {-kɔ} focuses attention on the respective item, as in the following:

(176) ámá-k⁶ person-COP ‘It IS [a person].’
   ats-u-k⁶ come-3SG-SEQ ‘It IS [s/he/it came].’

As for the homophonous dative /simultaneous (‘subjunctive’) marker {-kɛ}, König states that “In Icetot, the starting point in the grammaticalization of the dative into the subjunctive was probably an application of the dative as a purpose marker: first of all, together with a noun; then with a verbal noun; and finally, with an inflected verb” (2002: 264, italics in original).

But another explanation for the dative > simultaneous grammaticalization—and the one adopted in this grammar—is that the dative case’s semantic role of Location was simply extended over time from nouns to whole subordinate clauses. If true, this would reflect one of the cross-linguistic ‘cognitive-communicative strategies’ in grammaticalization to “treat subordinate clauses like nouns” (Heine & Kuteva (2007:100-101). There is precedent for this analysis in wider Nilotic and particularly in Turkana where the locative prefix ni-/nɪ- is used for manner adverbials whether based on nouns or verbs. As Dimmendaal states, “The semantic distinction between manner and location...is not always clear” (1983:363-364). Just as the Ik dative case on nouns expresses the locational senses of ‘in’, ‘on’, or ‘at’, so the
simultaneous aspect suffix seems to have over time come to encode states or actions in or during which other states or actions are occurring, for example:

(177) *Epukwee kījak.*

ep-uƙw-ee           kijá-k<sup>e</sup>
sleep-AND-IMP.SG    ground-DAT

Lie down on the ground.

(178) *Epukwee maraŋidik.*

ep-uƙw-ee           maráŋ-fdi-k<sup>e</sup>
sleep-AND-IMP.SG    good-2SG-SIML

Sleep well (Lit. ‘Sleep you being good’ or ‘Sleep in you being good’).

(177) is a simple command to lie down on the ground, while (178) is a command to lie down ‘while you are good’, that is, ‘in the state of your being good’. These examples show how the semantics of physical co-occurrence on nouns, encoded by the dative, is extended to circumstantial co-occurrence on verbs. Even if this analysis is correct, the two homophones in the two grammatical systems must be treated as synchronically distinct. The location analogy may, however, be tested as a grammaticalization hypothesis.

Taking similar points of comparison, other links can be posited between nominal case suffixes and verbal inflectional affixes such as the following:

(179) *Other hypothetical case > verbal affix grammaticalizations*

<table>
<thead>
<tr>
<th>Case</th>
<th>Verbal suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oblique</td>
<td>Irrealis</td>
</tr>
<tr>
<td>Nominative</td>
<td>Realis</td>
</tr>
<tr>
<td>Accusative</td>
<td>Present perfect</td>
</tr>
<tr>
<td>Genitive</td>
<td>Singular imperative</td>
</tr>
<tr>
<td>Ablative</td>
<td>Plural imperative</td>
</tr>
</tbody>
</table>


Schrock 2013 goes through each potential pair in (179) and determines that some, namely the first three, are more likely than others. That view is amended here in that only the first two are considered plausible. Those two—oblique > irrealis and nominative > realis—are the only two that seriously affect the analysis of the whole grammar. The other four encounter serious problem but are still interesting for speculative historical analysis.

The hypothesis that Ik has grammaticalized the nominative suffix {-a} into a verbal realis modality marker is analytically important. It was Heine who first noted that the nominative case and his ‘aorist’ tense shared something in common—the vowel /a/, which he calls the ‘thematic final a’ (1983:§2.5.3.1.1). But so far no one has explored the possibility that the ‘aorist’ marker /-a/ is a grammaticalization of the nominative case marker.

Besides their phonological identity, the nominative case {-a} and the realis {-a} share a significant morphological characteristic: They both subtract the final vowel of the stem or affix to which they attach. To illustrate this, the first column in (180) shows the underlying forms, first of noun roots with the nominative suffix, and then of verb roots and pronominal subject markers with the realis suffix. The second column then shows how {-a} in both systems subtracts the preceding nominal or verbal stem-final vowel:

\[
\begin{array}{|c|c|}
\hline
\text{Nouns} & \text{Verbs} \\
\hline
\text{ɓóré-a} & \text{ats-íi-a} \\
\text{ŋókí-a} & \text{ats-ídi-a} \\
\text{sísí-a} & \text{ats-i-a} \\
\hline
\text{ɓór-á} & \text{ats-í-a} \\
\text{ŋók-á} & \text{ats-íd-a} \\
\text{sís-a} & \text{ats-a} \\
\hline
\end{array}
\]

**Grammaticalization of nominative > realis**
Interestingly, similar suggestive commonalities are found to exist between the oblique case morpheme and the irrealis modality morpheme, both of which are zero (∅). Being zero-marked, the oblique case allows a noun stem’s underlying form to surface (often with minor tonal changes). Likewise, the irrealis modality allows the underlying form of the preceding verbal morpheme to surface. In (181), the first column presents the underlying forms of several noun and verb stems with the oblique or Irrealis marker. The second column reveals their non-final surface forms:

(181) Grammaticalization of oblique > irrealis  

<table>
<thead>
<tr>
<th>Nouns</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>bòrè-∅ → bòrè</td>
<td>corral[obl]</td>
</tr>
<tr>
<td>ŋókí-∅ → ŋókí</td>
<td>dog[obl]</td>
</tr>
<tr>
<td>sisí-∅ → sisí</td>
<td>mead[obl]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Verbs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ats-íí-∅ → ats-íí</td>
<td>come-1sg[ irr]</td>
</tr>
<tr>
<td>ats-idi-∅ → ats-idi</td>
<td>come-2sg[ irr]</td>
</tr>
<tr>
<td>ats-i-∅ → ats-i</td>
<td>come-3sg[ irr]</td>
</tr>
</tbody>
</table>

Based on the data above in (180), a plausible claim can be made that the nominative case {-a} and the realis modality {-a} are related historically. Whether one came from the other or both came from somewhere else is not known. And based on the data in (181), the same claim can be made for the oblique case and the irrealis modality which are both marked by {-∅}.

But beyond segmental identity and morphophonological similarity, can these morphemes in disparate grammatical systems be linked semantically? Tentative connections can be drawn, but they are speculative and based on Ik’s mismatch of formal and semantic markedness. For example, just as the nominal system marks what is common (e.g. subjects) and does not mark what is uncommon (e.g. oblique arguments), the verbal system marks what is actual (realis predications) and not what is unactualized (irrealis).
Such theorizing about grammaticalization finds practical application in the analysis of the subject-agreement pronominal suffixes. The analysis of these suffixes has been both the stimulus and result of case grammaticalization hypothesizing. A few comments are made below to illustrate the complexity of the issue and its relevance to Ik grammaticography:

Ik cross-references subjects by means of bound personal pronominal suffixes on verbs. These are described elsewhere §5.1.4 and §7.4, but a brief summary is repeated here: The subject-agreement pronouns mark grammatical person (1-2-3), number (SG and PL) and clusivity (EXC and INC). The underlying forms of these suffixes are posited as [-ATR] (except 3 PL) with [+ATR] allomorphs after dominant [+ATR] stems or affixes. The suffixes' tones may be altered by the verbal stem and certain verbal suffixes.

The forms presented in (182) for the pronominal suffixes are not automatically discoverable in Ik data. Instead, they came to be analyzed this way through a rather convoluted process. Analysis of these suffixes has long been confounded by at least three factors: 1) the non-final versus final form distinction, 2) the realis suffix which substracts stem-final vowels (§7.6.2), and 3) the behavior of the sequential and simultaneous aspectual suffixes. The interaction of these three factors had led to two conflicting analyses:

<table>
<thead>
<tr>
<th>Suffix</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 SG</td>
<td>-iiz</td>
</tr>
<tr>
<td>1 SG</td>
<td>- idi</td>
</tr>
<tr>
<td>1 SG</td>
<td>-i</td>
</tr>
<tr>
<td>1 PL, EXC</td>
<td>-imiz</td>
</tr>
<tr>
<td>1 PL, INC</td>
<td>-isin</td>
</tr>
<tr>
<td>2 PL</td>
<td>-itiz</td>
</tr>
<tr>
<td>3 PL</td>
<td>-azi</td>
</tr>
</tbody>
</table>
296

(183) **Ik subject-agreement markers in the literature**

<table>
<thead>
<tr>
<th></th>
<th>With /-a/ as</th>
<th>With /-a/ as part of the pronominal suffixes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>‘complemental suffix’</td>
<td></td>
</tr>
<tr>
<td>1SG</td>
<td>-í-á</td>
<td>-íá</td>
</tr>
<tr>
<td>2SG</td>
<td>-íd-a</td>
<td>-ída</td>
</tr>
<tr>
<td>3SG</td>
<td>-Ḍ-a</td>
<td>-a</td>
</tr>
<tr>
<td>1PL,EXC</td>
<td>-ím-á</td>
<td>-ímá</td>
</tr>
<tr>
<td>1PL,INC</td>
<td>-ísín-a</td>
<td>-ísiná</td>
</tr>
<tr>
<td>2PL</td>
<td>-ít-á</td>
<td>-ítá</td>
</tr>
<tr>
<td>3PL</td>
<td>-át-a</td>
<td>-áta</td>
</tr>
</tbody>
</table>

The data in (183) are presented in their non-final forms since the final forms further obfuscate things by reducing the suffixes’ final vowel. As argued in §7.6.2, the position taken in this grammar is that the realis suffix {-a} subtracts the last vowel of whatever morpheme it attaches to. Since this vowel subtraction happens to the subject-agreement suffixes as well, then this means that final vowels have been subtracted from the forms in (184).

That is one point. Parallel to this issue is what happens when verbal extensions like the simultaneous {-kɛ} are suffixed to the subject-agreement markers. When this occurs, an /i,i/ rather than an /a/ surfaces between the subject-agreement markers and the simultaneous suffix. If the vowel /a/ is part of the subject-agreement markers, it would be hard to explain what happens to it in this situation. Heine & König 1996 and König 2002 argue that the intervening /i,i/ is the optative suffix, but no convincing semantic reason for this is given. Instead, the view taken here is that the intervening /i,i/ is in fact part of the subject-agreement morpheme, while the /a/ so often seen is the realis marker than subtracts the /i,i/ in many contexts.

Below in (184) are given all the subject-agreement suffixes in their non-final and final forms, in both the non-past tense, realis modality on the one hand,
and the simultaneous aspect on the other. For the sake of illustration, morpheme-breaks are purposely not inserted between the subject-agreement markers and the realis suffix {-a/-a} or the simultaneous suffix {-ɛ/-k'}:  

(184)  Ik subject-agreement markers in different verb forms

<table>
<thead>
<tr>
<th></th>
<th>Non-final</th>
<th>Final</th>
<th>Non-final</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>-íá</td>
<td>-íᵃ</td>
<td>-íɛ́kᵉ</td>
<td>-íɛ́kᵋ</td>
</tr>
<tr>
<td>2SG</td>
<td>-ída</td>
<td>-ídᵃ</td>
<td>-ídɛ́</td>
<td>-ídɛ́kᵋ</td>
</tr>
<tr>
<td>3SG</td>
<td>-a</td>
<td>-ā</td>
<td>-ɪɛ́</td>
<td>-ɪɛ́kᵋ</td>
</tr>
<tr>
<td>1PL.EXC</td>
<td>-ímá</td>
<td>-ím</td>
<td>-ímɛ́</td>
<td>-ímɛ́kᵋ</td>
</tr>
<tr>
<td>1PL.INC</td>
<td>-ísína</td>
<td>-ísín</td>
<td>-ísíɛ́</td>
<td>-ísíɛ́kᵋ</td>
</tr>
<tr>
<td>2PL</td>
<td>-ítá</td>
<td>-ítᵃ</td>
<td>-ítɛ́</td>
<td>-ítɛ́kᵋ</td>
</tr>
<tr>
<td>3PL</td>
<td>-átá</td>
<td>-átᵃ</td>
<td>-átie</td>
<td>-átiekᵋ</td>
</tr>
</tbody>
</table>

If the simultaneous ('subjunctive') aspecutal suffix is -ɛ/kɛ/kᵋ as claimed in König 2002, where do the subject-agreement markers end in the last two columns of (184)? In answer to this question, it is concluded here that a) since the dative case preserves the stem-final vowel in the nominal system, and b) if the simultaneous suffix is a grammaticalization of the dative case, then c) it too, by analogy, might preserve the final vowel of the morpheme to which it attaches. In this case, that morpheme is the subject-agreement suffixes. So, when the simultaneous suffix in the final column of (184) is removed, what is left is the subject-agreement suffixes without an intervening optative marker. The realis forms can then be accounted for by the realis suffix {-a}, itself a (potential) grammaticalization of the nominative {-a} that subtracts the subject-agreement suffixes' final vowel.

6.4.2 ‘Case’ in other word classes

Formal parallels of Ik nominal case markers are also found on demonstratives, relative pronouns, and tense particles. The situation is less surprising if one considers that both tense particles and relative pronouns...
developed out of demonstratives. Ik tensed demonstratives and tensed relative pronouns are identical in form and are marked for Ik’s three-term past tense system: recent past, removed past, and remote past:

(185) **Ik tensed demonstratives/relative pronouns**

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-past</td>
<td>= na ‘this/which’</td>
<td>= ni ‘these/which’</td>
</tr>
<tr>
<td>Recent past</td>
<td>= náka ‘that/which’</td>
<td>= níki ‘those/which’</td>
</tr>
<tr>
<td>Removed past</td>
<td>= síná ‘that/which’</td>
<td>= sini ‘those/which’</td>
</tr>
<tr>
<td>Remote past</td>
<td>= nɔkɔ ‘that/which’</td>
<td>= nuku ‘those/which’</td>
</tr>
</tbody>
</table>

As can be seen in (186), the non-past form of the demonstrative/relative pronouns provides the base on which the other tense forms are built:

(186) **Analysis of tensed demonstratives/relative pronouns**

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-past</td>
<td>= na</td>
<td>= ni</td>
</tr>
<tr>
<td>Recent past</td>
<td>= ná-ka</td>
<td>= ní-ki</td>
</tr>
<tr>
<td>Removed past</td>
<td>= sí-na</td>
<td>= sí-ni</td>
</tr>
<tr>
<td>Remote past</td>
<td>= nɔ-ko</td>
<td>= n-u-ku</td>
</tr>
</tbody>
</table>

In (186), the base (non-past) forms of the demonstratives/relative pronouns are in bold print—na for singular and ni for plural. Vowel assimilation changes na to nɔ in the remote past singular and ni to nu in the plural. The recent past and remote past forms form have suffixes resembling a case marker. (Only the removed past shows a prefix instead—sIr-si-, which is probably related to the South Omotic language Dime’s proximal demonstrative element si- (Mulugeta 2008:73).) The recent past form of the Ik singular demonstrative has -ka as a suffix. This is homophonous with the accusative case suffix {-ka} and nearly so with the present perfect marker {-’ka}. Likewise, the remote past singular demonstrative has -kɔ as a suffix. This resembles the copulative suffix and sequential aspect marker {-kɔ}. 
Two of these Ik demonstratives have grammaticalized not only into relative pronouns but also into tense clitics. During that process, the deictic function a demonstrative has over a single noun or a noun phrase was extended to whole clauses. Since clauses are singular, the singular forms of the demonstratives were borrowed to function as tense markers. The tense markers for recent past and remote past are identical to demonstratives, while the removed past marker shows a different form of unknown origin:

(187) **Ik tense clitics**

<table>
<thead>
<tr>
<th></th>
<th>Non-final form</th>
<th>Final form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent past</td>
<td>=ná</td>
<td>=nákᵃ</td>
</tr>
<tr>
<td>Removed past</td>
<td>=bɛɛ</td>
<td>=batsᵉ</td>
</tr>
<tr>
<td>Remote past</td>
<td>=nɔɔ</td>
<td>=nɔkᵊ</td>
</tr>
</tbody>
</table>

The discussion above examining the recent past and remote past singular demonstratives applies equally to the recent and remote past tense enclitics. For the removed past tense enclitic, the segment /ts/ is missing in the non-final form, leading to vowel assimilation. The origin of the suffix /-tsɛ/ is unknown, though it recalls the Proto-Gumuz word *tsa* ‘body’ that has been grammaticalized in Gumuz for several different uses (Ahland 2012:251).

The parsed versions of the tense clitics in (187) are as follows:

(188) **Ik tense clitics parsed**

<table>
<thead>
<tr>
<th></th>
<th>Non-final form</th>
<th>Final form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent past</td>
<td>=ná-a</td>
<td>=ná-kᵃ</td>
</tr>
<tr>
<td>Removed past</td>
<td>=bɛɛ-ɛ</td>
<td>=ba-tsᵉ</td>
</tr>
<tr>
<td>Remote past</td>
<td>=nɔɔ-ɛ</td>
<td>=nɔ-kᵊ</td>
</tr>
</tbody>
</table>

(188) shows that just as with the demonstratives and relative pronouns, the frozen suffixes on Ik tense particles lose their consonantal segment in non-final forms. The suffix on the recent past closely resembles the accusative
case and present perfect aspect suffixes, and the suffix on the remote past form closely resembles the copulative case and sequential mood suffixes. However, just as the present perfect suffix \{-ka\} has a preceding floating tone, the frozen suffix on the recent past demonstratives and tense clitics shows evidence of a floating tone. This suggests that the sequences /-ka/ for singular and /-ki/ for plural are related historically to the present perfect suffix (which lacks the floating H).

Unlike the grammaticalization links for case > verbal affix discussed above, a semantic link can easily be envisioned between the present perfect aspect-tense marker \{-ka\} as a verbal suffix and the recent past marker \{-ka\} as a suffix on demonstratives, relative pronouns, and tense enclitics. In the same way, a semantic link can also be established between the sequential aspect marker \{-ka\} as verbal suffix and the remote past marker \{-ka\} as a suffix on demonstratives, relative pronouns, and tense enclitics. This is true for the singular demonstrative forms; it is less clear how the plural ones developed:

(189) Verbal < > demonstratival grammaticalization

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Plural?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present Perfect</td>
<td>ats-á-kᵃ</td>
<td>come-REAL-PRF</td>
</tr>
<tr>
<td>Recent Past</td>
<td>ná-kᵃ</td>
<td>ní-kⁱ</td>
</tr>
<tr>
<td>Sequential</td>
<td>ká-d-ó-kⁱ</td>
<td>cry-3SG-SEQ</td>
</tr>
<tr>
<td>Remote Past</td>
<td>no-kᵦ</td>
<td>nu-kᵦ</td>
</tr>
</tbody>
</table>

So based on phonological, morphological, and semantic properties, the diachronic relationship between the forms in (189) is established. The question one step removed—whether the present perfect \{-ka\} related to the accusative case \{-ka\} and whether the sequential \{-ka\} is related to the copulative \{-kɔ\}—is touched on above in §6.4.1 and in Schrock 2013. The latter source fails to take into account the floating H tone in the present perfect suffix \{-ka\} which makes a link with the accusative less plausible.
7 Verbs

The Ik language’s second large, open word class besides nouns is verbs. This chapter begins with an overview of verb roots (§7.1) and then moves on to describe various verbal suffixes and verb-building mechanism (§7.2–§7.11).

In Ik, a verb is a word whose primary grammatical function is to be the head of the predicate. As head of the predicate, a verb can take a variety of inflectional affixes, including those for subject agreement, mood, modality, valency, and aspect. A secondary grammatical function of the Ik verb is to be the head of a noun phrase. For a verb to adopt this function, it must first be nominalized with one of the language’s several nominalizing suffixes.

A prototypical member of the Ik verb class predicates the action, state, location, or characteristic of its subject. Some concepts covered by an adjective class in other languages—like color, size, and shape—are covered by special adjectival verbs in Ik. And other concepts conveyed by nouns in many languages are also encoded in Ik with nominalized verbs.

At an abstract lexical level, some words are neither verb nor noun until they receive verbal or nominal affixes. These include words like deƙú- ‘quarrel’, ƙaƙá- ‘hunt’, tɔƙaba- ‘cultivate’, and many others (see also §4 on nouns). When such lexemes are used as verbs, they receive verbal affixes like subject agreement markers. When they are used as nouns, they receive nominal affixes like case markers. So while the word classes of verb and noun can normally be clearly distinguished in Ik on the basis of syntax and semantics, their boundaries do overlap with a fair number of lexemes.

A verbal word in Ik consists minimally of a verbal root plus one inflectional affix. With the exception of reduplicated roots and fossilized prefixes, all verbal inflectional and derivational affixes in Ik are suffixes.
Morphologically, Ik is moderately agglutinative, and this is most fully evident in verbal inflection, for example in a verb like *bud-ūd-it-ēs-ūkot* ‘to soften’, which in addition to the root *bud-* contains four verbal suffixes. The most suffixes ever observed in a single verb stem is five, as in *gaan-i-dā-kot-dā-ta-k* ‘They have become increasingly bad’.

The usual citation form of an Ik verb—heard in response to the question “How do you say _____ in Ik?”—is the infinitive which is recognizable from the intransitive nominalizer {6ɔnɪ6} or the transitive nominalizer {6ɛ́sɪ́6}:

<table>
<thead>
<tr>
<th>Verbal citation (isolation) forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intransitive</td>
</tr>
<tr>
<td>ef-ɔn</td>
</tr>
<tr>
<td>zíz-on</td>
</tr>
<tr>
<td>ef-it-és</td>
</tr>
<tr>
<td>zíz-it-és</td>
</tr>
</tbody>
</table>

Just as noun roots cannot occur without a case suffix, bare verb roots also cannot occur. Even those that may sound like a bare root to a non-Ik speaker—the 3SG realis and singular imperative—have a minimum of one suffix that may be devoiced or deleted at the surface level. In the realis modality, 3SG is zero-marked (-∅) because the realis suffix {6a} subtracts the 3SG subject-agreement suffix {-ɪ}. Then before a pause, the realis suffix may be completely inaudible, though still present phonologically. Similarly, the singular imperative {-ɛ́} may be rendered inaudible before a pause:

<table>
<thead>
<tr>
<th>Isolated verbs falsely perceivable as bare roots</th>
</tr>
</thead>
<tbody>
<tr>
<td>3SG realis</td>
</tr>
<tr>
<td>bīz-a# → [bīʂ:] ‘He presses (it).’</td>
</tr>
<tr>
<td>pul-a# → [pūl:] ‘He pierces (it).’</td>
</tr>
<tr>
<td>Imperative singular</td>
</tr>
<tr>
<td>bīz-ɛ́ → [bīʂ:] ‘Press (it)!’</td>
</tr>
<tr>
<td>pul-ɛ́ → [pūl:] ‘Pierce (it)!’</td>
</tr>
</tbody>
</table>
7.1 Verbal roots

Ikv verbal words consist of roots and suffixes. The present section examines the structure of Ikv roots, while §7.2-§7.9 handle the topics of verbal suffixes. Whenever it is convenient to refer only to a root without suffixes, the root will be hyphenated, as in ats- ‘come’ or zǐk- ‘tie’. Such forms are considered lexical and slightly abstracted from actual speech. This section begins with a few comments on various features of verbal roots in general.

As a structural possibility, in rare cases lexical roots may exhibit variable tone melodies with slightly different resulting semantic nuances. Note that this is not the same as minimal pairs with different meanings altogether, e.g. dʊ́b- ‘catch’ vs. dʊ́b- ‘mix with water’. Consider the following examples:

(3) *Tonal minimal lexical verb pairs*

<table>
<thead>
<tr>
<th>Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bʊ́d-</td>
<td>‘to hide something’</td>
</tr>
<tr>
<td>bʊ́d-</td>
<td>‘to hide oneself’</td>
</tr>
<tr>
<td>hɔ́n-</td>
<td>‘to drive animals’</td>
</tr>
<tr>
<td>hɔ́n-</td>
<td>‘to drive a machine’</td>
</tr>
<tr>
<td>ŋʊ́-</td>
<td>‘to be ground’</td>
</tr>
<tr>
<td>ŋʊ-</td>
<td>‘to grind’</td>
</tr>
</tbody>
</table>

The last two verb roots in (3) are illustrated in the two sentences below:

(4) *Beɗa ceka ŋweesik.*  
\[
\text{bɛ́ɗ6á cek6a ŋʊ6ɛ́sɪ́6kᵃ}  
\text{want6 woman6 grind6 INF ACC}  
\text{The woman wants to grind (grain).}
\]

(5) *Beɗa ŋama ŋweesik.*  
\[
\text{bɛ́ɗ6á ŋám6á ŋʊ́6ɛ́sɪ6kᵃ}  
\text{want-REAL sorghum-NOM grind-INF ACC}  
\text{The sorghum needs grinding.}
\]
Because Ik is an argument-dropping language (even core arguments), one cannot guess the transitivity of a verb from syntax or semantics. But at least, Ik verb roots are lexically specified as intransitive, transitive, or ditransitive (extended transitive). As mentioned above, intransitive verbs are identified by the infinitive suffix {ɔn}, while the suffix {s} identifies transitives and ditransitives. And a significant number of verb roots are ambitransitive—able to be intransitive or transitive, for example:

(6) Some Ik ambitransitive verb roots

<table>
<thead>
<tr>
<th>Root</th>
<th>Infinitive</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ábʊk-</td>
<td>ábʊbʊk-ɔn</td>
<td>‘to charge (of animals)’</td>
</tr>
<tr>
<td></td>
<td>ábʊbʊk-ɛ́s</td>
<td>‘to scoop out’</td>
</tr>
<tr>
<td>dzr-</td>
<td>dzr-ɔn</td>
<td>‘to tear off running’</td>
</tr>
<tr>
<td></td>
<td>dzr-ɛ́s</td>
<td>‘to tear’</td>
</tr>
<tr>
<td>fút-</td>
<td>fút-ɔn</td>
<td>‘to blow (intrans.)’</td>
</tr>
<tr>
<td></td>
<td>fút-ɛ́s</td>
<td>‘to blow (trans.)’</td>
</tr>
<tr>
<td>ídz-</td>
<td>ídz-ɔn</td>
<td>‘to drain, emit’</td>
</tr>
<tr>
<td></td>
<td>ídz-ɛ́s</td>
<td>‘to shoot’</td>
</tr>
<tr>
<td>iʝók-</td>
<td>iʝók-ɔn</td>
<td>‘to drool’</td>
</tr>
<tr>
<td></td>
<td>iʝok-ɛ́s</td>
<td>‘to lend’</td>
</tr>
</tbody>
</table>

Ditransitive verbs can be identified by their imperative forms: If the imperative of a verb requires the dummy pronoun enclitic (=‘(d)e), that means an obligatory argument requires a morphological trace. The only three ditransitive verbs identified so far include eg- ‘put’, ṭaarResult ‘help’, and ma- ‘give’ (Heine & König 1996:30). These are exemplified in (7):

(7) Ik ditransitive verb roots

<table>
<thead>
<tr>
<th>Root</th>
<th>Imperative</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>eg-</td>
<td>eg-ɛ́ = d³</td>
<td>(<strong>eg-</strong>‘) ‘Put (it) (somewhere)!’</td>
</tr>
<tr>
<td>ṭaarResult-</td>
<td>ṭaarResult-ɛ́ = d³</td>
<td>(ṭaarResult-ɛ́‘) ‘Help (someone)!’</td>
</tr>
<tr>
<td>ma-</td>
<td>ma-ɛ́ = d³</td>
<td>(<strong>ma-</strong>‘) ‘Give (it) (to someone)!’</td>
</tr>
</tbody>
</table>
As discussed back in §6.3.6 on the topic of the accusative case, a handful of Ik motion verbs can be used intransitively or transitively. According to Dimmendaal, this is a property common in Cushitic and Omotic languages (2003:100). Ik ambitransitive motion verbs include *ats-* ‘come’, *ntá-* ‘reach’, and *ka-* ‘go’. When used intransitively—as seems to be the normal case—their Goal or Destination is encoded with the dative case (*-kᵋ*). But when used transitively, their Goal—Purpose is encoded with a direct object case: either nominative (1-2 person subject) or accusative (*-kᵃ*) (3 person). Even so, the verb *ntá-* behaves a little differently than the other two. It appears to be a transitive verb with the ability to intransitivize: With a dative object, it has a meaning usually translated as ‘find’ in English:

(8) **Ik ambitransitive motions verbs**

<table>
<thead>
<tr>
<th>Root</th>
<th>Object case</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>ats-</em></td>
<td>atsa awá-kᵋ</td>
<td>Dative</td>
</tr>
<tr>
<td></td>
<td>atsa zeƙó-kᵋ</td>
<td>Accusative</td>
</tr>
<tr>
<td><em>ntá-</em></td>
<td>ntáá ntí-kᵋ</td>
<td>Dative</td>
</tr>
<tr>
<td></td>
<td>ntáá awá-kᵃ</td>
<td>Accusative</td>
</tr>
<tr>
<td><em>ka-</em></td>
<td>kaá hoo-kᵋ</td>
<td>Dative</td>
</tr>
<tr>
<td></td>
<td>kaá róƙéski-kᵃ</td>
<td>Accusative</td>
</tr>
</tbody>
</table>

Finally, a few Ik verbs are lexically specified for the number of one of their arguments—the subject if intransitive and the object if transitive. The following four pairs illustrate these number-based classes:

(9) **Number-based Ik verb root classes**

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>bad-</em></td>
<td>ts'é-</td>
<td>‘to die’</td>
</tr>
<tr>
<td><em>ce-</em></td>
<td>sáɓ-</td>
<td>‘to kill’</td>
</tr>
<tr>
<td><em>ŋká-</em></td>
<td>gwám-</td>
<td>‘to stand’</td>
</tr>
<tr>
<td><em>zéb-</em></td>
<td>turúí-</td>
<td>‘to throw’</td>
</tr>
<tr>
<td><em>zekw-</em></td>
<td>goƙ-</td>
<td>‘to sit’</td>
</tr>
</tbody>
</table>
### 7.1.1 Basic roots

Ik basic verb roots are those considered morphologically unanalyzable. In some cases, insights gained from further historical-comparative research may disqualify some members currently put in this class of verbs. As the class stands, it exhibits eighteen syllable patterns and accompanying tone melodies. Each of these patterns is presented below, beginning with the most frequently occurring in a sampling of approximately 1000 verb roots.

The largest syllabic group of Ik verbs (365 out of 1000) has a CVC pattern. A sample of this group is presented in (10) according to tone melody. Even though L tone is generally not marked in this grammar, a floating L is given for the HL verbs to show that any following suffix must have a L tone due to the presence of the depressor consonants (see also §3.2.3):

<table>
<thead>
<tr>
<th>Verb roots</th>
<th>Tone</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>dé́t-</td>
<td>ḏɛ́t6 'blow blowgun'</td>
</tr>
<tr>
<td></td>
<td>náf-</td>
<td>náf6 'call rudely'</td>
</tr>
<tr>
<td>HL</td>
<td>bí́z-</td>
<td>bíz6̀ 'press'</td>
</tr>
<tr>
<td></td>
<td>zíž-</td>
<td>zíz6̀ 'be fat'</td>
</tr>
<tr>
<td>L</td>
<td>ɓoɓ-</td>
<td>ɓoɓ6 'be deep'</td>
</tr>
<tr>
<td></td>
<td>ɡam-</td>
<td>ɡam6 'kindle'</td>
</tr>
</tbody>
</table>

The second most numerous group (280 out of 1000) has a VCVC syllable pattern. This group includes but is not limited to what would be called the Class 2 counterparts of the CVC roots in (10); see §7.1.4 for Class 2 roots. HL and LHL melodies are created by the presence of depressor consonants:

<table>
<thead>
<tr>
<th>Verb roots</th>
<th>Tone</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>HH</td>
<td>ákáf-</td>
<td>áƙáf6 'yawn'</td>
</tr>
<tr>
<td></td>
<td>Serviço</td>
<td>émit- 'wheeze'</td>
</tr>
<tr>
<td>HL</td>
<td>áɡʊʝ-</td>
<td>áɡʊʝ6 'gulp'</td>
</tr>
<tr>
<td></td>
<td>íban-</td>
<td>íban6 'go later'</td>
</tr>
</tbody>
</table>
After CVC and VCVC roots, the numbers in each syllable class get considerably smaller. From this point on, the basic root types are presented from smallest to largest in terms of the number of syllables:

(12) *V* verb roots

| H  | i- | ‘clear land’ |
|    | ó- | ‘call’       |

CV roots number about thirty-five (35) and include the following:

(13) *CV* verb roots

| H  | fá- | ‘boil (trans.)’ |
|    | tsé- | ‘die (multiple people)’ |
| L  | ci- | ‘be satiated’ |
|    | ho- | ‘cut open’       |

VC roots number about forty-five (45) and include the following:

(14) *VC* verb roots

| H  | áts’- | ‘chew’ |
|    | įn- | ‘pound’ |
| HL | ēd- | ‘carry on the back’ |
|    | ɔb- | ‘occupy an area’ |
| L  | ep- | ‘sleep’ |
|    | iw- | ‘hit’  |
Depending on one's analysis, the verb roots in (15) can be thought of as CVC roots with an initial [ATR] semi-vowel or VC with a diphthong:

(15)  

**Verb roots with semi-vowels (CVC) or diphthongs (VC)**

<table>
<thead>
<tr>
<th></th>
<th>CVC</th>
<th>VC</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>ɓɛɮ-</td>
<td>ɓɛɮ-</td>
<td>‘be cold’</td>
</tr>
<tr>
<td></td>
<td>ɓɔk-</td>
<td>ɓɔk-</td>
<td>‘bear fruit’</td>
</tr>
<tr>
<td>L</td>
<td>ɓɛk-</td>
<td>ɓɛk-</td>
<td>‘be far’</td>
</tr>
<tr>
<td></td>
<td>ɓum-</td>
<td>ɓum-</td>
<td>‘kidnap for marriage’</td>
</tr>
</tbody>
</table>

A final, single-syllable root type involves a nasal, resulting in a NC syllable structure. Only one lexeme of this type has been found: ɗk- ‘eat’.

Besides the VCVC roots listed above, other disyllabic roots, few in number, include those with CVCV, CVVC, VCV, and VVC syllable shapes:

(16)  

**CVC verb roots**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HL</td>
<td>ts’agwa-</td>
<td>‘be raw’</td>
</tr>
<tr>
<td>LL</td>
<td>tala-</td>
<td>‘be long and straight’</td>
</tr>
<tr>
<td></td>
<td>trwe-</td>
<td>‘broadcast (seeds)’</td>
</tr>
<tr>
<td>LH</td>
<td>ɓorá-</td>
<td>‘leave door open’</td>
</tr>
<tr>
<td></td>
<td>ɓaŋe-</td>
<td>‘spread out’</td>
</tr>
</tbody>
</table>

(17)  

**CVVC verb roots**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HH</td>
<td>ɗóóz-</td>
<td>‘throw’</td>
</tr>
<tr>
<td></td>
<td>ɗiif-</td>
<td>‘rub’</td>
</tr>
<tr>
<td>LL</td>
<td>ɗook-</td>
<td>‘shepherd’</td>
</tr>
<tr>
<td></td>
<td>ɗaan-</td>
<td>‘be bad’</td>
</tr>
<tr>
<td>LH</td>
<td>gwaift-</td>
<td>‘leave angrily’</td>
</tr>
</tbody>
</table>
VCV verb roots

<table>
<thead>
<tr>
<th>Syllable Structure</th>
<th>Verb Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>HL</td>
<td>ọgo-</td>
<td>‘leave’</td>
</tr>
<tr>
<td>LL</td>
<td>ifɔ-</td>
<td>‘scoot’</td>
</tr>
<tr>
<td></td>
<td>isa-</td>
<td>‘miss (a shot)’</td>
</tr>
<tr>
<td>LH</td>
<td>iƙú-</td>
<td>‘cry’</td>
</tr>
<tr>
<td></td>
<td>isó-</td>
<td>‘do first’</td>
</tr>
</tbody>
</table>

One verb root exhibits a NCV syllable structure: ŋká- ‘stand up’.

Other verb roots with three or four syllables occur less frequently and include those with the syllable shapes CVCVVC, CVCCVC, VCVCVC, VCVCV, VCVVC, VCVCVVC, VCVCCVC, and VCVVC.

Only one verb root has been identified with the syllable shape of CVCVVC: tumódún- ‘fold together’. The other syllable profiles also have few representatives, such as these below. Note again how the presence of depressor consonants has created the HLL and LHL tone melodies:

CVCVVC verb roots

<table>
<thead>
<tr>
<th>Syllable Structure</th>
<th>Verb Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHH</td>
<td>síkšór-</td>
<td>‘remove chaff with wind’</td>
</tr>
<tr>
<td>LLL</td>
<td>hakaik-</td>
<td>‘forget’</td>
</tr>
<tr>
<td>LHH</td>
<td>tokéér-</td>
<td>‘butcher a goat’</td>
</tr>
</tbody>
</table>

VCVCVC verb roots

<table>
<thead>
<tr>
<th>Syllable Structure</th>
<th>Verb Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLL</td>
<td>ígɔrob-</td>
<td>‘jump a long distance’</td>
</tr>
<tr>
<td></td>
<td>fbatal-</td>
<td>‘put in a sling’</td>
</tr>
<tr>
<td>LHL</td>
<td>ikábur-</td>
<td>‘wrap in clothing’</td>
</tr>
<tr>
<td></td>
<td>rwizil-</td>
<td>‘close one eye’</td>
</tr>
<tr>
<td>LHH</td>
<td>ifáfúk-</td>
<td>‘swallow quickly’</td>
</tr>
<tr>
<td></td>
<td>rmácfɔ́r-</td>
<td>‘be sooty black’</td>
</tr>
</tbody>
</table>
The final two syllable types have only one identified member each:

\[
\begin{array}{l|l}
\text{LLL} & \text{idfaar-} & \text{‘ambush'} \\
\text{maar-} & \text{‘count'} \\
\text{LHH} & \text{imaur-} & \text{‘be dizzy'} \\
\text{iveil-} & \text{‘scatter'} \\
\end{array}
\]

7.1.2 Partially reduplicated roots

A fair number of Ik verbs are formed by the partial reduplication of the basic root. As in Turkana (Dimmendaal 1983:101), partial reduplication in Ik may have once been a productive morphological process with semantic significance, but this is not the case today. This is shown by the fact that, unlike for some of the fully reduplicated roots, the basic (un-reduced) counterparts of partially reduplicated roots cannot be found. Since full reduplication in Ik verbs expresses a repeated, continuous, or intensive action, it is likely that partial reduplication used to have a similar meaning.

Ik partial reduplication in verb roots involved copying the first two segments of the basic root and placing them before the basic root. Only CVC basic roots have undergone partial reduplication. Fossilized prefixes like a- or the proto-Nilotic causative prefix i/i- present in so-called Class 2 verbs (v-CVC; see §7.1.4 below) do not figure into this equation. The copied segments get placed between such prefixes and the basic root.
The formula for Ik partial reduplication is given here in (24):

\[(24) \quad \text{Ik partial reduplication in verbs} \quad *(v-)C_1V_1C_2 \rightarrow *(v-)C_1V_1C_1C_2 \]

The next two example sets illustrate partial reduplication in Ik verb roots:

\[(25) \quad \text{Reduplicated } C_1V_1C_1V_1C_2 \text{ verb roots} \]

\[
\begin{array}{l|l}
*H-H & \text{ɓibit-} \quad \text{‘drink by sucking’} \\
   & \text{wówój-} \quad \text{‘overfill’} \\
*H-L & \text{dóódr-} \quad \text{‘scoot on buttocks’} \\
   & \text{bébébr-} \quad \text{‘pull’} \\
*L-H & \text{tsitsík-} \quad \text{‘roll’} \\
   & \text{tsutsúk-} \quad \text{‘rub with hands’}
\end{array}
\]

\[(26) \quad \text{Reduplicated } vC_1V_1C_1V_1C_2 \text{ verb roots} \]

\[
\begin{array}{l|l}
*H(L)-L & \text{(á)búbúk-} \quad \text{‘scoop’} \\
   & \text{(ɪ́)búbúŋ-} \quad \text{‘interfere with’} \\
*H(L)-H & \text{(a)kúkúr-} \quad \text{‘crawl’}
\end{array}
\]

### 7.1.3 Fully reduplicated roots

A fair number of other Ik verbs are formed by a full reduplication of the basic root. On the one hand, unlike partial reduplication, full reduplication is a semi-productive word-formation process that can be used to add repetition, continuousness, or intensity to the meaning of the basic root:

\[(27) \quad \text{Semi-productivity of full reduplication} \]

\[
\begin{array}{l|l}
\text{itsán-} & \text{‘disturb’} \rightarrow \text{itsánítsán-} \quad \text{‘disturb a lot’} \\
\text{kád-} & \text{‘cry’} \rightarrow \text{kákdíkád-} \quad \text{‘cry a lot’} \\
\text{táb-} & \text{‘touch’} \rightarrow \text{tábitáb-} \quad \text{‘touch all over’}
\end{array}
\]
On the other hand, fully reduplicated roots can be found for which no un-repeated counterpart is available. The verb *itweɲ́twéɲ* ‘twinkle’ is one example. This word suggests an inherent repetitiveness, but if there ever was a un-reduplicated form like *itwéɲ*, it has apparently fallen out of use.

Ik full reduplication involves copying the entire basic root, whether of a CV or CVC syllable type, and placing the copied segments to the left of the basic root. If there is a prefixed vowel, the copied segments go between the prefixed vowel and basic root. If a CVC root is copied, an epenthetic vowel /ɪ,i/ is inserted to prevent a disallowed consonant cluster. And if the nuclear vowel of the copied root is a high back vowel, then the epenthetic vowel backs as well to /ʊ/ or /u/. The formula for full reduplication is given here:

\[
(v-)C_1V_1 \rightarrow (v-)C_1V_16C_2
\]

Below are some examples of full reduplication taking place with roots of different syllable shapes and tone patterns:

<table>
<thead>
<tr>
<th>(29) Reduplicated C₁V₁C₂ verb roots</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-L koko- ‘dig a hole to trap white-ants’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(30) Reduplicated v-C₁V₁C₂ verb roots</th>
</tr>
</thead>
<tbody>
<tr>
<td>(H)H-H (f)ʃáʃá- ‘treat gently’</td>
</tr>
<tr>
<td>(L)H-H (a)lóló- ‘hold by the handle’</td>
</tr>
<tr>
<td>(i)mámá- ‘persuade gently’</td>
</tr>
<tr>
<td>(i)pápá- ‘moisten’</td>
</tr>
<tr>
<td>(i)tútú- ‘dust off’</td>
</tr>
</tbody>
</table>
(31) *Reduplicated* $C_1V_1C_2^r+C_1V_1C_2$ *verb roots*

<table>
<thead>
<tr>
<th>Type</th>
<th>Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>HL-H</td>
<td>kérkér-</td>
<td>‘be bitter’</td>
</tr>
<tr>
<td></td>
<td>múlkók-</td>
<td>‘feel nauseated’</td>
</tr>
<tr>
<td></td>
<td>nérnér-</td>
<td>‘sway’</td>
</tr>
<tr>
<td>LL-L</td>
<td>bòwitò-</td>
<td>‘be nomadic’</td>
</tr>
<tr>
<td></td>
<td>cèmècmè-</td>
<td>‘be combative’</td>
</tr>
<tr>
<td></td>
<td>mònjòmò-</td>
<td>‘be slanderous’</td>
</tr>
<tr>
<td>LL-H</td>
<td>bòribòri-</td>
<td>‘be sour’</td>
</tr>
<tr>
<td></td>
<td>kúpúkú-</td>
<td>‘get cloudy’</td>
</tr>
<tr>
<td></td>
<td>kowàjükàdà-</td>
<td>‘lessen little by little’</td>
</tr>
</tbody>
</table>

(32) *Reduplicated* $v-C_1V_1C_2^r+C_1V_1C_2$ *verb roots*

<table>
<thead>
<tr>
<th>Type</th>
<th>Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>(H)-LL-H</td>
<td>iƙúƙúɓi</td>
<td>iɓi-</td>
</tr>
<tr>
<td>(H)-LL-L</td>
<td>ididdól-</td>
<td>‘speak with a rough voice’</td>
</tr>
<tr>
<td></td>
<td>idududul-</td>
<td>‘soften by kneading’</td>
</tr>
<tr>
<td></td>
<td>ibéèbèbè-</td>
<td>‘open eyes slowly’</td>
</tr>
<tr>
<td>(L)-LL-H</td>
<td>iƙùrùbùrù-</td>
<td>‘do quickly’</td>
</tr>
<tr>
<td></td>
<td>idùtìdùtì-</td>
<td>‘hop on one leg’</td>
</tr>
<tr>
<td></td>
<td>iŋìnjìnjì-</td>
<td>‘coo’</td>
</tr>
<tr>
<td>(L)-HH-H</td>
<td>ilìmòlìmò-</td>
<td>‘munch happily’</td>
</tr>
<tr>
<td></td>
<td>itéƙitéƙitéƙ-</td>
<td>‘nod the head’</td>
</tr>
<tr>
<td></td>
<td>iwítswíts-</td>
<td>‘wag’</td>
</tr>
</tbody>
</table>

7.1.4 *Prefixed roots*

Many Ik verb roots have frozen prefixes that are no longer meaningful in today’s language (if they ever were after being borrowed). In some cases, the origin of the prefixes can be traced, for example those from Eastern Nilotic (particularly Teso-Turkana), while in other cases they cannot. As mentioned in the chapter on nouns, up to at least 40% of the Ik lexicon has parallels in Teso-Turkana. This section examines the borrowed Teso-Turkana prefixes, as well as some prefixes whose origin is not yet known.
Verb roots in the Turkana language (Teso-Turkana) are described as having two morphological classes. According to Dimmendaal, such verb classes are a common feature in both Eastern and Southern Nilotic (1983:98-99, here and for all information below on Turkana). Turkana verb classes are distinguished by the presence of a prefixed high front vowel in Class 1 and the absence of the vowel in Class 2. This prefix is a morphological relic of a proto-Nilotic causative that turned intransitive verbs into transitive ones (Dimmendaal 1982). The following verb sets are given as initial examples:

(33) **Turkana morphological verb classes**

<table>
<thead>
<tr>
<th></th>
<th>Class 1</th>
<th>Class 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>-nom</td>
<td>‘burn out’</td>
<td>-m̄n̄m</td>
</tr>
<tr>
<td>-nɔk</td>
<td>‘be alight’</td>
<td>-m̄n̄k</td>
</tr>
<tr>
<td>-ci</td>
<td>‘split (intrans.)’</td>
<td>-c̄i</td>
</tr>
<tr>
<td>-wal</td>
<td>‘cough’</td>
<td>-iw̄l</td>
</tr>
</tbody>
</table>

Whichever morphological class a Turkana verb root belongs to affects the kind of inflectional affixes it may take. For the purposes of comparing with Ik, the Turkana subsecutive prefixes shown in (34) are particularly relevant, as discussed below. With the various vowel assimilation rules operating in Turkana, the prefixes in (34) may have the following additional allomorphs: tɔ- and tə- for Class 1 and k̆, kʊ-, and kʊ- for Class 2:

(34) **Turkana subsecutive prefixes**

<table>
<thead>
<tr>
<th></th>
<th>Class 1</th>
<th>Class 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person</td>
<td>Singular</td>
<td>Plural</td>
</tr>
<tr>
<td>1</td>
<td>a-tɔ-</td>
<td>á-t̄ɔ-</td>
</tr>
<tr>
<td>2</td>
<td>tɔ-</td>
<td>tɔ-</td>
</tr>
<tr>
<td>3</td>
<td>t̄ɔ-</td>
<td>t̄ɔ-</td>
</tr>
</tbody>
</table>

In a 1971 article on Ik grammar, A.N. Tucker was the first to point out that Ik also has two verb root classes based on syllable type: Class I with CVC
roots, Class II with iCVC roots (1971:343). This matches the situation in Turkana, which makes sense given that Ik has borrowed heavily from Teso-Turkana. As in Turkana, the prefixed vowel in the Ik Class II can no longer be analyzed as a separate morpheme synchronically, at least not as a transitivizing causative. This can be seen from the fact that many intransitive Ik verbs manifest this initial vowel, for example: *ikär* ‘be thin’ and *itêm* ‘be suitable’. Because this initial vowel is no longer meaningful, making the verb-class distinction is not helpful for a contemporary description of Ik grammar. After this section, which is included to aid in historical-comparative work, the idea of verb classes in Ik will be dropped.

In present-day Ik, verb roots beginning with the prefixes to-, tɔ-, or ta- are clear links to Class I verbs in Nilotic. Whether from Teso-Turkana or a language predating them, such verbs were likely borrowed into Ik in the high-frequency subsecutive forms (with the prefixes in 34). Ik marks the subsecutive (‘sequential’ in this grammar) with a suffix, so to-, tɔ-, or ta- (also to-) would be redundant for encoding the subsecutive/sequential. That is why they are considered frozen prefixes in modern Ik. Examples of them include the following (Turkana lexical data is adapted from Barrett 1988):

(35)  *Turkana subsecutive verbs borrowed into Ik*

<table>
<thead>
<tr>
<th>Ik Class I</th>
<th>Turkana Class I</th>
</tr>
</thead>
<tbody>
<tr>
<td>taɗáp-</td>
<td>-dap</td>
</tr>
<tr>
<td>taʝál-</td>
<td>-jal</td>
</tr>
<tr>
<td>talák-</td>
<td>-lak-</td>
</tr>
<tr>
<td>tatsá-</td>
<td>-ca</td>
</tr>
<tr>
<td>tawán-</td>
<td>-wan</td>
</tr>
<tr>
<td>torik-</td>
<td>-rik</td>
</tr>
<tr>
<td>tɔɓɛ́l-</td>
<td>-bɛl</td>
</tr>
<tr>
<td>tɔʝɛ́m-</td>
<td>-jam</td>
</tr>
<tr>
<td>tɔki-</td>
<td>-kɪ</td>
</tr>
<tr>
<td>tɔkɔ́r-</td>
<td>-kɔr</td>
</tr>
<tr>
<td>tɔmɔ́r-</td>
<td>-mɔr</td>
</tr>
</tbody>
</table>
By contrast, Ik verb roots borrowed from Teso-Turkana Class II verbs cannot be immediately recognized by a *ki*- or *ki*- prefix. In fact, there are only two Ik verb roots known to begin with that sequence of sounds. A very large percentage of Ik verb roots, however, begin with *i*- or *i*-.

It is tempting to assume that phonological reduction has whittled *ki*- and *ki*- down to just the vowels. While this may have actually happened in some cases, the situation is not so clear-cut. Ik verb roots beginning with a high front vowel may come from either Class I or Class II in Teso-Turkana. The data in (36) and (37) show a mismatch between so-called Class II verb roots in Ik and their parallels in Turkana. In (36), Class II Ik verbs align with Class I Turkana verbs, and in (37), Class II Ik verbs align with Class II Turkana verbs:

(36) **Cognacy of Class II Ik verbs with Class I Turkana verbs**

<table>
<thead>
<tr>
<th>Ik ‘Class II’</th>
<th>Turkana Class I</th>
<th>Turkana prefix</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɪɓááŋ-</td>
<td>-baŋ</td>
<td>‘be stupid’</td>
</tr>
<tr>
<td>ɪɗak-</td>
<td>-kad</td>
<td>‘lack’</td>
</tr>
<tr>
<td>ɪɗɛ́p-</td>
<td>-dɛp</td>
<td>‘pick up’</td>
</tr>
<tr>
<td>ɪɗɛŋ-</td>
<td>-dɛŋ</td>
<td>‘narrow’</td>
</tr>
<tr>
<td>ɪlɪɓ-</td>
<td>-lɪb</td>
<td>‘green’</td>
</tr>
<tr>
<td>ɪkám-</td>
<td>-kop</td>
<td>‘grab’</td>
</tr>
<tr>
<td>ɪlùŋ-</td>
<td>-lùŋ</td>
<td>‘pass’</td>
</tr>
<tr>
<td>isúɗ-</td>
<td>-sud</td>
<td>‘lie’</td>
</tr>
<tr>
<td>itéŋ-</td>
<td>-itemo-</td>
<td>‘be fitting’</td>
</tr>
<tr>
<td>itúk-</td>
<td>-tuk</td>
<td>‘heap up’</td>
</tr>
</tbody>
</table>

The Ik *ɪɗak*- compared with the Turkana -*kad* illustrates the kind of segment reversal identified by Blench (n.d.) as characterizing Kuliak etymology.
Cognacy of Class II Ik verbs with Class II Turkana verbs

<table>
<thead>
<tr>
<th>Ik ‘Class II’</th>
<th>Turkana Class II</th>
<th>Turkana prefix</th>
</tr>
</thead>
<tbody>
<tr>
<td>tɔ̞nŋ-</td>
<td>-bʊŋ</td>
<td>‘hurry’ ki-</td>
</tr>
<tr>
<td>nɗaar-</td>
<td>-dar-</td>
<td>‘ambush’ ki-</td>
</tr>
<tr>
<td>nɗɪts-</td>
<td>-dɪc</td>
<td>‘beat’ ki-</td>
</tr>
<tr>
<td>tɔ̞jʊ̨k-</td>
<td>-jʊ̨k-</td>
<td>‘push’ ki-</td>
</tr>
<tr>
<td>nɗɪt-</td>
<td>-kat-</td>
<td>‘try’ ki-</td>
</tr>
<tr>
<td>nɗɪbot-</td>
<td>-pot-</td>
<td>‘jump’ ki-</td>
</tr>
<tr>
<td>nɗɪfɛ́lɛ́-</td>
<td>-bele-</td>
<td>‘change’ ki-</td>
</tr>
<tr>
<td>nɗɪɡom-</td>
<td>-komo</td>
<td>‘bark’ ki-</td>
</tr>
<tr>
<td>nɗɪkόŋ-</td>
<td>-koŋ</td>
<td>‘swear’ ki-</td>
</tr>
<tr>
<td>nɗɪlόts-</td>
<td>-loc</td>
<td>‘transform’ ki-</td>
</tr>
</tbody>
</table>

Ik verb roots with frozen causative prefixes are not the only ones that have parallels in Teso-Turkana or wider Nilotic. Many others are nearly identical in both Ik and Teso-Turkana, differing only in minor phonological ways:

Other Ik-Turkana verbal cognates

<table>
<thead>
<tr>
<th>Ik</th>
<th>Turkana</th>
</tr>
</thead>
<tbody>
<tr>
<td>alólόŋ-</td>
<td>aloloŋ</td>
</tr>
<tr>
<td>ep-</td>
<td>-pɛr</td>
</tr>
<tr>
<td>jal-</td>
<td>-ɡɛl</td>
</tr>
<tr>
<td>luŋ-</td>
<td>-lik</td>
</tr>
<tr>
<td>nɛpɛ́ŋ-</td>
<td>-pɛɡ</td>
</tr>
<tr>
<td>ɲaŋ-</td>
<td>ɲaŋ</td>
</tr>
<tr>
<td>ɲáŋ-</td>
<td>-nap</td>
</tr>
<tr>
<td>ɲwaf-</td>
<td>-ɲwal</td>
</tr>
<tr>
<td>rɔ́t-</td>
<td>-ɛt</td>
</tr>
<tr>
<td>taats-</td>
<td>-tɛc</td>
</tr>
<tr>
<td>táb-</td>
<td>-tap</td>
</tr>
<tr>
<td>takán-</td>
<td>-takan</td>
</tr>
<tr>
<td>túb-</td>
<td>-tʊp</td>
</tr>
</tbody>
</table>
The data above in (38) should not be taken to suggest that the direction of borrowing was always from Teso-Turkana into Ik. Many of these cognates, particularly since they lack Teso-Turkana subsecutive prefixes in Ik, may have come into Ik a) from a proto-Eastern Nilotic language, or b) they came into both Ik and Teso-Turkana from another source altogether. Either way, on the basis of the cognates in (38), the following sound correspondences can be set up between Ik and Teso-Turkana (# means a word boundary):

(39) **Sound correspondences between Ik and Teso-Turkana**

<table>
<thead>
<tr>
<th>Ik</th>
<th>Teso-Turkana</th>
</tr>
</thead>
<tbody>
<tr>
<td>#ʝ</td>
<td>#ɡ</td>
</tr>
<tr>
<td>k#</td>
<td>g#</td>
</tr>
<tr>
<td>k</td>
<td>k</td>
</tr>
<tr>
<td>j (&gt;*l)</td>
<td>l</td>
</tr>
<tr>
<td>ts</td>
<td>c [tʃ]</td>
</tr>
<tr>
<td>b</td>
<td>p</td>
</tr>
<tr>
<td>u</td>
<td>i</td>
</tr>
<tr>
<td>u</td>
<td>o</td>
</tr>
<tr>
<td>e</td>
<td>e</td>
</tr>
</tbody>
</table>

In addition to the many Teso-Turkana influences on the Ik verbal lexicon, there are also prefixal traces from other sources. These frozen prefixes include: a-, e/-e, ha-, tc/-te-, and t/-ti-. Although their etymological paths are currently unknown, two of them (a- and t/-ti-) are also found on nouns (§4.1.4). A few examples of each type are presented in (40). It is hoped that the data presented here will spark someone’s historical-comparative insight:

(40) **Ik verbs with frozen prefixes of unknown origin**

| /a-/ | áɡuj-     | ‘gulp’       |
|      | ákáf-     | ‘yawn’       |
|      | alóló-    | ‘hold by handle’ |
|      | arút-     | ‘make a sound’ |
|      | asinit-   | ‘dream’      |
7.2 Derivatives

With the discussion of verbal roots and archaic prefixes complete, it is time to move on to verbal suffixes. The first verbal suffixes to be described are the ‘derivatives’—suffixes that derive a noun from a verb or vice versa. The Ik derivatives include the intransitive infinitive (§7.2.1), the transitive infinitive (§7.2.2), the abstractive nominalizer (§7.2.3), the patientive nominalizer (§7.2.4), the substantive nominalizer/verbalizer (§7.2.5), and the behaviorative verbalizer (§7.2.6). Two other suffixes, the passive (§7.8.2) and the reciprocal (§7.8.6) may also optionally nominalize verbs. All eight derivative suffixes are presented below in (41). All derivative suffixes can be inflected for case, and three of them—the infinitivizers and the passive—can even be pluralized with the variative plurative (§4.3.7).
Ik nominalizing suffixes

<table>
<thead>
<tr>
<th>Suffix</th>
<th>Type</th>
<th>Meaning</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ɔnɪ6</td>
<td>INF</td>
<td>Intransitive</td>
<td>§7.2.1</td>
</tr>
<tr>
<td>-ɛ́sɪ́6</td>
<td>INF</td>
<td>Transitive</td>
<td>§7.2.2</td>
</tr>
<tr>
<td>-ásɪ́6</td>
<td>ABST</td>
<td>Abstractive</td>
<td>§7.2.3</td>
</tr>
<tr>
<td>-amá'-'</td>
<td>PAT</td>
<td>Patientive</td>
<td>§7.2.4</td>
</tr>
<tr>
<td>-VƙV-</td>
<td>SUB</td>
<td>Substantive</td>
<td>§7.2.5</td>
</tr>
<tr>
<td>-nanesi-</td>
<td>BHVR</td>
<td>Behaviorative</td>
<td>§7.2.6</td>
</tr>
<tr>
<td>-sɪ́-</td>
<td>PASS</td>
<td>Passive</td>
<td>§7.8.2</td>
</tr>
<tr>
<td>-ɪ́nɔ́sɪ́6</td>
<td>RECIP</td>
<td>Reciprocal</td>
<td>§7.8.6</td>
</tr>
</tbody>
</table>

7.2.1 Intransitive infinitive

Ik uses the suffix {-ɔnɪ-} to nominalize lexically intransitive verbs. As a non-finite verb, the resulting infinitive is syntactically subordinate. Cushitic languages show promising parallels for this suffix: Afar has -o and -on as an infinitive suffix (Mahaffy n.d., p. 1), and in K’abeena, one of the typical nominalizers is -ood (Mous 2012:411). A less sure but potential connection is with the South Omotic Dime’s infinitive marker -in (Mulugeta 2008:60).

The tone of {-ɔnɪ-} is L, but H tone may spread to it depending the verb stem’s tone melody (T7). It is recessively [-ATR] with /-oni-/ as an allomorph when affixed to [+ATR] stems. Although this suffix is usually the last affix on the verbal stem (i.e. before case suffixes), the andative/completive suffix {-ʊƙɔtɪ́6} may optionally come before or after it, as in *bʊréɔnéʊƙɔtᵃ* ‘to fly away’ versus *bʊréʊƙɔ́téɔn* ‘to fly away’. The verbs in (42) illustrate the typical position of {-ɔnɪ-} within a verbal stem. Note the vowel harmony caused by the pluractional {-i-} and distributive {-aák’-}:

(42) Position of {-ɔnɪ-} in a verbal stem

- ʃɛɓ6ɔn ‘to fear’
- ʃɛɓ-i-ón ‘to fear habitually’
- ʃɛɓ-i-aak-ón ‘to fear as a group’
- ʃɛɓ-i-aak-ón-ʊƙot⁴ ‘to become fearful as a group’
And then the following table gives more examples of simple nominalized verbs with a variety of tonal patterns and the two [ATR] values:

<table>
<thead>
<tr>
<th></th>
<th>[-ATR]</th>
<th>[ + ATR]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H-LL</strong></td>
<td><strong>bôr-ɔnɪ-</strong> ‘to be tired’</td>
<td><strong>bóts-ɔnɪ-</strong> ‘to be open’</td>
</tr>
<tr>
<td></td>
<td><strong>kán-ɔnɪ-</strong> ‘to be cloudless’</td>
<td><strong>kám-ɔnɪ-</strong> ‘to be like’</td>
</tr>
<tr>
<td></td>
<td><strong>sóp-ɔnɪ-</strong> ‘to breathe’</td>
<td><strong>sár-ɔnɪ-</strong> ‘to still be’</td>
</tr>
<tr>
<td><strong>H-LL</strong></td>
<td><strong>ŋóz-ɔnɪ-</strong> ‘to stare’</td>
<td><strong>dód-ɔnɪ-</strong> ‘to hurt’</td>
</tr>
<tr>
<td></td>
<td><strong>rób-ɔnɪ-</strong> ‘to sprout’</td>
<td><strong>háb-ɔnɪ-</strong> ‘to be hot’</td>
</tr>
<tr>
<td></td>
<td><strong>ʃíd-ɔnɪ-</strong> ‘to be green’</td>
<td><strong>wád-ɔnɪ-</strong> ‘to boil’</td>
</tr>
<tr>
<td><strong>L-LL</strong></td>
<td><strong>bʊr-ɔnɪ-</strong> ‘to fly’</td>
<td><strong>bʊt-ɔnɪ-</strong> ‘to migrate’</td>
</tr>
<tr>
<td></td>
<td><strong>cem-ɔnɪ-</strong> ‘to fight’</td>
<td><strong>dás-ɔnɪ-</strong> ‘to be flat’</td>
</tr>
<tr>
<td></td>
<td><strong>ɗɔɔ-ɔnɪ-</strong> ‘be wet’</td>
<td><strong>fád-ɔnɪ-</strong> ‘to be bitter’</td>
</tr>
</tbody>
</table>

Verbs nominalized with {-ɔnɪ-} inflect for case, as shown in the following declensions of **bʊr-ɔnɪ-** ‘to fly’ and **bot-ɔnɪ-** ‘to migrate’:

<table>
<thead>
<tr>
<th></th>
<th>Non-final</th>
<th>Final</th>
<th>Non-final</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OBL</strong></td>
<td><strong>bʊr-ɔnɪ</strong></td>
<td><strong>bʊr-ɔn</strong></td>
<td><strong>bot-ɔnɪ</strong></td>
<td><strong>bot-ɔn</strong></td>
</tr>
<tr>
<td><strong>NOM</strong></td>
<td><strong>bʊr-ɔn-ɑ</strong></td>
<td><strong>bʊr-ɔn-ɔ</strong></td>
<td><strong>bot-ɔn-ɑ</strong></td>
<td><strong>bot-ɔn-ɔ</strong></td>
</tr>
<tr>
<td><strong>INS</strong></td>
<td><strong>bʊr-ɔn-ɔ</strong></td>
<td><strong>bʊr-ɔn-ɔʷ</strong></td>
<td><strong>bot-ɔn-ɔ</strong></td>
<td><strong>bot-ɔn-ɔʷ</strong></td>
</tr>
<tr>
<td><strong>ABL</strong></td>
<td><strong>bʊr-ɔn-ɔ-ɔ</strong></td>
<td><strong>bʊr-ɔn-ɔ-ɔ</strong></td>
<td><strong>bot-ɔn-ɔ</strong></td>
<td><strong>bot-ɔn-ɔ</strong></td>
</tr>
<tr>
<td><strong>GEN</strong></td>
<td><strong>bʊr-ɔn-ɛ</strong></td>
<td><strong>bʊr-ɔn-ɛ</strong></td>
<td><strong>bot-ɔn-ɛ</strong></td>
<td><strong>bot-ɔn-ɛ</strong></td>
</tr>
<tr>
<td><strong>ACC</strong></td>
<td><strong>bʊr-ɔn-ɑ</strong></td>
<td><strong>bʊr-ɔn-կ^a</strong></td>
<td><strong>bot-ɔn-ɑ</strong></td>
<td><strong>bot-ɔn-կ^a</strong></td>
</tr>
<tr>
<td><strong>DAT</strong></td>
<td><strong>bʊr-ɔn-ɛ</strong></td>
<td><strong>bʊr-ɔn-կ^c</strong></td>
<td><strong>bot-ɔn-ɛ</strong></td>
<td><strong>bot-ɔn-կ^c</strong></td>
</tr>
<tr>
<td><strong>COP</strong></td>
<td><strong>bʊr-ɔn-ɔ-ɔ</strong></td>
<td><strong>bʊr-ɔn-ɔ-կ^o</strong></td>
<td><strong>bot-ɔn-ɔ</strong></td>
<td><strong>bot-ɔn-կ^o</strong></td>
</tr>
</tbody>
</table>
Among the deverbatives found in Turkana are the 'instrumental-locative' and 'factitive' (Dimmendaal 1983:282). Ik lacks both of those categories but covers their functions with the intransitive infinitive {-ɔn-}. One of the functions of the Turkana 'instrumental-locative' is to convey a perfective aspect in a subordinate clause (Dimmendaal 1983:394). The next examples show how Ik does the same by using an infinitival subordinate clause:

(45)  Njamonuka kidie,…
   ηάb-0n-ʊɔt-a    ki=ɗí-é
   finish-INF-COMPL-REAL MED=PRO.PL-GEN
   Their having finished (lit. ‘the finishing of those ones’),…

(46)  Atsona tsamu ntie,…
   ats-0n-a    tsamʊ  ńtí-éé
   come-INF-REAL just they-GEN
   Just after they come (lit. ‘the coming just of them’),…

7.2.2 Transitive infinitive

Ik uses the suffix {-ɛ́sɪ́6} to nominalize lexically transitive verbs. As a non-finite verb, the resulting infinitive is syntactically subordinate. Areal parallels for {-ɛ́sɪ́6} cross the Afroasiatic/Nilo-Saharan phyletic boundaries to include the nominalizer 6ee in South Cushitic’s K’abeena (Mous 2012:411) and the nominalizer -ɛɛ̃dɪːt in Surmic’s Didinga (De Jong 2004:151).

This suffix has H tone on both syllables but is subject to two kinds of tonal alternation: 1) HL and LL patterns induced by the tone melody of the stem (T7) and 2) the suppression of its H tone leading to a LL melody (T6). Both of these are illustrated below. The suffix is underlyingly [-ATR] but has /-ɛ́sɪ́6/ as an allomorph when affixed to a [+ATR] root or suffix. It is always the last suffix in the verbal stem (before case markers apply), except when optionally followed by the andative/completive suffix {-ʊɔtɪ́6}. Its normal position in the stem is demonstrated in the following four verbs:
Position of \(-\text{ési}\) in a verbal stem

| dzígw-es' | 'to do commerce' |
| dzígw-et-és | 'to buy' |
| dzígw-i-et-és | 'to usually buy' |
| dzígw-es-ukọt' | 'to sell' |

Other examples of transitive verbal infinitives are shown in (48) according to different tone melodies and both [ATR] values:

Transitive infinitives

<table>
<thead>
<tr>
<th>[-ATR]</th>
<th>[+ATR]</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-HL</td>
<td>bót-ési-</td>
</tr>
<tr>
<td></td>
<td>'to shave'</td>
</tr>
<tr>
<td></td>
<td>hún-ési-</td>
</tr>
<tr>
<td></td>
<td>'to drive'</td>
</tr>
<tr>
<td></td>
<td>kón-ési-</td>
</tr>
<tr>
<td></td>
<td>'to cook'</td>
</tr>
<tr>
<td>H-LL</td>
<td>cēb-ési-</td>
</tr>
<tr>
<td></td>
<td>'to roughen'</td>
</tr>
<tr>
<td></td>
<td>dōb-ési-</td>
</tr>
<tr>
<td></td>
<td>'to catch'</td>
</tr>
<tr>
<td></td>
<td>zīz-ési-</td>
</tr>
<tr>
<td></td>
<td>'to blame'</td>
</tr>
<tr>
<td>L-HH</td>
<td>bān-ési-</td>
</tr>
<tr>
<td></td>
<td>'to sharpen'</td>
</tr>
<tr>
<td></td>
<td>dōts-ési-</td>
</tr>
<tr>
<td></td>
<td>'to add'</td>
</tr>
<tr>
<td></td>
<td>nēb-ési-</td>
</tr>
<tr>
<td></td>
<td>'to grumble'</td>
</tr>
</tbody>
</table>

The infinitives in (48) exhibit tonal changes on \(-\text{ési}\-) brought about by the melodic template completion (T7) of the verb roots. But transitive infinitives also give evidence of high-tone suppression (T6). Compare, for example, the ambitransitive root \(\text{tatsád}\)- 'break away' as an intransitive (\(\text{tatsád-óni}\)-) and transitive verb (\(\text{tatsad-ési}\)-). On a suppressed transitive infinitive like \(\text{tatsad-ési}\)-, only the final syllable bears H tone. But in its citation form, in the nominative case, the suppressed H shows up as a floating H, leading to a mid-level surface pitch. This and other examples are shown below in (50):
(50) **High-tone suppression in transitive infinitives**

\[
\begin{array}{lll}
\text{aŋır-ési-} & \rightarrow & \text{aŋır-es'} \\
\text{gefér-ési-} & \rightarrow & \text{gefer-es'} \\
\text{iɓók-ési-} & \rightarrow & \text{iɓok-es'} \\
\text{tatsád-és} & \rightarrow & \text{tatsad-es'} \\
\text{tsitsik-ési-} & \rightarrow & \text{tsitsik-es'} \\
\end{array}
\]

<table>
<thead>
<tr>
<th>Case</th>
<th>Non-final</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL</td>
<td>ber-ési</td>
<td>ber-és</td>
</tr>
<tr>
<td>NOM</td>
<td>ber-és-á</td>
<td>ber-és-o</td>
</tr>
<tr>
<td>INS</td>
<td>ber-és-ɔ</td>
<td>ber-és-ọ</td>
</tr>
<tr>
<td>ABL</td>
<td>ber-és-ɔ</td>
<td>ber-és-ɔ</td>
</tr>
<tr>
<td>GEN</td>
<td>ber-ési-e</td>
<td>ber-ési-ọ</td>
</tr>
<tr>
<td>ACC</td>
<td>ber-ési-a</td>
<td>ber-ési-ọ</td>
</tr>
<tr>
<td>DAT</td>
<td>ber-ési-e</td>
<td>ber-ési-ọ</td>
</tr>
<tr>
<td>COP</td>
<td>ber-ési-ɔ</td>
<td>ber-ési-ọ</td>
</tr>
</tbody>
</table>

As deverbal nouns, transitive infinitives are inflected for case, as shown in (51) for the verbs *ber-ési-* ‘to build’ and *bud-ési-* ‘to hide oneself’:

(51) **Case declensions of {ési-}**

<table>
<thead>
<tr>
<th>Case</th>
<th>Non-final</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL</td>
<td>ber-ési</td>
<td>ber-és</td>
</tr>
<tr>
<td>NOM</td>
<td>ber-és-á</td>
<td>ber-és-o</td>
</tr>
<tr>
<td>INS</td>
<td>ber-és-ɔ</td>
<td>ber-és-ọ</td>
</tr>
<tr>
<td>ABL</td>
<td>ber-és-ɔ</td>
<td>ber-és-ọ</td>
</tr>
<tr>
<td>GEN</td>
<td>ber-ési-e</td>
<td>ber-ési-ọ</td>
</tr>
<tr>
<td>ACC</td>
<td>ber-ési-a</td>
<td>ber-ési-ọ</td>
</tr>
<tr>
<td>DAT</td>
<td>ber-ési-e</td>
<td>ber-ési-ọ</td>
</tr>
<tr>
<td>COP</td>
<td>ber-ési-ɔ</td>
<td>ber-ési-ọ</td>
</tr>
</tbody>
</table>

Like the intransitive infinitive, the transitive infinitive can also be used to express perfective aspect in a subordinate clause, for example in (52). This is one of the language’s several subordination strategies (see §10.5):

(52) **Enesa ntie toimenaa ityoonukota imanona,...**

en-és-á    ñtí-é    toimen-a    ityóóń-ʊkot-á-a
see-INF-NOM they-GEN COMPL-ACC difficult-COMP-REAL-PRF

Upon their seeing that it had become difficult,...
7.2.3 Abstractive

The verbal suffix {-ásɪ́} turns an intransitive stative verb into an abstract noun expressing a quality or characteristic. It seems to be closely related to the Turkana abstract nominalizer -ṣj (Dimmendaal 1983:270), despite the difference in tone. The Ik suffix is one of the language's opaque recessive [-ATR] suffixes: [+ATR] harmony cannot spread from the root through /a/ to /i/. Its tone is HH but is susceptible to root-induced tone changes (17). The table below depicts the abstractive nominalization of ten stative verbs:

<table>
<thead>
<tr>
<th>Stative</th>
<th>Abstract</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>do-oni6</td>
<td>da-ásɪ́</td>
<td>‘niceness’</td>
</tr>
<tr>
<td>ɛf-ɔnɪ6</td>
<td>ɛf-ásɪ́</td>
<td>‘tastiness’</td>
</tr>
<tr>
<td>gaan-ɔnɪ6</td>
<td>gaan-asɪ́</td>
<td>‘badness’</td>
</tr>
<tr>
<td>hàb-ɔnɪ6</td>
<td>hàb-asɪ́</td>
<td>‘heat’</td>
</tr>
<tr>
<td>ŋe-k-ɔnɪ6</td>
<td>ŋe-ásɪ́</td>
<td>‘farness’</td>
</tr>
<tr>
<td>kom-ɔnɪ</td>
<td>kom-ásɪ́</td>
<td>‘manyness’</td>
</tr>
<tr>
<td>marāŋ-ɔnɪ6</td>
<td>marāŋ-ásɪ́</td>
<td>‘goodness’</td>
</tr>
<tr>
<td>ŋiʃ-ɔnɪ6</td>
<td>ŋiʃ-ásɪ́</td>
<td>‘strength’</td>
</tr>
<tr>
<td>ŋwaʃ-ɔnɪ6</td>
<td>ŋwaʃ-ásɪ́</td>
<td>‘lameness’</td>
</tr>
<tr>
<td>ŋeɓ-ɔnɪ6</td>
<td>ŋeɓ-ásɪ́</td>
<td>‘fear’</td>
</tr>
</tbody>
</table>

By all appearances, the abstractive nominalizer {-ásɪ́} is a productive morpheme in today’s Ik. However, there is another abstractive nominalizer that is not productive. This suffix, *-ísí, has been found on only two lexemes: tsekísí ‘bushes, thicket’ from the root tsek ‘be bushy, hairy’ and zeísí ‘importance, greatness’ from the verb root ze- ‘big’. This suffix would seem to be an older Eastern Nilotic morpheme now semi-lexicalized in Ik. Like {-ásɪ́}, *-ísí has parallels in the Teso-Turkana abstract deverbative -ṣj and the Didinga (Surmic) nominalizer - tô (De Jong 2004:151).
Just like the infinitive suffixes described above, the abstractive nominalizer inflects fully for case, as shown in (54) for the word ʃɛɓ-ásì́ ‘fear, timidity’:

<table>
<thead>
<tr>
<th></th>
<th>Non-final</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL</td>
<td>ʃɛɓ-ásí</td>
<td>ʃɛɓ-ás</td>
</tr>
<tr>
<td>NOM</td>
<td>ʃɛɓ-ás-á</td>
<td>ʃɛɓ-ás-∅</td>
</tr>
<tr>
<td>INS</td>
<td>ʃɛɓ-ás-ɔ́</td>
<td>ʃɛɓ-ás-ɔ́</td>
</tr>
<tr>
<td>ABL</td>
<td>ʃɛɓ-ásɔ́-ɔ</td>
<td>ʃɛɓ-ásʊ́-ɔ́</td>
</tr>
<tr>
<td>GEN</td>
<td>ʃɛɓ-ásí-ɛ</td>
<td>ʃɛɓ-ásí-∅</td>
</tr>
<tr>
<td>ACC</td>
<td>ʃɛɓ-ásí-a</td>
<td>ʃɛɓ-ásí-kᵃ</td>
</tr>
<tr>
<td>DAT</td>
<td>ʃɛɓ-ásí-ɛ</td>
<td>ʃɛɓ-ásí-k³</td>
</tr>
<tr>
<td>COP</td>
<td>ʃɛɓ-ásɔ́-ɔ</td>
<td>ʃɛɓ-ásʊ́-kᵓ</td>
</tr>
</tbody>
</table>

The abstractive nominalizer differs from the two infinitivizers in that it can again take verbal affixes, specifically subject-agreement pronominals. So far this has only been heard with the word háb-‘as ‘heat’, which has the metaphorical meaning of ‘stinginess’. If one refuses a request in a way deemed ungenerous, one may hear the phrase háb-as-úd³ ‘You are stingy!’.

7.2.4 Patientive

The patientive suffix {-amá-} nominalizes verbs—mostly transitive ones but also intransitive ones. Etymologically, it may be related to the word  ámba- ‘person’—perhaps as the semi-grammaticalized agentive (§4.3.4)—and/or the human singulative {-Vma-}. The patientive suffix’s LH tone melody is invariable, regardless of the preceding root. It is also one of the language’s opaque [+ATR] morphemes and as such can be represented as {-amá⁺-}. This means that the case suffixes that follow it will also be [+ATR].

This morpheme {-amá-} is called the ‘patientive’ here because in most cases it encodes the semantic Patient of a transitive verb. Elsewhere it has been described as expressing the notions of ‘potentiality’ or ‘feasability’ (Heine &
König 1996:98). With this suffix, the patient is given a rather stative passive role that is not easy to gloss in English. One strategy is to use the English suffix ‘-able’ in the gloss, as in an ‘X-able thing’. As a nominalizer, this suffix attaches to a verb stem and creates a noun that combines the meaning of the transitive verb stem and its patient. Examples of patientives formed from transitive verbs include the following:

(55) **Patientive nominalizer**

<table>
<thead>
<tr>
<th>Transitive</th>
<th>Patientive</th>
<th>Patientive</th>
</tr>
</thead>
<tbody>
<tr>
<td>abut-i-és</td>
<td>‘to sip’</td>
<td>abut-i-amá-</td>
</tr>
<tr>
<td>dzígw-es</td>
<td>‘to sell’</td>
<td>dzígw-amá-</td>
</tr>
<tr>
<td>eré-g-es</td>
<td>‘to use’</td>
<td>eré-g-amá-</td>
</tr>
<tr>
<td>isud-es</td>
<td>‘to lie’</td>
<td>isud-amá-</td>
</tr>
<tr>
<td>me-et-és</td>
<td>‘to give’</td>
<td>me-et-amá-</td>
</tr>
<tr>
<td>ɲɛɛk-ɛs</td>
<td>‘to eat’</td>
<td>ɲɛɛk-amá-</td>
</tr>
<tr>
<td>ógod-ɛs</td>
<td>‘to keep’</td>
<td>ógod-ɛs-amá-</td>
</tr>
<tr>
<td>tɔkɔb-ɛs</td>
<td>‘to farm’</td>
<td>tɔkɔb-amá-</td>
</tr>
</tbody>
</table>

In addition to the examples in (55), other nouns formed with the patientive nominalizer fall into two peculiar semantic groups: 1) food items and 2) small objects. These groups are exemplified in (56) and (57):

(56) **Patientive food items**

| ḫbots-amá-      | ‘milk cream’        |
| ḫzot-amá-       | ‘solid food with gravy’ |
| ɲlr-amá-        | ‘food without gravy’ |
| jul-amá-        | ‘chunks of leftover meat’ |
| ɲɛɛkɛɛr-amá-    | ‘mixture of honey and pounded white-ants’ |
| tɔkɔb-amá-      | ‘pure white ants’    |
| tuɲut-amá-      | ‘solid food’         |
Although for some of these examples, the corresponding verbs have been found (e.g. ƙɛ́ƙɛ́rɛ- ‘mix honey and white-ants' and ɓam- ‘produce’), for most others, no independent transitive verb has yet been identified. But this could be a gap in research. There is also one example where an intransitive verb takes this suffix: ɓar- ‘to be sour' nominalized as ɓar-amá- ‘sour porridge'. So although the term ‘patientive’ seems to reasonably represent this morpheme today, in the past its meaning and usage could have been more diverse.

As a nominalizing suffix, {-amá-} is inflected fully for case, as shown below for the word ŋƙ-amá- ‘eatable thing':

As a nominalizing suffix, {-amá-} is inflected fully for case, as shown below for the word ŋƙ-amá- ‘eatable thing':

As a nominalizing suffix, {-amá-} is inflected fully for case, as shown below for the word ŋƙ-amá- ‘eatable thing':

7.2.5 Substantive

The rare suffix {-VƙV-} is both a nominalizer and a verbalizer. As a nominalizer, it gives a verb the meaning ‘substance of X verb’. As a verbalizer, it gives a noun the meaning ‘to issue X substance’. That both vowels (V) in {-VƙV-} should be the same seems like a heuristic for tracking down instances of the suffix in the lexicon. So far the only unambiguous cases contain either /a/ or /o/. The suffix’s tone is L but may bear H tone spread from the verb root (T7). Here are the only four clear examples:

(59) **Substantive nominalizer/verbalizer {-VƙV-}**

<table>
<thead>
<tr>
<th>Verb</th>
<th>Deverbal noun</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɗas-</td>
<td>‘to be flat’</td>
</tr>
<tr>
<td>ŋƙ-</td>
<td>‘to eat’</td>
</tr>
<tr>
<td>ets’i-</td>
<td>‘feces’</td>
</tr>
<tr>
<td>kwatsí-</td>
<td>‘urine’</td>
</tr>
</tbody>
</table>

The data in (59) show that in its verbalizing function, {-VƙV-} accompanies some morphological variation, i.e. /e/→/n/ in nts’-áƙá- ‘feces’ and /w(a)/→/ʊ/ in kʊts-áƙá- ‘urine’. This variation, plus the rarity of the suffix at all, suggests that the substantive is a very old morpheme within Ik.

Other lexemes ending in the sequence -VƙV include those in (60). Whether they involve the substantive suffix or not is not known because corresponding roots without the suffix have not yet been identified:

(60) **Ambiguous instances of the sequence -VƙV-**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ɓaroƙɔ́-</td>
<td>‘tobacco cone’</td>
</tr>
<tr>
<td>karoko-</td>
<td>‘burnt land’</td>
</tr>
<tr>
<td>ɓoƙɔ́-</td>
<td>‘dry honeycomb’</td>
</tr>
<tr>
<td>tuƙɛɛɛɛɛɛ-</td>
<td>‘Black Jack weed’</td>
</tr>
</tbody>
</table>
7.2.6 Behaviorative

Besides the nominalizers described in the last five sections, Ik also has one strictly verbalizing derivative. This verbalizer, the 'behaviorative' {nan-esi-}, creates a verb out of a noun and has the meaning of ‘to behave with the characteristics of X noun’. The suffix is complex, consisting of -nan on the one hand and -esi- on the other. The latter is probably a distinct grammaticalization of the Ik proto-morpheme *-esi that has led to the 1) transitive infinitive suffix, 2) the imperfective aspect suffix, and 3) the intentional modality suffix. Because {nan-esi-} conveys an ongoing, habitual sense to the denominal verb, it seems more closely related to the meaning of the imperfective aspectual instantiation of the proto-morpheme. Since nothing more is known about *-nan, the behaviorative verbalizer is treated as a historically complex but synchronically composite verbal suffix.

The behaviorative suffix’s tone is L, but a H tone may spread to its first syllable from the nominal stem (T7). Because it contains /a/, {nan-esi-} prevents its own [+ATR] harmony from spreading back to a [-ATR] stem. The following table presents a sample of nouns verbalized by {nan-esi-}:

(61) The behaviorative verbalizer {nan-esi-}

<table>
<thead>
<tr>
<th>Noun</th>
<th>Verbalized noun</th>
</tr>
</thead>
<tbody>
<tr>
<td>badirétí-</td>
<td>‘wizardry’ → badirétí-nanesi- ‘to do wizardry’</td>
</tr>
<tr>
<td>cekí-</td>
<td>‘woman’ → cekí-nanesi- ‘to act womanly’</td>
</tr>
<tr>
<td>dzúú-</td>
<td>‘theft’ → dzú-nanesi- ‘to do thievery’</td>
</tr>
<tr>
<td>ŋákwa-</td>
<td>‘man’ → ŋákwa-nanesi- ‘to act manly’</td>
</tr>
<tr>
<td>imá-</td>
<td>‘child’ → imá-nanesi- ‘to act childishly’</td>
</tr>
<tr>
<td>kotsá-</td>
<td>‘worm’ → kotsá-nanesi- ‘to be corrupting’</td>
</tr>
<tr>
<td>lẹŋštá-</td>
<td>‘enemies’ → lẹŋštá-nanesi- ‘to be hostile’</td>
</tr>
<tr>
<td>lejéé-</td>
<td>‘madness’ → lejé-nanesi- ‘to be mad’</td>
</tr>
<tr>
<td>ɲọt-tkó-</td>
<td>‘friends’ → ɲọt-tkó-nanesi- ‘to be friendly’</td>
</tr>
<tr>
<td>ɲọkí-</td>
<td>‘dog’ → ɲọkí-nanesi- ‘to be poor’</td>
</tr>
</tbody>
</table>
7.4 Directionals

Directional suffixes in Ik include the andative {ʊƙɔtɪ́} and venitive {et}. The andative denotes motion away from a deictic center, while the venitive denotes motion toward it. The deictic center is usually the speaker but can be another place, provided the speaker and hearer share the reference. Directionals are an integral and important part of Ik verbal semantics but as much so as aspectual markers as directional (§7.9.2-7.9.3). The directionals and their aspectual counterparts are highly but not fully productive; speakers have an intuition for which combinations are natural. In nearby Turkana, directional suffixes are only found on dynamic verbs (Dimmendaal 1983:110). Not so in Ik: They are found on all verb types. The table below illustrates the directional nuances expressed by these two suffixes:

<table>
<thead>
<tr>
<th>Ik directional suffixes</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɪlá-</td>
<td>‘go somewhere’</td>
</tr>
<tr>
<td>ɪlɔ́6ɔ́n</td>
<td>‘to go somewhere’</td>
</tr>
<tr>
<td>ɪlɛ́6ɛ́t6ɔn</td>
<td>‘to come here’</td>
</tr>
<tr>
<td>ɪlɔ́6ɔ́nʊƙɔtᵃ</td>
<td>‘to go there’</td>
</tr>
<tr>
<td>raʝ6</td>
<td>‘return (trans.)’</td>
</tr>
<tr>
<td>raʝ6és</td>
<td>‘to return’</td>
</tr>
<tr>
<td>raʝ6et6és</td>
<td>‘to return here’</td>
</tr>
<tr>
<td>raʝ6ésʊƙɔtᵃ</td>
<td>‘to return there’</td>
</tr>
</tbody>
</table>

7.4.1 Andative

The suffix {ʊƙɔtɪ́} communicates motion away from a deictic center. It is called ‘andative’ here in keeping with Kuliakist tradition, but ‘itive’ would be another appropriate label. The Ik andative has a promising parallel in the Surmic language Didinga’s itive suffix -oð (De Jong 2004:150). The sequence /-ʊƙ-/ within {ʊƙɔtɪ́} calls to mind the substantive suffix {-VṛV}, but at present there is nothing obvious linking the two semantically.
The andative suffix has a LL(H) melody but is susceptible to several tonal alternations. For example, the depressor consonant /d/ in the 2sg suffix {idi-} repells H tone back onto the andative (T4), as in the verb hɔn-ukɔ̃-id⁶ ‘You drive (it) away.’ Then, H tone may spread onto its first syllable as the preceding morpheme completes its tonal melody (T7), as in the verb ɲur-ɛ́s-ʊ̃kɔ́t⁶ ‘to cut’. Lastly, a particular verb paradigm, like the sequential aspect, can totally replace the tones of the andative (T8), for example in the verb form hɔn-ʊ̃kɔ́-se ‘And it was driven away.’ In terms of vowel harmony, the andative has the allomorph /ʊ̃kɔ́tɪ́/ after [+ATR] stem. In a verb infinitive, {ʊ̃kɔ́tɪ́} usually comes last, after the root and infinitive suffix. But it can also come before the infinitive suffix with no change in meaning. The following examples show the two positions of the andative:

(63) Position of {ʊ̃kɔ́tɪ́} within a verb

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ár-ón-ukɔ́t⁶</td>
<td>ár-ʊ̃kɔ́t-on</td>
<td>‘to cross over’</td>
</tr>
<tr>
<td>ep-on-ukɔ́t⁶</td>
<td>ep-ʊ̃kɔ́t-on</td>
<td>‘to lie down’</td>
</tr>
<tr>
<td>ɲur-ɛ́s-ʊ̃kɔ́t⁶</td>
<td>ɲur-ʊ̃kɔ́t-ɛ́s</td>
<td>‘to cut’</td>
</tr>
<tr>
<td>itűtu-ɛ́s-ukɔ́t⁶</td>
<td>itűtu-ʊ̃kɔ́t-ɛ́s</td>
<td>‘to beat out dust’</td>
</tr>
</tbody>
</table>

As already mentioned, the andative communicates motion away from a deictic center. This semantic enhancement is further demonstrated (64):

(64) Verbs with the andative suffix {ʊ̃kɔ́tɪ́}

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ár-ón</td>
<td>‘to cross’</td>
<td>→ ár-ón-ukɔ́t⁶</td>
</tr>
<tr>
<td>bur-ɔ́n</td>
<td>‘to fly’</td>
<td>→ bur-ɔ́n-ukɔ́t⁶</td>
</tr>
<tr>
<td>hɔn-ɛ́s</td>
<td>‘to drive’</td>
<td>→ hɔn-ɛ́s-ukɔ́t⁶</td>
</tr>
<tr>
<td>raj-ɛ́s</td>
<td>‘to return’</td>
<td>→ raj-ɛ́s-ukɔ́t⁶</td>
</tr>
<tr>
<td>zéb-es</td>
<td>‘to toss’</td>
<td>→ zéb-es-ukɔ́t⁶</td>
</tr>
</tbody>
</table>

Although the andative is not a nominalizer per se, it is forced to inflect for case on verbal infinitives because it usually occurs stem-finally between the nominalizers {ɔ́n-} and {ɛ́s-} and case suffixes. (65) depicts the full case inflection of the verb bur-ɔ́n-ukɔ́t⁶ ‘to fly away’:
(65) Case declension of {ʊƙɔtɪ́}

<table>
<thead>
<tr>
<th>Case</th>
<th>Non-final</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL</td>
<td>bur-ʊŋ-ʊƙɔtɪ</td>
<td>bur-ʊŋ-ʊƙɔtɪ́</td>
</tr>
<tr>
<td>NOM</td>
<td>bur-ʊŋ-ʊƙɔt-a</td>
<td>bur-ʊŋ-ʊƙɔt-á</td>
</tr>
<tr>
<td>INS</td>
<td>bur-ʊŋ-ʊƙɔt-ɔ</td>
<td>bur-ʊŋ-ʊƙɔt-ɔ́</td>
</tr>
<tr>
<td>ABL</td>
<td>bur-ʊŋ-ʊƙɔt-ʊ</td>
<td>bur-ʊŋ-ʊƙɔt-ʊ́</td>
</tr>
<tr>
<td>GEN</td>
<td>bur-ʊŋ-ʊƙɔt-ɛ́</td>
<td>bur-ʊŋ-ʊƙɔt-ɛ́</td>
</tr>
<tr>
<td>ACC</td>
<td>bur-ʊŋ-ʊƙɔt-ɛ́</td>
<td>bur-ʊŋ-ʊƙɔt-ɛ́</td>
</tr>
<tr>
<td>DAT</td>
<td>bur-ʊŋ-ʊƙɔt-ɛ́</td>
<td>bur-ʊŋ-ʊƙɔt-ɛ́</td>
</tr>
<tr>
<td>COP</td>
<td>bur-ʊŋ-ʊƙɔt-ʊ</td>
<td>bur-ʊŋ-ʊƙɔt-ʊ́</td>
</tr>
</tbody>
</table>

The andative suffix undergoes haplology (§2.5.1) when followed by certain suffixes. For example, the /t/ in {ʊƙɔtɪ́} is dropped before the second person singular {-ɪ́dɪ́}, the second person plural {-ɪ́tɪ́}, and the first person plural inclusive {-ɪ́sɪ́nɪ́} subject-markers, making /ʊƙɔ/ an allomorph. For some reason, haplology fails to apply to 3PL. This allomorphy is so common that it appears to be obligatory, but some speakers claim it is grammatically ‘incorrect’. The following paradigm illustrates this type of haplology:

(66) Andative haplology with subject-agreement suffixes

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>hɔn-ʊƙɔt-ɪ́</td>
<td>‘I drive (it) away.’</td>
</tr>
<tr>
<td>2SG</td>
<td>hɔn-ʊƙɔ-ɪ́dᵃ</td>
<td>‘You drive (it) away.’</td>
</tr>
<tr>
<td>3SG</td>
<td>hɔn-ʊƙɔ-ɛ́</td>
<td>‘S/he drives (it) away.’</td>
</tr>
<tr>
<td>1PL,EXC</td>
<td>hɔn-ʊƙɔ-ɪ́m</td>
<td>‘We (exc.) drive (it) away.’</td>
</tr>
<tr>
<td>1PL,INC</td>
<td>hɔn-ʊƙɔ-ɪ́sɪ́n</td>
<td>‘We (inc.) drive (it) away.’</td>
</tr>
<tr>
<td>2PL</td>
<td>hɔn-ʊƙɔ-ɪ́tᵃ</td>
<td>‘You all drive (it) away.’</td>
</tr>
<tr>
<td>3PL</td>
<td>hɔn-ʊƙɔ-átᵃ</td>
<td>‘They drive (it) away.’</td>
</tr>
</tbody>
</table>

The final /t/ in the andative {ʊƙɔtɪ́} is dropped before a variety of other suffixes as well, including the imperative singular {ɛ́}, the sequential impersonal passive {ɛ́sɛ́}, and the dummy pronoun {=`(d)ɛ}. With the imperative singular, haplology only occurs in non-final environments, as in:
Andative haplology with other suffixes

<table>
<thead>
<tr>
<th></th>
<th>Non-final</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMP.SG</td>
<td>hɔn-ʊkɔ-ɛ</td>
<td>hɔn-ʊkɔt-ɛ’</td>
</tr>
<tr>
<td>SPS</td>
<td>hɔn-ʊkɔ-ɛsɛ</td>
<td>hɔn-ʊkɔ-ɛs</td>
</tr>
<tr>
<td>DP</td>
<td>hɔn-u-ʊkɔ=ɛ</td>
<td>hɔn-u-ʊkɔ=ɛd'</td>
</tr>
</tbody>
</table>

‘Drive away!’
‘And it was driven away.’
‘He drove it away with it.’

7.4.2 Venitive

The venitive (or ‘ventive’) suffix has the form {6ɛ t6} with a [+ATR] allomorph /ɛt/ on [+ATR] stems. As the andative’s counterpart, the venitive communicates motion toward a deictic center, usually but not always the speaker. (Once a speaker was heard shouting the question ŋátéɛ́té ɪa ‘Should I run there?’ to someone, indicating that the motion of his running would be toward the hearer rather than toward the speaker.) No clear etymological parallels for this suffix have been found in languages of the region. But one clue comes from the Kuliak language So: Just as the So venitive suffix -ɛc is related to the verb ɛc ‘to come’ (Carlin 1993:50), the Ik ventive {ɛtɛ} could potentially be related to the Ik verb atɛ, also meaning ‘come’. Granted, this is a stretch given the tonal and segmental differences.

The verbs in (68) illustrate three key properites of the venitive: 1) its position between the root (or stem with preceding suffixes) and the infinitive suffix, 2) the ‘this way’ directional nuance added to the basic meaning of a verb, and 3) its two tonal allomorphs, /ɛt/ and /ɛt/.

Verbs with the venitive suffix {ɛt-}

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ár-όνι-</td>
<td>‘to cross’</td>
</tr>
<tr>
<td>ɲat-ɲɲ-</td>
<td>‘to run’</td>
</tr>
<tr>
<td>dɔr-ɛsɪ-</td>
<td>‘to pull’</td>
</tr>
<tr>
<td>gon-ɛsɪ-</td>
<td>‘to look’</td>
</tr>
<tr>
<td>raj-ɛsɪ-</td>
<td>‘to return’</td>
</tr>
</tbody>
</table>
Because verbs like *ɗʊréɛtéɛ́sɪ́é* ‘to pull out’ pattern tonally with L-toned verbs like *ɪɗakéɛ́sɪ́é* ‘to lack’, the underlying tone of *-{et}-* is posited as L. But even so, it may bear H tone in several contexts. For instance, H tone may spread to it from a preceding root (T7), as in *fút-ɛt-ɛ-u-k*⁰ ‘And he blew (this way)’. But also, a general tendency is observed in the venitive paradigms—the preference for a HH tonal peak within the word (T8). For example, the verb *ŋat-ɛt-ɛn* ‘to run this way’ in (68) exhibits a HH peak despite the absence of underlying H on any of the three morphemes. Another example comes from words like *ŋús-ɛt-ɛnɛ́* ‘Let me grab (it) (this way)’ in which the first two morphemes are underlyingly L-toned. Also, high-tone suppression (T6) is operative with the venitive, as in the verb *fút-ɛt-ɛm* ‘We are blowing (this way)’, where the H tone of the verb *fút-* ‘blow’ has been suppressed. The venitive paradigms in (69) below compare verbs with and without *-{et}-* their non-final, realis, non-past forms to better show the tonal complexity:

(68) **Venitive tonal behavior**

<table>
<thead>
<tr>
<th></th>
<th><em>fút-ɛsí́-</em> ‘to blow’</th>
<th><em>fut-ɛt-ɛsí́-</em> ‘to blow this way’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td><em>fút-i-a</em></td>
<td><em>fut-ɛt-i-a</em></td>
</tr>
<tr>
<td>2SG</td>
<td><em>fút-ɪd-a</em></td>
<td><em>fut-ɛt-ɪd-a</em></td>
</tr>
<tr>
<td>3SG</td>
<td><em>fút-á</em></td>
<td><em>fut-ɛt-á</em></td>
</tr>
<tr>
<td>1PL,EXC</td>
<td><em>fút-ɪm-a</em></td>
<td><em>fut-ɛt-ɪm-a</em></td>
</tr>
<tr>
<td>1PL,INC</td>
<td><em>fút-ɪsɪ́n-a</em></td>
<td><em>fut-e-ɪsɪ́n-a</em></td>
</tr>
<tr>
<td>2PL</td>
<td><em>fút-ɪt-a</em></td>
<td><em>fut-e-ɪt-a</em></td>
</tr>
<tr>
<td>3PL</td>
<td><em>fút-át-a</em></td>
<td><em>fut-ɛt-át-a</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th><em>ŋus-ɛsí́-</em> ‘to grab’</th>
<th><em>ŋus-ɛt-ɛsí́-</em> ‘to grab this way’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td><em>ŋus-ɪ-a</em></td>
<td><em>ŋus-ɛt-ɪ-a</em></td>
</tr>
<tr>
<td>2SG</td>
<td><em>ŋus-ɪd-a</em></td>
<td><em>ŋus-ɛ-ɪd-a</em></td>
</tr>
<tr>
<td>3SG</td>
<td><em>ŋus-á</em></td>
<td><em>ŋus-ɛt-á</em></td>
</tr>
<tr>
<td>1PL,EXC</td>
<td><em>ŋus-ɪm-a</em></td>
<td><em>ŋus-ɛt-ɪm-a</em></td>
</tr>
<tr>
<td>1PL,INC</td>
<td><em>ŋus-ɪsɪ́n-a</em></td>
<td><em>ŋus-e-ɪsɪ́n-a</em></td>
</tr>
<tr>
<td>2PL</td>
<td><em>ŋus-ɪt-á</em></td>
<td><em>ŋus-e-ɪt-á</em></td>
</tr>
<tr>
<td>3PL</td>
<td><em>ŋus-át-a</em></td>
<td><em>ŋus-ɛt-át-a</em></td>
</tr>
</tbody>
</table>
Unlike the andative, the venitive comes before infinitive suffixes in a nominalized verb. For that reason, case suffixes never attach to -et- directly. But like the andative, the venitive undergoes haplology in the 2sg, 1pl.inc, and 2pl members of its paradigms, as shown in (69):

(69) **Venitive haplology with subject-agreement suffixes**

<table>
<thead>
<tr>
<th></th>
<th>sg</th>
<th>pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
<td>ŋat-et-i</td>
<td>ŋat-et-im</td>
</tr>
<tr>
<td>2sg</td>
<td>ŋat-é-id³</td>
<td>ŋat-é-íd³</td>
</tr>
<tr>
<td>3sg</td>
<td>ŋat-é-íd³</td>
<td>ŋat-é-íd³</td>
</tr>
<tr>
<td>1pl.exc</td>
<td>ŋat-é-íd³</td>
<td>ŋat-é-íd³</td>
</tr>
<tr>
<td>1pl.inc</td>
<td>ŋat-é-íd³</td>
<td>ŋat-é-íd³</td>
</tr>
<tr>
<td>2pl</td>
<td>ŋat-é-íd³</td>
<td>ŋat-é-íd³</td>
</tr>
<tr>
<td>3pl</td>
<td>ŋat-é-íd³</td>
<td>ŋat-é-íd³</td>
</tr>
</tbody>
</table>

It also undergoes haplology before the imperative singular (non-final only) and sequential impersonal passive suffixes as shown below in (70):

(70) **Venitive haplology with other suffixes**

<table>
<thead>
<tr>
<th></th>
<th>non-final</th>
<th>final</th>
</tr>
</thead>
<tbody>
<tr>
<td>imp.sg</td>
<td>hón-é-i</td>
<td>hón-é-i</td>
</tr>
<tr>
<td>sps</td>
<td>hón-é-es³</td>
<td>hón-é-es³</td>
</tr>
</tbody>
</table>

7.5 **Subject-agreement pronominals**

Ik subject-agreement pronominal suffixes mark the grammatical person (1-2-3) and number (sg and pl) of the subject. Like in neighboring Teso-Turkana and Kuliak languages, these suffixes make a distinction in the 1pl between exclusive (excluding the addressee) and inclusive (including the addressee). The sex of the subject is not specified in the third person singular. The underlying forms of these suffixes are posited as [-ATR] with [+ATR] allomorphs in the presence of dominant [+ATR] stems or affixes. Lastly, the suffixes are also subject to a range of tonal phenomena including high-tone suppression (T6) and melodic template completion (T7).
The Ik subject-agreement pronominals were already described in §5.1.4, and the reader is referred there for details not repeated in this section. The table in (71) presents the subject-agreement suffixes as they are analyzed here:

(71) *Ik bound pronominal suffixes*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>-í</td>
</tr>
<tr>
<td>2SG</td>
<td>-ídi</td>
</tr>
<tr>
<td>3SG</td>
<td>-í</td>
</tr>
<tr>
<td>1PL,EXC</td>
<td>-ímí</td>
</tr>
<tr>
<td>1PL,INC</td>
<td>-ísínu</td>
</tr>
<tr>
<td>2PL</td>
<td>-ítí</td>
</tr>
<tr>
<td>3PL</td>
<td>-áti</td>
</tr>
</tbody>
</table>

The realis modality morpheme {a} subtracts the final vowel of the pronominals shown in (71). This means practically that 3SG is zero-marked in the realis modality: The realis morpheme {a} subtracts the 3SG morpheme {-í} making 3SG zero-marked. To avoid the cumbersome usage of $\emptyset$ in place of the subtracted 3SG pronominal, no morpheme gloss is given for 3SG in the realis modality. Whenever a given verb in the realis has no subject-agreement marker, it is understood that subject marking is for 3SG.

First and second person subjects (S/A) are always cross-referenced on the verb by means of personal pronominal suffixes. 3SG subjects are too, even if only by a zero-morpheme. But as pointed out by König, 3PL subjects are inconsistently cross-referenced on verbs (2008:84). The 3PL suffix is only obligatory when 1) no independent subject is present, 2) when the subject is the 3PL personal pronoun *ńt-a*, and 3) when the subject is preposed before the verb like in a subordinate clause with simultaneous aspect.

For example, in (72) below, no overt subject is present, so the 3PL suffix must be present, while in (73) the 3PL personal pronoun *ńt-a* (in the NOM case) also requires the suffix. The preverbal subject in (74), *gwágwacicá*, also requires the 3PL suffix on the verb coming after it:
(72) *Saɓukotataa Fetiicek.*
sáɓ-úƙot-át-a-a   fetí-ícé-k³
kill[PL]-COMP-3PL-REAL-PRF   sun-AGT.PL-ACC
They have killed the Jie ('sun people', i.e. from the East).

(73) *Saɓukotataa nta Fetiicek.*
sáɓ-úƙot-át-a-a   ít-á   fetí-ícé-k³
kill[PL]-COMP-3PL-REAL-PRF   they-NOM   sun-AGT.PL-ACC
They have killed the Jie ('sun people', i.e. from the East).

(74) *Na Gwangwaiçe a saɓukotatie Fetiicek,...*
na=ɓgáɡwa-ícé-á   sáɓ-úƙot-áți-e   fetí-ícé-k³
CONJ = Dodoth-AGT.PL-ACC   kill[PL]-COMP-3PL-SIML   sun-AGT.PL-ACC
When the Dodoth killed the Jie,...

However, the 3pl. pronominal suffix is ungrammatical if an independent nominal (postverbal) subject is present in the clause. Unlike examples (72)-(74), example (75) contains the nominal plural postverbal subject *gwaɓgaika*, resulting in the verb being zero-marked as 3sg:

(75) *Saɓukotaat Gwagwaika Fetiicek.*
sáɓ-úƙot-á-á   ɓgáɡwa-ik-a   fetí-ícé-k³
kill[PL]-COMP-REAL-PRF   Dodoth-AGT.PL-NOM   sun-AGT.PL-ACC
The Dodoth have killed the Jie.

3rd-person marking on verbs in relative clauses is optional, but not so much as to be in complete free variation. With some exceptions, the trend among Ik speakers is to use a 3sg verb in a relative clause modifying a plural noun. This is true whether the plural noun is overtly marked with a plurative or whether it is lexically specified as plural. The following two examples compare number marking in a relative clauses modifying the lexically plural *mená*—‘issues’ and the morphologically plural *mená-ícik*—‘various things’:

...
(76) _Itetia noo menee ni maraŋ._
\[
\text{it-ēt-ī-ā = noo} \quad \text{menē-ē = [ni marāŋ-∅]}_{\text{REL}} \\
\text{come-VEN-1SG-REAL = PST3 issues-DAT = REL.PL good[3SG]-REAL}
\]
I found good things/circumstances.

(77) _Menaicika ni kama tasapeti._
\[
\text{menā-íćik-a = [ni kām-ā tasapeti-∅]}_{\text{REL}} \\
\text{issues-PL-NOM = REL.PL be.like[3SG]-REAL initiation-GEN}
\]
Things like initiation

However, the suppletive plural of _kārōbādī_- ‘thing’—_kārōbādī_- ‘things’—and the plural pronoun _di_- ‘ones’ provide some counter-examples:

(78) _Kuruɓaa ni kamata dziberikae._
\[
\text{kūrūɓá-a = [ni kām-āt-a dzibér-īka-∅]}_{\text{REL}} \\
\text{things-NOM = REL.PL be.like-3PL-REAL axe-PL-GEN}
\]
Things (that are) like axes

(79) _Da sini bolukotat._
\[
\text{ɗa = [sini bol-ukot-āt-∅]}_{\text{REL}} \\
\text{ones-NOM = PST2.REL.PL stop-COMP-3PL-REAL}
\]
The ones that stopped (yesterday)

But nouns that are lexically specified with a general or neutral numeric value can go either way in terms of relative clause marking. Example (80) shows the general noun _dāŋā_- ‘white ant(s)’ taking singular marking in a relative clause, while in (81), the noun _tōda_- ‘speech’ take plural marking:

(80) _Kutese hakweste danee ni kom._
\[
\text{kut-esē hakw-ēsī-e dāŋé-e = [ni kom-∅]}_{\text{REL}} \\
\text{say-SPS harvest-INF-DAT white.ant-GEN = REL.PL many[3SG]-REAL}
\]
It was decided to harvest a lot of white ants.
(81) Toda ni kamata die njini.
tón=a [ni kám-át-a dí-é njíní-∅]REL
speech-NOM = REL.PL be.like-3PL-REAL.ones-GEN we.INC-GEN
Speech that is like ours.

7.6 Dummy pronominal clitic

The particle \{=´dɛ\} is used to mark the absence of a peripheral argument from its usual post-verbal position. It was already treated under §5.10 due to its having a pronominal function, and the reader is referred there for more details on its meaning and syntactic function. Heine was the first to recognize this particle, which he called the ‘dummy pronoun’ (1983:119). He also pointed out that the dummy pronoun may be a grammaticalization of the singular anaphoric demonstrative =´dέ́ described ahead in §8.2.3. The dummy pronoun is analyzed as an enclitic in this grammar because no verbal affixes—no matter which or how many—can come after it.

An initial survey of regional languages indicates that \{=´dɛ\} can be linked most strongly to the Afroasiatic language family. From within Cushitic, Afar has a ‘positional indicator’ eda- (Mahaffy n.d., p. 29), while the ‘locative postpositioned clitic’ of Saho has the form -dde or -d (Banti & Vergari 2005:14). Switching subgroups, the South Omotic language Dime’s ablative marker -de has the meaning ‘from’ or ‘out of’ (Mulugeta 2008:57). If the Ik dummy pronoun is related historically to the Dime ablative suffix, this could mean that \{=´dɛ\} in Ik developed into a purely grammatical morpheme.

The dummy pronoun enclitic has a L tone on its vowel but a preceding floating H tone. This floating H is posited on the basis of the H tone that usually appears on the preceding tone-bearing unit. Since the /d/ in \{=´dɛ\} is a depressor consonant, the floating H may have been lexicalized in order to compensate for the depressing effect of the depressor consonant. The dummy pronoun is a recessive morpheme that has the allomorph /=´de/ when attached to [+ATR] stems. The dummy pronoun is also subject to
vowel assimilation, segment loss in non-final forms, and final-form devoicing, giving it the numerous allomorphs presented in (82). The final-form allomorphs, with devoiced vowels and segments, sound a lot like [t̪]. And the allomorphs /=ˊɛ/ and /=ˊɛ/ have at times been confused with the dative case non-final allomorph /ɛ,e/ (e.g. Heine & König 1996:25).

\[(82)\]

<table>
<thead>
<tr>
<th>Allomorphs of the dummy pronoun {=ˊde}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-final</td>
</tr>
<tr>
<td>=ˊɛ</td>
</tr>
<tr>
<td>=ˊe</td>
</tr>
<tr>
<td>=ˊɪ</td>
</tr>
<tr>
<td>=ˊi</td>
</tr>
<tr>
<td>=ˊɔ</td>
</tr>
</tbody>
</table>

As noted above, the dummy pronoun (dp) always occurs last on the verbal stem, regardless of other preceding verbal suffixes. The trio of examples in (83) show its position, even as more and more suffixes are added:

\[(83)\]

<table>
<thead>
<tr>
<th>Stem-final position of the dummy pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td>ats-át-a =d⁰</td>
</tr>
<tr>
<td>ats-áti-ké =d⁰</td>
</tr>
<tr>
<td>ats-i-áti-ké =d⁰</td>
</tr>
</tbody>
</table>

When found clause-medially, however, the dummy pronoun can be hard to identify because of its many allomorphs (shown in 82 above). Each of the non-final allomorphs listed in (84) is given one example below:

\[(84)\]

\[Naita noo mitee ai...\]
\[naɪ́tá=noo   mɪt6ɛ́=ɛ       ai     \{=ˊd ɛ\}→/=ˊɛ/\]
\[degree=PST3 be-REAL=DP side[OBL]\]
Since (‘the degree to which’) it was the side...
When people were at Red Reedbuck,…

So they get used to it quickly.

And they fell on him with machetes.

So then I stayed there.

So then the people went there to hide (themselves).

But on a 1SG verb, the unreduced allomorph of the dummy pronoun is found clause-medially, as shown in (90). This is apparently to avoid an interrupted sequence of three vowels, each belonging to a distinct morpheme:

That’s why I tricked you.
7.7 Modals

Ik grammar specifies the non-spatial setting of utterances with a variety of modality and aspect-marking suffixes, as well as tense-marking and epistemic clitics and particles. This section examines the verbal affixes that express sentential modality, that is, how speakers perceive the predication in terms of its actuality, likelihood, or relevance. The modal notions conveyed by these affixes include reality, necessity, and desire.

In the Teso-Turkana languages surrounding Ik, the most basic verbal distinction is perfective versus imperfective aspect. Not so in Ik: Instead, the most basic distinction is a modal one between irrealis and realis. Heine was the first to take note of this, though he called the realis the ‘aorist’—“the most unmarked tense...that denotes actions or states in the past, present, or without reference to time...” (1983:132). König also recognized this modal distinction, claiming that “the morphologically unmarked realis form is used for present and past contexts, the derived irrealis form (expressed by the suffix -ɛ́s/ɛs) covers future” (2008:83). So up to now, realis was thought to be unmarked, and irrealis was through to be marked by the suffix -ɛ́s/ɛs.

Contrary to Heine and König (1996:84 [typed as 73]), it is claimed here that the irrealis, rather than the realis, is the morphologically unmarked member of the pair. It is also claimed that neither irrealis nor realis have anything to do with time or tense per se. Though realis forms cooccur with tense clitics far more often than irrealis ones, irrealis verb forms can also cooccur with tense clitics. Finally, the suffix -ɛ́s/ɛs which König posits as the irrealis suffix is analyzed in this grammar as a marker both of ‘intentional’ modality (cf. Serzisko 1992) and imperfective aspect.

The verb form that Heine termed ‘the most unmarked tense’ and König called ‘the morphologically unmarked realis’ is identified by the suffix {-a}. The meaning and function of this vowel has long perplexed researchers studying Ik. Crazzolara deemed this vowel ‘meaningless’ (1967:9), while
Tucker called it a ‘complemental suffix’ without further explanation (1971:349). Heine labeled it the ‘thematic final vowel’, which he recognized as also characteristic of his ‘absolute’ nominal case (1983:132). Because this vowel was found on verbs in basic declarative sentences in past, present, and future tenses, it was assumed to be an unmarked realis form, e.g.:

(91)  
\[ \text{Atsida nak.} \]  
\[ \text{ats-id-a = nak}^a \]  
\[ \text{come-2SG.? = PST1} \]  
You came (earlier today).

(92)  
\[ \text{Atsidak.} \]  
\[ \text{ats-id-a-k}^a \]  
\[ \text{come-2SG.?-PRF} \]  
You have come.

(93)  
\[ \text{Atsesid.} \]  
\[ \text{ats-és-id.}^a \]  
\[ \text{come-INT-2SG.?} \]  
You will come.

By contrast, verb forms without {-a}, like those in the sequential and simultaneous aspects, were assumed to be marked irrealis forms:

(94)  
\[ \text{Atsiduk.} \]  
\[ \text{ats-idu-k}^{o'} \]  
\[ \text{come-2SG-SEQ} \]  
And you come.

(95)  
\[ \text{atsidik.} \]  
\[ \text{ats-idi-k}^e \]  
\[ \text{come-2SG-SIML} \]  
...as you come.
In light of these examples, a fundamental distinction emerges from Ik verbs between forms that manifest the vowel /-a/ and those that do not (but rather retain the subject-agreement suffixes’ underlying final vowels). Thus the starting point for the irrealis-real is division posited here is this very morphological distinction, rather than a primarily semantic one. Unquestionably, the morphological distinction is there, yet the semantic bases for it have not yet fully come to light. The table below presents the two groups of verb forms defined by whether they contain /-a/ or /-i,i/:

(96) *A morphological division of Ik verb forms*

<table>
<thead>
<tr>
<th>With /-a/</th>
<th>With /-i,i/</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past</td>
<td>Sequential</td>
</tr>
<tr>
<td>atsíd-a=nakᵃ</td>
<td>ats-idu-k⁹</td>
</tr>
<tr>
<td>‘You came.’</td>
<td>‘And you come/came.’</td>
</tr>
<tr>
<td>Present perfect</td>
<td>Simultaneous</td>
</tr>
<tr>
<td>ats-id-a-kᵃ</td>
<td>ats-ídi-k⁹</td>
</tr>
<tr>
<td>‘You’ve come.’</td>
<td>‘As/when you come/came,’</td>
</tr>
<tr>
<td>Intentional</td>
<td>Optative</td>
</tr>
<tr>
<td>ats-és-id.a</td>
<td>ats-ído’</td>
</tr>
<tr>
<td>‘You will come.’</td>
<td>‘May you come.’</td>
</tr>
<tr>
<td>Prohibitive</td>
<td>Negated past</td>
</tr>
<tr>
<td>máá ats-id.a⁹</td>
<td>máá=naa ats-id¹</td>
</tr>
<tr>
<td>‘Don’t come.’</td>
<td>‘You haven’t come.’</td>
</tr>
<tr>
<td></td>
<td>Negated non-past</td>
</tr>
<tr>
<td></td>
<td>ítá ats-id¹</td>
</tr>
<tr>
<td></td>
<td>‘You don’t come.’</td>
</tr>
</tbody>
</table>

As argued in §5.1.4, the underlying forms of the subject-agreement suffixes end in the vowel /-i,i/, including the 2⁵ suffix {-idi} shown in (96). So the 2⁵ suffix in the first four verbs in (96) must have had its final vowel subtracted by a morpheme {-a}. The subtractive behavior shown by {-a} in those examples is identical to that of the nominative case suffix which subtracts a noun’s final vowel. Since the nominative case is marked rather than unmarked in Ik, the forms containing {-a} in (96) are also analyzed here as marked. Similarly, just as the oblique case preserves the lexical form of a noun (i.e. is unmarked), so the last five verbs in (96) preserve the underlying form of the 2⁵ suffix {-idi} leaving them unmarked also.
The verb forms in (96) with a 2SG suffix ending in /i/ are vaguely irrealis-like, if irrealis is “used to refer to an event...possible or imagined, as opposed to one that is actually happening or has happened (Matthews 2007:204). (Even though the sequential and simultaneous aspects can be modified by tense clitics, historical actuality does not seem to be their main meaning.) By contrast, if realis is used “to distinguish events...that actually happened or are happening (Matthews 2007:334),” then only the first two verbs in (96) clearly qualify for this definition. But if the intending of the intentional and the prohibiting of the prohibitive can be considered already actualized, then their membership in that category becomes more plausible.

In summary, Ik irrealis and realis modalities can be defined as follows:

- **Irrealis**—modality used for predications whose temporal realization is not grammatically encoded.
- **Realis**—modality used for predications:
  a. Whose temporal realization is grammatically encoded, or
  b. That are not irrealis, or
  c. That are characterized by some yet unknown feature.

### 7.7.1 Irrealis

The irrealis modality in Ik is zero-marked. When pertinent, the zero-marking may be glossed in square brackets as [IRR], but otherwise it will not be reflected in the glossing of examples (as opposed to realis). As mentioned above, the irrealis modality is reserved for predications whose temporal realization is not grammatically encoded. Irrealis is the base form for a variety of modal and aspectual categories, including the following:

(97) Negative past:  
\[
\text{Maa atsid.} \\
\text{má-á ats-id³} \\
\text{not-REAL come-2SG[IRR]} \\
\text{You haven’t come.}
\]
(98) Negative non-past: *Nta atsid.*

\[
\begin{align*}
\text{nt-å} & \quad \text{ats-id}^1 \\
\text{not-REAL} & \quad \text{come-2SG[IRR]} \\
\text{You don’t come.}
\end{align*}
\]

(99) Optative: *Talake atsidi.*

\[
\begin{align*}
talák-é & \quad \text{ats-id}^1 \\
\text{let.go-IMP.SG} & \quad \text{come-2SG.OPT[IRR]} \\
\text{And then you came.}
\end{align*}
\]

(100) Subjunctive: *Demusu atsid.*

\[
\begin{align*}
demusu & \quad \text{ats-id}^1 \\
\text{before} & \quad \text{come-2SG.SBJ[IRR]} \\
\text{Unless/until you come.}
\end{align*}
\]

(101) Sequential: *Atsiduk.*

\[
\begin{align*}
\text{ats-idu-k}^\prime & \\
\text{come-2SG[IRR]-SEQ} \\
\text{And then you come.}
\end{align*}
\]

(102) Simultaneous: *Na atsidik,...*

\[
\begin{align*}
\text{na} = \text{ats-idi-k}^\prime \\
\text{CONJ} = \text{come-2SG[IRR]-SIML} \\
\text{When you came,...}
\end{align*}
\]

In (97) and (98), the negating verbs *ma-* and *ńt-* act as the main verb and are marked with the realis suffix (-a). As verbs, these negators negate the clause, taking the irrealis verb form *atsid* as a complement. Since the event in question—‘your coming’—did not or does not take place, the complement falls under the domain of the irrealis modality.
When it comes to the optative, a wish is by definition something that has not been fulfilled, that is, temporally realized—hence the irrealis modality. The subjunctive, too, is used to code something contingent and unrealized.

Both the sequential and simultaneous aspectuals are used in clause chains, where the actuality of the chain is established by an initial verb (on clause chaining, see §10.2). Though tense particles can be used with these aspectuals, it is rarely encountered. The main function of these suffixes is to convey the relative rather than absolute timing of events. So whether the predication in the clause chain really happened depends on the initial verb.

7.7.2 Realis

The realis modality in Ik is marked by the suffix {-a} which subtracts the final vowel of the morpheme to which it attaches. As discussed above, the realis modality is posited largely on the basis of morphology (i.e. the presence of /a/). The semantic cohesion unifying the following instances of the realis modality is at least remotely conceivable but not totally satisfying:

(103) Non-past/gnomic:  
Atsida awao.  
ats-íd-a awá-o  
come-2SG-REAL home-ABL  
You come from home.

(104) Past:  
Atsida noo awao.  
ats-íd-a = noo awá-o  
come-2SG-REAL = PST3 home-ABL  
You came from home.

(105) Intentional:  
Atsesida taa.  
ats-éś-íd-a táa  
come-INT-2SG-REAL FUT2  
You will come next time.
As evident from (103)-(104), the realis modality coincides with the straightforward expression of temporally realized states or events in the present or past. The intentional and prohibitive instances of the realis modality may be admitted on the basis of some kind of cognitive actuality whereby intention and prohibition are happening at the time of speech.

**7.7.3 Intentional**

Strictly speaking, Ik has no inflectional marker of future tense. It is the future tense adverbial particles (§7.10.2) along with the realis modality marker on verbs that allows the notion of futurity to be expressed. However, the suffix \{-ɛ́s\} is also usually employed alongside these other components. The suffix is here called ‘intentional’, a term borrowed from Serzisko 1992.

The intentional suffix has H tone, but it may take a L tone as a result of high-tone suppression (T6), melodic template completion (T7), or replacive morphological tone (T8). In terms of vowel harmony, it is a recessive suffix with /-ɛ́s-/ as an allomorph when affixed to a [+ATR] stem.

The intentional suffix and the imperfective suffix (§7.9.1) are formally identical (homophonous). Their meaning and function are also very close. For these reasons, they are thought to have arisen from a single morpheme diachronically. In some usages, the interpretation of \{-ɛ́s\} is truly ambiguous, while in others, either intentionality/imminency or imperfectivity makes more sense in the local context. Neither intentionality/imminency nor imperfectivity adequately accounts for all the uses of \{-ɛ́s\}. That is why, with some tentativeness, the two functors are treated in this grammar as synchronically separate morphemes.
The intentional suffix \{-\text{\`e}s\} expresses intentionality with animate subjects and imminency with inanimate ones. When added to a non-past realis verb like the one in (107) below, the \{-\text{\`e}s\} gives the verb a sense of unrealized latent potentiality or ‘about-to-ness’. As such, the sentence in (108) could be more insightfully glossed as ‘I am going to/about to be thirsty (lit. ‘The sun is about to going to eat me’). Nevertheless, native Ik speakers consistently translate \{-\text{\`e}s\} verbs with the English future ‘will’ (keeping in mind that ‘will’ is also a grammaticalization of a verb of intentionality in English):

(107) \textit{N\k'ka feta \text{ncik}.} \\
\begin{tabular}{ll}
\text{\`en-k-a} & \text{fet-\`a} & \text{\`\text{\`}ci-k\text{\`a}}} \\
\text{eat-REAL} & \text{sun-NOM} & \text{I-ACC}
\end{tabular} \\
I am thirsty (lit. ‘The sun is eating me’).

(108) \textit{Nkesa feta \text{ncik}.} \\
\begin{tabular}{ll}
\text{\`en\text{-\`e}s-k-a} & \text{fet-\`a} & \text{\`\text{\`}ci-k\text{\`a}}} \\
\text{eat-INT-REAL} & \text{sun-NOM} & \text{I-ACC}
\end{tabular} \\
I will get thirsty (lit. ‘The sun will eat me’).

The sentence in (109) is a simple past-tense statement. The subject’s coming is viewed as a once-off, completed action. But when \{-\text{\`e}s\} is added to the verb in (110), it signifies that the subject merely intends to come. Whether or not the intention was realized is not grammatically encoded:

(109) \textit{Atsia nak.} \\
\begin{tabular}{ll}
\text{ats-i-\`a} = \text{nak}\text{\`a} \\
\text{come-1SG-REAL = PST1}
\end{tabular} \\
I came earlier today.

(110) \textit{Atsesia nak.} \\
\begin{tabular}{ll}
\text{ats-\text{-\`e}s-i-a} = \text{nak}\text{\`a} \\
\text{come-INT-1SG-REAL = PST1}
\end{tabular} \\
I was about to come earlier today.
The sentence in (111) is a particularly interesting example of the intentionality encoded by \{-ës\}. It is a sentence that was uttered by an Ik child just waking up from a nap. It was made as an announcement of intention, with a pragmatic sense of asking permission. The child had not begun moving to get down but was sitting still, waiting for a response:

(111)  \textit{Atsesia kijak.}
\hspace{1cm} \text{ats-ës-ì-a kijá-k}^e
\hspace{1cm} \text{come-INT-1SG-REAL I and-DAT}
\hspace{1cm} \text{I intend/want/will (to) come down.}

With regard to the analytical ambiguities of \{-ës\}, a strictly imperfective interpretation of (111) would entail that the process of coming had already begun and had internal temporal duration. This is clearly not the case because the child was sitting motionless. The only way to keep an imperfective interpretation would be to assume that the child’s mental process of intending to come down is already part of the coming. But encoding the temporal duration of cognitive processes (as precursors to action) does not seem to be the normal function of an imperfective aspect. That is why examples like (111) point to something more like intentionality.

A final comment: As Serzisko recognized (1992:205), there are verbs in which \{-ës\} occurs twice in sequence. It is not known whether these are a) instances of the intentional and imperfective occurring together (which would be evidence of two separate morphemes) or b) instances of the doubling of either suffix. Nor is it clear how this dilemma could be resolved:

(112)  \textit{Dzuesesa bats.}
\hspace{1cm} \text{dzu-es-ës-á = bats}^e
\hspace{1cm} \text{steal-?-?-REAL = PST2}
\hspace{1cm} \text{He was going to steal (and did?) (yesterday).}
7.7.4 Optative

The optative mood is encoded grammatically in three concurrent ways: 1) a floating H tone (often with high-tone suppression of preceding H’s) 2) neutralization of pre-pause devoicing, and 3) a handful of suppletive suffixes occurring unevenly throughout the paradigm. The floating H tone gives even L-toned verbs mid-pitch, even before a pause. The neutralization of pre-pause vowel devoicing can be represented by an autosegmental morpheme like \{+[voice]\}. And so the following table summarizes the two autosegmental markers together with the segmental ones:

<table>
<thead>
<tr>
<th></th>
<th>Tonal</th>
<th>Vowel quality</th>
<th>Segmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>V→V’</td>
<td>V_{+[voice]}#</td>
<td>-me’</td>
</tr>
<tr>
<td>2SG</td>
<td>V→V’</td>
<td>V_{+[voice]}#</td>
<td></td>
</tr>
<tr>
<td>3SG</td>
<td>V→V’</td>
<td>V_{+[voice]}#</td>
<td></td>
</tr>
<tr>
<td>1PL.EXC</td>
<td>V→V’</td>
<td>V_{+[voice]}#</td>
<td>-ima’</td>
</tr>
<tr>
<td>1PL.INC</td>
<td>V→V’</td>
<td>V_{+[voice]}#</td>
<td>-ano’</td>
</tr>
<tr>
<td>2PL</td>
<td>V→V’</td>
<td>V_{+[voice]}#</td>
<td></td>
</tr>
<tr>
<td>3PL</td>
<td>V→V’</td>
<td>V_{+[voice]}#</td>
<td></td>
</tr>
</tbody>
</table>

The three segmental optative morphemes all have a LL tone melody with a floating H tone. Their tone may change to HL after a H-tone verb (T7) or to LH before the dummy pronoun \{=’de\}. The suffixes \{-me’\} and \{-ima’\} are susceptible to vowel harmony when affixed to [ATR] stems. The suffix \{-ano’\}, on the other hand, is an opaque dominant morpheme that therefore does not change [ATR] categories. It is, moreover, the only one of the three for which areal (Cushitic) parallels have been found, namely the Saho 1PL ‘subjunctive’ suffix -no (Banti & Vergari 2005:4) and the Somali 1PL.INC ‘jussive’ suffix -no (Lamberti 1984:5)—both obviously related to each other.

The table in (114) illustrates the complex optative-marking strategy with full optative paradigms for the verbs fút-és ‘to blow’ and ber-és ‘to build’:

<table>
<thead>
<tr>
<th></th>
<th>Tonal</th>
<th>Vowel quality</th>
<th>Segmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>V→V’</td>
<td>V_{+[voice]}#</td>
<td>-me’</td>
</tr>
<tr>
<td>2SG</td>
<td>V→V’</td>
<td>V_{+[voice]}#</td>
<td></td>
</tr>
<tr>
<td>3SG</td>
<td>V→V’</td>
<td>V_{+[voice]}#</td>
<td></td>
</tr>
<tr>
<td>1PL.EXC</td>
<td>V→V’</td>
<td>V_{+[voice]}#</td>
<td>-ima’</td>
</tr>
<tr>
<td>1PL.INC</td>
<td>V→V’</td>
<td>V_{+[voice]}#</td>
<td>-ano’</td>
</tr>
<tr>
<td>2PL</td>
<td>V→V’</td>
<td>V_{+[voice]}#</td>
<td></td>
</tr>
<tr>
<td>3PL</td>
<td>V→V’</td>
<td>V_{+[voice]}#</td>
<td></td>
</tr>
</tbody>
</table>
The optative mood is used to express a wish, even an ironic negative wish in the form of a resignation. And with the appropriate auxiliary verb, the optative has been grammaticalized into use as an irrealis narrative mood.

Besides the morphological markers presented in (113), optative verbs are also commonly recognized by the auxiliary verbs ógo- ‘leave/let’ or talák- ‘let go’ occurring in the imperative mood, for example:

(115)  *Ogoyuo kaati.*
ógo-ió       fá-áti’
leave-IMP.PL g  go-3PL[OPT]
Let them go.

(116)  *Talake atsati.*
talák-é       ats-áti’
let.go-IMP.SG come-3PL[OPT]
Let them come.

The optative mood has been grammaticalized into use as a sort of narrative mood alongside the sequential aspect. In this usage, it must be preceded by the imperative talák-é ‘let go’ (sometimes shortened to aláké), which is related to the Teso-Turkana -lak ‘let go’, a synonym of the Ik ógo- ‘let/leave’:
(117) *Talake atsati, talake koŋatii toboŋ.*

<table>
<thead>
<tr>
<th>talák-é</th>
<th>ats-átiˊ</th>
<th>talák-é</th>
<th>kɔŋ-áti=i</th>
<th>tɔbɔŋˊ</th>
</tr>
</thead>
<tbody>
<tr>
<td>let.go-IMP</td>
<td>come-3PL[OPT]</td>
<td>let.go-IMP</td>
<td>cook-3PL[OPT]</td>
<td>DP posho[OBL]</td>
</tr>
</tbody>
</table>

And then they came, and then they cooked posho with it (a pot).

[Lit: ‘Let them come, let them cook posho with it.’]

(118) *Talake daŋadidi toɗoi.*

<table>
<thead>
<tr>
<th>talák-é</th>
<th>dáná-ɗídiˊ</th>
<th>todó-ˊ</th>
</tr>
</thead>
<tbody>
<tr>
<td>let.go-IMP</td>
<td>white.ant-rain[OBL]</td>
<td>fall-3SG[OPT]</td>
</tr>
</tbody>
</table>

And then the white-ant rain fell.

[Lit: ‘Let the white-ant rain fall.’]

In Ik, both overt subjects and objects of imperatives take the oblique case. Note that in (117) and (118), every clausal argument is zero-marked: Nouns are in the oblique case, and verbal complements are in the optative (an irrealis) mood. This type of argument-marking can be explained by positing the optative-narrative mood as a grammaticalization of the optative mood and the optative mood as a grammaticalization of an imperative clause.

As a narrative mood marker, *taláké* can be followed by verbs in the sequential and simultaneous aspects as well as the optative:

(119) *Talake kanetia takwiak.*

<table>
<thead>
<tr>
<th>talák-é</th>
<th>kan-ét-i-a</th>
<th>takw-i-a-k’</th>
</tr>
</thead>
<tbody>
<tr>
<td>let.go-IMP</td>
<td>take-VEN-1SG-SEQ</td>
<td>step.on-1SG-SEQ</td>
</tr>
</tbody>
</table>

And then I took (it) and stepped on (it).

(120) *Talake kotuo komitik.*

<table>
<thead>
<tr>
<th>talák-é</th>
<th>kó-tu-o</th>
<th>kom-ʃí-k’</th>
</tr>
</thead>
<tbody>
<tr>
<td>let.go-IMP</td>
<td>go-2PL-SEQ</td>
<td>many-2PL-SIML</td>
</tr>
</tbody>
</table>

And then you go when you are many.
As indicated in (113), Ik has {-ne} as a special 1SG optative suffix. Heine & König point out that the suffix could also be analyzed as {-nc} (1996:82). Without further information, it is difficult to know which analysis is better. The following two sentences exemplify the use of {-ne}. Note that the form *kóne* ‘Let me go’ in (121) is irregular in the paradigm for the verb *ka* ‘go’:

(121)  
**Tebetine nemelekó awó ne.**

téb-ɛt-ne  nɛmɛleko  awó-ô=ne
get-VEN-1SG[OPT]  hoe[OBL]  home-ABL = MED.DEM.SG
Let me get a hoe from that home.

(122)  
**Kóne sabak.**

kó-ne  saba-ke
go-1SG[OPT]  river-DAT
Let me go to the river.

The 1PL.INC optative, marked with the invariable suffix {-ano}, could also be called the ‘hortative’. The optative-hortative mood is used to encourage or command a group of people of which the speaker is a part. Since it is inherently 1st person, it is usually translated into English as ‘Let us...’:

(123)  
**Idimano námili na.**

ɪɗɪm-anó  námɪlɪ=na
fix-1PL.INC[OPT]  bicycle[OBL] = DEM.SG
Let’s fix this bicycle.

(124)  
**Atsuo kaano bedetano kakako.**

ats-ûó  ká-ano  béd-ét-anó  kaka-ako-∅
come-IMP  go-1PL.INC[OPT]  want-VEN-1PL.INC[OPT]  hunt-inside-ABL
Come let’s go, let’s look for (it) while hunting.
7.7.5 Subjunctive

The subjunctive mood (along with negative polarity) is the quintessential irrealis mood in that it is zero-marked. That is, it is recognized morphologically by the subject-agreement suffixes surfacing in their underlying forms. Syntactically, it is recognized by a couple of conjunctions.

The subjunctive mood is used to encode propositions that are contingent and temporally unrealized. Note that the 'subjunctive' as intended here differs from that found in previous Ik studies (e.g. Heine & König 1996, König 2002) which is called the 'simultaneous' aspect in this grammar.

The following table presents the subjunctive mood paradigms for the verbs fút-és ‘to blow’ and ber-és ‘to build’:

(125) Subjunctive mood paradigm

<table>
<thead>
<tr>
<th></th>
<th>Non-final</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>fút-íí</td>
<td>fút-í́́</td>
</tr>
<tr>
<td>2SG</td>
<td>fút-ídí</td>
<td>fút-íd́́</td>
</tr>
<tr>
<td>3SG</td>
<td>fút-í</td>
<td>fút-í́</td>
</tr>
<tr>
<td>1PL.EXC</td>
<td>fút-ími</td>
<td>fút-ím</td>
</tr>
<tr>
<td>1PL.INC</td>
<td>fút-ísíni</td>
<td>fút-ísín</td>
</tr>
<tr>
<td>2PL</td>
<td>fút-ítí</td>
<td>fút-ítí́</td>
</tr>
<tr>
<td>3PL</td>
<td>fút-áti</td>
<td>fút-átí́</td>
</tr>
</tbody>
</table>

Verbs in the subjunctive mood are found in subordinate clauses introduced by the words demusu ‘unless, until, before’ and damu or damu koja ‘may’:

(126) Xeiƙweese cua demusu fetia peleme.

[ɕ-ikw-ɛse cu-a [demusu fetí-á pelém-ɛt-́]SUBORD
sprinkle-AND-SPS water-NOM before sun-ACC appear-VEN-3SG[SUBJ]
And water is sprinkled before the sun comes up.
(127) Demusu Pakoicea deti riyaa,
[ɗɛmʊsʊ  pakó-ice-a  det-i  rié-å]SUBORD
until cave-AGT.PL-ACC bring-3SG[SUBJ] goat(s)-ACC
Until the Turkana brought goats,

isio noo ŋabian?
isi-o=noo ŋáb-i-an-∅
what-COP = PST3 wear-PLUR-IPS-REAL
what was usually worn?

(128) Damu soreimaa na mitukoti dì fiyoos.
damu soréím-a=na mit-ʊkɔt-i dì fiyɔ-ôs-∅
may boy-NOM = DEM.SG be-COMP-3SG[SUBJ] one[OBL] know-PASS-REAL
May this boy become (a) famous (one).

(129) Damu koja maidi ntsik.
damu koja ma-idi ntsí-k⁶
may give-2SG[SUBJ] s/he-DAT
May you give (it) to her.

7.7.6 Imperative

The imperative mood in Ik is marked by the suffix {-ɛ} for singular and {-ɪ́ɔ́} for plural. A likely parallel for the singular imperative suffix is the singular imperative suffix -e found in the Cushitic languages Boni and Gidole (Lamberti 1984:5). As for the plural suffix, it recalls the Cushitic language Dhaasanac’s imperative plural suffix -ɛ which has the assimilated allomorph -ó, as in kosol-ó ‘Laugh (pl.)’ (Tosco 2001:114).

The floating H tone of {-ɛ} is posited on the basis of the isolation forms of L-toned imperative verbs that surface with mid instead of low pitch. The plural suffix {-ɪ́ɔ́} may bear L tones when following a H-toned stem ending in a depressor consonant, as in the command kád-u ‘Shoot (pl.)’.
suffixes are recessively [-ATR] but have /-e/ and /-ió/ as [+ATR] allomorphs. The plural suffix is also particularly susceptible to vowel assimilation, as when the command ats-íó ‘Come (pl.)!’ becomes ats-úó or when the command ber-ís ‘Build (pl.)!’ becomes ber-óó or even ber-óó.

The imperative mood is used to issue direct commands, for example:

(130) **Ats.**

Atse nayee na.

come-IMP.SG here-DAT = DEM.SG

Come. Come here.

(131) **Atsu.**

Atsuo nayee na.

come-IMP.PL here-DAT = DEM.SG

Come. Come here.

Any core arguments in an imperative clause take the oblique case. This includes subjects and direct objects. Imperative subjects are also claimed to exist in Turkana (Dimmendaal 1983:179), but they could also be vocatives. And as König noted, the use of the oblique for core arguments in the imperative mood is another example of case neutralization in Ik (2008:7):

(132) **Kaidée di nak.**

ƙái-d-e-e dí = nák³
go-bring-VEN-IMP.SG one[OBL] = DEM.SG.PST1

Go bring the earlier one.

(133) **Ogoyuo biti ati na.**

ógo-íó biti átí = na

leave-IMP.PL you.PL[OBL] fill[OBL] = DEM.SG

You (pl.) leave this whatcha-ma-callit!
The imperative verb in (132) is a fusion of two verbs, ka- ‘go’ and d-et- ‘bring’ that have been reanalyzed as a single verb. This is evident from phrases spoken by children, like káidetine ‘Let me go-and-bring’. The object of this transitive verb in (132) is dít in the oblique case. As for (133), both the subject biti ‘you (pl.)’ and the object dít ‘filler word’ are in the oblique.

On an imperative verb stem, the imperative suffixes are usually the last morpheme. Only the dummy pronoun enclitic { = ‘de} can follow them:

(134) *Irimitete nc.*

```
Irím-ıt-ıt-é    jíće
spin-CAUS-VEN-IMP.SG    I[OBL]
```

Spin me around.

(135) *Tsaitukotuo kwetik.*

```
Tsá-ıt-uクト-údo    kwɛt-ık³
dry-CAUS-COMP-IMP.PL    hand-PL[OBL]
```

Dry your hands.

(136) *Yanuod.*

```
Ján-őd = ɗe
Tale-IMP.PL = DP
```

Talk to them.

Polite imperatives are made with the soliticive intonational tune which consists of vowel lengthening and a boundary H tone (§3.3.5), for example:

(137) *Maxane birobakee!*

```
máján-ɛ    bi-róɓá-keé
greet-IMP.SG    you.SG-people-DAT
```

Say ‘hi’ to your people, okay?
The neighboring Turkana language reportedly does not allow double imperatives (Dimmendaal 1983:183), but Ik does, as in the following:

(138) *Atse zeƙwete karatsik.*

\[
\begin{array}{lll}
\text{ats-e} & \text{zeƙw-et-e} & \text{káratsi-k} \\
\text{come-IMP.SG} & \text{sit-IMP.SG} & \text{stool-DAT}
\end{array}
\]

Come sit down on the stool.

Negated imperatives—prohibitives—are significantly different in form from the affirmative ones. They involve the highly irregular negating verbs *ma-/na-* and the particle *eʝá* plus the negated verb as a complement in the realis mood with subject-agreement suffixes. Prohibitives are touched on in the next section and more fully treated ahead in §10.13.

### 7.7.7 Negative

Negative polarity in Ik depends on the irrealis-realis distinction for morphological manifestation. In other words, there is no independent marking for polarity, in particular for negative polarity. Negation is expressed in Ik with a combination of highly irregular negating verbs and modal suffixes (irrealis or realis). This section presents only a brief summary; see §10.13 for a more complete discussion of negation.

The following table introduces the Ik negating verbs, the modality of their negated complements, the types of clauses they can negate:

(139) *Ik negating verbs*

<table>
<thead>
<tr>
<th>Negator</th>
<th>Verb type</th>
<th>Complement</th>
<th>Clause type</th>
</tr>
</thead>
<tbody>
<tr>
<td>ŋít-</td>
<td>Non-past realis</td>
<td>Irrealis</td>
<td>Main</td>
</tr>
<tr>
<td>ma- (na-)</td>
<td>a) Past realis</td>
<td>Irrealis</td>
<td>Main</td>
</tr>
<tr>
<td></td>
<td>b) Imperative</td>
<td>Realis</td>
<td>Main</td>
</tr>
<tr>
<td>mo- (SEQ)</td>
<td></td>
<td>Irrealis</td>
<td>Subordinate</td>
</tr>
</tbody>
</table>
The negating verbs in (139) fill the syntactic slot for a clause’s main verb. Then the negated main verb follows in the irrealis mood (or realis mood, in the case of prohibitives) as a kind of complement clause, for example:

(140)  *Nta kod.*
\[
\text{ńt-á kó-d\textsuperscript{i}}
\]
not-REAL go-2SG[IRR]
You don’t go.

(141)  *Maa naa kod.*
\[
\text{má-á=naa kó-d\textsuperscript{i}}
\]
not-REAL=PST1 go-2SG[IRR]
You didn’t go (earlier today).

(142)  *Maa kod.*
\[
\text{má-á kó-d\textsuperscript{a}}
\]
not-REAL go-2SG-REAL
Don’t go.

(138)  *Moo kod.*
\[
\text{mo-o kó-d\textsuperscript{i}}
\]
not-SEQ go-2SG[IRR]
And you don’t go.

### 7.8 Aspectuals

The aspectual suffixes in Ik provide further details as to the non-spatial setting of a clause. In the sense that it is used here, ‘aspect’ covers the temporal composition of a verb but also its temporality relative to another verb, its phase of activity, degree of completion, and frequency (Dixon 2012:30-36). This broader definition of ‘aspect’ contrasts it with mood and modality (§7.7), voice and valency (§7.9), and markers of pure temporality (§7.11). Ik employs the following seven functors of aspectuality: sequential
(§7.8.1), simultaneous (§7.8.2), imperfective (§7.8.3), inchoative (§7.8.4), completive (§7.8.5), present perfect (§7.8.6), and pluractional (§7.8.7).

### 7.8.1 Sequential

The Ik sequential aspect is marked in two concurrent ways: 1) a floating H tone (in all but the 3SG and 3PL paradigm members) and 2) a handful of suppletive suffixes making up an irregular paradigm. The floating H tone is posited because a) some sequential verbs with L-tones surface with mid instead of low pitch in isolation or before a pause and b) words following a sequential verb often get a H tone on their first syllable.

The suffix used to mark all members of the sequential paradigm except 3PL is {-kɔ}. As discussed back in §6.4.1, this morpheme is most likely a grammaticalization of the copulative case, or otherwise, both the sequential and copulative evolved from a precursor such as a focus marker. For comments on the origin of the cross-categorial morpheme {-kɔ}, the reader is referred back to §6.3.8. The 3PL sequential suffix is {-ni} or /-ini/. Also, the 1SG and 1PL.EXC subject-markers in the sequential paradigm are irregular in that they end with /a/ instead of the expected irrealis /i/.

The sequential suffix {-kɔ} is [-ATR] with /-ko/ as an allomorph on [+ATR] stems. Its tone is L but may bear H tone spread from the stem. Before a pause, the suffix has the further allomorphs /-kᵦ/, /-kᵤ/, or /-kʷ/. And then in clause-medial positions, it has the reduced allomorphs /-o/ or /-a/. Heine & König analyzed the sequential (‘narrative’ in their terminology) as composed of an optative -i and the copulative -ko (1996:77). This was presumably to account for the high-frequency sequence -ukᵦ or -ukᵤ. But in this grammar, the form -ukᵦ or -ukᵤ is analyzed as made of the underlying 3SG suffix {-i} followed by the sequential {-kɔ}. 

---

**Note:** The text contains symbols and diacritical marks that are not rendered accurately in the text extraction process. The exact formatting and diacritical marks used in the original text are crucial for understanding the context and nuances of the discussion. The text provided here is a simplified representation to convey the general ideas and structure of the original content. For precise and accurate understanding, the full context and original formatting should be consulted.
The 3pl sequential suffix {-m} is reduced to /-m/ before a pause. In terms of tone, it has a LL melody but may surface as HL after a H tone on the preceding stem or as LH before the dummy pronoun enclitic (=ˊde).

The table in (139) presents the sequential aspect paradigm for the verbs fút-és ‘to blow’ and ber-ės ‘to build’:

(139) **Sequential aspect paradigm**

<table>
<thead>
<tr>
<th></th>
<th>NF</th>
<th>FF</th>
<th>NF</th>
<th>FF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>fút-ia-a</td>
<td>fút-ia-k’”</td>
<td>ber-ia-a</td>
<td>ber-ia-k’”</td>
</tr>
<tr>
<td>2SG</td>
<td>fút-idu-o</td>
<td>fút-idu-k’”</td>
<td>ber-id-o</td>
<td>ber-idu-k’”</td>
</tr>
<tr>
<td>3SG</td>
<td>fút-ú-o</td>
<td>fút-ú-k’</td>
<td>ber-ú-o</td>
<td>ber-o-k’</td>
</tr>
<tr>
<td>1PL.EXC</td>
<td>fút-im-a-a</td>
<td>fút-im-a-k”</td>
<td>ber-im-a</td>
<td>ber-im-a-k’</td>
</tr>
<tr>
<td>1PL.INC</td>
<td>fút-isini-o</td>
<td>fút-isini-k”</td>
<td>ber-isini-o</td>
<td>ber-isini-k”</td>
</tr>
<tr>
<td>2PL</td>
<td>fút-itu-o</td>
<td>fút-itu-k”</td>
<td>ber-it-o</td>
<td>ber-itu-k”</td>
</tr>
<tr>
<td>3PL</td>
<td>fút-íni</td>
<td>fút-in</td>
<td>ber-íni</td>
<td>ber-in</td>
</tr>
</tbody>
</table>

As seen in (139), the final /i/ of the subject-agreement suffixes is partially assimilated to /u/ before the sequential suffix. The degree of assimilation is gradient in phonetic realization: a form like berdůɔ’ ‘and you build’ can just as often surface as berdɔɔ’ with total assimilation of the subject-agreement suffix’s final vowel. In [+ATR] stems, the assimilation gradient varies between /i/ and /u/, as in subáñjido ~ subáñjudo ‘and you (sg.) got ready’.

Up to now, the sequential has been called the ‘narrative’ (Serzisko 1992, Heine & König 1993, König 2002, König 2008). It seemed an appropriate label since the verb forms in (139) are by far the predominant ones observed in narrative texts. However, given that they are also predominant in procedural, exhortative, explanatory, and just about any other type of discourse, the term ‘narrative’ is just not suitable. That the sequential is found in narratives is just coincidental to the fact that it is used express simple verbal sequences. The sequential aspect simply indicates that a state or event follows in sequence after one or more previous states or events.
Sequential verbs are found in both main and subordinate clauses. Main clauses with the sequential are always subordinate or ‘co-subordinate’ (medial or chained) to a previous controlling clause (see §10.2). Subordinate clauses with the sequential only come before the main clause and are used for hypothetical or conditional predications. The sequential aspect in main clauses is by far the most frequently occurring verb type in the whole language. It is used in narratives, instructions, explanations, descriptions, and everyday conversations. The following two sentences illustrate its narrative (140) and gnomic (141) uses:

(140) *Atsini koketini fiyekesia bi.*

\begin{verbatim}
ats-ini       kɔkɛ́tɛ́nɪ       fiyɛ́kɛ́sɪ́á     bi-∅
\end{verbatim}

And they come and shut off your livelihood.

(141) *Ƙidzesoo bia kwaeo, ceikotuk.*

\begin{verbatim}
ƙɪ́dɛ́zɛ́sɔ̆ɔ̆         bi-a           kwaɛ̆ŏ       cɛ́ɪkɔ́tʊ̆u-k’
\end{verbatim}

And it tries to bite you with (its) tooth, and it kills (you).

And then the next two sentences illustrate the hypothetical (142) and the conditional (143) usages of the sequential in subordinate clauses:

(142) *Na kanaa ɲarema birayoo, maraŋa ƙanak.*

\begin{verbatim}
na=ƙánaa  ɲárɛ́m6a         bɪra6ɪ6ɔɔ́         maráŋ6á    ƙanakᵃ
\end{verbatim}

If insecurity were not there, it would be good.

(143) *Na eniduo ntsaa, kute ntsie ‘Ats’.*

\begin{verbatim}
na=ɛ́n-idu-o      nts-ɑ́ɑ       kʊtɛ́        ntsí-ɛ́    ats-‘
\end{verbatim}

If you see her, tell her ‘Come’.
The sequential aspect is also used for a series of polite commands, instructions, or requests. Often the controlling verb (on which the clause chain is built) is a simple imperative, but it may also be another sequential verb. In the latter case, a controlling verb is implied:

(144)  *Kae kaneiduo cemera egiduo ikak.*

\[
\begin{array}{l}
\text{ka-e} \quad \text{kan-\text{-idu-o}} \quad \text{cem-\text{-a}} \quad \text{eg\text{-idu-o}} \quad \text{ik-\text{\text{-a}}} \\
\text{go-IMP} \quad \text{take-\text{-VEN}}-\text{2SG-SEQ} \quad \text{herb-NOM} \quad \text{put-2SG-SEQ} \quad \text{head-DAT}
\end{array}
\]

Go get medicine and put it on (your) head.

(145)  *Maxanidoo robee awoo?*

\[
\begin{array}{l}
\text{máxán-\text{-id-o}} \quad \text{ro\text{-be-e}} \quad \text{awó-óó} \\
\text{greet-2SG-SEQ} \quad \text{people-DAT} \quad \text{home-ABL}
\end{array}
\]

Please great people at home, okay?

In addition to the polite imperative usage, the sequential is also used in a deontic or ‘should/must’ sense. The controlling verb, *ntamán- ‘behoove’* may or may not be present:

(146)  *(Itamaana) atsiduo taa barats.*

\[
\begin{array}{l}
\text{(ntamáán-á)} \quad \text{ats\text{-idu-o}} \quad \text{táa} \quad \text{barat-\text{-o}} \\
\text{behoove-REAL} \quad \text{come-2SG-SEQ} \quad \text{next} \quad \text{morning-INS}
\end{array}
\]

You should come tomorrow (lit: ‘It behooves, (and) you come…’).

Though not reflected in (139), the sequential paradigm also has its own passive form: *-es’e* (*-ese’* on [+ATR] stems). The sequential passive (SPS) is impersonal like the non-sequential impersonal passive (§7.9.3); neither type involve demoting a known agent or promoting the object to subject. Any inferred agent is vague or impersonal, and they are both normally translated into English with an agent like ‘people’ or ‘one’ or are left in the passive. The sequential impersonal passive is discussed more under §7.9.4, but the next two sentences provide an intial picture of how it works:
(147) *Epukwes, na baratso keese daŋaako.*

People sleep and in the morning go for white ants.

(148) *Itamaana ogweese ti.*

It must be left like that.

A variety of ‘narrative’ or ‘subsecutive’ verb forms are found scattered throughout the East African region, for example: Lango and Nuer (Western Nilotic); Toposa, Turkana, Maasai (Eastern Nilotic), and So (Kuliak). As a result of the long-term contact between Ik and Teso-Turkana languages, one wonders whether the Ik sequential aspect is a grammatical replication of the Teso-Turkana ‘subsecutive’ mood. The two have similar functions, but the morphological resources used for them are quite different. In pursuit of this question, the following comparison may provide some clues. Data on Teso-Turkana are taken from Dimmendaal’s description of Turkana (1983):

(149) **Comparison of Ik ‘sequential’ with Teso-Turkana ‘subsecutive’**

<table>
<thead>
<tr>
<th></th>
<th>Ik</th>
<th>Turkana</th>
</tr>
</thead>
<tbody>
<tr>
<td>After a temporal controlling verb?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Has special agreement markers?</td>
<td>Partly</td>
<td>No</td>
</tr>
<tr>
<td>After an auxiliary verb?</td>
<td>Optional</td>
<td>Obligatory</td>
</tr>
<tr>
<td>Can cooccur with tense marking?</td>
<td>Optional</td>
<td>No</td>
</tr>
<tr>
<td>As hortative &amp; jussive?</td>
<td>Optional</td>
<td>Obligatory</td>
</tr>
<tr>
<td>In double imperatives?</td>
<td>Optional</td>
<td>Obligatory</td>
</tr>
<tr>
<td>In simultaneous clauses</td>
<td>Optional</td>
<td>Obligatory</td>
</tr>
<tr>
<td>After a quotative complementizer?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Has different aspect marking?</td>
<td>No</td>
<td>Partly</td>
</tr>
<tr>
<td>Indentical to imperative?</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
7.8.2 Simultaneous

The suffix {6kɛ} marks the ‘simultaneous’ aspect in Ik. As discussed back in §6.4.1, the accepted analysis is that this suffix is a grammaticalization of the homophonous dative case suffix. Or otherwise, both suffixes arose from a common proto-morpheme. The reader is referred to §6.4.1 for more details.

The simultaneous suffix attaches directly to the underlying forms of the subject-agreement markers. This combination resulted in the high-frequency sequence /6ɪkᵋ/ or /6ikᵉ/ that has often been interpreted as an optative -i together with the dative case suffix {6kɛ} (e.g. Heine & König 1996:77). In this grammar, however, the ambiguous sequence /6kᵋ/ or /6kᵉ/ is treated as a combination of the 3sg morpheme {3} and the simultaneous {6kɛ}.

The suffix {6kɛ} is recessively [-ATR] with /6ke/ as an allomorph on [+ATR] stems. Before a pause, the suffix is reduced to /6kᵋ/ or /6kᵉ/, and in clause-medial contexts, it surfaces as /6e/ or /6e/. Its tone is L, but it may receive H tone from the stem to which it attaches or from the clitic {ˊdɛ}.

The following table presents the simultaneous paradigm for the verbs fút-éés ‘to blow’ and bɛréɛ́s ‘to build’. Note that the pre-pause allomorph of the suffix is retained for the non-final 1sg form. This is apparently to prevent a three-vowel sequence spanning two morphemes:

<table>
<thead>
<tr>
<th></th>
<th>NF</th>
<th>FF</th>
<th>NF</th>
<th>FF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>fút-íi-ke</td>
<td>fút-íi-ki</td>
<td>ber-íi-ke</td>
<td>ber-íi-ki</td>
</tr>
<tr>
<td>2SG</td>
<td>fút-ídø-e</td>
<td>fút-ídø-ki</td>
<td>ber-ídø-e</td>
<td>ber-ídø-ki</td>
</tr>
<tr>
<td>3SG</td>
<td>fút-í-e</td>
<td>fút-í-ki</td>
<td>ber-í-e</td>
<td>ber-í-ki</td>
</tr>
<tr>
<td>1PL.EXC</td>
<td>fút-ími-e</td>
<td>fút-ími-ki</td>
<td>ber-ími-e</td>
<td>ber-ími-ki</td>
</tr>
<tr>
<td>1PL.INC</td>
<td>fút-ísini-e</td>
<td>fút-ísini-ki</td>
<td>ber-ísini-e</td>
<td>ber-ísini-ki</td>
</tr>
<tr>
<td>2PL</td>
<td>fút-ðti-e</td>
<td>fút-ðti-ki</td>
<td>ber-ðtí-e</td>
<td>ber-ðtí-ki</td>
</tr>
<tr>
<td>3PL</td>
<td>fút-áti-e</td>
<td>fút-áti-ki</td>
<td>ber-átí-e</td>
<td>ber-átí-ki</td>
</tr>
</tbody>
</table>
The verbal suffix {-kɛ} has been called the ‘subjunctive’ up to now (e.g. Heine & König 1996, König 2002). But the term ‘simultaneous’ is preferred because a) it pairs with ‘sequential’ which, by one typology, is the other aspect found in clause chains (Kroger 2004:243), and b) it more clearly communicates what the suffixes actually does: indicate that a state or event temporally coincides with or accompanies another state or event.

Clauses with simultaneous verbs are always subordinate and may come before or after the main clause. If one comes before the main clause, it is often introduced by the conjunction na (past) or náa (hypothetical or future). Example (151) shows the simultaneous suffix on the verb iryámétanì́ɛ́ ‘when gotten’ in a subordinate clause before the main clause. The subordinate clause is introduced by náa, while the preposed subordinate clause in (152) illustrates the simultaneous in use without a subordinating conjunction. Lastly, in (153) the subordinate clause with the simultaneous verb wati-k‘ raining’ comes after the main clause it modifies:

(151) Naa iryametanie gwasak, ɲweese ɲabalanjìt.
    náa    iryám-ét-aniɛ́   gwasá-kɛ   ɲʊ-ɛscɛ   ɲabálɛŋjìt-a
    CONJ   get-VEN-IPS-SIML   stone-DAT   grind-SPS   soda.ash-NOM
    When a stone is gotten, soda ash is ground.

(152) Koŋesia ɲabukotie kutini ‘Ƙae’.
    koŋ-ɛsì-a       ɲáb-ukɔtì-e            kʊt-ɪnɪ   ƙa-aɛ́
    cook-INF-ACC   end-COMP-3SG-SIML   say-SEQ   go-IMP-SG
    When cooking was done, they said ‘Goǃ’.

(153) Mita noo kijà odow, didià wátik.
    mit-a = noo    kij-á   ódoⁿ   didi-a   wati-kɛ
    be-REAL = PST3   land-NOM   day[OBL]   weather-ACC   rain-3SG-SIML
    It was daytime, (and) raining.
Although the simultaneous aspect is in principle found only in subordinate clauses, simultaneous clauses can also be used as pragmatically independent in everyday conversation. This usage is grammatical only if the matrix clause for the stand-alone subordinate clause is implied by the discourse context. And this is true whether the matrix clause was actually spoken or is just part of the cognitive environment shared by the speech-act participants. This use of the simultaneous is often heard in friendly bantering in response to comments or questions, for example:

(154) *Biraa cemerik.*  
\[ bira-a \ cɛmɛ́r6ɪ́k6ᵃ \ → \ i6áti6e \]
\[ lack\text{-REAL} \ herb\text{-PL-NOM} \ → \ be\text{-3PL-SIML} \]

*There aren't any drugs.*  
*They’re there!*

(155) *Maa kотi?*  
\[ má6á \ ƙó6ti \ → \ sár6ími6e \]
\[ not\text{-REAL} \ go\text{-2PL[IRR]} \ → \ still\text{-1PL.EXC-SIML} \]

*Haven't you gone (yet?)*  
*We still haven't!*

In both (154) and (155), the two independent clauses on the lefthand side can be seen as the matrix clauses for the two simultaneous clauses on the right, even though the speakers are different.

Lastly, when paired with the interrogative pronoun *n’déé* ‘from where’, the simultaneous aspect can be used elliptically to form a negative statement:

(156) *Otsiike ndee?*  
\[ ots-fí-ke \ n’déé \]
\[ climb\text{-1SG-SIML} \ from\text{-where} \]

*I’m not climbing (lit. ‘I climbing from where?).*
7.8.3 Imperfective

The same form—{₆ɛ́s₆}—encodes both intentional modality and an imperfective aspect. Phonological and morphophonological details of this suffix are discussed back in §7.7.3. Although they are related semantically and probably historically, the two uses are viewed here as too far apart to be treated as two functions of the same suffix. The Ik imperfective marked by {₆ɛ́s₆} is contrasted with the perfect aspect which is the default and unmarked aspect. In other words, without {₆ɛ́s₆} the meaning of many verbs does not have the internal temporal composition of the activity or state in view (though some verbs are lexically imperfective, such as tsuwa- ‘run’). This does not mean that the activity or state has no temporal duration, only that any temporal duration is not grammatically encoded. By contrast, the imperfective aspect highlights the ongoing and unfinished nature of the predicated situation. On this score, compare the following examples:

(157) Kayuo awak.
    ka-i-o awá-kᵉ
    go-3SG-SEQ home-DAT
    And he goes/went home.

(158) Keesuo awak.
    ke-es-u-o awá-kᵉ
    go-IPFV-3SG-SEQ home-DAT
    And he was/kept going home.

(157)-(158) illustrate the straightforward use of the imperfective, adding a nuance of duration to the sense of a verb. But the imperfective can also function in a way similar to the simultaneous, by modifying a sequential clause with a sense of temporal duration. The sequential aspect is inherently tenseless and perfective in aspect, so the imperfective prolongs a temporal situation long enough for it to be simultaneous or accompanying. Consider, for example, the imperfective verbs in the following sentences:
Atsiata noo dzigwaa lotobaɛ,
come-PLUR-3PL-REAL = PST3 buying-ACC tobacco-GEN
They used to come to buy tobacco,

iyesini tumede.
be-IPFV-SEQ there-DAT
(and) they were (continuously) there.

Mitesoo Loyoro.
be-IPFV-3SG-SEQ Loyoro[OBL]
It was Loyoro (i.e. as a continual state of affairs).

ntsú-ɔ = noo mit-i-a kijá njíní-ɔ
it-COP = PST3 be-PLUR-REAL land[OBL] we.INC-GEN
It is what used to be our homeland.

Saresuo Pakoika
stil-IPFV-3SG-SEQ cave-AJT.PL-NOM
And the Turkana were still (being good),

démusu gaanáakotat nda roɓ.
démusu gaan-áá-fot-ái ñda roɓá
until bad-DISTR-COMP-3PL[SUBJ] with people[OBL]
until they became bad (i.e. hostile) with people.

Cemesoo didia wat.
cem-éy-5-ɔ didi-a wat-3
fight-IPFV-3SG-SEQ weather-NOM raining-INS
And it was (continuously) raining.
Note that in (159) and (160) the pluractional aspect is used alongside the imperfectivized sequentials, giving the complex sentences further nuances of protracted activities or states. In (161), though the pluractional aspect is absent, the verb *sár* 'still' is present instead; this auxiliary verb is inherently lexically imperfective in aspect (see §9.2.1 for more details). And then in (162), the imperfective adds a degree of temporal composition to the inherently imperfective ‘occupative’ auxiliary verb *cem* (§9.2.3).

Some actions are seen as so inherently imperfective that the verbs expressing them can only occur with the imperfective suffix {-és-}. Among these are *ɓɛƙéɛ́s* ‘walk’, *dzúéɛ́s* ‘steal’, and *ɡónéɛ́s* ‘be awake’. Yet other verbs are only typically (but not obligatorily) found in the imperfective. These include verbs like *itiŋéɛ́s* ‘cook (in general)’ and *kɔ́ŋéɛ́s* ‘cook by stirring’.

**7.8.5 Inchoative**

The same morpheme—{-ét-}—encodes both the venitive directionality and inchoative aspect. The etymological and allomorphic details of this suffix are covered above in §7.4.2 and so are not repeated here.

The directionals described in §7.4.1 and §7.4.2 have been grammaticalized into use as aspectuals (assuming the grammaticalization did not happen in the other direction). For the venitive, the notion of directionality toward an egocentric point of reference was extended over time to mean the starting up of an action or state. A similar aspectual sense is called the ‘prospective’ in Turkana (Dimmendaal 1983:112). In that language, both venitive and andative (or itive) are used in a ‘dynamic inchoative sense’; the choice of venitive or andative for aspectual meaning depends on root structure (Dimmendaal 1983:168). In Ik, root structure has nothing to do with it. Instead, the venitive-as-inchoative denotes the beginning of a state or action, while the andative-as-completive denotes the end of it. The following two sentences introduce the inchoative {-ét-}’s basic function:
(163) *Buɗama kij.*

\[
\text{buɗám-á kíj}-^a
\]

dark-REAL land-NOM

The land is dark (i.e. ‘It’s dark outside’).

(164) *Buɗametaa kij.*

\[
\text{buɗam-et-á-á kíj}-^a
\]

dark-INCH-REAL-PRF land-NOM

The land has started getting dark (i.e. ‘It’s now getting dark’).

Some uses of the suffix \{-ɛ́t\} are clearly directional (venitive), as in *me-ɛ́t-ɛ́s* ‘to give (this way)’ and *ilɛ́-ɛ́t-ɔ́n* ‘to travel (this way)’. And others are clearly aspectual (inchoative), as in *bɔ́r-ɛ́t-ɔ́n* ‘to get tired’ and *kɔ́-ɛ́t-ɛ́s* ‘to await’. But for many other verbs with this suffix, it is not entirely clear whether they carry a mainly directional or aspectual meaning. Consider the following verbs in their nominalized infinitive forms:

(165) **Ambiguous instances of \{-ɛ́t\}**

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>an-ɛ́t-ɛ́s</td>
<td>‘to remember’</td>
</tr>
<tr>
<td>fiyen-ɛ́t-ɔ́n</td>
<td>‘to vomit’</td>
</tr>
<tr>
<td>ɪɗɛ́-ɛ́t-ɛ́s</td>
<td>‘to make’</td>
</tr>
<tr>
<td>ɪwɪ́r-ɛ́t-ɔ́n</td>
<td>‘to shine’</td>
</tr>
<tr>
<td>ɲaf-ɛ́t-ɔ́n</td>
<td>‘to be startled’</td>
</tr>
<tr>
<td>ɲʊr-ɛ́t-ɛ́s</td>
<td>‘to judge’</td>
</tr>
<tr>
<td>fɔ́b-ɛ́t-ɛ́s</td>
<td>‘to choose’</td>
</tr>
<tr>
<td>tsam-ɛ́t-ɔ́n</td>
<td>‘to agree’</td>
</tr>
<tr>
<td>zɛ́kw-ɛ́t-ɔ́n</td>
<td>‘to sit down’</td>
</tr>
<tr>
<td>zik-ɛ́t-ɛ́s</td>
<td>‘to tie up’</td>
</tr>
</tbody>
</table>

For some such examples, a directional meaning can be imagined, like for *fiyen-ɛ́t-ɔ́n* ‘to vomit’ and *fɔ́b-ɛ́t-ɛ́s* ‘to choose’, though it is not obvious how they can be construed as ‘motion toward speaker’. Perhaps the usage here is aspectual, ‘to vomit’ being viewed as ‘to enter a process of vomiting’ and ‘to
choose’ as ‘to enter a state of preference’. So, though there are prototypical cases of directional and aspectual uses of {-έτ-}, the boundary between the two semantic categories seems to be rather fuzzy (at least to a non-Ik).

As both a directional and aspectual suffix, {-έτ-} provides one way for the language to enrich its verbal semantics. Often the inchoative suffix is optional and may be added to elaborate the meaning of the verb stem:

\[
\begin{align*}
\text{Inchoative use of {-έτ-}} \\
\text{aē-on} & \quad \text{‘to be lit’} & \rightarrow & \quad \text{aē-έτό-ν} & \quad \text{‘to catch fire’} \\
\text{bēd-ēs} & \quad \text{‘to want’} & \rightarrow & \quad \text{bēd-έτ-ēs} & \quad \text{‘to look for’} \\
\text{bɔr-5n} & \quad \text{‘to be tired’} & \rightarrow & \quad \text{bɔr-έτ-5n} & \quad \text{‘to get tired’} \\
\text{cėm-ōn} & \quad \text{‘to fight’} & \rightarrow & \quad \text{cėm-έτ-ōn} & \quad \text{‘to begin fighting’} \\
\text{hɔd-ēs} & \quad \text{‘to free’} & \rightarrow & \quad \text{hɔd-έτ-ēs} & \quad \text{‘to set free’}
\end{align*}
\]

For a few verbs with the inchoative suffix, a corresponding shorter form without the suffix is not found. Most of these were borrowed for Teso-Turkana where they also have the venitive/inchoative suffix -un, e.g.:

\[
\begin{align*}
\text{Invariably inchoative verbs} \\
\text{iryám-έτ-ōn} & \quad \text{‘to get’} \quad \text{(Teso-Turkana a-ryam-un)} \\
\text{itūm-έτ-ōn} & \quad \text{‘to spend time with’} \quad \text{(Teso-Turkana aki-tum-un)}
\end{align*}
\]

Although not obligatory, the inchoative suffix is often used with transitive or intransitive verbs that have been causativized:

\[
\begin{align*}
\text{Inchoative causative verbs} \\
\text{bit-it-έτ-ēs} & \quad \text{‘to multiply’} \\
\text{dim-it-έτ-ēs} & \quad \text{‘to forbid’} \\
\text{en-it-έτ-ēs} & \quad \text{‘to clarify’} \\
\text{fek-it-έτ-ēs} & \quad \text{‘to amuse’} \\
\text{idik-it-έτ-ēs} & \quad \text{‘to solidify’}
\end{align*}
\]
For causative verbs like these, it cannot be gathered from English translations what semantic nuance the inchoative aspect adds to the verb. So based on other clearer uses, it is assumed that the added nuance is one of the beginning of the action. As such, a verb like *fek-it-ét-és* ‘to amuse’ (lit. ‘to make laugh’) may be more colloquially glossed as ‘to get someone laughing’ or even more colorfully ‘to crack someone up’.

The following sentences illustrate the inchoative in discourse context:

(169) *Na koto tezetie kayuo koto amed.*

na = kótó  tɛ́z6ɛt6ɪ6ɛ               ƙa6i6o=koto   ám6ɛ́d6ᵃ
CONJ = then end-INCH-3SG-SIML go-3SG-SEQ = then person-OSS.SG-NOM
So when it ended, the owner then went.

(170) *Gametuo roɓa dii cikamak.*

gam-ét-u-o             roɓ6a=ꜜdíí           cɪkámá6kᵉ
kindle-INCH-3SG-SEQ people-NOM =ANPH.PL   women-DAT
And those people started up a fire for the women.

Ik words for animal colors and the shapes of animal horns (both important aspects in pastoralist culture, of which the Ik used to be part) have the form of intransitive adjectival verbs. In many instances, these terms contain the suffix {*-ét*}, though neither a venitive nor an inchoative interpretation makes much sense of it. Take the following, for example:

(171) *The suffix {*-ét*} in animal color/horn shape verbs*  

<table>
<thead>
<tr>
<th>Colors</th>
<th>ɓokó-án-et-on</th>
<th>‘to be purple’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>kipůr-án-et-on</td>
<td>‘to be red-brown’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Horn shapes</th>
<th>ilůk-án-et-on</th>
<th>‘to be pointed downward’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>top-ét-ón</td>
<td>‘to slant outward’</td>
</tr>
</tbody>
</table>

Perhaps the inchoative aspect is used with these terms to communicate that the color or horn shape is an incipient (and then ongoing) state.
7.8.6 Completive

The same morpheme—\{-ʊkɔtɪ́\}—encodes both the andative directionality and the completive aspect. The etymological and allomorphic details of this suffix are covered above in §7.4.1 and so are not repeated here.

Just as the inchoative is the aspectual extension of venitive directionality, so the completive is the aspectual extension of andative directionality. As a marker of completive aspect, \{-ʊkɔtɪ́\} signifies that an activity or state is complete. This is a semantic extension of the directional andative that refers to a motion away from a deictic center (usually the speaker). A near-equivalent to completive aspect is the Turkana ‘retrospective’ aspect, also conveyed by the same suffix as the itive/andative (Dimmendaal 1983:112).

The next two examples illustrate the completive aspect marked by \{-ʊkɔtɪ́\}:

(172) *Buɗama ƙwaz.*

\[\text{budám-á ụkɔtɪ́6á ƙwaz-∅}\]

dark-REAL clothing-REAL clothing-NOM

The piece of clothing is dirty.

(173) *Buɗamukotaa ƙwaz.*

\[\text{budam-ʊkɔt-á-á ƙwaz-∅}\]

dark-COMP-REAL-PRF clothing-NOM

The piece of clothing has become dirty.

Compared to the venitive-inchoative pair, it is generally easier to distinguish the directional use of \{-ʊkɔtɪ́\} from the aspectual use. However, this is not always the case, for example with a verb like ŋáɲééséuƙotᵃ ‘to open up’. Does the suffix \{-ʊkɔtɪ́\} give the verb a directional nuance (‘Open up away from me!’) or an aspectual nuance (‘Open up it right up!’)?
Like the inchoative, the completive aspect enriches Ik verbal semantics in ways similar to the English phrasal particles like ‘up’, ‘out’, and ‘off’, as in ‘break up’, ‘break out’, and ‘break off’. And with stative verbs like gaan-ôn ‘to be bad’, the completive aspect has the additional sense of process or becoming, as in gaan-ôn-ukot’x ‘to become bad’ (Heine & König 1996:96):

(174) **Aspectual usage of {-ukot-}**

<table>
<thead>
<tr>
<th>Verb</th>
<th>Completive Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>aë-on</td>
<td>‘to be ripe’ → aë-on-ukot’x</td>
</tr>
<tr>
<td>bad-on</td>
<td>‘to be dead’ → bad-on-ukot’x</td>
</tr>
<tr>
<td>ep-on</td>
<td>‘to sleep’ → ep-on-ukot’x</td>
</tr>
<tr>
<td>kɔk-ɛ́s</td>
<td>‘to shut’ → kɔk-ɛ́s-ʊ́kɔt’x</td>
</tr>
<tr>
<td>ŋɪ́ɪ́ɗ-ɛ́s</td>
<td>‘to rub’ → ŋɪ́ɪ́ɗ-ɛ́s-ʊ́kɔt’x</td>
</tr>
</tbody>
</table>

Also like the inchoative, the completive suffix is often found on causativized transitive and intransitive verbs like the following:

(175) **Compleative causative verbs**

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bůk-ɛ́t-ɛ́s-ukot’x</td>
<td>‘to stick sth. in’</td>
</tr>
<tr>
<td>dɔk-ɛ́t-ɛ́s-ukot’x</td>
<td>‘to make sth. wet’</td>
</tr>
<tr>
<td>ep-ɛ́t-ɛ́s-ukot’x</td>
<td>‘to put down to sleep’</td>
</tr>
<tr>
<td>ts‘its-ɛ́t-ɛ́s-ukot’x</td>
<td>‘to sharpen up’</td>
</tr>
</tbody>
</table>

The following sentences illustrate the completive in discourse context:

(176) **Isamoo kwukota rijaa nci?**

isi-am-o kaw-ukot-a rijá-a nci-∅
What-person-COP cut-COMP-REAL forest-ACC I-GEN
What kind of person cuts down my forest?

(177) **Naa ts’agusukotatik, tudukotin.**

náa ts’agus-ukot-áti-k’ tud-uköt-in
CONJ four-COMP-3PL-SIML five-COMP-SEQ
When they get to be four, then they’ll get to be five.
7.8.7 Present perfect

The suffix {-`ka} marks present perfect aspect in Ik. This morpheme has parallels in both Southern Nilotic (Nilo-Saharan) and South Omotic (Afroasiatic): Kalenjin has a ‘perfectivizer’ prefix ka- (Hall et al. 1974:247), while in Dime, the perfective marker is -`ka (Mulugeta 2008:134). Given its preceding floating H tone and suffixing nature, the Dime morpheme is the most promising link, though the directionality of influence is undetermined.

The tone of the present perfect {-`ka} is L, but it may take a H tone imposed by the preceding stem or the dummy pronoun {=`de}. Its own floating H is posited on the basis of the tone changes it causes on preceding syllables. It is one of the language’s opaque dominant [+ATR] morphemes: It spreads harmony to the right but not to the left due to the presence of /a/. Before a pause, {-`ka} has the allomorph /-`kᵃ/, and in clause-medial positions, /-`a/.

The Ik present perfect has both temporal and aspectual values. But since it is not really a tense in and of itself, it is treated here as primarily an aspect but with a tense component. Specifically, it signifies that an action or state is complete (aspect) with ongoing relevance in the present (tense), e.g.:

(178) Atsaa ɲomotokaǃ
ats-á-á ɲómotoká-∅
come-REAL-PRF vehicle-NOM

A vehicle has come! (a phrase Ik children often call in excitement)

(179) Kɔmaa ja.
ko-m-á-a=ja
go-1PL.EXC-REAL-PRF=ADV

We’re gone then (i.e. ‘We’re leaving now’).
The present perfect aspect interacts with the realis modality and the semantics of motion verbs in interesting ways. For example, when one wants to part company with someone, it is proper to say ƙóíakᵃ ‘I have gone’ rather than keésí ‘I will (intend to) go’ even if you have not yet started leaving. According to how it is expressed in the grammar, once you have decided to go, you have more or less already gone, hence the present perfect. So perhaps a better translation of ƙóíakᵃ would be ‘I’m on my way’ or much more colloquially ‘I’m outta here!’. And to take another example, if you call someone in another location to tell them you are leaving to come, you would say atsiakᵃ ‘I have come’ rather than atsésí ‘I will come’. This implies that coming and going are seen from the point of view of beginning rather than ending as they are in English (where ‘I have come’ means that the coming is complete; you have arrived at your destination.)

7.8.8 Pluractional

The suffix {-i-} marks the pluractional aspect in Ik. A likely areal parallel comes from Northern Turkana, where the ‘habitual’ suffix -een/-aan has the dominantly [+ATR] allomorph -yeen (Dimmendaal 1983:107). The Ik pluractional {-i-} is also dominant, harmonizing the stem as far as possible in both directions. Its tone is H, but it can take a L tone in the tonal environment of stem, especially as a result of high-tone suppression (T6).
The Ik pluractional aspect is an expression of grammatical number in the verbal system. Broadly speaking, it signals that the meaning of a given verb *applies more than once*. This could be because the subject is plural, the object is plural, or simply that the action or state occurs more than once. Such grammatical plurality has various finer nuances that have elsewhere been called ‘distributive’, ‘habitual’, ‘iterative’, ‘frequentative’, etc.—the term ‘pluractional’ is therefore intended to cover all of them.

The Ik pluractional is versatile in that it can take singular or plural subjects and/or objects. This means that it does not conform to the prototypical African pluractional verb described by Dimmendaal as those that “express the involvement of a plural (as against as singular) subject in the case of intransitive verbs and repetition of some action as applied to plural objects (as against a singular object) in the case of transitive verbs...” (2010:10).

The following first examples of the pluractional show how it spreads [+ATR] harmony to the preceding root:

(182) ƙɔɗ6 ‘cry’ → Kodiya ñjίk.

ƙɔɗ-í-á ñjίk1
cry-PLUR-REAL always
She’s always crying.

(183) ɪnɔ́m6 ‘beat’ → Inomiyata ñcik.

ɪnɔ́m-í-át-a ɲcikᵃ
beat-PLUR-3PL-REAL I-ACC
They usually beat me.

Then the following sentences are given to illustrate each of the different nuances of the pluractional {-i-} is capable of expressing:
(184) *Dayaakit.*
    da-i-aak-ít.a
    nice-PLUR-DISTR-2PL-REAL
    You all are lovely.

(185) *Wetiyida lotoba?*
    wet-i-íd-a     lɔ́tɔ́ɓ6a
    drink-PLUR-2SG-REAL tobacco-NOM
    Do you snuff tobacco?

(186) *Deyeetu!*
    de-i-et-ú
    bring-PLUR-VEN-IMP.PL
    Be bringing (repeatedly)ǃ

Some uses of the pluractional suffix are fairly clear-cut semantically, like the ones shown above. However, in many situations, the interpretation of the suffix’s meaning relies on the pragmatic context. Take this example:

(187) *Na kanaa narema birayoo,*
    na=ƙánaa ɲárɛ́m6a         bɪra6ɪ́6ɔɔ́
    CONJ =COND insecurity-NOM lack-3SG-SEQ

    ƙaisina ƙanak.
    ka-i-ísin6a                ƙanakᵃ
    go-PLUR-1PL,INC-REAL COND

The sentence in (187) could be given any of the following three interpretations depending on the context in which it was spoken:

a) If insecurity were not there, each one of us would go.

b) If insecurity were not there, we would go more than once.

c) If insecurity were not there, we would go often.
7.9 Voice and valency-changers

Ik has a three-way grammatical voice contrast: {active/middle/passive}. The unmarked active voice covers transitive clauses with A and O, as well as intransitive clauses with S. The middle voice covers intransitive clauses that are derived from transitive clauses but fall semantically somewhere between a reflexive and a passive. The passive voice covers all other intransitive clauses with S derived from transitive clauses. Unlike So and Turkana, Ik has no applicative. This function is handled by the dative case in Ik (König 2008:86). The Ik voice contrast differs from Turkana for which is claimed an {active/middle/impersonal-active} contrast (Dimmendaal 1983:97).

In the Ik passive voice, the original O of the transitive clause is promoted to S, and the A is absent (all Ik passives are syntactically agent-less). Ik has three types of passive: the ‘true’ passive (§7.9.2), the impersonal passive (§7.9.3), and the sequential impersonal passive (§7.9.4). All three types of passive are also occur with intransitive verbs, and the PASS suffix is even found marking the A of a transitive clause. In this latter non-canonical usage, the passive simply emphasizes a characteristic of the subject.

The only valency-increasing suffix in Ik is the causative (§7.9.1). It increases valency by introducing the causer as the agent, demoting the original A to O and the original O to E (or O₂). Applied to an extended transitive clause, the causative creates two peripheral arguments (in the dative case). Valency-decreasing operations include the passives (§7.9.2-§7.9.4), the middle (§7.9.4), and the reciprocal (§7.9.6). All three convert transitive or extended transitive clauses to intransitive ones by either eliminating A (passive and middle) or combining A with O (reciprocal).

The six voice-marking or valency-changing suffixes are presented in (188):
7.9.1 **Causative**

The suffix {-it-} is Ik's morphological marker of causality. It is apparently related to the Teso-Turkana causative -itV, which can be traced back to the proto-Teso-Turkana verb root *ito ‘send’ (Dimmendaal 1983:196). The Ik causative is a recessive suffix with the allomorph /-it/ on [+ATR] stems. Its tone is L, but H tone may spread to it if imposed by the preceding stem (T7). After high back vowels, the vowel in {-it-} may be assimilated for backness, as in itūr-ūt-ēs ‘to praise (cause to be proud)’.

The syntax and grammatical relations of causative clauses are described ahead in §9.2 and so are not dealt with here in detail. But in short, the causative is a valency-increasing morpheme, introducing an agent to intransitive clauses or a second agent into transitive clauses. As such, it can be added to intransitive, transitive, or ditransitive base verbs like those in (189). These data also show that the causative is often further extended by the aspectual completive {-ukɔt-} and inchoative {-ēt-} suffixes:

(188) **Ik voice-marking or valency-changing suffixes**

<table>
<thead>
<tr>
<th>Suffix</th>
<th>Type</th>
<th>Meaning</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>{-it-}</td>
<td>CAUS</td>
<td>Causative</td>
<td>§7.9.1</td>
</tr>
<tr>
<td>{-ɔs-}</td>
<td>PASS</td>
<td>Passive</td>
<td>§7.9.2</td>
</tr>
<tr>
<td>{-an-}</td>
<td>IPS</td>
<td>Impersonal passive</td>
<td>§7.9.3</td>
</tr>
<tr>
<td>{-ɛs}</td>
<td>SPS</td>
<td>Sequential impersonal passive</td>
<td>§7.9.4</td>
</tr>
<tr>
<td>{-Vm-}</td>
<td>MID</td>
<td>Middle</td>
<td>§7.9.5</td>
</tr>
<tr>
<td>{-fnɔs-}</td>
<td>RECIP</td>
<td>Reciprocal</td>
<td>§7.9.6</td>
</tr>
</tbody>
</table>

(189) **Derived causative verbs**

<table>
<thead>
<tr>
<th>Base Verb</th>
<th>Meaning</th>
<th>Derived Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ci-ɔn</td>
<td>‘to be satiated’</td>
<td>ci-it-ēs-ukɔt’</td>
<td>‘to satiate’</td>
</tr>
<tr>
<td>do-ɔn</td>
<td>‘to be nice’</td>
<td>da-it-es’</td>
<td>‘to make nice’</td>
</tr>
<tr>
<td>ep-ɔn</td>
<td>‘to sleep’</td>
<td>ep-it-ēs-ukɔt’</td>
<td>‘to lay down’</td>
</tr>
<tr>
<td>fek-ɔn</td>
<td>‘to laugh’</td>
<td>fek-it-et-es’</td>
<td>‘to make laugh’</td>
</tr>
<tr>
<td>tsə-ɔn</td>
<td>‘to be dry’</td>
<td>tsə-īt-ēs</td>
<td>‘to dry’</td>
</tr>
</tbody>
</table>
Besides the morphological causative {-ɪt-}, Ik also has periphrastic causatives. These involve specific lexical verbs and constructions whose semantic range is much narrower than the causative suffix. One of the periphrastic causatives consists of the verb ɪtɪ́ŋ ‘force’ in a clause where the causer is the transitive subject (A) and the causee the object (O). Since this lexical causative means ‘force s.b. to do sth.’, the verbal complement follows the object in the form of a nominalized verb in the dative case, as in:

(190) *Itɪ́ŋida nka ƙoonik.*

\[
\begin{array}{lll}
\text{force} & \text{SG} & \text{REAL} \\
\text{go} & \text{INF} & \text{DAT} \\
\end{array}
\]

You force me to go.

Semantically, the periphrastic causative in (190) communicates directness and intention on the part of the causer, and lack of control or volition on the part of the causee. The causer must also be animate (Dixon 2013:269).

The second type of periphrastic causative consists of the verb bɛ́ɗ ‘want’ plus a complemental subordinate clause. The causer is the transitive subject (A) in this construction. The causee is both the object of the matrix clause and the subject of the subordinate clause whose verb is a simultaneous one:
(191) *Bedan ncia koiiik.*
\[ béd-á  jći-a  ko-íí-k’ \]
\[ want-REAL  I-ACC  go-1SG-SIML \]
He wants me to go.

The semantics of this periphrastic causative are quite different than the one in (190). In this one, an animate causer is intending or hoping for an outcome, but the causee has considerably more control over it. He or she can decide whether or not to comply with the wishes of the causer.

Finally, the Ik lexicon contains a few verbs that are known lexicalizations of morphological causatives in Teso-Turkana. As lexicalizations, though, they are used in Ik as normal verbs, not as causatives *per se*. The table in (192) presents the known representations and any non-Teso-Turkana equivalents:

| (isí)kwáán- | ‘compare’ | fám-ít- | ‘make to be like’ |
| (isí)sá- | ‘practice’ |  |
| (isí)tíya- | ‘use’ | erég- | ‘use, employ’ |
| (ítá)máán- | ‘behoove’ |  |
| (ítá)tám- | ‘teach’ |  |

7.9.2 Passive

It has been claimed that Ik has no productive passive, that even the suffix {-ší} (called ‘passive’ in this grammar) is just an ‘intransitivizer’ since no agent can be expressed (Serzisko 1989:400). If by definition an agentless passive is no passive at all, then the above claim is true for Ik. But in other typologies, one can speak of canonical and non-canonical passives. For example, in Dixon’s typology (2012:206), cross-linguistically canonical passive constructions have all the properties presented in (193). Note how the three Ik passives check out in reference to these properties:
(193) **Ik passives compared to the cross-linguistically canonical passive**

<table>
<thead>
<tr>
<th></th>
<th>Canonical passive</th>
<th>Ik passive(s)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>It applies to an underlying transitive clause and forms a derived intransitive.</td>
<td>All three</td>
</tr>
<tr>
<td>2</td>
<td>The underlying O becomes the S of the passive.</td>
<td>Only one fully; the other two in main clauses only</td>
</tr>
<tr>
<td>3</td>
<td>The underlying A goes into a peripheral function, being marked by a non-core case...; this argument can be omitted, although there is always the option of including it.</td>
<td>None; the Agent cannot be included.</td>
</tr>
<tr>
<td>4</td>
<td>There is some explicit (that is, non-zero) formal marking of a passive construction...</td>
<td>All three</td>
</tr>
</tbody>
</table>

So, when examined in light of (193), the Ik passives check out as canonical in some regards and non-canonical in others. On point 2 from (193), only the passive {-ɔ́sɪ́6} derives an S from an underlying O. The other ‘impersonal passives’ derive an S-like argument in main clauses (marked in the NOM case), but in subordinate clauses this argument is still encoded as the O. On point 3, despite prior claims (e.g. Heine & König 1996:33), all of the Ik passives are strictly agentless—there is no option of including an agent syntactically, although an agent may be implied. These properties of Ik passives are demonstrated in each relevant section below.

The suffix {-ɔ́sɪ́6} is analyzed in this grammar as a morphological passive. A potential etymological parallel for it is the Surmic language Didinga’s passive suffix -ooðk (De Jong 2004:150). It also does not seem coincidental that {-ɔ́sɪ́6} closely resembles {-ɛ́sɪ́6}, the Ik transitive nominalizer. Indeed, {-ɔ́sɪ́6} is the only Ik passive morpheme that can also nominalize a verb.
The passive {-ősí-} is recessively [-ATR] but has /-ósí-/ as an allomorph on [+ATR] stems. It has a H(H) tone melody but may undergo tonal changes depending on the tonal environment. For example, after a depressor consonant, its tone is L(L), as in táb-oṣi- ‘to be touched. The passive suffix is the last derivational morpheme on a stem but may be followed by one or more inflectional suffixes, as in iw-ọ́t-ósí- ū. ‘They are locked’.

In its usual function as a detransitivizer, the passive (PASS) passivizes a transitive verb by deriving a stative intransitive verb from it. Examples of this include those in (194). The parentheses are meant to account for the fact that the passive can also nominalize a stem into of passive infinitive:

(194) **Derived passive verbs**

<table>
<thead>
<tr>
<th>Active</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>bǔd-esi- ‘to hide’</td>
<td>bǔd-osí- ‘(to be) hidden’</td>
</tr>
<tr>
<td>dọts-ẹsí- ‘to join’</td>
<td>dọts-ósí- ‘(to be) joined’</td>
</tr>
<tr>
<td>tلام-ẹsí- ‘to curse’</td>
<td>tلام-osí- ‘(to be) cursed’</td>
</tr>
<tr>
<td>ɲáŋ-ẹsí- ‘to open’</td>
<td>ɲáŋ-osí- ‘(to be) opened’</td>
</tr>
<tr>
<td>tsáŋ-ẹsí- ‘to anoint’</td>
<td>tsáŋ-osí- ‘(to be) annointed’</td>
</tr>
</tbody>
</table>

The passive suffix is found with both unaccusative verbs like kɔk- ‘close’ and highly transitive verbs like ɲk- ‘eat’:

(195) **Kokosa asak.**

kɔk-ős-ά asak-ą

close-PASS-REAL door-NOM

The door is closed.

(196) **Nkosa toboŋ.**

ɲk-ős-ά toboŋ-ə

eat-PASS-REAL posho-NOM

The posho is eaten.
The grammatical relations involved with the Ik passive differ from those in Teso-Turkana. For example, in Toposa, bordering Ik to the north, the normal nominative-accusative marking system changes to ergative-absolutive in the passive: The subject of an intransitive passive sentence is encoded with the accusative case rather than the nominative (Schröder 2008:59). While a similar situation obtains for the Ik impersonal passives, for the passive marked by {-ɔ́sɪ́-}, the sole verbal argument is treated syntactically as S, not O. This is shown by the syntax of subordinate clauses, as explained next.

In most types of Ik subordinate clauses, any overt subject comes before the verb in the ACC case, and any overt direct object follows the verb, also in the ACC case. (197) shows the passive clause in (195) as a complement to the verbless copulative clause *isio* 'It is what... (i.e. ‘why?’)’. In the subordinate complement clause, the word *asak* ‘door’ is put before the verb, indicating that it is viewed as the syntactic subject (S) of (197). If *asak* is put after the verb, as if it were an object, the result is ungrammatical (198). The same process is seen taking place between (196) and (199)-(200) as in:

(197)  
*isio*  
\[
\begin{align*}
\text{isi-o} & \quad \text{ásaka-a} & \quad \text{kɔk-ʃs-á=d} \quad \text{DP} \\
\text{what-COP} & \quad \text{door-ACC} & \quad \text{close-PASS-REAL} \\
\end{align*}
\]

**Why is the door closed?**

(198)  
**isio kokosee asakak?**  
\[
\begin{align*}
\text{isi-o} & \quad \text{kɔk-ʃs-ɛ=e} & \quad \text{asaka-k} \quad \text{DP} \\
\text{what-COP} & \quad \text{close-PASS-REAL} & \quad \text{door-ACC} \\
\end{align*}
\]

**Why is the door closed?**

(199)  
*isio toboŋoa nkosad?*  
\[
\begin{align*}
\text{isi-o} & \quad \text{tɔbɔŋɔ́-á} & \quad \text{ŋk-ʃs-á=d} \quad \text{DP} \\
\text{what-COP} & \quad \text{posho-ACC} & \quad \text{eat-PASS-REAL} \\
\end{align*}
\]

**Why is the posho eaten?**
Unexpectedly, the suffix {-isî-} is also found on transitive verbs still acting in transitive clauses. That is, the passive does not have a solely detransitivizing function. In its non-detransitivizing function, the Ik passive adds the stative nuance 'habitually characterized by X' to the meaning of verb X. In the next few sentences, the passive suffix is used even though the clauses remain transitive with an A and O (though O may be dropped):

(201)  
_Tubiída nka jiik._
túb-i-d,α-a  ṅk-a₀  jïk⁰
follow-PLUR-2SG-REAL  I-NOM always
You always follow me.

(202)  
_Tubosiída nka jiik._
túb-os-i-d,α-a  ṅk-a₀  jïk⁰
follow-PASS-PLUR-2SG-REAL  I-NOM always
You always make a point of following me.

(203)  
_Bédetía naa bia baratso nak._
béd-é-t=naa  bi-a  barats-₀ = nák⁰
want-VEN-1SG-REAL = PST₁  you.SG-NOM morning-INS = DEM.SG.PST₁
I looked for you this morning.

(204)  
_Bédetosía bia napei nak._
béd-é-tís-i-a  bi-a  napei = nák⁰
want-VEN-PASS-1SG-REAL  you.SG-NOM since = PST₁
I’ve been all about looking for you since earlier.
The sentences in (201) and (203) are normal, simple transitive clauses with A and O. These then are modified by the passive suffix {-sí-} in (202) and (204) without causing a decrease in clausal valence. In this sense, {-sí-} can apparently be used in a non-passivizing way to draw attention to how a transitive situation characterizes the subject as well as affecting the object.

The story does not end there: The suffix {-sí-} is also found on intransitive verbs like the ones in (205). When occurring with intransitive verbs, the {-sí-} is obviously not behaving as a canonical passive, since there is no change in transitivity. Instead, it basically turns a merely intransitive verb into a stative one. In this function, the verb root is usually reduplicated to express the stative notions of habitual or repetitive characteristicness:

(205) **Stative passives derived from intransitives**

<table>
<thead>
<tr>
<th>Intransitive</th>
<th>Stative</th>
</tr>
</thead>
<tbody>
<tr>
<td>bɛƙ-ɛ́s ‘to walk’ → bɛƙ-ɛs-ɔs’ ‘(to be) walkative’</td>
<td></td>
</tr>
<tr>
<td>bot-ɔn ‘to migrate’ → botibot-ɔs’ ‘(to be) migratory’</td>
<td></td>
</tr>
<tr>
<td>cɛm-ɔn ‘to fight’ → cɛmɛcm-ɔs’ ‘(to be) combative’</td>
<td></td>
</tr>
<tr>
<td>ep-ɔn ‘to sleep’ → epɔp-ɔs’ ‘to sleep around’</td>
<td></td>
</tr>
<tr>
<td>fek-ɔn ‘to laugh’ → fekifek-ɔs’ ‘(to be) cheerful’</td>
<td></td>
</tr>
<tr>
<td>ƙɔɗ-ɔn ‘to cry’ → ƙɔɗɪƙɔ́ɗ-ɔ́s ‘to be tearful’</td>
<td></td>
</tr>
</tbody>
</table>

In summary then, the suffix {-sí-} has the following three functions:

(206) **Functional summary of the Ik passive {-sí-}**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>To passivize a transitive clause by omitting its subject (A) and promoting the object (O) to subject (S).</td>
</tr>
<tr>
<td>2</td>
<td>To impute stative characteristicness to a transitive subject (A).</td>
</tr>
<tr>
<td>3</td>
<td>To stativize an otherwise merely intransitive verb.</td>
</tr>
</tbody>
</table>

To account for these three functions of the passive {-sí-}, it can be said that more abstractly, this suffix conveys the meaning ‘characterized by X verb’. 
7.9.3 Impersonal passive

The suffix {-aní-} acts as the marker of an ‘impersonal passive’ construction. At first glance, {-aní-} seems to be related to the ‘stative’ suffix {-án+}. This superficial resemblance led to {-aní-} being analyzed as stative as well (Serzisko 1992:202). But the two suffixes differ crucially in their underlying tones and [ATR] values and thus cannot easily be linked. The impersonal passive {-aní-} is an opaque recessive suffix that blocks [+ATR] harmony spread from a dominant stem. Its tone is LH, but that can change in the tonal environment of the stem, as seen in examples below.

The construction marked by {-aní-} is called ‘passive’ because it syntactically omits any subject (A/S), leaving it to be inferred pragmatically. And it is called ‘impersonal’ because a verb with {-aní-} invariably has 3sg zero-marking, regardless of the person and number of any implied subject.

The impersonal passive can occur with transitive or intransitive verbs. With transitive verbs, the A is omitted, and the O is promoted to S only in terms of surface grammatical relations (marked by case suffixes). That is, the subject of an impersonal passive verb is marked with the NOM case in main clauses. This contrasts it with the So ‘impersonal’ (Carlin 1993:85), the Toposa ‘passive’ (Schröder 2008:59), and the Turkana ‘impersonal active’ (Dimmendaal 1983:72)—all of which retain object-marking for the patient.

However, in most types of subordinate clauses, the patient of an Ik impersonal passive is also encoded as the object (O). So there is a mismatch in alignment between main and subordinate clauses. This seems to indicate transitional forms—the impersonal passive/active being a Kuliak calque from Teso-Turkana (or earlier) that is now being reanalyzed in Ik due to a prohibition against marked objects without subjects in main clauses.

The examples below illustrate these properties of the impersonal passive. First, in (207), presents a normal impersonal passive construction: No agent
is encoded (except an impersonal one), and the patient is encoded as an S in the NOM case. Then in (208), an ungrammatical clause shows that nothing but an impersonal subject can be marked on the impersonal passive verb:

(207)  
\[ \text{Inomesana bi.} \]
\[
\begin{array}{ll}
\text{móm-ès-an-a} & \text{bi-∅} \\
\text{beat-INT-IPS-REAL} & \text{you.sg-NOM}
\end{array}
\]
You will be beaten (Lit. ‘It will be beaten you.’).

(208)  
\[ **\text{Inomesanida bi.} \]
\[
\begin{array}{ll}
**\text{móm-ès-án-íd-a} & \text{bi-∅} \\
**\text{beat-INT-IPS-2SG-REAL} & \text{you.SG-NOM}
\end{array}
\]
**You will be beaten.

Second, the sentence in (209) shows an impersonal passive construction as a subordinate clause acting as the complement to the verbless copulative ntsúó ‘It is...’. Note that the patient now receives double object-marking: 1) It is postverbal, whereas most subordinate clause subjects are preverbal, and 2) it has the ACC case. Then compare it with (210), where the patient is cast as the subject of the impersonal passive verb—the result is ungrammatical:

(209)  
\[ \text{Ntsuo inomanee bik.} \]
\[
\begin{array}{ll}
\text{ntsú-ó} & [\text{móm-án-é = e bi-k}^n]_{cc} \\
\text{it-COP} & \text{beat-IPS-REAL = DP you.SG-ACC}
\end{array}
\]
That’s why you are beaten (Lit. ‘It is (why) it is beaten you.’).

(210)  
\[ **\text{Ntsuo bia inomanad.} \]
\[
\begin{array}{ll}
**\text{ntsú-ó} & [\text{bi-a móm-án-á = d}^n]_{cc} \\
**\text{it-COP} & \text{you.SG-ACC beat-IPS-REAL = DP}
\end{array}
\]
**That’s why you are beaten.

Semantically, it can be said that in impersonal passive clauses, the point is not ‘who did what’ but only that something got done. This would help
explain why the impersonal passive is also used with intransitive verbs. The point is to be as indirect as possible about the agents/people involved and focus only on the fact that something has taken place. The following three examples are fairly common sayings heard among speakers in daily social interaction. The impersonal passive construction serves the Ik well in their proclivity to be curious and inquiring without being direct and rude:

(211) *Atsana awoo?*

ats-an-a awó-o
come-IPS-REAL home-ABL

Are you coming from home (lit. ‘Is it come from home’)?

(212) *Kutana is?*

kut-an-a is
say-IPS-REAL what[OBL]

What do you say/what are people saying (lit. ‘It is said what’)?

(213) *Epesana ndaik?*

ep-és-án-a ndaí-kᵉ
sleep-INT-IPS-REAL where-DAT

Where will you/people sleep (lit. ‘It will be slept where’)?

And finally, a few examples from other natural discourse contexts:

(214) *Cemana emutik.*

crm-an-a emút-īkᵊ
fight-IPS-REAL story-PL-INS

We/people are telling stories (Lit. ‘It is fought with stories.’).

(215) *Maa noo iyi ikametanie ntsik.*

má-á=noo i-i ikám-êt-ani-č ntsí-kᵊ
not-REAL=PST3 be-3SG catch-VEN-IPS-SIML s/he-ACC

He wasn’t there when he was caught.
7.9.4 Sequential impersonal passive

The suffix {-ese} is the morphological marker of the ‘sequential impersonal passive’. Absolutely no etymological parallels for this suffix have been found. This suffix is recessively [-ATR], having /-ese/ as an allomorph on [+ATR] verbs stems. Before a pause, {-ese} is reduced to /-es/ or /-es/. Its underlying tone is LL(H), the floating H tone being posited on the basis of the H tone it places on a following L-tone-bearing unit. Its own tone melody can change, for example to HL on stems ending in H (T7) or LH before the dummy pronoun {=ˊdɛ}, as in *ats-esé=d⁛ ‘And people came from there.’

In terms of meaning and function, the sequential impersonal passive (SPS) is a marriage between the sequential aspect and the impersonal passive described in the previous section. It does for the sequential aspect what the impersonal passive does for every other non-sequential clause type. Briefly, it eliminates any subject (A/S) and promotes any object (O) to subject (S). One might say that the SPS takes impersonalness a step further than the impersonal passive in that its morpheme (-ese’) is so suppletive in contains no 3SG marker—nor any subject-marker at all. It is an agentless passive par excellence, having neither a syntactic nor morphologically encoded agent.

The SPS differs from the impersonal passive in one other way: Even in subordinate clauses where the patient assumes an object’s postverbal syntactic slot, the case-marking on that argument remains NOM, for example:

(216)  *Na enuƙweese bi, ceiƙweese bi.

na =en-úƙó-esé    bi-∅       ce-íƙš-esé   bi-∅
CONJ =see-AND-SPS  you.SG-NOM  kill-COMP-SPS you.SG-NOM

When you are seen, you are killed.

Like the impersonal passive, the SPS also occurs with intransitive verbs, e.g.:
As part of the sequential aspect paradigm, the [SPS] is used in long strings of discursively (co-)subordinate clauses such as the following:

(218)  *Ikweese rijkaka *tokobima.

\[
\begin{align*}
\text{itsùŋ-kɔ-ɛsɛ} & \quad \text{rij-ik-a} \quad \text{tokɔb-ima-k’} \\
\text{burn-COMP-SPS} & \quad \text{forest-PL-NOM} \quad \text{cultivate-1P.EXC-SEQ}
\end{align*}
\]

The forest areas are burned, and we cultivate,

\[
\begin{align*}
tɔkɔb-ɛ-ɛsɛ & \quad \text{dwaan-ɛt-ima-k’} \\
\text{cultivate-INC-SPS} & \quad \text{grain-NOM} \quad \text{weed-INC-1P.EXC-SEQ}
\end{align*}
\]

and grains begin to be cultivated, and we start weeding,

\[
\begin{align*}
ae-ikòt-i & \quad \text{wé-ɛt-ima-k’} \\
\text{ripen-COMP-SEQ} & \quad \text{harvest-VE-N1P.EXC-SEQ}
\end{align*}
\]

and they get ripe, and we harvest,

\[
\begin{align*}
ipe-ɛsi & \quad \text{dǐpɔɔ-k’} \quad \text{ber-úkɔ-ɛsɛ} \quad \text{lóďúrú-∅} \\
\text{thresh-SPS} & \quad \text{threshing.flo-DAT} \quad \text{build-COMP-SPS} \quad \text{granary-NOM}
\end{align*}
\]

and they are threshed on the threshing floor, and a granary is built.

The sequential impersonal passive cannot be negated in and of itself. If a clause with the [SPS] needs to be negated, the sequential aspect negator [moo] is employed with the second (negated) verb in the impersonal passive voice. To illustrate this, (219) presents an affirmative sequential impersonal passive sentence, followed by its negative version in (220):
(219) Honetiakoo ragw, ceikweesed.
\[
\text{hɔ́n6ɛ́t6ɪa6kɔ́=ɔ} \quad \text{ráɡw6ᵃ} \quad \text{cɛ6ɪ́ƙɔ́6ɛsɛ́ =dᵋ}
\]
With that I drove an ox, and it was killed (from that).

(220) Honetiakoo ragw, moo koto ceikotan.
\[
\text{hɔ́n6ɛ́t6ɪa6kɔ́=ɔ} \quad \text{ráɡw6ᵃ} \quad \text{mo6o=koto} \quad \text{cɛ6ɪ́ƙɔ́t6an}
\]
With that I drove an ox, but it was not killed.

7.9.5 Middle

The suffix \{-Vm\} marks what is called the 'middle' construction in Ik. It has another form \{-ím\} that occurs exclusively with the inchoative aspect suffix \{-ét\} as in \{-ím-ét\}. Particularly this latter form ties the Ik middle suffix to the Cushitic language Afar’s passive suffix -im (Mahaffy n.d., p. 18). The morpheme \{-Vm\} also functions in an adjectival role (see §7.10.2).

In most instances, the underspecified vowel in \{-Vm\} is a copy of the vowel in the preceding root. This links it formally with the Turkana resultative construction that copies the root final vowel (and consonant if there is one) (Dimmendaal 1983:159). Only with the Ik inchoative middle \{-ím-ét\} is the vowel predetermined as /i/. In terms of vowel harmony, \{-Vm\} falls into whichever [ATR] class the preceding root belongs to. The suffix, \{-ím-ét\}, on the other hand, is dominant, harmonizing to [+ATR] in both directions. The tone of both suffixes remains H(H) unless altered by the stem.

As a marker of middle voice, \{-Vm\} applies to transitive verbs and derives intransitive verbs from them. Because an agent is not in view, and because there is an emphasis on process, another label for this morpheme could have been ‘perfective impersonal passive’. And because after undergoing a process, the subject enters a resulting state, another label could be ‘resultative’, similar to what is in Turkana (Dimmendaal 1983:158).
Despite terminological ambiguity, the following definition of ‘middle’ is an apt characterization of what the Ik suffix {6V́m6} does: It “expresses a semantically transitive situation in terms of a process undergone by a patient, rather than as an action carried out by an agent” (Payne 1997:216). The middle voice in Ik is formed when a transitive clause is detransitivized, conflating the A and O into an S that is both agent and patient in a process. In this sense, the middle is closer in meaning to a reflexive: Among the next three examples, the middle in (221) is said to be closer in meaning to the reflexive in (223) than the transitive in (222):

(221)  *Ijurumaa dakw.*  
ŋʊr-óm-á-a dakw-a  
break-MID-REAL-PRF tree-NOM  
The wood has broken.

(222)  *Ijuraa kona amee dakuk.*  
ŋʊr-á-á kon-a ámé-e dakú-k⁶  
cut-REAL-PRF one-NOM person-GEN tree-ACC  
Someone has broken the wood.

(223)  *Ijuraa dakwa asik.*  
ŋʊr-á-á dakw-a asi-k⁶  
cut-REAL-PRF tree-NOM self-ACC  
The wood has broken itself.

The table in (224) gives examples of lexical, detransitivized middle verbs:

(224)  *Middle verbs derived with {6Vm}*

<table>
<thead>
<tr>
<th>Ik-verb</th>
<th>Meaning</th>
<th>Ik-verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɓɛl-és</td>
<td>‘to crack’</td>
<td>ɓɛl-ɛm-ɔ́n</td>
<td>‘to crack’</td>
</tr>
<tr>
<td>ɓil-és</td>
<td>‘to burst’</td>
<td>ɓil-ím-ɔ́n</td>
<td>‘to burst’</td>
</tr>
<tr>
<td>hod-ès</td>
<td>‘to loosen’</td>
<td>hod-óm-ɔ́n</td>
<td>‘to loosen’</td>
</tr>
<tr>
<td>ɲąn-ès</td>
<td>‘to open’</td>
<td>ɲąn-ám-on</td>
<td>‘to open’</td>
</tr>
<tr>
<td>ŋʊr-ès</td>
<td>‘to break’</td>
<td>ŋʊr-óm-ɔ́n</td>
<td>‘to break’</td>
</tr>
</tbody>
</table>
And here are a couple of examples of the middle voice in everyday speech:

(225) **Hodomaa kwaz**

\[
\begin{align*}
\text{hod-óm-á-a} & \quad \text{kwaz-∅} \\
\text{loosen-MID-REAL-PRF} & \quad \text{clothing-NOM}
\end{align*}
\]

(226) **Teremata nak**.

\[
\begin{align*}
\text{ter-ém-át-a} = \text{nak}^a \\
\text{divide-MID-3PL-REAL} = \text{PST1}
\end{align*}
\]

They (got) separated (i.e. husband and wife).

The most commonly occurring form of the middle voice marking is {-ím-ét-}. It is the required allomorph with polysyllabic verb roots and possibly those with a depressor consonant (further study is needed on this score). As a composite morpheme with [+ATR] vowels, this ‘inchoative middle’ harmonizes the preceding stem to [+ATR] if no opaque /a/ intervenes. In addition to middle voice, and the often coinciding present perfect aspect, the inchoative middle gives this composite morpheme a further sense that a process has been initiated with ongoing consequences. Below are some lexical examples with the inchoative middle composite morpheme:

(227) **Middle verbs derived with {-ím-ét-}**

\[
\begin{align*}
\text{ifélé-és} & \quad \text{‘to change’} & \rightarrow & \text{ifélé-imet-on} & \quad \text{‘to change’} \\
\text{isómé-és} & \quad \text{‘to read’} & \rightarrow & \text{isómá-imet-on} & \quad \text{‘to be read’} \\
\text{kán-és} & \quad \text{‘to wipe’} & \rightarrow & \text{kan-ímét-on} & \quad \text{‘to be wiped out’} \\
\text{réb-es} & \quad \text{‘to withhold’} & \rightarrow & \text{réb-imet-on} & \quad \text{‘to go without’} \\
\text{tawan-és’} & \quad \text{‘to afflict’} & \rightarrow & \text{tawan-ímét-on} & \quad \text{‘to suffer’}
\end{align*}
\]

In Ik’s sister Kuliak language So, the form -met is the marker of an ‘intransitive state’ (Carlin 1993:47). It is analyzed there as being derived from the copula verb met- (mut- in Ik), but more likely it is an eroded morphological remnant of the Ik inchoative middle suffix {-ím-ét-}. 
To conclude, here are a few examples of is {im-ét-} in natural contexts:

(228) *Isio noo itiyaimeta kaino noo Lopiaari?*

```
isi-o = noo  itiyá-im-et-a  kain-o = nɔɔ  lopíarí-∅
```

What-COP = PST3 do-MID-INCH-REAL year-INS = REL.SG.PST3  lopiar-GEN

What happened in the year of Lopiar?

(229) *Inákwimetaa tokoba kainiko ni.*

```
inákwí-im-et-á-á  tokɔb-a  kain-ik-o = ni
```

ruin-MID-INCH-REAL-PRF farming-NOM year-PL-INS = DEM.PL

Farming is ruined these years.

(230) *Tawanimetiaa.*

```
tawan-im-et-í-a-kᵃ
```

afflict-MID-INCH-1SG-REAL-PRF

I'm hurt/I'm suffering.

### 7.9.6 Reciprocal

The suffix {ímśí-} communicates reciprocity. It is morphologically complex, consisting of the plural possessive suffix -iní- (from which the reciprocity component is probably derived; see §4.2.5) plus the passive suffix {śí-} (§7.9.2). But it is treated here as one suffix. A frequent variant of the ‘reciprocal’ is {ímśí-}. It is not known whether this allomorph developed along different lines historically or whether it is just a phonological variant. Both variants are recessively [-ATR], with allomorphs /-ínśí/- or /-ándźśí/- on [+ATR] stems. Their tone is HHH, or LHH after a depressor consonant.

When applied to a transitive or extended transitive verb, the reciprocal suffix decreases the valency of the verb by one. It does this by combining A and O (or A and E in the case of an extended transitive) into a single subject (S). However, when applied to an intransitive verb, the reciprocal does not alter the valency of the verb. The original plural S remains an S. On
intransitive verbs, the reciprocal conveys notions of togetherness. The following are example of the reciprocal on verbs with different valencies:

(231) Derived reciprocal verbs

<table>
<thead>
<tr>
<th>Transitive verbs (A+O → S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>én-imósí-</td>
</tr>
<tr>
<td>‘to see each other (i.e. visit)’</td>
</tr>
<tr>
<td>fiye-imósí-</td>
</tr>
<tr>
<td>‘to know each other (i.e. be related)’</td>
</tr>
<tr>
<td>iból-imósí-</td>
</tr>
<tr>
<td>‘to promise each other (make a pact or covenant)’</td>
</tr>
<tr>
<td>ikát-imósí-</td>
</tr>
<tr>
<td>‘to try each other (i.e. compete)’</td>
</tr>
<tr>
<td>irits-inósí-</td>
</tr>
<tr>
<td>‘to care for each other’</td>
</tr>
<tr>
<td>mín-inósí-</td>
</tr>
<tr>
<td>‘to love each other’</td>
</tr>
<tr>
<td>torík-inósí-</td>
</tr>
<tr>
<td>‘to lead each other (i.e. walk together)’</td>
</tr>
</tbody>
</table>

Extended transitive verbs (A+E → S)

tód-inósí- ‘to speak to each other’

Intransitive verbs (S → S)

| šekés-inósí-                                       |
| ‘to walk together’                                 |
| naruét-imósí-                                      |
| ‘to be neighbors’                                  |

A verb inflected with the reciprocal suffix can function in the clause as a noun or a verb. That is, the reciprocal is also a nominalizer. When used as a noun, a reciprocal stem takes case suffixes, and when used as a verb, it takes the appropriate verbal suffixes. A commonly used example of the reciprocal stem-as-noun is fiye-ños: Formed by the verb fiye- ‘know’ and the reciprocal suffix, this verb stem means ‘relative’. But even it can function as a noun or verb, as in fiye-ñosım ‘We know/are related to each other’.

Some examples of the reciprocal in natural discourse include the following:

(232) Irîtsinosu.

irîts-inós-ú

keep-RECIP-IMP.PL

Take care of each other.
(233) *Enimosined.*
én-ímós-íné = d°
see-RECIP-1SG[OPT] = DP
Let me visit (with her).

(234) *Esetinosio cikama kutatik,...*
eset-íños-i-o cikám-á kut-áti-k°
ask-RECIP-3SG-SEQ women-NOM say-3PL-SIML
And the women asked themselves saying,...

(235) *Demusu roɓaa fiyeitosat.*
ɗemʊsʊ roɓa-a fiye-it-ímós-áti
before people-ACC know-CAUS-RECIP-3PL[SUBJ]
Before people recognize each other.

(236) *Roɓa ni biraa morinosia iyad.*
roɓ-a = ni bir-a mór-ínósí-a i-á = d°
people-NOM = REL.PL not.be-REAL fear-RECIP-ACC be-REAL = DP
People in whom there is no mutual respect.

## 7.10 Adjectivals

Dixon asserts that every language has an adjectival word class, regardless of how similar it may be to either nouns or verbs (2010:62). Cross-linguistically, ‘adjectives’ tend to be distinguished as a distinct word class based on relative similarities or differences between them and nouns or verbs. The following diagram presents a typology of ‘adjectives’ in which similarity and difference are modeled as spatial distance (Dixon 2010:66):
According to this typology, Ik is a type (a) language whose adjectives exhibit many verb-like characteristics. So many that, despite Dixon’s assertion, ‘adjectives’ are treated here as an ‘adjectival’ subset of intransitive verbs instead of their own, separate word class. This is because, morphologically and syntactically, they are just like other intransitive verbs. Nonetheless, their semantics do cover categories traditionally handled by adjectives, as shown below. And a handful of suffixes are found only on ‘adjectival’ verbs, also as described in the following sections.

The semantic properties encoded by adjectival verbs include the following:

(238) **Dimension**

<table>
<thead>
<tr>
<th>Ik</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɓoɓ-</td>
<td>‘deep’</td>
</tr>
<tr>
<td>ɗdíŋ-</td>
<td>‘narrow’</td>
</tr>
<tr>
<td>ɗkár-</td>
<td>‘thin’</td>
</tr>
<tr>
<td>ɗik-ɗm-</td>
<td>‘medium build’</td>
</tr>
<tr>
<td>ɗkúɗ-</td>
<td>‘short’</td>
</tr>
<tr>
<td>ɗkwáts-</td>
<td>‘small’</td>
</tr>
<tr>
<td>tɛ́ƙɛ́z-ɛm-</td>
<td>‘shallow’</td>
</tr>
<tr>
<td>ze-</td>
<td>‘big’</td>
</tr>
<tr>
<td>zikǐɓ-</td>
<td>‘tall, long’</td>
</tr>
<tr>
<td>zíz-</td>
<td>‘fat’</td>
</tr>
</tbody>
</table>

(239) **Shape**

<table>
<thead>
<tr>
<th>Ik</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɗap-ɗl-ɗm-</td>
<td>‘flat’</td>
</tr>
<tr>
<td>kad-ós-ɗm-</td>
<td>‘small-bodied’</td>
</tr>
<tr>
<td>lab-ɗŋ-ɗm-</td>
<td>‘expansive’</td>
</tr>
<tr>
<td>lik-ɗɗ-ɗm-</td>
<td>‘hour-glass shaped’</td>
</tr>
<tr>
<td>pad-ɗk-ɗm-</td>
<td>‘sunken’</td>
</tr>
<tr>
<td>puŋ-ɗr-ɗm-</td>
<td>‘short and stubby’</td>
</tr>
<tr>
<td>sem-ɗl-ɗm-</td>
<td>‘oval’</td>
</tr>
<tr>
<td>sul-ɗt-ɗm-</td>
<td>‘conical’</td>
</tr>
<tr>
<td>zad-ɗɗ-ɗm-</td>
<td>‘arched’</td>
</tr>
</tbody>
</table>
(240) **Age**

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>dun-ét-</td>
<td>‘ageing’</td>
</tr>
<tr>
<td>erúts-</td>
<td>‘new, recent’</td>
</tr>
<tr>
<td>kɔw-</td>
<td>‘old’</td>
</tr>
<tr>
<td>kwáts-</td>
<td>‘young’</td>
</tr>
</tbody>
</table>

(241) **Value**

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>da-</td>
<td>‘nice’</td>
</tr>
<tr>
<td>gaan-</td>
<td>‘bad’</td>
</tr>
<tr>
<td>maráŋ-</td>
<td>‘good’</td>
</tr>
</tbody>
</table>

(242) **Color**

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bós-án-</td>
<td>‘blue, gray’</td>
</tr>
<tr>
<td>budám-</td>
<td>‘black’</td>
</tr>
<tr>
<td>ɓets’-</td>
<td>‘white’</td>
</tr>
<tr>
<td>diw-</td>
<td>‘red’</td>
</tr>
<tr>
<td>ɪlɪ́ɓ-</td>
<td>‘green’</td>
</tr>
<tr>
<td>merif-ág-</td>
<td>‘colorful’</td>
</tr>
<tr>
<td>mukí-án-et</td>
<td>‘brown’</td>
</tr>
<tr>
<td>ɔŋɔ́r-án-et-</td>
<td>‘dark red’</td>
</tr>
</tbody>
</table>

(243) **Physical property**

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɓɔf-5d-</td>
<td>‘puffy’</td>
</tr>
<tr>
<td>dul-áts’-ám-</td>
<td>‘fat and juicy’</td>
</tr>
<tr>
<td>ja-ul-ím-</td>
<td>‘sleek’</td>
</tr>
<tr>
<td>lrw-id-</td>
<td>‘smooth’</td>
</tr>
<tr>
<td>mít-fr-ím-</td>
<td>‘withered’</td>
</tr>
<tr>
<td>ɲar-ód-</td>
<td>‘crunchy’</td>
</tr>
<tr>
<td>ɲɔŋ-ɔ́r-ím-</td>
<td>‘dirty’</td>
</tr>
<tr>
<td>ts’al-íd-</td>
<td>‘oily’</td>
</tr>
</tbody>
</table>
First, just like other intransitive verbs, Ik adjectival verbs encode these semantic properties by being the head of a clause’s predicate. In (248), the intransitive verb i- ‘be (somewhere)’ fills the clause-initial slot for main verbs, as does the adjectival verb maráŋ- ‘good’. This syntactic slot reserved for verbs (in unmarked clauses) as well as the verbal realis affix {-a} show that maráŋ- is functioning as the predicate head in example two of (248):

(248) **Iya Nakuj.**

    i-a ɲakuj-a
    be-REAL god-NOM

God is there.

**Maraga Nakuj.**

    maráŋ-a ɲakuj-a
    good-REAL god-NOM

God is good.
Secondly, Ik adjectival verbs help specify a noun’s referent by acting as a modifier within the relevant noun phrase. To do this, they occur as stative verbs within restrictive relative clauses following the modified NP, as in:

(249)  *Ama na da.*

\[
\text{ám-á} = \begin{cases} \text{ná} & \text{da-∅} \\ \text{person-NOM} = \text{REL.SG} & \text{nice-REAL} \end{cases}
\]

A person who is nice/a nice person

(250)  *Roɓa ni dayaak.*

\[
\text{roɓ-a} = \begin{cases} \text{ni} & \text{da-i-aāk-ə} \\ \text{people-NOM} = \text{REL.PL} & \text{nice-PLUR-DISTR-REAL} \end{cases}
\]

People who are nice/nice people

So just like in (248), the adjectivals in (249)-(250) fill the slot that a verb would normally fill. Compare those with the following non-adjectival verbs:

(251)  *Ama na beda koonik.*

\[
\text{ám-á} = \begin{cases} \text{na} & \text{béf-á} & \text{ko-oni-kə} \\ \text{person-NOM} = \text{REL.SG} & \text{want-REAL} & \text{go-INF-ACC} \end{cases}
\]

The person who wants to go.

(252)  *Roɓa ni beda koonik.*

\[
\text{roɓ-a} = \begin{cases} \text{ni} & \text{béf-á} & \text{ko-oni-kə} \\ \text{people-NOM} = \text{REL.PL} & \text{want-REAL} & \text{go-INF-ACC} \end{cases}
\]

The people who want to go.

Thirdly, Ik adjectival verbs function as the parameter in comparative constructions, of which Ik has two types (see §9.12). One involves the ablative case, and the other verb *ɪlɔ̀* ‘defeat’ as the comparative index:
Fourthly, Ik adjectival verbs can function like adverbs in modifying a verb’s referent. They do this in conjunction with the simultaneous aspect suffix {6kɛ} in a postverbal simultaneous clause, as in:

(255) **Epukwee marajidik.**

ep-uƙo-e maráŋ-fdi-ke
sleep-COMP-IMP.SG good-2SG-SIML
Sleep well (lit. ‘Sleep you being good’)! 

(256) **Imedetaa betsk’ik.**

mece-t-á-á bets’i-ke
sparkle-INCH-REAL-PRF white-3SG-SIML
It’s sparkling brightly (lit. ‘It has sparkled being white’).

In the predicate slot, adjectival verbs and other intransitive verbs differ only slightly. For obvious semantic reasons, adjectivals do not cooccur with either directional suffixes or the various passive suffixes. But other than these, adjectivals can take all the other inflectional and derivational suffixes found on other verbs. Even so, semantics and pragmatics may eliminate some adjectival-suffix combinations from the realm of possibility. For example, though the adjective da- ‘nice’ can be made into an imperative like da’es ‘Be nice!’ or an optative like dayadkáno ‘Let’s be nice’, it is hard to imagine a color or a other involuntary physical property being commanded.
Ik adjectivals are less distinguishable by what suffixes they share with other verbs (almost all) than by the suffixes they do not share. The adjectival verbs exhibit a handful of suffixes found only on adjectivals. These include the two 'physical property' suffixes (§7.10.1-§7.10.2), the stative suffix (§7.10.3), the plural adjective suffix (§7.10.4), and the distributive suffix (§7.10.5). Each of these are described in their respective sections below.

7.10.1 Physical property I

The adjectival suffix {6Vd} is called the 'physical property I' marker. It is potentially related to the final VC sequence in Turkana words like jʊrʊt ‘callow’ (Dimmendaal 1983:143). But regardless, it is most likely a retention of the proto-Nilo-Saharan ‘adjective suffix’ *d/−od? (Ehret 2001:154). The suffix usually (but not always) copies the root-final vowel, and thus takes whatever [ATR] value the copied vowel has. Its tone is invariably H(L): Since it contains the depressor /d/, the next vowel always bears L tone.

The physical property I suffix is used to express real physical properties of the clause’s subject. These properties include things like size, shape, appearance, texture, consistency, and other such tangible attributes. The meaning of this suffix often coincides with that of English adjectives ending in -y, like gooey, gummy, gushy, squashy, squishy, etc.

Physical property I (PHYS1) adjectivals function as the heads of intransitive predicates, such that they are nominalized with the infinitivizer {6ɔnɪ6}, as in ɔfédéɔnɪé ‘to be light’. The PHYS1 suffix immediately follows the root but can precede any number of other verbal affixes, such as in ol-ód-ukot-u-ko=d= ‘And from that it became light’ or ol-ód-aak-ît-á ‘You (pl.) are light’. The table in (257) presents some physical property I lexical adjectivals. In the first four examples, the suffix’s underspecified vowel a copy of the preceding root-vowel. While in the second four, the vowel is different:
Vowel patterns in physical property I adjectivals

<table>
<thead>
<tr>
<th>CV, C-V, C-</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>bɛɗ-éd-</td>
<td>‘delicate’</td>
</tr>
<tr>
<td>lw-íd-</td>
<td>‘smooth’</td>
</tr>
<tr>
<td>lyam-ád-</td>
<td>‘powdery’</td>
</tr>
<tr>
<td>ŋʊɓ-ód-</td>
<td>‘brittle’</td>
</tr>
<tr>
<td>CV, C-V, C-</td>
<td></td>
</tr>
<tr>
<td>bɛf-ód-</td>
<td>‘hefty’</td>
</tr>
<tr>
<td>ɓal-íd-</td>
<td>‘glistening’</td>
</tr>
<tr>
<td>ŋar-ód-</td>
<td>‘crunchy’</td>
</tr>
<tr>
<td>pil-íd-</td>
<td>‘slippery’</td>
</tr>
</tbody>
</table>

The reason for this discrepancy in vowel patterns is not clear. Any possible explanation will hinge on a broader analysis of Ik verbal roots. In modern Ik, many lexical items can function as either nouns or verbs, depending on the suffixes they are given. When functioning as verbs, such lexemes are analyzed as ending in a consonant. When functioning as nouns, they are analyzed as ending in a vowel, as in tɔkɔb- ‘farm (v.)’ versus tɔkɔba- ‘farming (n.).’ So it could be that adjectival forms in (257) preserve an older morphology in which verbal roots also ended in vowels. This could mean that these roots are actually bisyllabic and the physical property I suffix is really just {-d-}. Then it would be coincidental that some roots have the same vowel in both syllables while others did not.

But a) in keeping with the broader analysis of Ik verbal roots in this grammar, and b) given that in the majority of instances of the physical property I suffix the vowel is identical with the root vowel, this morpheme is analyzed as having the structure {-őd-}. This conclusion, of course, does not preclude further investigation into this issue.

So more examples of physical property I adjectival verbs are given below to illustrate the semantic vividness it expresses:
Physical property I adjectivals

<table>
<thead>
<tr>
<th>Physical property I adjectivals</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bɔf-ɔ́d-</td>
<td>'puffy'</td>
</tr>
<tr>
<td>buf-úd-</td>
<td>'spongy'</td>
</tr>
<tr>
<td>dab-úd-</td>
<td>'mushy'</td>
</tr>
<tr>
<td>dcj-ɛ́d-</td>
<td>'squat'</td>
</tr>
<tr>
<td>gɔk-ɔ́d-</td>
<td>'stiff'</td>
</tr>
<tr>
<td>gwid-ɪ́d-</td>
<td>'limber'</td>
</tr>
<tr>
<td>jam-úd-</td>
<td>'velvety'</td>
</tr>
<tr>
<td>kwits'-ɪ́d-</td>
<td>'juicy'</td>
</tr>
<tr>
<td>mil-ɪ́d-</td>
<td>'shiny'</td>
</tr>
<tr>
<td>na-úd-</td>
<td>'flimsy'</td>
</tr>
<tr>
<td>nɛr-ɛ́d-</td>
<td>'wobbly'</td>
</tr>
<tr>
<td>tsak-ád-</td>
<td>'watery'</td>
</tr>
<tr>
<td>ts'ɑl-ɪ́d-</td>
<td>'oily'</td>
</tr>
<tr>
<td>tud-ád-</td>
<td>'leathery'</td>
</tr>
<tr>
<td>wɪɲ-ɪ́d-</td>
<td>'syrupy'</td>
</tr>
<tr>
<td>wuj-úd-</td>
<td>'jiggly'</td>
</tr>
<tr>
<td>ʃa-úd-</td>
<td>'paper-thin'</td>
</tr>
</tbody>
</table>

In most cases, a corresponding noun root cannot be found for adjectivals like the ones in (258), but there are a few exceptions. For example, the noun root bɛfá- ‘puff adder’ is clearly related to bɛf-úd- ‘hefty’ since the puff adder is quite a hefty snake. The noun root ɗɔsi- ‘gum, sap’ seems related to ɗɔsé- ‘gummy’, despite a change in [ATR] value. One can speculate for others, for example if and how ɡɔkɛ- ‘larynx’ is related to ɡɔk-ɔ́d- ‘stiff’.

An interesting feature of adjectivals with the physical property I suffix is that the adjectival root can be repeated as a sort of emphatic particle, as in:

(259) Liida lii.

It’s totally quiet.
(260) **Maŋada maŋ.**
\[\begin{array}{ll}
\text{man}-\acute{\text{d}}-\text{a} & \text{man} \\
\text{thick} & \text{PHYS}1 \ - \ \text{REAL} & \text{EMPH}
\end{array}\]
It’s extremely thick.

(261) **Kwexeduƙotaa kwex.**
\[\begin{array}{ll}
\text{kweʃ}-\acute{\text{d}}-\text{uk}-\acute{\text{t}}-\acute{\text{a}}-\acute{\text{a}} & \text{kweʃ} \\
\text{be.thin} & \text{PHYS}1 \ - \ \text{COMP} \ - \ \text{REAL} \ - \ \text{PRF} & \text{EMPH}
\end{array}\]
It has become extremely thin.

### 7.10.2 Physical property II

The physical property II suffix—{\(\acute{\text{V}}\)-m}—is identical to the middle voice marker described above in §7.9.5. Historically, both these morphemes most likely arose from the same proto-morpheme. Synchronously, the middle suffix occurs with transitive verbs, while the physical property II suffix occurs with intransitive adjectival verbs. Particularly as an adjectival morpheme, {\(\acute{\text{V}}\)-m} resembles the final \(\text{Vm}\) sequence in Turkana adjectivals like \(\text{ŋalom}\) ‘missing front teeth’ (Dimmendaal 1983:143-144). The suffix {\(\acute{\text{V}}\)-m} takes whatever [ATR] value is supplied by the copied vowel. Its tone is invariably H unless preceded by a depressor as in \(\text{tɛ́ Tess-}\)em- ‘shallow’.

The physical property II suffix also expresses the physical properties of a subject in conjunction with the verbal root to which it is affixed. Like the physical property I suffix, PHYS2 can convey tangible attributes like shape, posture, texture, color, consistency, appearance. But it can also communicate less tangible features like weakness, strength, and other internal states.

Physical property II adjectivals function as intransitive predicates, so they are nominalized with the infinitivizer {\(\text{\-}\in\text{tiv}\)} as in \(\text{gak-ûm-}\)ônì- ‘to be too weak to move’. Often between the root and the PHYS2 suffix there is an intervening archaic morpheme consisting of an underspecified vowel and a consonant, for example, *-\(\text{Vl}\), *-\(\text{Vk}\), *-\(\text{Vn}\), *-\(\text{Vr}\), or *-\(\text{Vs}\). More comparative
research is required to trace the origin of these underspecified morphemes. However, they are likely retentions of the series of derivational suffixes posited for proto-Nilo-Saharan, many of which contain underspecified vowels in various Nilo-Saharan daughter languages (Ehret 2001:145-165).

The physical property II suffix's underspecified vowel is almost always a copy of the preceding vowel, whether directly from the root or from an intervening archaic morpheme like \(^*-Vr\) or \(^*-Vs\). The first ten words in (262) exhibit root-vowel copying, while the last two show different vowels:

\[(262) \quad \text{Vowel patterns in physical property II adjectivals}\]

<table>
<thead>
<tr>
<th>CV₁CV₂C-V₁C</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>belfr-ém-</td>
<td>'bulging'</td>
<td></td>
</tr>
<tr>
<td>dapál-ám-</td>
<td>'flat'</td>
<td></td>
</tr>
<tr>
<td>duláts'-ám-</td>
<td>'fat and juicy'</td>
<td></td>
</tr>
<tr>
<td>kik-ím-</td>
<td>'stout'</td>
<td></td>
</tr>
<tr>
<td>likíd-im-</td>
<td>'hour-glass shaped'</td>
<td></td>
</tr>
<tr>
<td>nỳrójn-ím-</td>
<td>'dirty'</td>
<td></td>
</tr>
<tr>
<td>punjór-óm</td>
<td>'stumpy'</td>
<td></td>
</tr>
<tr>
<td>semél-ém-</td>
<td>'oval'</td>
<td></td>
</tr>
<tr>
<td>torón-óm-</td>
<td>'ridged'</td>
<td></td>
</tr>
<tr>
<td>tudús-úm-</td>
<td>'naked'</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CV₁(C)V₂C-V₁C</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>jul-ím-</td>
<td>'sleek'</td>
<td></td>
</tr>
<tr>
<td>ñanjál-óm-</td>
<td>'gap-toothed'</td>
<td></td>
</tr>
</tbody>
</table>

The following table gives more examples of physical property II adjectivals to illustrate the semantic vividness they can express:
(263) **Physical property II adjectivals**

<table>
<thead>
<tr>
<th>Physical property II adjectivals</th>
</tr>
</thead>
<tbody>
<tr>
<td>bulúƙ-úm-</td>
</tr>
<tr>
<td>‘abnormally big-headed’</td>
</tr>
<tr>
<td>đatáɲ-ám-</td>
</tr>
<tr>
<td>‘flat on top and bottom’</td>
</tr>
<tr>
<td>heɓúl-úm-</td>
</tr>
<tr>
<td>‘pot-bellied’</td>
</tr>
<tr>
<td>kadóș-óm-</td>
</tr>
<tr>
<td>‘small-bodied’</td>
</tr>
<tr>
<td>kweel-ém-</td>
</tr>
<tr>
<td>‘big and pointed (of ears)’</td>
</tr>
<tr>
<td>laɓáɲ-ám-</td>
</tr>
<tr>
<td>‘expansive’</td>
</tr>
<tr>
<td>mitt-r-ím-</td>
</tr>
<tr>
<td>‘withered’</td>
</tr>
<tr>
<td>padók-óm-</td>
</tr>
<tr>
<td>‘sunken’</td>
</tr>
<tr>
<td>pilř-ím-</td>
</tr>
<tr>
<td>‘squinty-eyed’</td>
</tr>
<tr>
<td>reké-n-ém-</td>
</tr>
<tr>
<td>‘stunted’</td>
</tr>
<tr>
<td>solút-óm-</td>
</tr>
<tr>
<td>‘conical’</td>
</tr>
<tr>
<td>taɓóɲ-óm-</td>
</tr>
<tr>
<td>‘flat-buttocked’</td>
</tr>
</tbody>
</table>

For most of the PHYS2 adjectivals, corresponding verb roots have not been identified in other lexemes. However, there are clues that these adjectivals can be built from nouns. For example, the verb karúts'-úm- ‘be crunchy like a carrot’ is obviously related to káruts'a- ‘carrot’, and the verb padók-óm- ‘be sunken’ can likely be linked to padó- ‘small cave’. A few others have identifiable bases in other lexemes, for example, jurút-óm- ‘slippery’ from jór- ‘rub, massage’ and olól-óm- ‘eager’ from ol-ód- ‘light, eager’.

### 7.10.3 Stative

The ‘stative’ adjectival suffix {-án-} expresses an ongoing state or condition characterized by the meaning of a transitive verb, an intransitive verb, or even a noun. It is certainly related to the Turkana ‘habitual stative’ suffix -aan/-oon (Dimmendaal 1983:107) as can be seen in cognate forms á-pég-dán-a (Turkana) and nepek-án-ón (Ik) ‘be argumentative’. Reflexes are also found in Cushitic languages: the Afar ‘customary/habitual’ ene (Mahaffy, n.d., p. 31) and the Dhaasanac ‘adjective focus form’ -dan/-éen/-ón (Tosco 2001:209). The cross-phyletic presence of these parallels suggests areal movement, though the directionality of borrowing has yet to be established.
The tone of the stative adjectival {-án-} is H, though it may bear L tone after a depressor consonant, for example in ságo-an. ‘be ensnared’. It is one of the language’s opaque dominantly [+ATR] suffixes and as such can also be represented as {-án’-}. Being dominant, it harmonizes any recessive suffixes following it, and being opaque, prevents harmony spread leftward. This suffix superficially resembles the impersonal passive suffix {-aní-}, but their different tones and [ATR] value make a shared history less than likely.

An adjectival verb with {-án-} derived from a transitive verb communicates a passive situation focusing not on the direct result of an action but rather on the ongoing state of the passivized patient. Consider these examples:

(264)  **Stative verbs derived from transitive verbs**

<table>
<thead>
<tr>
<th>Transitive</th>
<th>Stative</th>
</tr>
</thead>
<tbody>
<tr>
<td>dzɛr-</td>
<td>dzɛ́rɛ́dzɛr-án-</td>
</tr>
<tr>
<td>ɗɔts-</td>
<td>ɗɔts-án-</td>
</tr>
<tr>
<td>ɪraŋ-</td>
<td>ɪráŋʊ́n-án-</td>
</tr>
<tr>
<td>ɪtal-</td>
<td>ɪtál-í-án-</td>
</tr>
<tr>
<td>óɡo-</td>
<td>óɡo-án-</td>
</tr>
<tr>
<td>raʝ-</td>
<td>raʝ-án-</td>
</tr>
<tr>
<td>zɪ́k-</td>
<td>zɪ́kɪ́zɪk-án-</td>
</tr>
</tbody>
</table>

Less commonly, the stative can characterize the agent of a transitive situation rather than the patient, for example in the verb ɪtsán-én ‘be irritating’ (rather than ‘irritated’ or ‘irritable’) from ɪtsán- ‘to irritate’.

Contrary to the verbs in (264), most stative adjectival verbs do not have independently identified basic verb roots. Therefore it is difficult (if not impossible) to tell whether they are derived from underlyingly transitive or intransitive verbs. And this makes it doubly difficult to discern the semantic changes {-án-} makes to a base verb stem. Perhaps the basic roots of verbs like these below in (265) will come to light with further in-depth research:
(265) *Stative verbs without independent basic roots*

<table>
<thead>
<tr>
<th>Stative verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>aɓúlúk-án-</td>
<td>‘fall off, roll down’</td>
</tr>
<tr>
<td>alámáár-án-</td>
<td>‘sway’</td>
</tr>
<tr>
<td>ɓaaɓ-án-</td>
<td>‘be cracked’</td>
</tr>
<tr>
<td>bós-án-</td>
<td>‘be blue’</td>
</tr>
<tr>
<td>bu-án-</td>
<td>‘disappear’</td>
</tr>
<tr>
<td>dɛɛɛ-án-</td>
<td>‘pitter-patter’</td>
</tr>
<tr>
<td>dutődút-án-</td>
<td>‘be disintegrated’</td>
</tr>
<tr>
<td>erut-án-</td>
<td>‘low (of cows)’</td>
</tr>
<tr>
<td>firi-firi-án-</td>
<td>‘come and go’</td>
</tr>
<tr>
<td>gaga-án-</td>
<td>‘laugh while talking’</td>
</tr>
<tr>
<td>hádaad-án-</td>
<td>‘be a poor shot’</td>
</tr>
<tr>
<td>ɪ̯ʊ njá-án-</td>
<td>‘be confused’</td>
</tr>
<tr>
<td>ɓoɗ-án-</td>
<td>‘stretch’</td>
</tr>
<tr>
<td>ɲoróts-án-</td>
<td>‘drain bloody liquid’</td>
</tr>
<tr>
<td>rúgu ru-án-</td>
<td>‘be rough, bumpy’</td>
</tr>
<tr>
<td>sofɔl-án-</td>
<td>‘curved frontwards’</td>
</tr>
</tbody>
</table>

Lastly, stative adjectival verbs can be derived with {-án-} from nouns. In this way, the verb’s subject is attributed with the noun’s core characteristics:

(266) *Stative verbs derived from nouns*

<table>
<thead>
<tr>
<th>Noun</th>
<th>Stative</th>
</tr>
</thead>
<tbody>
<tr>
<td>cɛmá-</td>
<td>‘fight’</td>
</tr>
<tr>
<td>cɛɲá-</td>
<td>‘joke’</td>
</tr>
<tr>
<td>cuɛ-</td>
<td>‘water’</td>
</tr>
<tr>
<td>ɛsá-</td>
<td>‘drunkenness’</td>
</tr>
<tr>
<td>ɪ̯ʊɛ-</td>
<td>‘lie’</td>
</tr>
<tr>
<td>jáká-</td>
<td>‘elders’</td>
</tr>
<tr>
<td>kirotí-</td>
<td>‘sweat’</td>
</tr>
<tr>
<td>ɲɛkɛ-</td>
<td>‘hunger’</td>
</tr>
<tr>
<td>ɲókí-</td>
<td>‘dog’</td>
</tr>
<tr>
<td>sáɡo-</td>
<td>‘snare’</td>
</tr>
</tbody>
</table>
In closing, the following examples of the stative suffix {-án-} in discourse contexts illustrate how it is inflected for subject-agreement on the verb:

(267)  
\[ \text{Muɗukanid.} \]
\[ \text{müɗúk-án-id-∅} \]
blind-STAT-2SG-REAL
You are blind.

(268)  
\[ \ldots \text{idodókanatie tumedoo jik.} \]
\[ \text{idódók-án-áti-e tume'didj̱-jík} \]
pile-STAT-3PL-SIML there-ABL ADV
...(they being) piled up all over there.

(269)  
\[ \text{Iteisinoo wicee tutukanatie ho.} \]
\[ \text{ɪtɛ́-ɪsɪnɔ-ɔ wicé-ɛ tutuk-áń-áti-e ho-∅} \]
reach-1PL.INC-SEQ children-DAT curl-STAT-3PL-SIML house-ABL
And we found the children curled up in the house.

7.10.5 Plural

The ‘plural adjectival’ suffix {-ik-} is only rarely attested. It is most likely related to the plurative III suffix {-ika-} (§4.2.3). These morphemes have parallels in Surmic (e.g. Murle) and Teso-Turkana which are of “considerable antiquity” (Dimmendaal 1983:333). The suffix {-ik-} is recessive but harmonizes to /-ik-/ on [+ATR] stems. It has a L tone.

The plural adjectival suffix obligatorily marks a tiny subset of adjectival verbs as plural. Only two examples are known: ze- ‘big’ and kwáts- ‘small’:

(270)  
\[ \text{roɓa ni zeik} \]
\[ \text{roɓ-a = ní ze-ik-∅} \]
people-NOM = REL.PL big-ADJ.PL-REAL
big people (i.e. adults or persons in charge)
The plural adjectival suffix often occurs with the distributive adjectival suffix {-aák-} (described in the next section):

(272)  Bedata zeikaakonukotik.
béď-át-a ze-ik-aak-ón-ukotí-k¹
want-3PL-REAL big-ADJ.PL-DISTR-INF-COMP-ACC
They are (each) about to get big.

(273)  Kwatsikaakit.
kwats-ik-aak-ít¹
small-ADJ.PL-DISTR-2PL-REAL
You (each one of you) are small.

7.10.6 Distributive
The ‘distributive’ adjectival suffix {-aák-} gives a plural adjectival verb a sense of distributiveness. It is probably related historically to the Turkana plural habitual stative -aak that conveys ‘iterativity’ and ‘regularity’ (Dimmendaal 1983:107). The Ik suffix has a LH tone melody but is often flattened to LL in stems due to high-tone suppression (T6). It can also surface as HH as a result of high-tone anticipation (T5). Since it is an opaque dominantly [+ATR] suffix, it can also be represented as {-aák⁺-}. It harmonizes recessive suffixes rightward but not leftward because of /a/.

Being a marker of distributiveness, {-aák-} highlights that each member of a group is equally characterized by a plural verb’s meaning. As such, the suffix can occur with first, second, and third-plural subjects, for example:
Distributive adjectival verbs

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1PL.EXC</td>
<td>maraŋ-aak-ím</td>
<td>‘We are all good.’</td>
<td></td>
</tr>
<tr>
<td>1PL.INC</td>
<td>maraŋ-aak-ísín</td>
<td>‘We are all good.’</td>
<td></td>
</tr>
<tr>
<td>2PL</td>
<td>maraŋ-aak-ít’a</td>
<td>‘You are all good.’</td>
<td></td>
</tr>
<tr>
<td>3PL</td>
<td>maraŋ-aak-át’a</td>
<td>‘They are all good.’</td>
<td></td>
</tr>
</tbody>
</table>

Because {-aák-} ends in the segment /k/, haplology occurs when the suffix is followed by the completive aspect morpheme {-ʊƙɔ tɪ́6} containing /ƙ/. This results in a /áá6/ being a haplologized allomorph of the distributive:

(275) Zeikaaƙotatak.

ze-ik-áá-kot-át-a-kʰ
be-ADJ.PL-DISTR-COMP-3PL-REAL-PRF
They’ve each grown big.

(276) Maa xeɓiaakoi.

má-á [ʃeɓ-í-áá-ko-ítʰ]
not-REAL afraid-PLUR-DISTR-COMP-2PL-REAL
Don’t (each of you) be afraid!

The following are some more instances of the distributive in discourse:

(277) Itaka niyee ni.

it-aak-á nié-é = ni
be.a.size-DISTR-REAL place.PL-DAT = DEM.PL
They each reach this size (lit. ‘these sizes’).

(278) Atsimaa ɓets’aakimie pak.

ats-ima-a ḋets’-aak-imí-e pak¹
come-1PL.EXC-SEQ white-DISTR-1PL.EXC-SIML IEDO
And we came (each of us being) totally white.
7.11 Tense markers

Tense in Ik is a grammatical category that is not reflected in verbal morphology per se but rather in a group of tense particles. The past tenses are expressed by a class of particles analyzed as enclitics because a) they participate in vowel harmony and b) are also in the second position of the clause (§7.11.1). By contrast, the non-past tense particles are treated as free, syntactically mobile adverbial words (§7.11.2).

In the Ik tense system, there is a three-term past tense and three-term non-Past tense distinction. These six terms are presented in (279) along with the enclitics and adverbial particles that encode them:

(279) *Ik six-term tense system*

<table>
<thead>
<tr>
<th></th>
<th>Non-final</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote past</td>
<td>PST3</td>
<td>=nɔɔ =nɔkʰ</td>
</tr>
<tr>
<td>Removed past</td>
<td>PST2</td>
<td>=bɛɛ =batsʰ</td>
</tr>
<tr>
<td>Recent past</td>
<td>PST1</td>
<td>=náa =nákʰ</td>
</tr>
<tr>
<td>Distended present</td>
<td>PRES</td>
<td>ts’ɔɔ ts’ɔɔ</td>
</tr>
<tr>
<td>Removed future</td>
<td>FUT2</td>
<td>táa táa</td>
</tr>
<tr>
<td>Remote future</td>
<td>FUT3</td>
<td>fara far</td>
</tr>
</tbody>
</table>

These tense particles are usually found with verbs in the realis modality, but they can also less commonly occur with irrealis verbs in the simultaneous or sequential aspects, for example here in (280):

(280) *Tense enclitics with different TAM types*

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Realis:</td>
<td>gaan-át-a = batsʰ</td>
<td>‘They were bad yesterday.’</td>
</tr>
<tr>
<td>Simultaneous:</td>
<td>gaan-áti-e = batsʰ</td>
<td>‘they being bad yesterday.’</td>
</tr>
<tr>
<td>Sequential:</td>
<td>gaan-inf i = batsʰ</td>
<td>‘And from there they were bad yesterday.’</td>
</tr>
</tbody>
</table>
7.11.1 Past tense clitics

As noted above, the past tense particles shown in (279) are analyzed as enclitics for two reasons: 1) They participate in vowel harmony within the phonological word, and 2) they are usually the second element in the clause. Vowel harmony only affects the remote =nɔɔ and removed =bee since the recent past =náa contains only /a/. If the morpheme to which these recessive clitics attach is [-ATR], then they remain the same. But if the morpheme is [+ATR] the clitics are harmonized to =noo and =bee. In the following four examples, the [-ATR] verbs áts'- ‘eat’ and šɪk- ‘hang’ are first separated from the tense clitics by the dominant opaque [+ATR] realis suffix {-a’}. This suffix harmonizes the tense clitic but not the verb stem. In the second set of sentences (right column), no [+ATR] suffix intervenes, and so the underlying [-ATR] forms of the clitics are allowed to surface:

(281)  
<table>
<thead>
<tr>
<th>Ik</th>
<th>Ik</th>
</tr>
</thead>
<tbody>
<tr>
<td>áts'uƙota nok.</td>
<td>Áts'uƙotukoo nok.</td>
</tr>
<tr>
<td>áts'-úƙɔt-a = nok’</td>
<td>áts'-úƙɔt-u-kɔ = =nɔk’</td>
</tr>
<tr>
<td>eat-COMP-REAL = PST3</td>
<td>eat-COMP-3SG-SEQ = DP = PST</td>
</tr>
<tr>
<td>He ate (it) up.</td>
<td>And from there he ate (it) all up.</td>
</tr>
</tbody>
</table>

(282)  
<table>
<thead>
<tr>
<th>Ik</th>
<th>Ik</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xika bee?</td>
<td>Xikukoo bee?</td>
</tr>
<tr>
<td>šɪk-á = bee</td>
<td>šɪk-u-kɔ = =bee</td>
</tr>
<tr>
<td>hang-REAL = PST</td>
<td>hang-3SG-SEQ = DP = PST</td>
</tr>
<tr>
<td>Did he hang it yesterday?</td>
<td>And did he hang it from there?</td>
</tr>
</tbody>
</table>

As ‘second-position’ clitics, the Ik past tense clitics generally immediately follow the first element of the clause. That element is usually the main verb, but can also be a negating verb, a verbless copula, or even a conjunction:

(283)  
<table>
<thead>
<tr>
<th>Ik</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nkakia nak.</td>
</tr>
<tr>
<td>ŋkáƙ-i-a = nak’</td>
</tr>
<tr>
<td>eat-1SG-REAL = PST</td>
</tr>
</tbody>
</table>
As shown back in (279), the Ik tense system has three past-tenses. Recent past covers the general time period of ‘earlier today’. Removed past covers ‘the last X’ where X is a specified time unit like ‘hour’, ‘day’, ‘week’, ‘year’, etc. If the time unit is not specified, then ‘last day’ or ‘yesterday’ is implied. The Ik Removed Past coincides nicely with the archaic English descriptor ‘yester-’ as in yesterday and yesteryear. Remote past covers the time period from ‘before yesterday’ to as far back in time as the speaker might intend. The three past tense markers and their time depths are repeated below:

<table>
<thead>
<tr>
<th>Ik past tense enclitics</th>
<th>UF</th>
<th>NF</th>
<th>FF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote (PST3)</td>
<td>nako</td>
<td>=nco</td>
<td>=nko</td>
</tr>
<tr>
<td>Removed (PST2)</td>
<td>batse</td>
<td>=bez</td>
<td>=bats</td>
</tr>
<tr>
<td>Recent (PST1)</td>
<td>naka</td>
<td>=nía</td>
<td>=nák</td>
</tr>
</tbody>
</table>

The following sentences illustrate these tense clitics with a simple verb:
Atsia nak.
ats-f-á = nakᵃ
come-1SG-REAL = PST1
I came (earlier today).

Atsia bats.
ats-f-á = batsᵉ
come-1SG-REAL = PST2
I came yesterday.

Atsia nok.
ats-f-á = nokᵒ
come-1SG-REAL = PST3
I came a while back/a long time ago.

Two of the past tense clitics—the remote past =nɔkɔ and the recent past =náka—are identical in form to demonstratives and relative pronouns of the same tense specification. Ik demonstratives are tensed (see §8.2), and it is suggested here that relative pronouns and two of the three tense particles may have developed out of the demonstrative system:

(289)  * Atsia bats.
ats-f-á = batsᵉ
come-1SG-REAL = PST2
I came yesterday.

(290)  * Atsia nok.
ats-f-á = nokᵒ
come-1SG-REAL = PST3
I came a while back/a long time ago.

(291)  * A comparison of tensed grammatical systems

<table>
<thead>
<tr>
<th></th>
<th>Demonstratives</th>
<th>Relative pronouns</th>
<th>Tense clitics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent</td>
<td>ná-ka</td>
<td>ná-ka</td>
<td>ná-ka</td>
</tr>
<tr>
<td>Removed</td>
<td>sí-na</td>
<td>sí-na</td>
<td>(ba-tse)</td>
</tr>
<tr>
<td>Remote</td>
<td>nɔ-kɔ</td>
<td>nɔ-kɔ</td>
<td>nɔ-kɔ</td>
</tr>
</tbody>
</table>

A comparison of the three grammatical systems shows they are linked by what appear to be archaic morphemes: *-’ka for recent past, *-(t)se/st? for removed, and *-kɔ for remote. The suffix *-’ka is related to the present perfect suffix (’ka), and both may be linked to the Afar language’s -ka meaning ‘before’ (Mahaffy, n.d., p. 29). As for *-kɔ, it has obvious ties to the morpheme {-kɔ} which marks both copulative case and sequential aspect.
7.11.2 Non-past tense adverbials

Dixon claims that languages divide neatly into the following two groups according to how a ‘future’ setting is handled grammatically (2012:7):

(292) I Future is a tense, referring to a location in time.
    II Future is shown by modalities, within irrealis.

However, Ik does not lie exclusively in either of these two groups. In a near mirror-image of the three past tense clitics, Ik has a three-term non-past tense system that is expressed by free, adverb-like particles. But a non-past setting in Ik is also conveyed by the intentional modality suffix {-ɛ́s-} (§7.7.3). So ‘future’ for Ik is a concept hinging both on tense adverbs and verbal morphology, a combination of Dixon’s groups I and II.

The following table repeats Ik’s three-term non-past tense system:

(293) Non-past tense adverbs

<table>
<thead>
<tr>
<th>NF</th>
<th>FF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distended present (PRES)</td>
<td>ts’ɔɔ</td>
</tr>
<tr>
<td>Removed (FUT2)</td>
<td>tåa</td>
</tr>
<tr>
<td>Remote (FUT3)</td>
<td>fara</td>
</tr>
</tbody>
</table>

These non-past adverbs, unlike the past-tense clitics, are not morphologically related to each other. The remote future adverb is sometimes given the form faro/faro, probably being reinterpreted as a time word that should take the instrumental case suffix {-ɔ} (see §6.3.3).

The first term in the non-past system is called ‘distended present’ because the adverb ts’ɔɔ can be used in both recently past and nearly future senses. In other words, ts’ɔɔ can refer to the present time distended slightly in the past and slightly into the future. For example, one hears both atsíá=naa ts’ɔɔ ‘I just came’ and ats-ɛ́s-t-a ts’ɔɔ ‘I will come just now’.
The following sentences offer a comparison of the three non-past terms:

(294)  *Nkaksesia ts’oo.*
       *ŋkaƙes6í6á          ts ‘ɔɔ*
       eat-INT-1SG-REAL   PRES
       I will eat just now.

(295)  *Nkaksesia taa.*
       *ŋkaƙes6í6á          táa*
       eat-INT-1SG-REAL   FUT2
       I will eat later/next time.

(296)  *Nkaksesia far.*
       *ŋkaƙes6í6á          far*
       eat-INT-1SG-REAL   FUT3
       I will eat in the future.

A non-past tense adverb can occur pre-verbally in subordinate clauses like the one below where it is used with an irrealis impersonal passive verb:

(297)  *Naa fara kwaatetanie wicea,...*
       *ńáa    fara   ƙwaat6ét6anɪ́6ɛ́     wicé6á*
       CONJ FUT3 bear-INCH-IPS-SIML children-acc
       When children are born in the future,...

And unlike the past-tense clitics, the freely occurring non-past tense adverbials can precede or follow the negated verb in a negative clause, e.g.:

(298)  *Nta ts’oo koì.*          *Nta koìi ts’oo.*
       *ńt-á   ts'ɔɔ    kó-í*  *ńt-á    kó-íi   ts'ɔɔ*
       not-REAL  PRES go-1SG[IRR]   not-REAL  go-1SG[IRR]  PRES
       I’m not going now.          I’m not going now.
7.12 Epistemic qualification

Ik employs three methods for qualifying the certainty of knowledge expressed in a statement. Knowledge that is not completely certain, that is made on inference from observed evidence, may be expressed with a set of morphologically complex ‘inferential’ particles (§7.12.1). Knowledge gained counter-expectationally is marked at the clausal level through a special combination of verbal modality and nominal case marking (§7.12.2). And lastly, knowledge expressed as a way to confirm a state of affairs is marked by a special usage of temporal particles (§7.12.3). Quite unlike evidentiality in some other languages, these epistemic devices are not part of an obligatory inflectional system in Ik. They are simply an available means to qualify the status of one’s knowledge communicated in a proposition.

7.12.1 Inferential

When Ik speakers make an inference about something based on any observable evidence, they may use an ‘inferential’ adverbial particle. Because the knowledge expressed is only inferred, it has a degree of uncertainty. This inferentiality can be translated in English with such phrases as ‘it seems’, ‘it appears’, ‘X must have…, and ‘apparently, …’.

The inferential adverbials—also called markers of ‘uncertain past’ (Heine & König 1996:80)—are made up of the conjunction-like particle na and the past-tense enclitics presented in (287) above (except for the removed past form which uses -tsamo instead). Both elements are clitics themselves, and so they fuse easily into one phonological word. So in addition to encoding inference, the inferential adverbials are conveniently tensed:

(299) Inferential adverbials

<table>
<thead>
<tr>
<th></th>
<th>NF</th>
<th>FF</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent (PST1)</td>
<td>ná = bee</td>
<td>ná = bats⁶</td>
<td>earlier today</td>
</tr>
<tr>
<td>Removed (PST2)</td>
<td>ná = tsam</td>
<td>ná = tsam</td>
<td>yesterday</td>
</tr>
<tr>
<td>Remote (PST3)</td>
<td>ná = noo</td>
<td>ná = nok⁶</td>
<td>before yesterday</td>
</tr>
</tbody>
</table>
The inferential adverbials may come before or after the main verb, with no significant difference in meaning, for example:

(300)  \textit{Nabee ka.} \hspace{1cm} \textit{Kaa nabats.}  \\
\text{ná = bee} \hspace{5mm} \text{ka-∅} \hspace{5mm} \text{ka-a} \hspace{5mm} \text{ná = bats°}  \\
\text{INFR = PST} \hspace{5mm} \text{go-REAL} \hspace{5mm} \text{go-REAL INFR = PST} \hspace{5mm} 1  \\
\text{It seems she has gone.} \hspace{5mm} \text{She has gone, it seems.}

\textbf{7.12.2 Counter-expectational}

Another way to qualify evidence-based knowledge is through a ‘counter-expectational’ construction. This syntactic construct consists of a main verb in the sequential aspect and the plural pronoun \textit{ɗi} as a peripheral argument in the instrumental case. Semantically, this construct can be formulated as: \textit{X has done Y/X by these} (i.e. bits of evidence). Whereas the inferential particles admit a degree of uncertainty, the counter-expectational construction expresses reasonable certainty based on direct evidence. And the evidence gained contradicts what was originally expected. This can be translated along the lines of ‘Oh, X really did Y’ or ‘X really is Y’.

(301)  \textit{Kayuo do.}  \\
\text{ka-i-o} \hspace{5mm} \text{ɗ-ó}  \\
go-3SG-SEQ \hspace{5mm} \text{ones-INS}  \\
\text{Oh, she really did go (Lit. ‘And she goes, by those.’).}

The counter-expectational construction is in the process of being grammaticalized. This is shown by the fact that the peripheral argument \textit{ɗó} ‘by these’ must unexpectedly come between the verb and any overt subject:

(302)  \textit{Bets’etuo do ɗam.}  \\
béts’-ét-u-o \hspace{5mm} \text{ɗ-ó} \hspace{5mm} \text{ŋám-∅}  \\
white-INCH-3SG-SEQ \hspace{5mm} \text{ones-INS} \hspace{5mm} \text{sorghum-NOM}  \\
The sorghum has begun to turn white (by all appearances).
7.12.3 Confirmational

The tensed conjunctions that are used to introduced temporal subordinate clauses (§9.6.1) are also used in a ‘confirmational’ construction. This construction consists of a tensed conjunction (náa, sma, or noo) followed by a verb in the realis modality. Semantically, the construction serves to confirm a state of affairs by placing extra emphasis on the predication. It can be translated along the lines of ‘Yes, X did Y.’ Compare the following regularly tensed sentences and their their confirmational counterparts:

(303)  Kaa nak.     Naa kaa.
       ka-a = nákᵃ  náa   ka-a
       go-REAL = PST1   CONF.PST1 go-REAL
She went.       Yes, she did go.

(304)  Nƙaƙima bats.    Sina nƙaƙima.
       ŋƙáƙ6ím6a=batsᵉ   sɪna   ŋƙáƙ6ím6a
       eat61   PL.EXC-REAL = PST2   CONF.PST2  eat-1PL.EXC-REAL
We ate.       Yes, we did eat.

(305)  Todía nok.     Noo todia.
       tód-i-a = nokᵒ     noo   tód-i-a
       speak-1SG-REAL = PST3  CONF.PST3  speak-1SG-REAL
I spoke (to him).       Yes, I did speak (to so-and-so).

The confirmational construction is morphologically interrogative, in that the final vowel is voiced in a clause-final position. For example, in the indicative mood, one would expect the phrase in (305) ‘Yes, I did speak (to so-and-so)’ to surface as noo tódi in Ik, with the realis {-a} devoiced or deleted. Perhaps at a pragmatic level, the structure is functioning as a rhetorical question whose implied response is ‘Yes, of course you spoke’.
8 Other Word Classes

In addition to nouns and verbs—Ik’s large open word classes—the language also has several other, closed word classes. These include quantifiers (§8.1), demonstratives (§8.2), adverbs (§8.3), conjunctions (§8.4), prepositions (§8.5), interjections (§8.6), ideophones (§8.7), and infantile imperatives (§8.8). Time expressions, while technically nouns, are discussed as a lexical subset in §8.9. And though greetings do not make up a separate class in and of themselves, they are used in a ritualized way that transcends whatever word classes they consist of. For that reason, they are discussed in §8.10.

8.1 Quantifiers

One of the ways the grammatical number of a noun phrase is encoded is through quantifiers. Ik has both non-numeral and numeral quantifiers. With a few exceptions, Ik quantifiers are verbs in the surface structure. So, like the Adjectival verbs described in the last chapter, quantifier verbs might not be analyzed as a separate word class. However, since some quantifiers are not verbs and others are becoming less verb-like, they are all treated here under one general category. The verbal nature of quantifiers is shown in the following four examples where they take a variety of verbal suffixes such as subject-agreement, modal, and aspectual markers:

(1) kom-ím∅
many-1PL.EXC-REAL
We are many.

(2) kom-ukot-ím-á-kᵃ
many-COMP-1PL.EXC-REAL-PRF
We have become many.

(3) leɓets-átᵃ
two-3PL-REAL
They are two.

(4) leɓets-i-áti-kᵉ
two-PLUR-3PL-SIML
...they (being) two by two.
In these four clauses, the quantifier fills the syntactic slot for an intransitive verb. Quantifiers can also follow the noun they modify in a relative clause (RC). Examples (5)-(6) illustrate the non-numeral quantifiers *kom* ‘be many’ and *ƙwaɗ* ‘be few’ acting as the verb in relative clauses:

(5)  *Kutese hakwesie dâng ease ni kom.*

ustain-SPS gather-INF-DAT white.ant(s)-GEN = REL-PL many-REAL

And it was decided to gather many white ants.

(6)  *Kōts et-í-â = naa někilorĩ-ik-a = ni ƙwaɗ-∅*

fetch-VEN-1SG-REAL PST1 jerrycan-PL-NOM = REL-PL few-REAL

I fetched a few jerrycans.

Quantifiers in relative clauses may also appear without a relative pronoun:

(7)  *Hoese oŋora odoićiko leɓets.*

cut-SPS elephant(s)-NOM day-PL-INS two

And the elephants are cut up over two days.

(8)  *Hyeyia kida kwad.*

know-1SG-REAL DIST = ones-NOM few

I know a few (e.g. words of Ik).

Not only is there no relative pronouns in (7) and (8), but the quantifiers exhibit no verbal morphology at all. In fact, the words for numbers 1-5, as well as the non-numeral quantifiers *kwade* ‘few’ and *koma* ‘many’, can function as full verbs or adjective-like words without verbal morphology. In the their non-verbal function, the numbers 2-5 and *kwad* end in the vowel /e/, while the number 1 and *kom* end in /a/:
Quantifiers with some non-verbal properties

<table>
<thead>
<tr>
<th>Numeral</th>
<th>Non-numeral</th>
</tr>
</thead>
<tbody>
<tr>
<td>kọna</td>
<td>‘one’</td>
</tr>
<tr>
<td>leɓetse</td>
<td>‘two’</td>
</tr>
<tr>
<td>aɗe</td>
<td>‘three’</td>
</tr>
<tr>
<td>ts’aɡúsé</td>
<td>‘four’</td>
</tr>
<tr>
<td>tude</td>
<td>‘five’</td>
</tr>
<tr>
<td>ƙwaɗe</td>
<td>‘few’</td>
</tr>
<tr>
<td>koma</td>
<td>‘many’</td>
</tr>
</tbody>
</table>

The unverblikeness seen among the quantifiers in (9) indicates one of two things: Either a) numbers used to be a separate word class and then became more verb-like, or b) they used to be full verbs are gradually losing verb-like characteristics and becoming more of a separate word class.

8.1.1 Non-numeral quantifiers

Ik non-numeral quantifiers are limited to two lexical verbs (also as adjective-like particles) and three invariable adjective-like particles:

<table>
<thead>
<tr>
<th>Ik non-numeral quantifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>kom-oni-</td>
</tr>
<tr>
<td>kwaf-oni-</td>
</tr>
<tr>
<td>‘gáí’</td>
</tr>
<tr>
<td>múpu</td>
</tr>
<tr>
<td>tsíɗi</td>
</tr>
<tr>
<td>‘to be many’</td>
</tr>
<tr>
<td>‘to be few’</td>
</tr>
<tr>
<td>‘both’</td>
</tr>
<tr>
<td>‘all, whole’</td>
</tr>
<tr>
<td>‘all, whole’</td>
</tr>
</tbody>
</table>

The next few sentences provide some examples from various contexts:

Atsituo komitikee?
ats-itu-o kom-iti-kee
come-2PL-SEQ many-2PL-SIML
Then you come when there are many of you, ok?
Animals have become few in this land.

And both of you stay.

And meat was eaten in all the villages.

It's God who knows all these issues.

8.1.2 Numeral quantifiers

Ik has a quinary or base-5 counting system: There are lexical number words for the numbers 1-5, and then numbers 6-9 are formed by saying ‘five and one’, ‘five and two’, etc. The word koni- ‘one’ functions as noun elsewhere in the language, and the number 10 is the noun to(o)míní, related to tomon ‘ten’ which has widespread areal parallels in both Afroasiatic and Nilo-Saharan. Other etymological hints are presented with numbers 1-5 in (16).

As already noted, number words can function as verbs with verbal morphology or as a distinct adjective-like word class in which numbers 2-5 end in the vowel /e/. Both types are given here:
(16) *Ik numbers 1-5*

<table>
<thead>
<tr>
<th>#</th>
<th>Verb</th>
<th>Numeral</th>
<th>Some areal parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>kɔn-</td>
<td>kɔna</td>
<td>Lango (WNil) kɛ̀n ‘alone’</td>
</tr>
<tr>
<td>2</td>
<td>leɓets-</td>
<td>leɓetse</td>
<td>Saho (LowCush) lamma ‘two’</td>
</tr>
<tr>
<td>3</td>
<td>ad-</td>
<td>ade</td>
<td>Lwo (WNil) adek ‘three’</td>
</tr>
<tr>
<td>4</td>
<td>ts’agús-</td>
<td>ts’agúsé</td>
<td>Saho (LowCush) adooxá ‘three’</td>
</tr>
<tr>
<td>5</td>
<td>tud-</td>
<td>tude</td>
<td>Shabo (Nilo-Saharan?) <em>tuula</em> ‘five’</td>
</tr>
</tbody>
</table>

Number 6-9 are formed with the quinary base 5 *tud/-tude* plus the singular (for 6) and plural (for 7-9) pronouns *kt = d̥* (sg.) and *ki = d̥i* (pl.):

(17) *Ik numbers 6-9*

<table>
<thead>
<tr>
<th></th>
<th>tude ŋda ki = d̥i kɔn</th>
<th>tude ŋda ki = d̥í leɓets</th>
<th>tude ŋda ki = d̥í ade</th>
<th>tude ŋda ki = d̥í ts’aɡús</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When something is being counted in sequence, the numbers 1-9 can be treated as verbs taking the sequential suffixes {-kɔ} (sg.) and {-im} (pl.):

(18) *Ik verbal counting*

- kɔnʊ-k’ ‘And it is one.’
- leɓets-in ‘And they are two.’
- ad-in ‘And they are three.’
- ts’aɡús-in ‘And they are four.’
- tud-in ‘And they are five.’
- tud-in ŋda ki d̥í kɔn ‘And they are six.’
- tud-in ŋda ki d̥í leɓets ‘And they are seven.’
- tud-in ŋda ki d̥í ade ‘And they are eight.’
- tud-in ŋda ki d̥í ts’aɡús ‘And they are nine.’
The numbers 10, 100, 1000, 10,000, 1,000,000, and 1,000,000,000 are all nouns. The larger denominations—hundred thousand, million, billion—have names borrowed from English as well as indigenous labels:

(19) **Numbers 10-1,000,000,000**

<table>
<thead>
<tr>
<th>#</th>
<th>Borrowed</th>
<th>Indigenous</th>
<th>Meaning/Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>to(o)míní-</td>
<td></td>
<td>(cf. Trk. tomon)</td>
</tr>
<tr>
<td>100</td>
<td>ŋamíáí-</td>
<td></td>
<td>(&lt;Swahili mia)</td>
</tr>
<tr>
<td>1,000</td>
<td>álifu-</td>
<td></td>
<td>(&lt;Swahili elfu)</td>
</tr>
<tr>
<td>100,000</td>
<td>álifika ŋamíá kɔn kɔrɔ́ká kɔn 'one finger'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,000,000</td>
<td>pɛ́mɛ́lioni-</td>
<td>dakwa kɔn</td>
<td>'one tree'</td>
</tr>
<tr>
<td>1,000,000,000</td>
<td>nɛ́ɓɛ́lioni-</td>
<td>ðola kɔn</td>
<td>'one old hive'</td>
</tr>
</tbody>
</table>

Multiples of ten are formed with the nouns to(o)míní- ‘ten’ and ekú- ‘eye’:

(20) **Multiples of ten**

<table>
<thead>
<tr>
<th></th>
<th>tomnín-ékwa leɓetsᵉ</th>
<th>ten-eye two</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>tomín-ékwa a leɓetsᵉ</td>
<td>ten-eye three</td>
</tr>
<tr>
<td>30</td>
<td>tomín-ékwa a ts'agús</td>
<td>ten-eye four</td>
</tr>
<tr>
<td>40</td>
<td>tomín-ékwa a ts'agús</td>
<td>ten-eye four</td>
</tr>
<tr>
<td>50</td>
<td>tomín-ékwa a túdo</td>
<td>ten-eye five</td>
</tr>
<tr>
<td>60</td>
<td>tomín-ékwa a túdo ŋádi kɔn kɔn 'ten-eye six'</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>tomín-ékwa a túdo ŋádi kɔn léɓetsᵉ</td>
<td>ten-eye seven</td>
</tr>
<tr>
<td>80</td>
<td>tomín-ékwa a túdo ŋádi kɔń adᵉ</td>
<td>ten-eye eight</td>
</tr>
<tr>
<td>90</td>
<td>tomín-ékwa a túdo ŋádi ts'agús</td>
<td>ten-eye nine</td>
</tr>
</tbody>
</table>

The numbers between multiples of 10 can be formed in two ways. Both ways start with the relevant multiple of 10 (20, 50, 70, etc.) followed by the connective ŋáda ‘and’. For numbers like 11, 21, 31, etc., this connective can be followed by either kidi kɔn ‘and that one, one’ or nɛ́ɓɛ́kɔn. The precise meaning of nɛ́ɓɛ́- is not currently known, thought a possible connection is with the word nɛ́bu- ‘body’. For numbers like 12/22, 13/23, and above, the connective ŋáda can be followed either by kidi ‘the ones’ or by jir-µu ‘its remainders’ and the appropriate number word. The word jir-µu consists of
the noun *jɪrɪ* ‘behind’ and the possessive plurative {-mɛ}, not the 3pl. sequential aspect marker {-mt} as supposed by Heine & König (1996:42):

(21) **Numbers 11-19**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>tomíní ñda kidi/nébeٍ kon</td>
</tr>
<tr>
<td>12</td>
<td>tomíní ñda kidi/jirən lébɛtsɓ</td>
</tr>
<tr>
<td>13</td>
<td>tomíní ñda kidi/jirən adɓ</td>
</tr>
<tr>
<td>14</td>
<td>tomíní ñda kidi/jirən ts'agús</td>
</tr>
<tr>
<td>15</td>
<td>tomíní ñda kidi/jirən túdɓ</td>
</tr>
<tr>
<td>16</td>
<td>tomíní ñda kidi/jirən túde ñda kidi kon</td>
</tr>
<tr>
<td>17</td>
<td>tomíní ñda kidi/jirən túde ñda kidi lébɛtsɓ</td>
</tr>
<tr>
<td>18</td>
<td>tomíní ñda kidi/jirən túde ñda kidi adɓ</td>
</tr>
<tr>
<td>19</td>
<td>tomíní ñda kidi/jirən túde ñda kidi ts'agús</td>
</tr>
</tbody>
</table>

Ik counting can get quite complicated, as the following numbers show:

(22) **Complicated Ik counting**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>66</td>
<td>tomínékwa túde ñda kidi kön ñda jirən túd ñda kidi kön</td>
</tr>
<tr>
<td>999,999</td>
<td>álifika nɔmìá tude ñda kidi ts'agúsé ñda tomínéku tude ñda kidi ts'agúsé ñda nɔmìá tude ñda kidi ts'agúsé ñda tomínéku tude ñda kidi ts'agúsé ñda jirən tude ñda kidi ts'agús</td>
</tr>
</tbody>
</table>

Ik ordinal numbers are formed with relative pronouns or demonstrative pronouns plus the relevant number verb in the infinitive form, as in:

(23) **Ik ordinal numbers 1-5**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>na/da kán-øni</td>
</tr>
<tr>
<td>2nd</td>
<td>na/da lebets-øni</td>
</tr>
<tr>
<td>3rd</td>
<td>na/da ád-ønì</td>
</tr>
<tr>
<td>4th</td>
<td>na/da ts'agús-ønì</td>
</tr>
<tr>
<td>5th</td>
<td>na/da túd-ønì</td>
</tr>
</tbody>
</table>
8.2 Demonstratives

Demonstratives are words that point to or ‘demonstrate’ nouns in the discourse (and real entities extralinguistically). The demonstrative word class in Ik is made up of eleven nominal demonstratives, three locative adverbial demonstratives, and four special anaphoric demonstratives: two nominal and two locative adverbial ones. Five of the nominal demonstratives have spatial reference, while six others have temporal reference. The tensed demonstratives are based on the singular and plural proximal spatial demonstratives. Both spatial and temporal nominal demonstratives follow their referent and reflect the grammatical number of their referent(s). Ik nominal demonstratives have a deictic function of specifying the relative spatial location of a referent and the syntactic function of modifying an NP in any core or peripheral argument.

8.2.1 Spatial nominal demonstratives

In its spatial demonstrative system, Ik exhibits a three-term distance distinction in the singular and a two-term distinction in the plural. The singular spatial demonstratives are recessively [-ATR], while the plural ones are dominantly [+ATR], post-lexically harmonizing only one preceding syllable. All the spatial nominal demonstratives are analyzed as enclitics based on their forming a phonological word with vowel harmony.

(24)  Ik spatial demonstratives

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proximal</td>
<td>= na</td>
<td>= ni</td>
</tr>
<tr>
<td>Medial</td>
<td>= ne</td>
<td></td>
</tr>
<tr>
<td>Distal</td>
<td>= ke</td>
<td>= ki</td>
</tr>
</tbody>
</table>

For the singular demonstratives in (23), Proximal refers to distances relatively near to the speaker, medial to a distance slightly farther from the speaker, and distal to a distance relatively far from the speaker. The distinction between proximal and medial is collapsed among the plural
demonstratives: \( =ni \) covers any non-distal location from the speaker and is referred to simply as proximal in opposition to distal.

The Ik spatial nominal demonstratives follow the argument they modify. They can occur with nouns and pronouns but cannot stand alone as an NP (except possibly where the NP head is pragmatically implied). Cases of demonstratives with personal pronouns are restricted to a vocative-type situations like the one shown in (25). The sentence in (26) is shows how a demonstrative cannot stand alone as an NP, in this case the complement of a copula. The independent usage in (26) is only grammatical if the implicit referent is understood. For example, it could be uttered along with a pointing gesture to clarify which entity was referred to by another speaker. But the usual way of referring pronominally to a 3-person referent is with the demonstrative pronouns \( \text{ɗɪ} \) (sg.) and \( \text{ɗi} \) (pl.).

(25)  
\[
\begin{align*}
\text{awa na} & \quad \text{Bia na!} \\
\text{aw-a = na} & \quad \text{bi-a = na} \\
\text{home-NOM = DEM.SG.PROX} & \quad \text{you.SG-NOM = DEM.SG.PROX} \\
\text{this home (here)} & \quad \text{You! (lit. 'This you (here)')} \\
\end{align*}
\]

(26)  
\[
\begin{align*}
**\text{Mita na.} & \quad \text{Na?} \\
**\text{mit-a} & \quad \text{na} \\
**\text{be-REAL. DEM.SG.PROX} & \quad \text{DEM.SG.PROX} \\
**\text{It's this.} & \quad \text{This?}
\end{align*}
\]

8.2.2 Temporal nominal demonstratives

Ik also has temporal or ‘tensed’ nominal demonstrative clitics. They are based on the spatial demonstratives but not on an analogy of time as distance. Rather, the proximal forms in (24)—\( na \) (sg.) and \( ni \) (pl.)—are used as the non-past form and the base for the three-term past demonstratives. The singular remote past demonstrative \( =nɔɔ \) is recessive, while all four plural temporal demonstratives are dominantly \(+\text{ATR}\) post-lexically:
Temporal nominal demonstratives

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th></th>
<th>Plural</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-final</td>
<td>Final</td>
<td>Non-final</td>
<td>Final</td>
</tr>
<tr>
<td>Non-Past</td>
<td>= na</td>
<td>= na (=n)</td>
<td>= ni</td>
<td>= ni (=n)</td>
</tr>
<tr>
<td>Recent Past</td>
<td>= náa</td>
<td>= nákʰ</td>
<td>= ní</td>
<td>= níkʰ</td>
</tr>
<tr>
<td>Removed Past</td>
<td>= sɪna</td>
<td>= sɪn</td>
<td>= sini</td>
<td>= sín</td>
</tr>
<tr>
<td>Remote Past</td>
<td>= nɔɔ</td>
<td>= nɔkᵣ</td>
<td>= nuu</td>
<td>= nukᵣ</td>
</tr>
</tbody>
</table>

The non-past demonstratives in their final forms can optionally lose their final (and sole) vowel, firmly attaching them to the preceding noun. As is discernable from (27), = na for singular and = ni for plural form the basis for the other tensed demonstratives. Although it seems they were bimorphemic historically, these forms will be henceforth treated as single morphemes. The frozen suffix *-kʰa seen on the singular recent past demonstrative in (27) is related to the present perfect morpheme formally and semantically. The frozen suffix *-kɔ attached to the singular remote past demonstrative is likewise linkable to to the synchronic copulative case and sequential aspect morpheme {-kɔ}. A clue to the origin of the frozen prefix *sɪ/sié- in the removed past members of the paradigm in (27) comes from the South Omotic language Dime’s ‘feminine demonstrative’ siná that contains the prefix si- denoting ‘nearness’ (Mulugeta 2008:72-73).

In the remote past forms for both singular and plural, vowel assimilation occurs. The combination na + (k)ɔ leads to nɔé(k)ɔ in the singular, and the combination ni + (k)u leads to nué(k)u in the plural.

The Ik temporal demonstratives are identical to both the relative pronouns (which are tensed; §5.6) and the temporal subordinating conjunctions (§8.4.1). It seems that historically they were all part of one system, though synchronically they must be treated as separate. The relationship between these identical forms in disparate systems can be represented as follows:
(28) **Interrelationship of na-(k)a in three grammatical systems**

<table>
<thead>
<tr>
<th></th>
<th>ámá = nak'a</th>
<th>‘that person (earlier)’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative pronoun</td>
<td>ámá = naa…</td>
<td>‘the person who...(earlier)’</td>
</tr>
<tr>
<td>Subordinating</td>
<td>náa ámáa...</td>
<td>‘When the person...(earlier)’</td>
</tr>
</tbody>
</table>

Heine & Kuteva describe two grammaticalization pathways that could apply to (28): 1) demonstrative > relativizer, and 2) relativizer > subordinator (2007:89, 95). In light of this, it seems likely that the Ik tensed relative pronouns developed out of the tensed demonstratives, and that the tensed subordinating conjunctions developed from the tensed relative pronouns.

### 8.2.3 Anaphoric demonstratives

The anaphoric demonstrative clitics =ꜜdɛ́ɛ́ (sg.) and =ꜜdíí (pl.) are used to refer to any bit of information already identified at least once in a discourse. The singular form is recessive and can occur as =‘dédé after a [+ATR] morpheme. The plural form is dominantly [+ATR], capable of harmonizing the preceding phonetic syllable post-lexically (§3.1.7). The downstep (ꜜ) is posited to account for the following two tonal effects caused by the depressor consonant /d/ (see §3.2.3): 1) The lowering of the anaphoric demonstratives’ own pitch to mid (see 29) and 2) the lowering of pitch ceiling that occurs after them (see 30). Consider the following examples:

(29) **Takanetesa kweto dee.**

takan-et-és-á kwetós-á =‘dédé

appear-VEN-INT-REAL hand-ABL = ANPH.SG

It will appear on that side (lit. ‘hand’).

(30) **Duksee ima dee awak.**

d-uš-o-e ámá =‘dédé awá-k

take-AND-IMP.SG person[OBL] = ANPH.SG home-DAT

Take that person home.
The information referenced by the anaphoric demonstratives is either a) encoded at least once before in the discourse or b) inferred pragmatically or extralinguistically from the physical or cognitive environment shared between the speech-act participants. That is, the anaphorics refer to discursively and/or pragmatically old information. For example, if someone says *keésía awéé ‘déé bie* ‘I’m going to that home of yours’, it can mean either that a) the house was already mentioned at least once in the conversation or b) that the speaker believes that the particular home is a topic found in the immediate cognitive environments of both speech-act participants.

Any old information, whether noun phrases or whole clauses, can be anaphorically referenced by these demonstratives. In (31) below, the core argument *ɦyɔ ‘cow’, underlined in the first main clause, is referred to anaphorically three clauses (two lines) later (where it is underlined again):

(31) *Na koto ts’edoo nee, koyaa*

\[ na = kótó \quad ts’édé=déé = neé \quad kó-ia-a \]

*CONJ = then there-ABL=DEM.SG.MED \quad go-1SG-SEQ*

*dzigwetiaa ɦyo.*

\[ dzí̤g̤w̤-et-ia-a \quad \{ ɦyɔ-∅\} \]

*buy-VEN-1SG-SEQ \quad cow-NOM*

*Koyaa ceyaa ntsiroɓak.*

\[ kó-ia-a \quad cɛ-ia-a \quad ntsí-róɓa-k’e \]

*go-1SG-SEQ \quad kill-1SG-SEQ she-people-DAT*

*Ceyaa ɦyoa dee.*

\[ cɛ-ia-a \quad \{ ɦyɔ-∅=‘dédé\} \]

*kill-1SG-SEQ cow-NOM = ANPH.SG*

So then from there, I went and bought a cow. And I went and killed it for her people. I killed that *cow.*
By contrast, in (32), the anaphoric noun phrase *emuta ‘déé* ‘that story’ refers back to two full clauses each introduced by *naíta* (and underlined), that are both functioning as complements of the imperative verb *tóde* ‘tell’:

(32)  
\[ \text{Tóde} \]
\[ \text{tó-*d*-e} \]
\[ \text{tell-IMP.SG} \]
\[ \text{naíta noo dukotanee bia ngok,} \]
\[ \text{naíta = noo} \]
\[ \text{d-ukot-an-é = e} \]
\[ \text{bi-a} \]
\[ \text{ŋó-k} \]
\[ \text{way} = \text{REL.SG.PST3 take-AND-IPS-REAL = DP you.SG-ACC we.EXC-DAT} \]
\[ \text{naíta noo tataeakwaa sit's'e bia} \]
\[ \text{naíta = noo} \]
\[ \text{tá-ta-akwa-a} \]
\[ \text{sit's'-é = e} \]
\[ \text{bi-a} \]
\[ \text{way} = \text{REL.SG.PST3 aunt-man-ACC engage-REAL = DP you.SG-ACC} \]
\[ \text{páka iyudukwee ts'oo tí.} \]
\[ \text{páka} \]
\[ \text{i-} \]
\[ \text{ido-} \]
\[ \text{ko = e} \]
\[ \text{ts'oo} \]
\[ \text{tí} \]
\[ \text{until} \]
\[ \text{be-2SG-SEQ = DP now ADV} \]
\[ \text{Emuta dee jik!} \]
\[ \text{\{emut-a = 'déé\}} \]
\[ \text{jik} \]
\[ \text{story-NOM = ANPH.SG ADV} \]

Tell a) how you were taken to us, b) how my uncle engaged you until from then you are here right now—that whole story!

Lastly, Ik nominal demonstratives—spatial, temporal, and anaphoric—are not mutually exclusive. They can occur singly or in combination with one or two other types. This is possible because they all have different functions, indicating the location, place in time, and discourse topicality, respectively, of their referents. Whichever types coincide in one noun phrase, the order in which they occur is: NP.HEAD = (anaphoric) = (spatial/temporal) = (spatial):
Cooccurring nominal demonstratives

<table>
<thead>
<tr>
<th>Demonstrative</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ámá = 'déé</td>
<td>‘that person (already mentioned)’</td>
</tr>
<tr>
<td>ámá = nak&quot;</td>
<td>‘that person (from earlier)’</td>
</tr>
<tr>
<td>ámá = na</td>
<td>‘this person’</td>
</tr>
<tr>
<td>ámá = 'déé = naa</td>
<td>‘that person (mentioned, from earlier)’</td>
</tr>
<tr>
<td>ámá = 'déé = na</td>
<td>‘this person (already mentioned)’</td>
</tr>
<tr>
<td>ámá = 'déé = náa = ne</td>
<td>‘that person (there, mentioned, earlier)</td>
</tr>
<tr>
<td>ámá = ke = náa = ke</td>
<td>‘that person (over there, from earlier)’</td>
</tr>
</tbody>
</table>

8.2.4 Locative adverbial demonstratives

In addition to nominal demonstratives that point to objects, and anaphoric demonstratives that point to known information, Ik also has several locative adverbial demonstratives that point to a place. These also include deictics and anaphorics. The deictics comprise a three-term system distinguishing proximal, medial, and distal distances, just like nominal demonstratives. The anaphorics include two demonstratives that refer to a place or metaphorically to a time already known from the discourse context.

Even though they adverbially specify a location or direction, the Ik locative adverbial demonstratives exhibit the structure and behavior of nouns. That is, they can be inflected for all eight nominal cases and can be modified by deictic demonstratives as well as relative clauses. When they are modified by relative clauses, they fulfill the language’s need for locative adverbial clauses. For example in (34), the locative demonstrative naí acts as a peripheral argument (encoding a Destination role) of the verb ƙa- ‘go’. It is then modified by a relative clause (RC) introduced by the relative pronoun = noo. The whole construction acts as a locative adverbial clause (LOC ADV):

(34) Kaa nayee noo itsyaketad.

She’s going to where she started.

(33) Cooccurring nominal demonstratives

<table>
<thead>
<tr>
<th>Demonstrative</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ámá = 'déé</td>
<td>‘that person (already mentioned)’</td>
</tr>
<tr>
<td>ámá = nak&quot;</td>
<td>‘that person (from earlier)’</td>
</tr>
<tr>
<td>ámá = na</td>
<td>‘this person’</td>
</tr>
<tr>
<td>ámá = 'déé = naa</td>
<td>‘that person (mentioned, from earlier)</td>
</tr>
<tr>
<td>ámá = 'déé = na</td>
<td>‘this person (already mentioned)’</td>
</tr>
<tr>
<td>ámá = 'déé = náa = ne</td>
<td>‘that person (there, mentioned, earlier)</td>
</tr>
<tr>
<td>ámá = ke = náa = ke</td>
<td>‘that person (over there, from earlier)’</td>
</tr>
</tbody>
</table>
The whole system of the first set of Ik locative demonstratives is apparently based on the noun aí- ‘location, side’. This noun, combined with the nominal spatial demonstratives, produces a system of locative reference that shows various degrees of grammaticalization and phonological erosion. Because the noun aí- ‘location, side’ is at the heart of this system, in principle all members of the paradigm should inflect for all eight Ik nominal cases. In reality, though, some of the case suffixes have been lexicalized as part of the noun base and substantially eroded, resulting in case conflation. (35) shows the synchronic system of locative demonstratives, their hypothetical diachronic development being discussed below:

(35) Deictic locative adverbial demonstratives (Set 1)

<table>
<thead>
<tr>
<th>Case</th>
<th>Proximal</th>
<th>Medial</th>
<th>Distal</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL</td>
<td>naí (=na)</td>
<td>naí (=ne)</td>
<td>kɔ́ɔ́ (=kɛ)</td>
</tr>
<tr>
<td>NOM</td>
<td>nay-á (=na)</td>
<td>nay-á (=ne)</td>
<td>kɔ́ɔ́ (=kɛ)</td>
</tr>
<tr>
<td>INS</td>
<td>nó-ó (=na)</td>
<td>nó-ó (=ne)</td>
<td>kɔ́ɔ́ (=kɛ)</td>
</tr>
<tr>
<td>ABL</td>
<td>naí-ó (=na)</td>
<td>naí-ó (=ne)</td>
<td>kɔ́ɔ́ (=kɛ)</td>
</tr>
<tr>
<td>GEN</td>
<td>naí-é (=na)</td>
<td>naí-é (=ne)</td>
<td>kɔ́ɔ́ (=kɛ)</td>
</tr>
<tr>
<td></td>
<td>néé (=na)</td>
<td>néé (=ne)</td>
<td></td>
</tr>
<tr>
<td>ACC</td>
<td>naí-á (=na)</td>
<td>naí-á (=ne)</td>
<td>kɔ́ɔ́ (=kɛ)</td>
</tr>
<tr>
<td>DAT</td>
<td>naí-é (=na)</td>
<td>naí-é (=ne)</td>
<td>kɔ́ɔ́ (=kɛ)</td>
</tr>
<tr>
<td></td>
<td>néé (=na)</td>
<td>néé (=ne)</td>
<td></td>
</tr>
<tr>
<td>COP</td>
<td>naí-ó (=na)</td>
<td>naí-ó (=ne)</td>
<td>kɔ́ɔ́ (=kɛ)</td>
</tr>
</tbody>
</table>

First of all, the proximal and medial forms in (35) are made up of the noun aí- plus the proximal demonstrative na= as a proclitic. The same demonstrative is then an optional enclitic for the proximal forms, while the medial demonstrative =ne is an optional enclitic for the medial forms. The proclitic na= has apparently undergone phonological reduction. Then, once na= and aí- were conflated into naí-, it became subject to vowel assimilation. In the instrumental case, marked by the suffix {-ó}, the resulting form is nóó. This vowel assimilation is expected since the instrumental case deletes the stem-final vowel. However, in the genitive and
dative cases, both of which are marked with the suffix {-kɛ}, the resulting form is *néé*. This form involves further phonological reduction:

(36) Instrumental: \( na= + aí- + és \) → \( nóó \)
Genitive/dative: \( na= + aí- + è \) → \( naí-é \) → *néé*

As for the distal locative demonstrative, it appears to have undergone grammaticalization and phonological reduction to the point that it has the same form in all nominal cases: \( kóó = (kɛ) \). In years past, the distal locative demonstrative comprised a regular part of the paradigm in which the noun \( aí- \) was flanked on both sides by the distal nominal demonstrative \( kɛ \), as in \( ke= aí- = ke \), for example, in the genitive and dative cases. At some point, the preceding \( ke= \) merged with the base noun, and at a later point, the instrumental case form \( kóó-ó \) was substituted for all the cases. Since it has undergone phonological reduction and morphological conflation to this degree, the form \( kóó \) is analyzed here as a single morpheme synchronically.

Ik also has plural locative adverbial demonstratives: \( nii- \) for proximal and medial and \( kií- \) for distal. If the diachronic analysis of the forms in (35) is correct, then it would seem these plural forms were created by analogy with the demonstratives \( na \) (sg.) ∼ \( ni \) (pl.) for proximal/medial and \( ke \) (sg.) ∼ \( ki \) (pl.) for distal. These plural locative demonstratives pattern as follows:

(37) | **Plural deictic locative adverbial demonstratives** |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Case</td>
<td>Proximal/medial</td>
<td>Distal</td>
</tr>
<tr>
<td>OBL</td>
<td>( nii ) (=( ni ))</td>
<td>( kií ) (=( ki ))</td>
</tr>
<tr>
<td>NOM</td>
<td>( ni-á ) (=( ni ))</td>
<td>( ki-á ) (=( ki ))</td>
</tr>
<tr>
<td>INS</td>
<td>( ni-ó ) (=( ni ))</td>
<td>( ki-ó ) (=( ki ))</td>
</tr>
<tr>
<td>ABL</td>
<td>( nió-ó ) (=( ni ))</td>
<td>( kió-ó ) (=( ki ))</td>
</tr>
<tr>
<td>GEN</td>
<td>( nií-é ) (=( ni ))</td>
<td>( kií-é ) (=( ki ))</td>
</tr>
<tr>
<td>ACC</td>
<td>( nií-á ) (=( ni ))</td>
<td>( kií-á ) (=( ki ))</td>
</tr>
<tr>
<td>DAT</td>
<td>( nií-é ) (=( ni ))</td>
<td>( kií-é ) (=( ki ))</td>
</tr>
<tr>
<td>COP</td>
<td>( nió-ó ) (=( ni ))</td>
<td>( kió-ó ) (=( ki ))</td>
</tr>
</tbody>
</table>
Another set of locative adverbial demonstratives is based on the noun ʃáná- ‘direction, location’. In this function, ʃáná- is preceded by a proclitic demonstrative and followed optionally by another demonstrative. These locative demonstratives can be proximal or distal, as shown in (38). In the distal column, the /e/ in the distal demonstrative ke has been shortened to /i/ in ki= as a result of it being in an unstressed position:

(38) **Deictic locative adverbial demonstratives (Set 2)**

<table>
<thead>
<tr>
<th>Case</th>
<th>Proximal</th>
<th>Distal</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL</td>
<td>ná=ʃána (=na)</td>
<td>kí=ʃána (=ke)</td>
</tr>
<tr>
<td>NOM</td>
<td>ná=ʃáon- (=na)</td>
<td>kí=ʃáon- (=ke)</td>
</tr>
<tr>
<td>INS</td>
<td>ná=ʃáno (=na)</td>
<td>kí=ʃáno (=ke)</td>
</tr>
<tr>
<td>ABL</td>
<td>ná=ʃáne- (=na)</td>
<td>kí=ʃáne- (=ke)</td>
</tr>
<tr>
<td>GEN</td>
<td>ná=ʃáne (=na)</td>
<td>kí=ʃáne (=ke)</td>
</tr>
<tr>
<td>ACC</td>
<td>ná=ʃána (=na)</td>
<td>kí=ʃána (=ke)</td>
</tr>
<tr>
<td>DAT</td>
<td>ná=ʃáne- (=na)</td>
<td>kí=ʃáne- (=ke)</td>
</tr>
<tr>
<td>COP</td>
<td>ná=ʃáne (=na)</td>
<td>kí=ʃáne (=ke)</td>
</tr>
</tbody>
</table>

The noun ʃáná- is also used to build compounds that signify geographical locations or directions. These may correspond to their absolute navigational referents, but they are often skewed somewhat by local topography:

(39) **Navigational terms**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>East</td>
<td>Fetí-eku-ʃáná-</td>
<td>‘sun-eye-direction’</td>
</tr>
<tr>
<td>West</td>
<td>Tábai-ʃáná-</td>
<td>‘?-direction’</td>
</tr>
<tr>
<td>North</td>
<td>Gwário-ʃáná-</td>
<td>‘top-direction’</td>
</tr>
<tr>
<td>South</td>
<td>Gígíro-ʃáná-</td>
<td>‘down-direction’</td>
</tr>
</tbody>
</table>

Finally, the words nédi- (medial) and kédi- (distal) also function as locative adverbial demonstratives. Because kédi- has the lexical meaning of ‘way, means’ and nédi- has none such, it is suspected that nédi- was introduced by analogy with the deictic demonstratives ne (medial) and ke (distal). As full nouns, they make up a fully regular case paradigm as shown in (40):
Besides the three sets of deictic locative demonstratives outlined above, Ik also has two anaphoric locative demonstratives: \textit{tumé'dé} and \textit{ts'ë'dé}. The downstep posited for both forms is based on the fact that the H tone after the depressor consonant /d/ is lowered to mid pitch (actually a low-to-mid rise phonetically). As mentioned in §3.2.3, this is typical tonal behavior whenever a depressor consonant is followed or flanked by H tones.

The fact that both anaphoric locative demonstratives contain the segment /d/ suggests that they are linked formally as well as functionally with the anaphoric nominal demonstrative =d'ëdé described above (as well as the singular possessive suffix -ëdë). The demonstrative ts'ë'dé has two
frequently encountered allomorphs varying in the first segment: \( \text{ʝɛ́ꜜdɛ́ē} \) and \( \text{ƙɛ́ꜜdɛ́ē} \) and. This type of glottalic allophony is described back in §2.3.3.

The two anaphoric locative demonstratives are close in meaning and function in that they both refere anaphorically to a previously mentioned place, whether near or far away. However, though \( t\text{ʊmɛ́dɛ́ē} \) can refer only to physical locations, \( t\text{s'ɛ́dɛ́ē} \) can also refer metaphorically to circumstantial and even temporal ‘locations’, giving it a slightly broader usage.

In (42) below, \( t\text{ʊmɛ́dɛ́ē} \) is used twice to refer back to the location ‘Usake’, marked with the dative case. Note the different case endings on the demonstrative according to which case the clause’s syntax requires:

\[(42) \quad \text{Kayuo saa jii Usakeek.} \]
\[\begin{array}{l}
\text{ka-i-o} \quad \text{sa-a=ju} \quad \{\text{usakee-k}\}
\end{array}\]
\[\begin{array}{l}
go-3SG-SEQ \quad \text{others-NOM = also Usake-DAT}
\end{array}\]

\[\begin{array}{l}
\text{Pelemoo saa tumedoo,}
\end{array}\]
\[\begin{array}{l}
\text{pcl-ɛm-5-C} \quad \text{sa-a} \quad \{t\text{ümɛ́dɔ́6ɔ́}\}
\end{array}\]
\[\begin{array}{l}
\text{appear-MID-3SG-SEQ others-NOM ANPH.LOC-ABL}
\end{array}\]

\[\begin{array}{l}
\text{kayukwee bobaina jii tumedee.}
\end{array}\]
\[\begin{array}{l}
\text{ka-i-kô=e} \quad \text{bobá-in-á=ju} \quad \{t\text{ümɛ́dê-é}\}
\end{array}\]
\[\begin{array}{l}
go-3SG-SEQ=DP \quad \text{grandfather-POSS.PL-NOM = also ANPH.LOC-DAT}
\end{array}\]

Others also went to Usake. Others came out from there. (My) grandparents also went there.

And in (43) below, \( t\text{s'ɛ́dɛ́ē} \) is also used to refer to the location ‘Moroto’:

\[(43) \quad \text{Na itayee Morotoa,} \]
\[\begin{array}{l}
\text{na = ita-I-C} \quad \{\text{moroto-á}\}
\end{array}\]
\[\begin{array}{l}
\text{CONJ = reach-3SG-SIML moroto-ACC}
\end{array}\]
When he reached Moroto, people became free from there.

(44), on the other hand, is an example of ts’ɛ́ɗɛ́ used to refer to a set of temporal circumstances, in this case how the weather affected agriculture:

(44) *Tokobese koto eda dii,*

\[\text{tokobēsē koto eda dii,}\]

\[\text{tōkōbēsē=kōtō eda=̆díī} \]

\[\text{dig-INCH-SPS = then grain=NOM = ANPH.PL} \]

*itto noo koto didia ɗita noo kowee naɓo.*

\[\text{itō-tu=koto didi-a ɗi-tā=noo kōwē-ĕ naɓō} \]

\[\text{come-VEN-3SG-SEQ = then rain-NOM like=PST3 old-REAL-GEN again} \]

*Marāŋkoo, gaanukoo,*

\[\text{marāŋ-ū-kō=ō gaan-u-kō=ō} \]

\[\text{good-3SG-SEQ = DP bad-3SG-SEQ = DP} \]

*ƙama noo koto mena ts’edad.*

\[\text{ƙāmā=noo=kōtō men-a ts’ēɗē-ĕ} \]

\[\text{like-REALPST3 = then issues-NOM ANPH.LOC-GEN} \]

Then that grain started getting farmed, and the rain came back again like it used to long ago. And then from there it was good, and then from there it was bad...So that’s how things were at the time.
8.3 Adverbs

Ik has a small, closed class of words that can be called ‘adverbs’ on the basis that they are mostly monomorphemic and can modify whole clauses. Some adverbs convey the manner of an action, while others relate the epistemic attitude of the speaker. Other still defy any semantic characterization.

The Ik manner adverbs include the following:

(45) **Ik manner adverbs**

<table>
<thead>
<tr>
<th>Ik manner adverbs</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɗɛmʊsʊ 'quickly'</td>
<td>(also ɗamʊsʊ)</td>
</tr>
<tr>
<td>hɪ́ɪ́ʝɔ 'slowly, carefully'</td>
<td></td>
</tr>
<tr>
<td>jɪ́kɪ́ 'totally, really'</td>
<td></td>
</tr>
<tr>
<td>jɪ́ki 'always'</td>
<td></td>
</tr>
<tr>
<td>kɔ́ntɪ́ákᵋ 'straightaway'</td>
<td>(cf. kɔ́nɪ́ ‘one’)</td>
</tr>
<tr>
<td>mʊka 'completely, forever'</td>
<td>(also a noun mʊka-)</td>
</tr>
<tr>
<td>páka 'until, indefinitely'</td>
<td>(fr. Swahili mpaka)</td>
</tr>
<tr>
<td>zuku 'very, especially'</td>
<td>(also in Nyang’i)</td>
</tr>
</tbody>
</table>

A few of the adverbs in (45) undergo the deletion of their final consonant segment in clause-medial environments. For example, ɗɛmʊsʊ ‘quickly’ may be pronounced as ɗɛmʊʊ and kɔ́ntɪ́ákᵋ ‘straightaway’ as kɔ́ntɪ́ɛ́ɛ́.

Other adverbs relate the epistemic attitude of the speaker, for example:

(46) **Ik epistemic adverbs**

<table>
<thead>
<tr>
<th>Ik epistemic adverbs</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>=já 'just, then'</td>
<td>(an enclitic)</td>
</tr>
<tr>
<td>tsábo 'apparently'</td>
<td></td>
</tr>
<tr>
<td>tsamʊ 'exactly, of course'</td>
<td>(also a noun tsamʊ- ‘freeness’)</td>
</tr>
<tr>
<td>ts’ɔɔ 'probably'</td>
<td>(marker of distended present)</td>
</tr>
</tbody>
</table>

A handful of other adverbial particles fall together into the following group unmarked by any particular semantic cohesiveness:
(47) **Other Ik adverbs**

<table>
<thead>
<tr>
<th>Ik</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ëɗá</td>
<td>'only, alone'</td>
</tr>
<tr>
<td>=jike</td>
<td>'also, too'</td>
</tr>
<tr>
<td>kíná</td>
<td>'and then'</td>
</tr>
<tr>
<td>naɓó</td>
<td>'again'</td>
</tr>
<tr>
<td>=ɲá(k)a</td>
<td>'just'</td>
</tr>
<tr>
<td>toni</td>
<td>'even'</td>
</tr>
</tbody>
</table>

The adverb jike ‘also, too’ undergoes non-final deletion and vowel assimilation such that jii is an allomorph commonly heard in the language. The adverb naɓó ‘again’ is cognate with Teso-Turkana nabo of the same meaning. In both languages, it can also be used in the sense of ‘moreover’.

Adverbial functions are often handled in Ik by nouns and verbs. For example, nouns in the instrumental or dative cases can be used to modify a predicate. In (48) below, the nominalized verb ìsìlɔ̀n ‘to be peaceful’ is given the instrumental case to elaborate on the manner in which the person was settled down. Then in (49), the noun kédå- ‘way’ is put in the dative case, also to express the manner in which it was getting cloudy:

(48) **Zeƙwiteta bia ìsìlon.**

zeƙwi-t-ɛt-ɛs-á bi-a ìsìl-ɔ̀n-w
sit-CAUS-INCH-INT-REAL you.SG-ACC be.peaceful-INF-INS

He will settle you down peacefully (i.e. with peace).

(49) **Kupetaa kedia gaan.**

kup-ɛt-á-á kédi-e gaan-∅
cloudy-INCH-REAL-PRF way-DAT bad-REAL

It’s getting dangerously cloudy (i.e. in a bad way).

Many time expressions used adverbially are in fact nouns in the instrumental case with the suffix -3, for example those in (50). For more on Ik time expressions, skip ahead to §8.9.
Nominal time expressions.

<table>
<thead>
<tr>
<th>Expression</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>barats-o</td>
<td>‘in the morning’</td>
</tr>
<tr>
<td>mukú-∅</td>
<td>‘at night’</td>
</tr>
<tr>
<td>Ṽaɓáït-o</td>
<td>‘at dawn’</td>
</tr>
<tr>
<td>ód-atu-∅</td>
<td>‘all day’</td>
</tr>
<tr>
<td>ódo-o</td>
<td>‘during the day’</td>
</tr>
<tr>
<td>tso-ïk-o</td>
<td>‘all night’</td>
</tr>
<tr>
<td>wídz-o</td>
<td>‘in the evening’</td>
</tr>
<tr>
<td>wídz-ek-o</td>
<td>‘in the evening’</td>
</tr>
<tr>
<td>ʃɪŋat-o</td>
<td>‘at dusk’</td>
</tr>
</tbody>
</table>

Other adverbial meanings are expressed through the use of verbs in the simultaneous aspect, marked by the suffix {-kɛ}. For a simultaneous verb to be used adverbially, it must follow the main verb without a subordinating conjunction. And it must also have an impersonal 3sg subject, for example:

(51)  *Waakuo marajik!*

\[
\text{wáák-úó} \quad \text{maráŋ-í-kɛ}
\]

play-IMP.PL good-3SG-SIML

Play well (lit. ‘You play, it being well.’)

(52)  *Todia Icetoda gaanik.*

\[
\text{tód-i-a} \quad \text{idé-tód-a} \quad \text{gaan-i-kɛ}
\]

speak-1SG-REAL Ik-speech-NOM bad-3SG-SIML

I speak Ik badly (lit. ‘I speak Ik, it being bad’).

Though the subject of the sentence in (51) is 2pl, and the subject of the one in (52) 1sg, in both cases the post-posed simultaneous verb is 3sg.
8.4 Conjunctions

Conjunctions form that small set of words that link one syntactic unit—be it a phrase or clause—to another. Ik has numerous subordinating conjunctions that introduce dependent clauses, as well as a few coordinating conjunctions that join two syntactic units of the same type. These are described below.

8.4.1 Subordinating conjunctions

Ik exhibits a fairly complicated set of subordinating conjunctions. One cause of the complexity is that different categories like ‘conditional’ and ‘hypothetical’ include the Ik three-tier past tense depth. The subordinating conjunctions can be divided into groups according to the type of verb that follows them in the subordinate clause. These include 1) realis, 2) sequential, 3) simultaneous, and 4) miscellaneous.

Temporal subordinate clauses coincide with verbs in the realis modality. They are tensed, their tense specification coming from tensed subordinating conjunctions. A dummy pronoun on the verb marks the fact that a temporal adjunct is part of the clause’s semantic schema. These conjunctions are actually grammaticalizations of relative pronouns that themselves were grammaticalized from demonstratives. Ik temporal subordinating conjunctions are all based on the proto-demonstrative *na. Compare this with nearby Turkana, where the ‘feminine agreement marker’ na- also introduces preposed temporal adverbial clauses (Dimmendaal 1983:392).

(53) **Temporal subordinating conjunctions**

<table>
<thead>
<tr>
<th>CONJ</th>
<th>Clause type</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>náa</td>
<td>PST1</td>
<td>‘When...,’</td>
</tr>
<tr>
<td>sina</td>
<td>PST2</td>
<td>‘When...,’</td>
</tr>
<tr>
<td>noo</td>
<td>PST3</td>
<td>‘When...,’</td>
</tr>
<tr>
<td>na=náa</td>
<td>PST1 Perfect</td>
<td>‘When...had...,’</td>
</tr>
<tr>
<td>na=samu</td>
<td>PST2 Perfect</td>
<td>‘When...had...,’</td>
</tr>
<tr>
<td>na=noo</td>
<td>PST3 Perfect</td>
<td>‘When...had...,’</td>
</tr>
</tbody>
</table>
Two other subordinating conjunctions combine notions of temporality with conditionality. These are shown in (54). They also cooccur with verbs in the realis modality joined to the dummy pronoun. The particle nɛ́ɛ́ ‘if/when’ also functions elsewhere as a locative (ablative) preposition meaning ‘from X’ (see §8.5). Compare this with the Turkana conjunction a ní ‘from’ which also doubles as a conjunction meaning ‘if/when’ (Dimmendaal 1983:395-396). The two functions of nɛ́ɛ́ thus appear to be a calque of similar functors in Turkana. Then the second Ik conjunction shown in (54) is just a combination of the recent past conjunction from (53) and nɛ́ɛ́:

(54)  Conditional-temporal subordinating conjunctions

<table>
<thead>
<tr>
<th></th>
<th>Clause type</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>nɛ́ɛ́</td>
<td>Conditional/non-past</td>
<td>‘If/when...,’</td>
</tr>
<tr>
<td>náá nɛ́ɛ́</td>
<td>Conditional/non-past</td>
<td>‘If/when...,’</td>
</tr>
</tbody>
</table>

Subordinate clauses with sequential verbs encode conditional and hypothetical statements. Conditional clauses are introduced by the proclitic particle na´= (the floating H being posited to account for H tones may put on the first next syllable). Used alone, na´= conveys a non-past or gnomic sense, while in combination with tensed conjunctions, it communicates past perfect conditionals. The conditional conjunctions are shown below in (55):

(55)  Conditional subordinating conjunctions

<table>
<thead>
<tr>
<th>CONJ</th>
<th>Clause type</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>na´=</td>
<td>Gnomic conditional</td>
<td>‘If...’</td>
</tr>
<tr>
<td>na = náá</td>
<td>Conditional PST1 perfect</td>
<td>‘If...had...,’</td>
</tr>
<tr>
<td>ná = bee</td>
<td>Conditional PST2 perfect</td>
<td>‘If...had...,’</td>
</tr>
<tr>
<td>na = noo</td>
<td>Conditional PST3 perfect</td>
<td>‘If...had...,’</td>
</tr>
</tbody>
</table>

The hypothetical subordinating conjunctions consist in the first place of the general subordinator na´= procliticized to the auxiliary ka which is in turn modified by tense clitics. The particle ka is isomorphic with the verb root ka- ‘go’. It would be interesting to investigate cross-linguistically whether a motion verb is elsewhere grammaticalized as a hypothetical marker. The
removed past form =samu is used instead of =bee. The PST1 perfect form na=ƙá=naa can also convey a general, gnomic hypotheticality:

(56)  
**Hypothetical subordinating conjunctions**

<table>
<thead>
<tr>
<th>CONJ</th>
<th>Clause type</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>na=ƙá=naa</td>
<td>Hypothetical PST1 (perfect)</td>
<td>‘If...would (have),’</td>
</tr>
<tr>
<td>na=ƙá=samu</td>
<td>Hypothetical PST2 perfect</td>
<td>‘If...would have,’</td>
</tr>
<tr>
<td>na=ƙá=noo</td>
<td>Hypothetical PST2 perfect</td>
<td>‘If...would have,’</td>
</tr>
</tbody>
</table>

Subordinate clauses with simultaneous verb forms are introduced by three different conjunctions: 1) The conjunction áta (from Swahili hata ‘even’) introduces concessive clauses. 2) The conjunction na= introduces narrative clauses with relative rather than absolute tense. 3) And the conjunction náa introduces hypothetical-temporal clauses. The form náa is obviously linked to the PST1 conjunction, but its function is nearer to that of nɛ́ɛ́.

(57)  
**Mixed subordinating conjunctions with simultaneous verbs**

<table>
<thead>
<tr>
<th>CONJ</th>
<th>Clause type</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>áta</td>
<td>Concessive</td>
<td>‘Even though/if...,’</td>
</tr>
<tr>
<td>na=</td>
<td>Narrative relative temporal</td>
<td>‘When...,’</td>
</tr>
<tr>
<td>náa</td>
<td>Hypothetical-temporal</td>
<td>‘If/when...,’</td>
</tr>
</tbody>
</table>

Four miscellaneous conjunctions remain: 1) naíta also takes verbs in the realis modality with the dummy pronoun enclitic. In translation in means ‘Since...’, ‘Given that...’, and ‘Due to the fact that...’. It is morphologically complex, being made up of the subordinating conjunction na plus the 3SG verb form í-tá ‘It amounts to...’. As such, naíta can more accurately be glossed as ‘To the degree that...’. 2) demusu—used elsewhere as an adverb—coincides with verbs in either the realis modality or the subjunctive mood (irrealis). As a conjunction, it communicates the idea of ‘Unless/until...’. 3) dítá—used elsewhere as a preposition—cooccurs with verbs in the realis modality with the dummy pronoun. As a conjunction, it introduces a
similative dependent clause with the meaning ‘Like (when)...’. 4) térútsu—used to convey a perfect aspectual sense for either present perfect or past tenses. It may be related to the verb erúts- ‘be new’, possibly in connection with an emphatic particle te. The conjunction térútsu is usually translated as ‘After/when...had already...’.

(58) **Miscellaneous subordinating conjunctions**

<table>
<thead>
<tr>
<th>CONJ</th>
<th>Clause type</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>naitá</td>
<td>Resultative</td>
<td>‘Since...,’</td>
</tr>
<tr>
<td>dɛmʊsʊ</td>
<td>Concessive</td>
<td>‘Even if/though...,’</td>
</tr>
<tr>
<td>dîtá</td>
<td>Similative</td>
<td>‘Like (when)...,’</td>
</tr>
<tr>
<td>térútsu</td>
<td>Perfective</td>
<td>‘After/when...had already...,’</td>
</tr>
</tbody>
</table>

The reader is referred ahead to §9.8 for real-language examples of all these subordinating conjunctions being used to introduce dependent clauses.

**8.4.2 Coordinating conjunctions**

The coordinating conjunctions conjoin any two syntactic constituents of the same type, for example noun phrases with noun phrases or independent clauses with independent clauses. The semantic relationship implied by the conjunction may be a logical one or a temporal one. The table in (59) presents the Ik coordinating conjunctions and their various meanings. The word keɗe is cognate with Teso-Turkana kori also meaning ‘or’, while ńda ‘and’ may be related to the Turkana ‘second linker’ tá (Dimmendaal 1983:411). When followed by another H tone in the same tonal phrase, the conjunction ńda causes downstep and may so also be represented as ńɗa.

(59) **Coordinating conjunctions**

<table>
<thead>
<tr>
<th></th>
<th>Logical</th>
<th>Temporal</th>
</tr>
</thead>
<tbody>
<tr>
<td>keɗe</td>
<td>‘or’</td>
<td>—</td>
</tr>
<tr>
<td>(=)kɔtɔ</td>
<td>‘then, but’</td>
<td>‘then’</td>
</tr>
<tr>
<td>ńda</td>
<td>‘and’</td>
<td>‘and’</td>
</tr>
</tbody>
</table>
Below, two examples of *keɗe* ‘or’ are provided, one with the conjunction (underlined) linking noun phrases and one with it linking clauses:

(60) *Atsa Fetiekuo keɗe Tabayu?*

ats-a [feti-eku-o]_{NP1} kede [tābayu-∅]_{NP2}

come-REAL  sun-eye-ABL  or  west-ABL

Does she come from the East or the West?

(61) *Daiya noo keɗe gaaniya nok?*

[da-i-a = noo]\_CLAUSE1 \ kede \ [gaan-i-ā = nok]\_CLAUSE2

good-PLUR-REAL = PST3  or  bad-PLUR-REAL = PST3

Was it (usually) good or was it (usually) bad?

The conjunction *keɗe* ‘or’ is also part of a special construction that can be translated for the first person as “I thought maybe…” or “I wondered whether…”. This construction consists of the verb *kut*–‘say’ followed by *keɗe* followed by a complement clause, for example:

(62) *Kutia keɗe atsidaa nkanes.*

kut-i-ā kede [ats-id-a-a ŋkan-ēs-∅]\_COMPL

say-1SG-REAL  or  come-2SG-REAL-PRF  get-INF-NOM

I thought maybe you’ve come to get (it).

(63) *Kwiida keɗe ncuo bee?*

ku-id-a kede [jćú-ō = bee]\_COMPL

say-2SG-REAL  or  I-COP = PST2

Do you think it was me (yesterday)?

The conjunction (=) is \can occur clause-initially followed by a brief pause, but it often attaches to the first clausal element as enclitic. As an enclitic, it is susceptible to vowel harmony coming from a [+ATR] host. This conjunction does not conjoin noun phrases but only clauses. Its meaning is vague enough to cover such notions as ‘then,’ ‘so,’ ‘therefore,’ and even ‘but’.
In (64), (=)kɔtɔ links two verbless copular clauses (VC) where it can be translated as ‘but’. Then in (65), (=)kɔtɔ links the clause temporally to the previous clause in a text talking about grains being harvested, brought home, piled up, and then cooked for the elders:

(64)  *Benia ncuk, buo kot.*

\[
\text{not.be-REAL\_I\_COP you.SG\_COP = but}
\]

It’s not me, but it’s you.

(65)  *Kopese koto jak.*

\[
\text{cook-SPS = DP = then elders-DAT}
\]

Then it’s cooked with it (i.e. grain) for the elders.

Moving on to ŋda: When noun phrases are linked by ŋda in a series, the NP heads before ŋda take whatever case the verb calls for, while the final NP head after ŋda usually appears in the oblique case. For example, in (66), the first noun in the series (Ika) is in the nominative case, while the second (Pakoice) is in the oblique case. Then in (67), the multiple objects of the verb detini ‘and they brought’ (some of which have been left out) take the accusative case except for the last one, which has the oblique case (sai):

(66)  *Ika ŋda Pakoice*

\[
\text{Ik-\_NOM and cave-AGT.PL[OBL]}
\]

The Ik and the Turkana

(67)  *Detini riyek, Ḳwazikak, nda...sai menaicikae.*

\[
\text{bring-SEQ goats-ACC cloth-PL-ACC and other[OBL] things-PL-GEN}
\]

And they brought goats, clothing,...and other things.
Two or more independent clauses may also be joined by ńda. In (68), two sequential clauses are linked with it in a compound sentence:

(68)  *Atsini ḥda meese nƙaƙa ntik.*

They came, and food was given to them.

A verb form often found following ńda in a series of two or more clauses is the infinitive, as in the last clause of the following complex sentence:

(69)  *Ɓunutoo Pakoika Icek,*

The Turkana scattered the Ik, burned [their] homes, plundered [their] food, and gathered up all [their] things.
8.5 Prepositions

The 'preposition' category is used here as a catch-all for eight random words that are nonetheless found pre-posed before nouns. The meanings and functions of prepositions in other languages are in large part handled by the Ik relational nouns listed back in §4.3.8. Ik prepositions come from a variety of sources, and each require a particular case on the noun that follows them. Of the eight prepositions shown in (70), only naakwaa is properly considered a noun as evidenced by its ability to take case suffixes:

(70) *Ik prepositions*

<table>
<thead>
<tr>
<th>Gloss</th>
<th>Case</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>dítá</td>
<td>GEN</td>
<td>—</td>
</tr>
<tr>
<td>naakwaa</td>
<td>GEN</td>
<td>cf. Ik akš- ‘inside’</td>
</tr>
<tr>
<td>née</td>
<td>GEN</td>
<td>cf. Teso-Turkana <em>aní</em></td>
</tr>
<tr>
<td>akilo</td>
<td>OBL</td>
<td>fr. Teso-Turkana ‘to defeat’</td>
</tr>
<tr>
<td>gone</td>
<td>OBL</td>
<td>fr. Ik <em>gon</em>- ‘to look’?</td>
</tr>
<tr>
<td>kóteré</td>
<td>OBL</td>
<td>fr. Teso-Turkana <em>ikóteré</em></td>
</tr>
<tr>
<td>nda</td>
<td>OBL</td>
<td>cf. Teso-Turkana <em>tá</em></td>
</tr>
<tr>
<td>páka</td>
<td>OBL</td>
<td>fr. Swahili <em>mpaka</em></td>
</tr>
</tbody>
</table>

These eight prepositions are each exemplified with one example below:

(71) *Gogosese dita riye.*

gó-g-o-s-e sít-a ríe-∅
pég-PASS-SPS like goat-GEN

It (i.e. a rat skin) was pegged like (that of) a goat.

(72) *Ee, naakwaa jotee tsitsikimik.*

ee naakwa-a jóté-∅ tsitsik-imí-k‘
yes even-NOM sisal.root-GEN roll-1PL-EXC-SIML

Yes, (we) rolling even sisal root (i.e. as kids practicing spearing).
(73) *Hyeida dikwitina nii nee karoŋoe?*
fiye-id-a dikwit-in-a = nii née karoŋó-e
know-2SG-REAL song-PL-NOM = DEM.PL.PST1 from harvest.season-GEN
Do you know these songs from harvest season?

(74) *Akilo bi iɓeleesi kijae,*
akilɔ bi iɓelé-ésí kijá-
instead.of you change-INF land-GEN

*iɓelea kija bik.*
iɓelé-a kijá bi-k
change-REAL land-NOM you.SG-ACC
Instead of you changing the world, the world changes you.

(75) *Toriiƙweese gone dziŋa ke.*
toriƙo-seese gone dziŋá=ke
lead-AND-SPS up.to base[OBL] = DEM.SG.DIST
And they were led away to that base of the slope.

(76) *Iryametia fiyekesie ncie kotere kiroti nci.*
iryam-et-i-á fiyek-esi-é ńci-e kóteré kiroti ńci-
get-VEN-1SG-REAL live-INF-DAT IGEN b’se.of sweat[OBL] I-GEN
I get my livelihood because of my own sweat.

(77) *Tomore emutika nda ngo.*
tämhr-é emú티-ká ńda ńgo
share-IMP.SG story-PL[OBL] with we.EXC[OBL]
Share stories with us!

(78) *Beberese paka Lokonjođude.*
béber-esé páka łoŋáŋu-de
pull-SPS until sacred.tree-foot[OBL]
And it was pulled all the way to the foot of the Sacred Tree.
8.6 Interjections

A number of words may be uttered in Ik that express a speaker’s state of mind in response to something strongly felt. Such ‘interjections’ are of two types: 1) Those that have no other meaning and 2) those that do:

(79) **Interjections with no other meanings**

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>aaii/áí</td>
<td>expression of pain (like ‘ouch!’)</td>
</tr>
<tr>
<td>báas</td>
<td>expression of conclusion (fr. Swahili basi)</td>
</tr>
<tr>
<td>ee/éé</td>
<td>‘yes’</td>
</tr>
<tr>
<td>ha</td>
<td>expression of strong disagreement or protest</td>
</tr>
<tr>
<td>hééʔ</td>
<td>expression of disbelief</td>
</tr>
<tr>
<td>ŋtótódó</td>
<td>‘no’</td>
</tr>
<tr>
<td>wóí</td>
<td>expression of pain or fear</td>
</tr>
<tr>
<td>wúlu</td>
<td>expression of surprise (like ‘yikes!’)</td>
</tr>
<tr>
<td>yweé</td>
<td>when someone has made a mistake</td>
</tr>
<tr>
<td>yóói</td>
<td>expression of good-natured disbelief or protest</td>
</tr>
</tbody>
</table>

(80) **Interjections with other meanings**

<table>
<thead>
<tr>
<th>Word</th>
<th>Expressive meaning</th>
<th>Literal meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ábaŋ/ábaŋ</td>
<td>expression of surprise</td>
<td>‘My father!’</td>
</tr>
<tr>
<td>hóítica kwí</td>
<td>expression of surprise</td>
<td>fr. Teso-Turkana</td>
</tr>
<tr>
<td>ima=na</td>
<td>expression of surprise</td>
<td>‘This child!’</td>
</tr>
<tr>
<td>ndéé</td>
<td>expression of disbelief</td>
<td>‘From where?’</td>
</tr>
<tr>
<td>ŋakuj</td>
<td>expression of strong emotion</td>
<td>‘God!’</td>
</tr>
<tr>
<td>ŋató = ni</td>
<td>expression of surprise</td>
<td>‘These men!’</td>
</tr>
<tr>
<td>roɓa</td>
<td>attention-getting device</td>
<td>‘People!’</td>
</tr>
<tr>
<td>wice=ni</td>
<td>expression of surprise</td>
<td>‘These children!’</td>
</tr>
<tr>
<td>yáŋ</td>
<td>expression of surprise</td>
<td>‘My mother!’</td>
</tr>
</tbody>
</table>
8.7 Ideophones

Like many African languages, Ik has a class of expressive words that may be called ‘ideophones’, forms “characterized by phonological structures that tend to be peculiar” (Matthews 2007:183). In Ik, this phonological peculiarity may entail extra-long vowels and multiple reduplications, as well as expressive tonal and intonational patterns. Ik has three types of ideophones: 1) Those that are onomatopoeic or symbolic of the sound made by an action, 2) those that add extra vividness to a stative verb, and 3) those paired with the verb \textit{kut} ‘say’ to form special phrasal verbs. Examples of the first type—onomatopoeic—include the following:

(81) \textit{Onomatopoeic ideophones}

<table>
<thead>
<tr>
<th>Ik</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>buluƙ</td>
<td>sound of stone landing in water</td>
</tr>
<tr>
<td>buúu</td>
<td>sound of cow lowing</td>
</tr>
<tr>
<td>dɛrɛdɛrɛdɛrɛdɛrɛdɛrɛ</td>
<td>sound of saucepan rolling</td>
</tr>
<tr>
<td>dɪ</td>
<td>sound small sticks make when hitting or breaking</td>
</tr>
<tr>
<td>dʊl</td>
<td>sound body makes when hitting the ground</td>
</tr>
<tr>
<td>fɪụụ</td>
<td>sound of bullet whizzing by</td>
</tr>
<tr>
<td>guluɲ</td>
<td>sound made when swallowing a big piece of meat</td>
</tr>
<tr>
<td>hyeaа</td>
<td>sound of a tree falling</td>
</tr>
<tr>
<td>fịyom</td>
<td>sound of a stick breaking easily</td>
</tr>
<tr>
<td>kurukurukur</td>
<td>sound of a gourd rolling</td>
</tr>
<tr>
<td>mɛ́ɛɛ</td>
<td>sound made by goats bleating</td>
</tr>
<tr>
<td>pis</td>
<td>sound of sharp object piercing flesh</td>
</tr>
<tr>
<td>pʊʊtᶷ</td>
<td>sound of spear going through a body</td>
</tr>
<tr>
<td>raaraar</td>
<td>sound of many hands clapping</td>
</tr>
<tr>
<td>rɪrrr</td>
<td>sound of a flame</td>
</tr>
<tr>
<td>tɛ</td>
<td>sound of firewood breaking</td>
</tr>
<tr>
<td>tsef</td>
<td>sound of an animal stepping</td>
</tr>
<tr>
<td>tudᶷ</td>
<td>sound made when spear fails to penetrate</td>
</tr>
<tr>
<td>wuoo</td>
<td>sound of a Euphorbia tree falling</td>
</tr>
<tr>
<td>zii</td>
<td>sound of a vehicle going by</td>
</tr>
</tbody>
</table>
The second type of ideophone—those not obviously onomatopoeic—simply add some semantic vividness to the verb’s meaning. These ideophones are often paired with a particular verb, for example:

(82) **Non-onomatopoeic ideophones**

<table>
<thead>
<tr>
<th>Ik</th>
<th>Ik meaning</th>
<th>English meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>duu</td>
<td>ṃba duu</td>
<td>‘It’s very deep.’</td>
</tr>
<tr>
<td>duk⁶</td>
<td>masáná duk⁶</td>
<td>‘It’s rotten stinky.’</td>
</tr>
<tr>
<td>hel</td>
<td>tsáá hel</td>
<td>‘It’s very dry.’</td>
</tr>
<tr>
<td>pak⁴</td>
<td>ṃets’a pak⁴</td>
<td>‘It’s very white.’</td>
</tr>
<tr>
<td>pic</td>
<td>ụdá pic</td>
<td>‘It’s very full.’</td>
</tr>
<tr>
<td>tít⁴</td>
<td>buɗámá tít⁴</td>
<td>‘It’s very black.’</td>
</tr>
<tr>
<td>tson</td>
<td>díwa tson</td>
<td>‘It’s very red.’</td>
</tr>
</tbody>
</table>

The third type of Ik ideophone are those that are paired with the verb kut-‘on ‘to say’ to form special phrasal verbs with highly expressive overtones:

(83) **Ideophones paired with kut- ‘say’**

<table>
<thead>
<tr>
<th>Ik</th>
<th>Ik meaning</th>
<th>English meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>dí</td>
<td>kutọna dí</td>
<td>‘to hit something’</td>
</tr>
<tr>
<td>díi</td>
<td>kutọna díi</td>
<td>‘to beat down (of hot sun)”</td>
</tr>
<tr>
<td>kíma</td>
<td>kutọna kíma</td>
<td>‘to be dead silent’</td>
</tr>
<tr>
<td>lioo</td>
<td>kutọna lioo</td>
<td>‘to be dead silent’</td>
</tr>
<tr>
<td>liuo</td>
<td>kutọna liuo</td>
<td>‘to make sound of a bullet or beating’</td>
</tr>
<tr>
<td>nje</td>
<td>kutọna nje</td>
<td>‘to stop suddenly (of one’s heart)”</td>
</tr>
<tr>
<td>pel</td>
<td>kutọna pel</td>
<td>‘to make first appearance (of the moon)”</td>
</tr>
<tr>
<td>pir</td>
<td>kutọna pir</td>
<td>‘to appear’</td>
</tr>
<tr>
<td>piu</td>
<td>kutọna piu</td>
<td>‘to refuse to catch fire’</td>
</tr>
<tr>
<td>puas</td>
<td>kutọna puas</td>
<td>‘to shatter or burst’</td>
</tr>
<tr>
<td>rut⁴</td>
<td>kutọna rut⁴</td>
<td>‘to run and collapse suddenly’</td>
</tr>
<tr>
<td>tusss</td>
<td>kutọna tusss</td>
<td>‘to ricochet’</td>
</tr>
</tbody>
</table>
8.8 Infantile imperatives

Ik has a collection of short words that are used to encourage young children to perform certain actions. These ‘baby-talk’ particles are inherently imperative but involve no verbal morphology. Examples include these:

(84) Infantile imperatives

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɓá</td>
<td>used to call a child to come eat</td>
</tr>
<tr>
<td>bubú</td>
<td>‘night-night’, used to encourage a child to go to sleep</td>
</tr>
<tr>
<td>dí</td>
<td>‘poo-poo’, used to encourage a child to defecate</td>
</tr>
<tr>
<td>ko</td>
<td>children’s word for ‘water’</td>
</tr>
<tr>
<td>kókó</td>
<td>used to warn a child not to touch something</td>
</tr>
<tr>
<td>kukú</td>
<td>used to encourage a child to climb on one’s back</td>
</tr>
<tr>
<td>kwaa</td>
<td>‘pee-pee’, used to encourage a child to urinate</td>
</tr>
<tr>
<td>mamá</td>
<td>used to encourage a child to eat</td>
</tr>
<tr>
<td>nʊʊnʊ́</td>
<td>used to encourage a child to nurse</td>
</tr>
</tbody>
</table>

8.9 Time expressions

Time expressions in Ik do not make up a distinct word class. However, they do form a special lexical subset worth taking note of. All time expressions are nouns with case suffixes and other modifiers like demonstratives and post-posed subordinate clauses. Their being formed from nouns recalls Turkana adverbs of time which also originate in nouns (Dimmendaal 1983:360). As mentioned back in §6.3.3, the instrumental case is used in Ik to mark time expressions in the context of sentences. In their isolation forms, however, the time expressions may take the nominative case.

The names for the weekdays Monday-Friday in Ik are formed with the word ɲákásií—‘work’—from Swahili kazi ‘work’—coupled with a numeral quantifier in a simultaneous clause. For example, the word for ‘Monday’ translates literally as ‘work(day) being one’. The words for ‘Saturday’ and ‘Sunday’ are borrowed from Teso-Turkana. The term of ‘Sunday’ (ɲásabéti-) originates from Italian through the influence of the Catholic church:
The Ik days of the week are as follows:

<table>
<thead>
<tr>
<th>Number</th>
<th>Ik Name</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.DateTimeField(1)Kণুনি</td>
<td>Monday</td>
</tr>
<tr>
<td>2</td>
<td>DateTimeField(2)Leɓetsikে</td>
<td>Tuesday</td>
</tr>
<tr>
<td>3</td>
<td>DateTimeField(3)Adikে</td>
<td>Wednesday</td>
</tr>
<tr>
<td>4</td>
<td>DateTimeField(4)Ts'agúsikে</td>
<td>Thursday</td>
</tr>
<tr>
<td>5</td>
<td>DateTimeField(5)Tudikে</td>
<td>Friday</td>
</tr>
<tr>
<td>6</td>
<td>DateTimeField(6)Narāmɪram</td>
<td>Saturday</td>
</tr>
<tr>
<td>7</td>
<td>DateTimeField(7)Násaɓétᵃ</td>
<td>Sunday</td>
</tr>
</tbody>
</table>

The names for the months of the year are borrowed from Teso-Turkana because the Ik have no indigenous alternative. At times the Teso-Turkana names are translated directly into Ik, but these calques receive little usage.

The Ik months of the year are as follows:

<table>
<thead>
<tr>
<th>Number</th>
<th>Ik Name</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DateTimeField(1)Lomukˊ</td>
<td>January</td>
</tr>
<tr>
<td>2</td>
<td>DateTimeField(2)Lokwaŋˊ</td>
<td>February</td>
</tr>
<tr>
<td>3</td>
<td>DateTimeField(3)Loɗʊŋɛˊ</td>
<td>March</td>
</tr>
<tr>
<td>4</td>
<td>DateTimeField(4)Lomarukˊ</td>
<td>April</td>
</tr>
<tr>
<td>5</td>
<td>DateTimeField(5)Titímá</td>
<td>May</td>
</tr>
<tr>
<td>6</td>
<td>DateTimeField(6)Yɛlɪyɛ́l</td>
<td>June</td>
</tr>
<tr>
<td>7</td>
<td>DateTimeField(7)Lɔmɔɗɔkɔɡecˊ</td>
<td>July</td>
</tr>
<tr>
<td>8</td>
<td>DateTimeField(8)Lɔsʊ́ɓán</td>
<td>August</td>
</tr>
<tr>
<td>9</td>
<td>DateTimeField(9)Lotyakˊ</td>
<td>September</td>
</tr>
<tr>
<td>10</td>
<td>DateTimeField(10)Lɔbā́</td>
<td>October</td>
</tr>
<tr>
<td>11</td>
<td>DateTimeField(11)Lopóo</td>
<td>November</td>
</tr>
<tr>
<td>12</td>
<td>DateTimeField(12)Lorārा</td>
<td>December</td>
</tr>
</tbody>
</table>

Ik also has time expressions used to refer to days or years removed from the present either in the past or the future. For the day-terms, Ik combines the proto-temporal root *tso, the word ődou- ‘day’, or the word baratsó- ‘morning’ with demonstratives in proclitic and/or enclitic positions. Some of these demonstratives exhibit phonological reduction, maybe to the point of
lexicalization. Not all the morphology in these terms is fully understood. The day terms in (87) are presented with Wednesday acting as ‘today’:

(87) **Day-Terms, Past and Future**

<table>
<thead>
<tr>
<th>Day</th>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturday</td>
<td>ké = tsóítá ke = noo = ke</td>
<td>‘four days ago’</td>
</tr>
<tr>
<td>Sunday</td>
<td>ké = tsóítá = nok⁰</td>
<td>‘three days ago’</td>
</tr>
<tr>
<td>Monday</td>
<td>nó = tsóo = nok⁰</td>
<td>‘two days ago’</td>
</tr>
<tr>
<td>Tuesday</td>
<td>sáá = tso = sm</td>
<td>‘yesterday’</td>
</tr>
<tr>
<td><strong>Wednesday</strong></td>
<td>nó = ódwáá (= ne)</td>
<td>‘today’</td>
</tr>
<tr>
<td>Thursday</td>
<td>táá barats⁰</td>
<td>‘tomorrow’</td>
</tr>
<tr>
<td>Friday</td>
<td>ké = tsó barats⁰</td>
<td>‘two days from now’</td>
</tr>
<tr>
<td>▼ Saturday</td>
<td>ké = tsóítá = ke</td>
<td>‘three days from now’</td>
</tr>
</tbody>
</table>

Time expressions used to refer to years removed in the past or future are built on the root *kami* ‘year’. This is also modified by proclitic and enclitic demonstratives and exhibits phonological reduction and lexicalization. The proclitic or prefix *sá(d)*- seen in both (87) and (88) no doubt is a parallel with Dime’s (South Omotic) distal prefix *sa* (Mulugeta 2008:73). In (88), the term *keináts* contains the verb root *ats* ‘come’, as in ‘the coming year’:

(88) **Year-terms, past and future**

<table>
<thead>
<tr>
<th>Year</th>
<th>Grammatical</th>
<th>(Partly) Lexicalized</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>kama = noo = ke</td>
<td>nskéma ke = noo = ke</td>
</tr>
<tr>
<td>2011</td>
<td>kama nó = tso</td>
<td>nskéma = ke</td>
</tr>
<tr>
<td>2012</td>
<td>kama = nok⁰</td>
<td>nskéma (= nok⁰)</td>
</tr>
<tr>
<td>2013</td>
<td>kama = sm</td>
<td>sákéma (= sm)</td>
</tr>
<tr>
<td><strong>2014</strong></td>
<td>kama = na</td>
<td>nákáíná (= na)</td>
</tr>
<tr>
<td>2015</td>
<td>kama = na táá</td>
<td>keináts</td>
</tr>
<tr>
<td>2016</td>
<td>kama = na tsó</td>
<td>nákáíná tsó</td>
</tr>
<tr>
<td>2017</td>
<td>kama = ke</td>
<td>nákáíná = ke</td>
</tr>
<tr>
<td>▼ 2018</td>
<td>kama = na far</td>
<td>nákáíná far</td>
</tr>
</tbody>
</table>
8.10 Greetings

Ik greetings do not constitute a separate grammatical word class per se. But they do consist of a variety of verb phrases and noun phrases used ritually so as to take on pragmatic meaning beyond grammar and semantics. Given the cultural importance of Ik greetings, they are presented below.

The most general greeting and the one usually first taught to outsiders is in the form of a question:

(89)         Iyida?       Iyita?
           i-id-a           i-it-a
       be-2SG-REAL       be-2PL-REAL
Are you there?     Are you all there?

In answer to this question, one typically responds with another question:

(90)        (Iyida) bia jii?
          (i-id-a)     bi-a=jii
     be-2SG-REAL yoUL.SG.NOM = also
   (Are you there) you also?

The standard greetings in (89)-(90) mirror exactly those in Teso-Turkana languages where the phrase is rendered Iyai a? ‘Are you (sg.) there?’ or Iyakasi a? ‘Are you (pl.) there?’ A variation on this greeting in the northern Dodoth dialect of Karimojong is set in the subsecutive mood as Toyai/Toyakas ‘And you be there’ which can also have imperative overtones, as in ‘You be there’. The grammatical form of these greetings has seeped into Ik as iyiduk/iyituk ‘(And) you be there’ in the sequential aspect, though this form is less frequently heard. This reflects the fact that most Ik greetings are grammatical replications of those found in Teso-Turkana.
A number of other Ik greetings are specific to certain times of the day. In the morning, generally up till about 9 or 10 am, the following greetings may be used in place of those described above:

(91) **Epidaa?**

ep-íd-a-a
sleep-2SG-REAL-PRF
Have you slept?

(92) **Goneseidaa?**

gon-es-é-íd-a-a
awake-IPFV-INCH-2SG-REAL-PRF
Have you awoken?

The answer to both of these greetings, as well as the one presented next in (93), is the refrain given in (90) above.

From mid-morning until the evening, the greetings in (93) are also heard:

(93) **Iryaidaa?**

iryá-íd-a-a
pass.the.day-2SG-REAL-PRF
Have you passed the day?

After these initial greetings used to initiate a social interaction, any of the following questions may be posed in a polite bid for more information:

(94) **Kutana is?**

kut-an-a
say-IPS-REAL
What is said?

**Isiemutio iy?**

isi-emutí-ó
what-story/news-COP
What news is there?
Of course, like greeting questions in any language, the ones in (94) are more like rhetorical questions than information questions. There is handful of standard replies that may be alternated according to the weather, the relative hunger felt in that land, or the current mood in the neighborhood:

(95) *Bira emuta iy.*

\[
\begin{align*}
bra-a & \quad \text{émut-a} & \quad i-\emptyset \\
\text{not.be-REAL.story/news-NOM} & \quad \text{be-REAL}
\end{align*}
\]

There is no news.

(96) *Ǹeke edá.*

\[
\begin{align*}
ɲɛk-\,a & \quad \text{ɛɗá} \\
hunger-NOM & \quad \text{only}
\end{align*}
\]

Only hunger.

(97) *Maranja zuk!*

\[
\begin{align*}
\text{maráŋ-á} & \quad \text{zuk"} \\
good-REAL & \quad \text{very}
\end{align*}
\]

Very good.

Chronic hunger, especially in the second and third quarters of the year, has been part of the Ik people’s normal existence. Over time, the conditions of hunger have shaped the culture, and this is reflected in another series of greetings. The following greetings, having to do with hunger and food, are often quite startling to newcomers in the area. This is because they sound very direct and are interpreted literally as requests for food, when more often the people saying them do not actually expect food to be given:

(98) *Isio ŋkan?*                      *Isio ŋki?*

\[
\begin{align*}
isi-o & \quad \etạk-\,an-\emptyset & \quad isi-o & \quad \etạk-\,i-\emptyset \\
\text{what-COP} & \quad \text{eat-IPS-REAL} & \quad \text{what-COP} & \quad \text{eat-1SG-REAL}
\end{align*}
\]

What is (being) eaten?       What do I eat (here)?
The standard reply to both of these questions is *bira* ‘Nothing’. But if persistent, one may further inquire:

(99)  
\[ \text{Ayuƙotaa toboŋa?} \]  
\[ \text{aɛiƙot-á-á toboŋ-a} \]  
\[ \text{ready-COMP-REAL-PRF maize.mush-NOM} \]  
Has the posho gotten ready?

One can respond to (99) with *sár* ‘Not yet’, *máá aɛiƙot* ‘It hasn’t got ready’, or *máá naa ɲweɛ́sî* ‘I didn’t grind (flour)’.

Another type of initial greeting, involving the imperative verb *bɪ́rɛ́*, became something of a symbol of Ik beggarliness in Colin Turnbull’s (1972) infamous book about the Ik called *The Mountain People*. A phrase often repeated in the book—*brinji lotop* in his orthography (e.g., p. 56)—is usually translated as ‘Give me tobacco’. Both in translation and in actual pronunciation, this phrase sounds abrupt and a bit rude to a foreigner unaccustomed to a begging/sharing culture. Though the stark intonation of the phrase is unavoidable, there is a better translation than ‘Give me’.

The imperative *bɪ́rɛ́* should not be translated simply as ‘Give me’ because there is already another verb that means ‘give’: *ma-* or *me-et-* in the venitive. ‘Give me’ is the correct translation for the phrase *meete ğicık*, where *ģicık* ‘to me’ is the dative case form of the first person singular pronoun. So ‘Give me tobacco’ would be *Meete lɔ́tɔ́ɓᵓ ɲcikₑ*. As discussed back in §6.3.3, in the phrase *brinji lotap*—more accurately written as *bɪ́rɛ́ ɲcⁱ lɔ́tᵊᵗ*—the object of the imperative is *ţici* ‘me’ in the oblique case, while *lɔ́tᵊ*_tobacco* is an adjunct argument in the instrumental case. If the grammar is any indication, then the phrase means ‘X me *with* tobacco’. As best as can be gathered from its singular use in this greeting of request, the verb *bɪ́rɛ́ ɟicî* approximates to something like ‘Help me’, ‘Relieve me’, or ‘Avail me’.
Another component of Ik greeting is asking about one's movements to and fro. In Western society, this may seem rude as most people live out their individual lives with a good deal of privacy. But in tight-knit communities like those of the Ik, ones that have suffered from attacks and emergencies of all kinds, knowing each other's whereabouts is an expected nicety. The following questions and replies are representative of what one might hear:

(100)  *Atsida ndee?*  *Atsia awao.*
ats-íd-a      ndɛɛ́
come-2SG-REAL from.where
you're coming from where?
ats-í-á       awá-o
come-1SG-REAL home-ABL
I'm coming from home.

(101)  *Ƙeesida ndaik?*  *Ƙeesia sedak.*
ke-es-íd-a     ndaí-kᵉ
go-INT-2SG-REAL where-DAT
you are going where?
ke-es-i-á     séda-kᵉ
go-INT-1SG-REAL garden-DAT
I'm going to the garden.

After one's origin or destination has been revealed, further seemingly (to outsiders) intrusive questions may be asked. These questions are generally good-natured and should be viewed as such. Consider the following:

(102)  *Isio naa nkaneid?*
isi-o=náa     ŋkan-é-íd-∅
what-COP=PST1 get-VEN-2SG-REAL
what did you get (i.e. when you went there)?

(103)  *Nkáka isi?*
nkák-á      isi-∅
eating-NOM what-GEN
To eat what (i.e. why are you going)?

After greetings, questions, and conversation, leave-taking occurs. When one participant gets ready to leave, the other may offer such phrases as:
At any point of a social interaction, the liberal usage of marány ‘good/okay’ is typically appropriate. And if one is particularly happy about what has transpired during the interaction, it is suitable to add the following:

(107) Ilakasukotiaak!

ilák-ás-ukot-i-a-kë

happy-ABST-COMP-1SG-REAL-PRF

Thank you (lit. ‘I have become happy’)! 

(108) Ilakasukotimak!

ilák-ás-ukot-im-á-kë

happy-ABST-COMP-1PL-EXC-REAL-PRF

Thank you (lit. ‘We have become happy’)!
9 Phrases and Clauses

Now that phonemes and morphemes (words and affixes) have been described, the present chapter takes up the topic of basic syntax. It begins with a discussion of noun phrases (§9.1), followed by simple main clauses (§9.3-§9.6), a variety of subordinate clauses (§9.7-§9.9), and several other noteworthy syntactic constructions (§9.10-§9.16). In many regards, this chapter only scratches the surface of Ik syntax, but it is hoped that the topics covered here will provide impetus for further investigation.

9.1 Noun phrase structure

Noun phrases (NP) fill core or peripheral argument slots in clause structure. Their phrasal heads can be made up of a solitary noun (including nominalized verbs), pronoun, or compound. Noun phrases may also include one or more modifiers such as: demonstratives, quantifiers, possessive phrases, or relative clauses. In other words, a given NP may consist of just the head or of multiple embedded phrases and/or clauses.

Any modifiers within an Ik noun phrase follow the phrasal head they modify. This conforms to expectations for VSO languages (Creissels 2000:252), of which Ik is one. For example, in (1) below, the possessive NP fići ‘my’ follows the noun dakwitíná ‘trees’, as do the plural demonstrative =ni in (2) and the numeral quantifier adë ‘three’ in (3):

(1) dakwitina nci
    tree-PL-NOM     I-GEN
    my trees
More than one type of demonstrative may modify a noun in the same noun phrase. When all three types of demonstrative cooccur, they do so in the following order: anaphoric-temporal-spatial. An example of this is in (4):

(4) *ama dee sina ne*

\[ \text{[ám-á=} \text{déé=} \text{sína=} \text{ne}]_{NP} \]
\[
\begin{align*}
\text{person-NOM} &= \text{ANPH} = \text{PST2}.
\text{DEM} = \text{DEM} = \text{DEM}.
\end{align*}
\]
that person there (of yesterday, already mentioned)

Ik speakers have a penchant for using spatial demonstratives more than once in a single noun phrase (see also §8.2.1). It seems to add a bit of rhythmic balance to one’s speech. (5) shows an example of this:

(5) *ama ke naa ke*

\[ \text{[ám-á=} \text{ke=} \text{náa=} \text{ke}]_{NP} \]
\[
\begin{align*}
\text{person-NOM} &= \text{DEM} = \text{PST1} = \text{DEM} = \text{DEM}.
\end{align*}
\]
that person over there (of earlier today)

If a modifier NP is selecting its head from a group rather than merely qualifying it, it trades places: It becomes the NP head and the modified noun becomes a possessive NP. This happens, for example, with the indefinite pronoun *sáí* ‘some more, some other’ and the interrogative pronominal compound *ńté-ńné* ‘which?’. In (6), the noun *awíka* ‘homes’ is
bumped into an embedded genitive possessive phrase modifying the indefinite *saa*. And in (7), the same thing happens to *awá* ‘home’:

(6) \[\text{saa awik}ae\]
\[\text{NP:POSS}\]
\[\text{other-NOM home-PL-GEN}\]
some other homes

(7) \[\text{Nt}eena \text{awae?}\]
\[\text{NP:POSS}\]
\[\text{which-PSSM-NOM home-GEN}\]
Which home?

If a quantifier cooccurs with either a possessive phrase or a demonstrative in an NP, the quantifier comes last in the sequence, for example:

(8) \[\text{ŋokitina ncie gai}\]
\[\text{NP:POSS}\]
\[\text{dog-PL-NOM I-GEN both}\]
both my dogs

(9) \[\text{ŋokitina ni gai}\]
\[\text{NP:POSS}\]
\[\text{dog-PL-NOM DEM.PL both}\]
both these dogs

And if all three types of modifiers are present, the following order obtains:

(10) \[\text{ŋokitina ncie ni gai ni}\]
\[\text{NP:POSS}\]
\[\text{dog-PL-NOM I-GEN = DEM.PL both = DEM.PL}\]
both these dogs of mine (these)
Noun phrase heads may be modified by relative clauses (see §9.8 for a more detailed treatment). These clauses also follow the NP head. They tend to fall at the end of the NP, but quantifiers may optionally follow them:

(11) \textit{dakwitina ncie gai ni dunaaket}
\begin{verbatim}
[dakw-itín-á [fic-e] 
\hfill \text{NP:POSS} \end{verbatim} 'gáí = [ni 
\hfill \text{REL.PL} dun-aak-et-a] 
\hfill \text{old-DISTR-INCH-REAL} 
\begin{verbatim}
tree-PL NOM I-GEN both 
\hfill \text{REL.PL} 
\end{verbatim} both of my old trees

(12) \textit{dakwitina ncie ni dunaaketa gai}
\begin{verbatim}
[dakw-itín-á [fic-e] 
\hfill \text{NP:POSS} = [ni 
\hfill \text{REL.PL} dun-aak-et-a] 
\hfill \text{both}
\text{old-DISTR-INCH-REAL} 
\begin{verbatim}
tree-PL NOM I-GEN = REL.PL both 
\hfill \text{PL old=} 
\end{verbatim}
\end{verbatim} both of my old trees

And when multiple adjectival verbs are used to describe a clausal argument, only one relative clause structure is used. After the relative pronoun come the two or more adjectivals, demarcated with a pause (‖) between each one:

(13) \textit{dakwitina ncie ni dunaaket,}
\begin{verbatim}
[dakw-itín-á [fic-e] 
\hfill \text{NP:POSS} = [ni 
\hfill \text{REL.PL} dun-aak-et-∅ ] 
\hfill \text{old-DISTR-REAL} 
\end{verbatim} both

\begin{verbatim}
zikibaakat, ilibaakata muɲ
zikib-aak-át-∅ ‖ ilib-aak-át-a] 
\hfill \text{NP} 
\begin{verbatim}
tall-DISTR-3PL-REAL green-DISTR-3PL-REAL all 
\end{verbatim}
\end{verbatim} all my old, tall, green trees

9.2 Possession

The following overview of ‘possession’ in Ik covers not only the possessive constructions within in noun phrases, but also some of the broader issues surrounding how ‘possession’ is syntactically encoded in the language.
From a syntactic point of view, Ik employs three types of possessive construction: 1) A possessee NP head followed by a possessor NP in the genitive case, 2) a possessor noun and a possessee noun joined in a compound, in that order. Ik speakers claim there is no difference in meaning between these two types. 3) The third type of possessive construction is complex. It consists of a compound with the possessor as the N₁ and the possessum morpheme ɛnɪ́é as the N₂. These two elements alone comprise a possessive noun phrase, as in ɲj-ɛ́n ‘mine’. But then the possessee can be specified by putting it in a genitive phrase after the NP head. This construction can be termed ‘pertensive’ (Dixon 2010b:268), given that the possessee bears the traditional marking for possessor (the genitive case):

<table>
<thead>
<tr>
<th>NP possessive constructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

The types of semantic relationships that Ik possessive constructions can express include those in (15)-(21). According to Dixon (2012b:263), Ik would fall into that group of languages worldwide that shows a comparatively wide range of such relationships:

(15) Ownership: nkaka nti
ηkáka nti-Ø
food-NOM they-GEN
their food

(16) Whole-part: rijaakw
rijá-akw-a
forest[OBL]-inside-NOM
the inner (part of the) forest
Ik also uses verbal means to express possession. For example, the verbs tır-ēs ‘to hold’, i-on ‘to be’, and i-on-a nda ‘to be with’ are all common verbal alternatives alongside the NP possessive constructions in (14). These verbs used in this way often translate as ‘to have’. The first, tır-ēs, is a transitive verb whose subject would be the possessor and object the possessee. Due to its high degree of agency, this verb is restricted to human possessors:
(22)  *Tirida ɲakalama?*

\[\text{tír-íd-a} \quad ɲákalám-a\]

hold-2SG-REAL pen-NOM

Do you have a pen (lit. ‘Are you holding a pen’)?

(23)  *Biraa korobaa tiri.*

\[\text{bɪra-} \quad \text{kɔ́rɔ́ɓá-} \quad \text{tír-}\mathcal{O}\]

not.be-REAL thing-NOM hold-1SG-REAL

I have nothing (lit. ‘There is nothing I am holding’).

The second ‘have’-verb—*i-on* ‘to be’—is the language’s locative/existential copular verb. Used in a possessive way, this verb takes the possessee as its subject and the possessor as a peripheral argument in the dative case, e.g.:

(24)  *Iya nakalama ncik.*

\[\text{i-} \quad ɲákalám-a \quad ɲci-kᵉ\]

be-REAL pen-NOM I-DAT

I have a pen (lit. ‘There is a pen to me’).

To negate the kind of possessive clause in (24), one has to substitute the negative locative copula (*bɪrá- ‘not be there’) and put the possessor (or more precisely, the ‘un-possessor’) in the ablative case:

(25)  *Biraa ɲakalama ncu.*

\[\text{bɪra-} \quad ɲákalám-a \quad ɲcu-\mathcal{O}\]

not.be-REAL pen-NOM I-ABL

I have no pen (lit. ‘A pen lacks from me’).

The third verb, *i-ona ñda* ‘to be with’, combines the locative/existential copula *i- with the preposition ñda ‘and/with’. The possessor is the subject of the verb, and the possessee is a peripheral argument in the oblique case. When negated with the verb *brrá- ‘lack’ the oblique-case possessee is marked on the subordinated verb *i- ‘be’ with the dummy pronoun enclitic {=ˊdɛ}:
(26) *Iyida nda ɲakalamu?*
  
i-id-a            ɲ-da  ɲákalámu  
be-2SG-REAL     with   pen[obl]

Do you have a pen (lit. ‘Are you with a pen’)?

(27) *Biraa ɲakalama iyiaad.*
  
bira-a          ɲákalám-a    i-i-á = dº 
not.be-REAL   pen-NOM    be-1SG-REAL = DP

I don’t have a pen (lit. ‘A pen is lacking that I am with’).

The Teso-Turkana languages bordering Ik, like Karimojong and Turkana, also convey possession by means of locative/existential copulae. In the following examples (from Mantovani 1963:9, though morpheme glosses are my own), the verb *ayakau* ‘to be (there)’ has the meaning of ‘to have’:

(28) *Eyai iyong aite.*
  
eyái    ɪyoŋ       áite  
be:3SG   you:DAT  cow

You have a cow (lit. ‘A cow is to you’).

(29) *Eyakasi iyong ngaatuk.*
  
eyakási  ɪyoŋ       ɲáátuk  
be:3PL   you:DAT  cows

You have cows (lit. ‘Cows are to you’).
9.3 Basic clause structure

The ‘clause’ is defined here as the minimal unit of syntactic organization that includes a verbal element, finite or non-finite. Thus it encompasses the ‘verb phrase’ (predicate and any modifiers) and any ‘noun phrases’ (nouns and any modifiers) needed to fill the predicate’s argument slots. The notion of ‘verb phrase’ per se will not be dealt with further since the ‘clause’ includes the verb phrase by definition. Having discussed noun phrases in the last section, this one takes up the topic of basic Ik clauses: unmarked main clauses, subordinate clauses, and various types of marked main clauses. Other specific topics covered in later sections of this chapter include questions, reported speech, comparative constructions, and negation.

Ik exhibits a strict VSO constituent order in basic unmarked main clauses. This puts it in a ‘word-order’ typological category with Ancient Egyptian, a few Chadic languages, much of Eastern Sudanic (notably Eastern Nilotic), and possibly some Berber and other Afroasiatic languages (Creissels 2000:252). It distinguishes it from other regional languages like Dhaasanac (SOV) and Dime (SOV). Though Teso-Turkana languages are classified as VSO, a VOS order is also common (Dimmendaal 1983:68). But VOS is not attested in Ik. Like some of the controversially analyzed VSO languages in Africa, Ik exhibits both VSO and SVO constituent orders. However, in Ik, SVO is restricted to subordinate clauses, which are described below in §9.4.

Ik’s VSO constituent order along with its total lack of synchronically functional prefixes is one of its ‘remarkable’ typological properties (Heine & König 1996:123). This property, along with the subordinate clause SVO constituent order, suggests that VSO may be a wholesale syntactic structure replicated from the historically influential Eastern Nilotic languages.

A ‘basic clause’ is defined here as a simple, declarative statement with a 3sg subject, realis modality, and positive polarity—in other words, functionally and semantically unmarked. As noted above, the order of core constituents
in an Ik basic clause is VSO, or more precisely, VS in intransitive clauses and VAO in transitive clauses. In (30) below, the noun ŋókᵃ ‘dog’ is functioning as the subject of the intransitive predicate ep- ‘sleep’. And in (31), the same noun is acting as the subject of the transitive predicate áts’- ‘gnaw’ with ɔká- ‘bone’ as its object. Note how the subject follows the verb in each example, and how the object follows the subject in (31):

(30)   *Epa ŋok.*
ep-ʌv   ŋók-ʌs  Intransitive = VS
     sleep-REAL    dog-NOM  
The dog is asleep.

(31)   *Ats’a ŋoka oka.*
áts’-ʌv  ŋók-ʌʌ  ɔká-kə  Transitive = VAO
     gnaw-REAL dog-NOM bone-ACC  
The dog gnaws a bone.

Tense clitics fall between the main verb and its first overt argument, as in:

(32)   *Epa bee ŋok.*
ep-ʌv = bee   ŋók-ʌs  
     sleep-REAL = PST2  dog-NOM  
The dog slept (yesterday).

(33)   *Ats’a noo ŋoka oka.*
áts’-ʌv = noo  ŋók-ʌʌ  ɔká-kə  
     gnaw-REAL = PST3  dog-NOM  bone-ACC  
The dog gnawed the bone (a while ago).

When peripheral arguments and other adjuncts like adverbs are put in a clause, these fall after any core constituents. For example, if the peripheral argument kurú ‘in the shade’ is added to (32) from above, it comes after both the verb and the subject, as in (34) below:
And if an adverb like ʰⁱʲ⁽²⁾ ‘slowly’ is added to (33), it comes after the verb, tense clitic, subject, and object, as in:

(35)  *Ats’a naa ŋoka okaa hiiʝ.
 áts’-áₚ = naa ŋók-áₜ  eká-áₒ  hiiʝ⁽²⁾ ᵐ licensors
 gnaw-REAL = PST1 dog-NOM bone-ACC slowly
 The dog gnawed the bone slowly (earlier today).

If the arguments, core or peripheral, have modifiers, these modifiers directly follow the NP heads they modify. The next three examples are variations of (34), showing where respective NP modifiers occur:

(36)  *Epa ŋoka ncie kuru.
 ep-ₚₜ [ŋók-á  nciₜ-e]ₚₜ kurú-Øotland
 sleep-REAL dog-NOM IGEN shade-ABL
 My dog is sleeping in the shade.

(37)  *Epa ŋoka na ɓets’a kuru.
 ep-ₚₜ [ŋók-á = na ɓets’-a]ₚₜ kurú-Øotland
 sleep-REAL dog-NOM = REL.SG white-REAL shade-ABL
 The white dog is sleeping in the shade.

(38)  *Epa ŋoka kuruo na kwats.
 ep-ₚₜ ŋók-áₚ [kurú-ó = na kwáts-Ø]ₚₜ
 sleep-REAL dog-NOM shade-ABL = REL.SG small-REAL
 The dog is sleeping in the small shade.
Ik clauses may be intransitive, transitive, or ditransitive. At the notional level, intransitive clauses minimally require a subject (S) as an argument. Transitive clauses minimally require an agent (A) and object (O), while ditransitives requires an agent (A), object (O), and extended object (E). However, in Ik, some or all core arguments may be omitted (left implicit) in the surface structure. As such, Ik is not just a pro-drop language (which it is) but also an ‘argument-drop’ language. Consider these examples:

(39)  *Makotia naa kaudza ntsik.*

ma-kot-i-a\_\_VA = naa kaúdz-a\_\_O  ntsí-k\_\_E

give-AND-1SG-REAL = PST1  money-NOM s/he-DAT

I gave the money to him.

(40)  *Makotia naa kaudz.*

ma-kot-i-a\_\_VA = naa kaúdz-a\_\_O  Ø\_\_E

give-AND-1SG-REAL = PST1  money-NOM

I gave the money (to someone).

(41)  *Makotia naa ntsik.*

ma-kot-i-a\_\_VA = naa Ø\_\_O  ntsí-k\_\_E

give-AND-1SG-REAL = PST1  s/he-DAT

I gave (something) to him.

(42)  *Makotia nak.*

ma-kot-i-a\_\_VA = nak\_\_ Ø\_\_O  Ø\_\_E

give-AND-1SG-REAL = PST1

I gave (something) (to somebody).

These four examples show progressively the omission of one or the other—and then all—core arguments from the surface structure (though of course the clause subject is always cross-referenced on the main verb).
9.4 Causative clauses

Syntactically, the Ik causative suffix {-it-} (§7.9.1) changes the valency of the verb by adding a new argument: the causer in the form of the agent (A). For intransitive verbs, the original intransitive subject (S) now becomes the object (O) in the causative construction, for example:

\[
\begin{array}{ll}
\text{Ekei} & \text{Ekeiteta} \\
\text{intransitive} & \text{transitive}
\end{array}
\]

\[
\begin{array}{ll}
fek-i-a-a & \text{fek-it-et-\-a-\-\-a} \\
\text{laugh-1SG-REAL-PRF I-NOM} & \text{laugh-CAUS-INCH-REAL-PRF I-ACC}
\end{array}
\]

I'm laughing.     She's made me laugh.

In (43), the S of the first clause (ŋkᵃ) becomes the O of the second clause (ɲ́cikᵃ). This is reflected in the case-marking change from the nominative in the first clause to the accusative in the second (due to the fact that 3rd person agents in Ik always take direct objects in the accusative case).

For transitive verbs, the original transitive agent (A) becomes the direct object (O) of the new agentive causer which is now (A). And the original direct object becomes an extended object (E) marked with the dative case:

\[
\begin{array}{ll}
\text{Ẹ} & \text{Ẹ́bẹ} \\
\text{intransitive} & \text{transitive}
\end{array}
\]

\[
\begin{array}{ll}
\text{ŋab-i-a} & \text{[ŋk-a]} \\
\text{wear-1SG-REAL I-NOM} & \text{coat-NOM}
\end{array}
\]

I'm wearing a coat.

Lastly, for extended transitive verbs, the original transitive subject (A) becomes the direct object (O), while the original direct object becomes the
first extended object (E₁) marked with the dative case. And the original
extended object (E₁) becomes the second extended object (E₂), also in the
dative case. This construction puts Ik in the company of the relatively few
languages worldwide—like Japanese, Turkish, and Kamaiurá—that allow
more than one dative noun phrase in the same clause (Dixon 2012:264):

(46) *Makotiaa nka kaudza konie amae.*

\[\text{give-AND-1SG-REAL-PRF I-NOM money-NOM one-DAT person-GEN}\]

I have given the money to another person.

(47) *Makitiikota ncia kaudzoæ konie amae.*

\[\text{give-CAUS-PLUR-AND-REAL I-ACC money-DAT one-DAT person-GEN}\]

He makes me give money to another person.

9.5 Auxiliary verbs

Two different constructions are here being called ‘auxiliary’. One type
involves a small subset of verbs that carry aspectual meaning paired with a
main verb that carries the lexical semantic content, semantic roles, and
argument structure of the whole clause. The second type involves a small set
of lexical verbs that, when paired with a nominalized complement, add
aspectual meaning to the complement. These are termed ‘auxiliary-like’.

9.5.1 Auxiliary verbs proper

The auxiliary verbs ‘proper’ are lexical verbs in their own right but also
double as aspectual auxiliaries. In the Ik auxiliary verb construction, the
aspectual auxiliary fills the slot for the main verb and is the only verb
marked for subject-agreement, tense, and polarity. The semantic main verb
follows in a morphologically defective form. If the clause subject is overt, it
comes between the auxiliary and the main verb, making the constituent
order of auxiliarized clauses Aux-S-V or Aux-A-V-O, the same order found in
subordinate clauses. The only inflection found on the main verb in an auxiliary construction is the realis suffix {e-a}. It remains thus, regardless of the various inflectional suffixes the auxiliary verb may take.

The verbs in (48) form a subset based on the fact that they all aspectually modify a morphologically defective, semantically main verb. The ‘anticipative’ verb ṣɔ̀r- ‘do early’ is most likely related to the proto-Kalenjin verb ṣɔɔr- ‘foretell’ (Rottland 1989). And the verb sár- is functionally quite similar to the Turkana auxiliary -rok- which Dimmendaal calls the “auxiliary of unexpected state of affairs” in the affirmative (1983:138) and the “unexpected negative perfective” in the negative (1983:457).

(48) **Ik auxiliary verbs**

<table>
<thead>
<tr>
<th>Verb</th>
<th>Lexical</th>
<th>Aspectual</th>
</tr>
</thead>
<tbody>
<tr>
<td>erúts-</td>
<td>‘be new, fresh’</td>
<td>Recentive</td>
</tr>
<tr>
<td>ṣɔ̀r-</td>
<td>‘do early (already)’</td>
<td>Anticipative</td>
</tr>
<tr>
<td>sár-</td>
<td>‘still, not yet, no longer’</td>
<td>Durative</td>
</tr>
</tbody>
</table>

The following three examples illustrate these auxiliary verbs. First, in (49) the recentive auxiliary erúts- modifies the semantic main verb ats- ‘come’. Since the auxiliary verb fills the syntactic slot for main verbs, the second-position tense clitic =noo attaches to it:

(49) **Erutsa noo ɲabura ats.**

[erúts-á = noo]_AUX_ ɲabur-a_s ats-∅_V_

recent-REAL = PST 3 maize-NOM come-REAL

Maize (i.e. as a crop) came in the not-so-distant past.

In the next example, the anticipative auxiliary ṣɔ̀r- modifies the main verb cc- ‘kill’ which is transitive, taking A and O as arguments. The agent A is omitted but is marked with a subject-agreement suffix on the auxiliary verb:
Transitive verbs like ɛɛ- ‘kill’ take an object in the accusative case only when the subject is 3-person. In (50), though, it is the intransitive auxiliary verb ḋɔɾ- that is marked for 3-person, not ɛɛ-. Still, the object of the clause takes the accusative case. This is because the semantic main verb (V), not the auxiliary (AUX), governs the argument structure of the clause.

This third example shows the affirmative durative Auxiliary sār- modifying the intransitive verb kom- ‘be many’:

(51)  Sarima koma zuk.
      sār-im-a_{AUX} kom-a_{V} zuk^{u}
      still-1PL.EXC-REAL many-REAL very
      We are still very many.

9.5.2  Auxiliary-like verbs

Several Ik verbs add aspectual meaning to a clause, even though they are simply lexical verbs taking a nominal(ized) complement. As such, they are technically not auxiliary verbs but rather auxiliary-like in their semantics:

(52)  Ik auxiliary-like verbs

<table>
<thead>
<tr>
<th>Lexical</th>
<th>Aspectual</th>
</tr>
</thead>
<tbody>
<tr>
<td>bɛd-</td>
<td>‘want’</td>
</tr>
<tr>
<td>itsyək-ɛt-</td>
<td>‘begin’</td>
</tr>
<tr>
<td>isɛ-ɛt-</td>
<td>‘begin’</td>
</tr>
<tr>
<td>toɗo-</td>
<td>‘land, arrive’</td>
</tr>
<tr>
<td>ɲáb-ʊkɔt-</td>
<td>‘finish, end’</td>
</tr>
<tr>
<td>cɛm-</td>
<td>‘fight, struggle’</td>
</tr>
</tbody>
</table>
The first five verbs in (52) are ambitransitive. But in their auxiliary-like role, they take an object in the nominative or accusative case, depending on the identity of the subject and the syntactic environment. The sixth verb, cɛm-, is intransitive, but in the 'occupative' usage, takes a peripheral argument in the instrumental case (see next section). The objects of these verbs can be nouns or nominalized verbs, though in their auxiliary-like function, they are usually nominalized verbs. Here are some examples:

(53) Proximative:  
**Bedia naa rumanon!**  
bɛ́ɗ6ɪ́6a=naa     rumán-0  
want-1SG-REAL = PST fall-INF-NOM  
I almost fell!

(54) Inchoative:  
**Itsyaketaa ɲeryaŋa atsonik.**  
itsyak-ɛ́t-á-á ɲeryaŋ-ɛ́a  ats-0n-0  
begin-INCH-REAL-PRF modernity-NOM come-INF-ACC  
Modernity has started coming.

(55) Inchoative:  
**Iseetataa waanak.**  
ise-ɛ́t-ɛ́t-ɛ́a  wáána-0  
begin-INCH-3PL-REAL-PRF prayer-ACC  
They've started to pray.

(56) Inchoative:  
**Todoyuo roɓa ats'esiia jejeikae.**  
tod6-o roɓ-0  ats'-ɛ́sti-0  jéje-0k-a  
land-3SG-SEQ people-NOM chew-INF-ACC mat-PL-GEN  
And people began to eat leather mats.

(57) Completive:  
**I ámbukotima bee zikesa deretsae.**  
ŋáb-ukat-ɛ́m-0 = bee  zik-ɛ́s-0  deretsa-0  
finish-COMP-1PL-REAL = PST tie-INF-NOM kindling-GEN  
We finished tying kindling (yesterday).
9.5.3 Occupative aspect

Lastly, Ik has a construction whose function approximates the progressive aspect of many languages (if English translations are any indication). It consists of the intransitive verb *cem*—‘fight, struggle’ plus a nominal word as a peripheral argument in the instrumental case. This aspect is called ‘occupative’ here because, in addition to implied progressive activity, it communicates an ethnosemantic nuance of intensity (Serzisko 1992:79) and struggle (hence *cem*—‘struggle’)—that is, of being engaged or ‘occupied’.

Examples of the occupative aspect include the following sentences:

(58) *Cemia hoeso inoe na.*

\[
\text{ccm-i-á} \quad \text{ho-és-ó} \quad \text{ínó-e = na} \\
\text{struggle-1SG-REAL} \quad \text{cut-INF-INS} \quad \text{animal-GEN = DEM.SG}
\]

I am busy dressing this animal.

(59) *Cemesoo nywaata terego nda babat.*

\[
\text{ccm-és-5-ɔ} \quad \text{ŋw-áát-a} \quad \text{terég-o} \quad \text{ń'da báb-at'} \\
\text{fight-IPFV-3SG-SEQ} \quad \text{mother-3SG-NOM} \quad \text{work-INS with father-3SG[OBL]}
\]

And his mother was busy working along with his father.

(60) *Itelisina wika cematikee waak.*

\[
\text{itél-ísin-a} \quad \text{wik-a} \quad \text{ccm-áti-ké = e} \quad \text{waák.}' \\
\text{watch-1PL-INC-REAL} \quad \text{children-NOM} \quad \text{fight-3PL-SIML = DP} \quad \text{play-INS}
\]

We’re watching children busy playing (with toys).

(61) *Cemeese koto tsajeso ceki.*

\[
\text{cém-é-cse = kótó} \quad \text{tsáŋ-és-o} \quad \text{cekí-Ø} \\
\text{fight-SPS = then} \quad \text{annoint-INF-INS} \quad \text{woman-GEN}
\]

And then they got busy anointing the woman.
9.6 Copula clauses

Ik has three verbs that qualify as copula verbs in that they have relational rather than referential meanings. One is *mut-*, a copula verb that covers the semantic relations of identity and possession (Dixon 2010:159). In Serzisko’s analysis, *mut-* also denotes ‘ascriptive/descriptive’ (Zuschreibung) versus the ‘specification’ (Spezifizierung) handled by the copulative case (1992:55ff). The second copula is *ir-*, a verb with a narrow expression of attribution, and the third is *i-,* a copula verb that covers existence and location. All three copula verbs can take two arguments, the copula subject (CS) and the copula complement (CC). Although *i-*, when used for the existence relation, takes only a copula subject. The following sentences exemplify these verbs (underlined in the data) and the semantic relations they encode:


\[
\begin{array}{l}
\text{mut-}^\text{im-}\text{á} & \text{ngw-a}_\text{CS} & \text{ŋɔt}_\text{CC} \\
\text{be-1PL.EXC-REAL we.EXC-NOM} & \text{men[obl]}
\end{array}
\]

We are men.

(63) Possession: *Mita da nci.*

\[
\begin{array}{l}
\text{mut-}^\text{á} & \text{ɗ-a}_\text{CS} & \text{ŋci-}^\emptyset_\text{CC} \\
\text{be-REAL one-NOM} & \text{I-GEN}
\end{array}
\]

This one is mine.

(64) Attribution: *Ira ntsa tiye.*

\[
\begin{array}{l}
\text{ir-}^\text{a} & \text{nts-a}_\text{CS} & \text{tíyé}_\text{CC} \\
\text{be-REAL it-NOM} & \text{like.this}
\end{array}
\]

It’s like this.

(65) Location: *Iyata nta awak.*

\[
\begin{array}{l}
\text{i-}^\text{át-a} & \text{ńt-}^\text{a}_\text{CS} & \text{awá-k}_\text{CC} \\
\text{be-3PL-REAL they-NOM} & \text{home-DAT}
\end{array}
\]

They are at home.
Existence:  
_\text{Iya Naku}_\text{j}.
\text{i-a naku-}^\text{cs}_\text{a}
\text{be-REAL God-NOM}
God is (there).

Examples (62)-(66) show that the subject (CS) of Ik copula clauses is treated syntactically like a typical S or A subject: 1) It takes the nominative case; 2) though explicitly mentioned in these example, the CS can be omitted, leaving its trace in the form of subject-agreement suffixes; and 3) it fills the canonical syntactic slot for a subject, just after the main verb.

As for the CC, the case it takes depends on the relation the copula is encoding. In the ‘identity’ relation, the CC is in the oblique case. In the ‘possession’ relation, it is in the genitive case. (The copula _ir_- expressing attribution is a special case: Its CC is an adverb like _ńtì_ ‘how’ or _tìyé_ ‘like this’ instead of a noun phrase.) In the ‘location’ relation, the CC takes the dative case, while in the ‘existence’ relation, no CC is present. The following table captures how these copular relations are mapped onto copular arguments and the respective nominal cases they assume:

(67)  
\begin{center}
\textbf{Case marking in copula constructions}
\end{center}

\begin{center}
\begin{tabular}{llll}
 & \textbf{Copula} & \textbf{CS} & \textbf{CC} \\
\hline
Identity & m\text{ɪt}- & NOM & OBL \\
Possession & m\text{ɪt}- & NOM & GEN \\
Attribution & i\text{r}- & NOM & adverb \\
Location & i- & NOM & DAT \\
Existence & i- & NOM & — \\
\end{tabular}
\end{center}

The three copulae behave like typical intransitive verbs in terms of the type of inflectional and derivational augmentations they can undergo. Between the three, though, they do differ in what suffixes they can cooccur with. For example, _m\text{ɪt}-_ can be causativized into the transitive _m\text{ɪt}-\text{ɛs-}\text{-\text{ʊkɔt}̣}_ ‘to cause to become’, while the other two cannot. The completive suffix {-\text{ʊkɔt}̣} can
modify mut- and ir- (mut-on-uko’t ‘to become’ and ir-on-ukot’ ‘to become like’) but not to i- (**i-on-uko’t’). The impersonal passive suffix {-aní-} is commonly found with i- but not with the other two. Otherwise, none of the three Ik copulae have any irregular forms in their paradigms. Neither do they have other functions or homonyms in the grammar.

The three Ik copula verbs can be negated in the standard way, using the realis negating verbs nité and maé or the sequential negator moo, for example:

(68)  
Nta miti abaŋ.


ínt-á  mit-1  abáŋ
not-REAL  be-3SG  my.father[OBL]
He is not my father.

(69)  
Maa bee iri nti.


má-á=bee  ir-i  ńtí
not-REAL=PST 2  be-3SG  ADV
It wasn’t like that.

(70)  
Moo iyidi koo ke.


mo-o  i-idi  kɔ́ɔ́=kɛ
not-SEQ  be-2SG  there=DEM.SG.DIST
And then you’ll not be over there.

In terms of etymology, Ehret links the copula mut- (which is met- in the Kulik language So; Carlin 1993:65) to the Proto-Nilo-Saharan root *mé:y ‘to do, make’ (2001:281). But how that may have developed into a copula is not obvious. Also unexplained is the link between i- and the Proto-Central-Sudanic *ngwi ‘to be (somewhere)’ > Central Sudanic *-i (Ehret 2001:371). In neighboring Teso-Turkana languages, two of the three Ik copula verbs have what appear to be close cognates: Ik i- ↔ Teso-Turkana (a)yákáʊ̥̀ ‘to be somewhere’ and Ik ir- ↔ (a)rakaʊ̥ ‘to be something/somewhere’.
Ik also has a pair of negative copula verbs: *bení- ‘not be (something)’ and *bírá- ‘not be (somewhere)’. The first negates *mi- and *i-, while the second negates *i-. Both verbs have other, lexical meanings. The verb *bení- can mean ‘be unique’, while *bírá- can mean ‘lack’. In their capacity as negative copula verbs, these two verbs take complements with a variety of cases:

(71) **Negative copula verbs**

<table>
<thead>
<tr>
<th>Copula</th>
<th>CS</th>
<th>CC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identity</td>
<td>bení-</td>
<td>NOM</td>
</tr>
<tr>
<td>Possession</td>
<td>bení-</td>
<td>NOM</td>
</tr>
<tr>
<td>Attribution</td>
<td>bení-</td>
<td>NOM</td>
</tr>
<tr>
<td>Location</td>
<td>bírá-</td>
<td>NOM</td>
</tr>
<tr>
<td>Existence</td>
<td>bírá-</td>
<td>NOM</td>
</tr>
</tbody>
</table>

And the following examples illustrate actual usage of the negative copulae:

(72) *Mita bi.*

mit-a bi
be-REAL you.SG[OBL]

*It’s you.*

(73) *Ira ti.*

ir-a tí
be-REAL like.this

*It’s like this.*

(74) *Iya nee na.*

i-a néé = na
be-REAL here = DEM.SG

*She’s here.*
9.7 Subordinate clause structure

Subordinate (dependent) clause structure differs from that of unmarked main clauses. How it differs depends on the type of clause involved. Conditional and hypothetical subordinate clauses contain sequential verbs that, by definition, must follow in sequence from a preceding verb (see §10.2). This condition is satisfied in subordinate clauses by the subordinating conjunction being placed in the clause-initial verbal slot, followed by a subject in the nominative case, followed by the sequential verb which is actually the main verb of the subordinate clause.

In (75), the conjunction na= ‘if’ fills the syntactic verbal slot (V), while cɛɪɔ, the clause’s real verb, is ‘co’-subordinate to it (V2). In this way, sequential subordinate clauses attempt to preserve surface-level VSO order, although there is a mismatch between deep and surface structure. This analysis tries to account for why an otherwise preverbal subject is in the nominative case, when all other preverbal subjects in the language take accusative case:

\[
\text{(75) Na soreima ceyoo poposaa...}
\]

\[
[\text{na=} \text{J} \text{soré-im-a}_A \quad \text{ce-i-ɔv}_2 \quad \text{pɔpsa-á}_0 \\
\text{CONJ = boy-child-NOM} \quad \text{kill-3SG-SEQ lizard-ACC}
\]

If a boy kills a lizard,...

Apart from ones with sequential verbs like in (75), all other subordinate clauses in Ik have an SVO constituent order—SV for intransitive and AVO for transitive. This SVO order recalls the Surmic language Tennet which also has a VSO order in main clauses but SV in intransitive subordinate clauses (Dimmendaal 2010:33). And like in Dhaasanac (Tosco 2001:14) and Teso-Turkana languages, many subordinate clauses in Ik have the structure of a relative clause, with the subordinating conjunction being based on relative pronouns. For example, in the next two sentences, the conjunction noo introducing them is identical to the remote past relative pronoun. Note the respective constituent orders in these two temporal dependent clauses:
Complement clauses (§9.13.1), though subordinate themselves, make another exception to the SVO order. Since they are embedded main clauses, they retain the VSO constituent order of non-embedded main clauses. Such clauses are introduced by the complementizer toimɛna/toimɛnɪé ‘that’, which, since it is a noun and argument of the matrix clause, takes case suffixes:

(78) **Hyeyiyyaa toimena epa yok.**
    fiye-i-á toimɛn-a [ep-a₂ _ŋók^s_] COMPL
    know-1SG-REAL COMPL-NOM sleep-REAL dog-NOM
    I know that the dog is sleeping.

(79) **Hyeyiyyaa toimena ats’a njoka oka.**
    fiye-i-á toimɛn-a [ats’-á_v _ŋók-á_A ɔká-k^o_o] COMPL
    know-1SG-REAL COMPL-NOM gnaw-REAL dog-NOM bone-ACC
    I know that the dog is gnawing the bone.

Another defining property of Ik subordinate clauses is that all core arguments (A/S/O) are marked with the accusative case. Again, this is similar to Tennet, where main clauses have a nominative-accusative case-marking system, while in dependent clauses, this switches to ergative-absolutive (Dimmendaal 2010:33). Also in this connection, the Saharan language Tubu, which has Differential Object Marking, an object is more likely to be marked accusative if not expressed in its normal position (König
2008:40, cited in Dimmendaal 2010:32). In other words, accusative case is reserved for pragmatically marked positions. So in Ik, the accusative marking on subjects (A/S) may have something to do with the subject being in a pragmatically marked slot, that is, before the verb. The next two examples illustrate this with intransitive (80) and transitive (81) clauses:

(80) *Noo ncia epiaade kurú*,...
    
    [nóó ɲci-a  ep-i-á= de = kurú-∅]_
    
    CONJ.PST3 I-ACC sleep-1SG-REAL = DP shade-ABL

    When I slept in the shade,…

(81) *Noo ncia ats’iaade emek*,...
    
    [nóó ɲci-a áts-i-a= de = emé-k_o]_
    
    CONJ.PST3 I-ACC gnaw-1SG-REAL = DP meat-ACC

    When I gnawed on the meat,…

The type of case-marking neutralization exhibited in (80)-(81) violates König’s typological prediction #7 for African languages with case: “If the language is verb-initial or verb-medial, then the ‘no case before the verb’ rule applies” (2008:281). The Surmic language Tennet, spoken not far from Ik in South Sudan, also violates this prediction, but only partially. But as hinted at above, normal case marking is retained in Ik subordinate clauses with sequential aspect verb forms. Note that in the following example, all core arguments bear the nominative case suffix (including the object):

(82) *Na nka ats’ia ema*,...
    
    [na=ŋk-a áts-i-a em-a_o]_
    
    CONJ = I-NOM gnaw-1SG-SEQ meat-NOM

    If I gnaw on meat,…
9.8 Relative clauses

Because many Ik subordinate clauses are based on the relative clause construction, relative clauses need to be discussed without further delay. To begin with, Ik exhibits a canonical relative clause construction having the following characteristics (the first four drawn from Dixon 2010:314):

1. The relative clause (RC) is embedded in a main clause (MC), making up one full sentence.
2. The underlying structure of the RC and MC share a common grammatical argument (CA).
3. The RC functions as syntactic modifier of the CA in the MC.
4. The RC has the basic structure of a clause, with a predicate and the required nominal arguments (as well as peripheral arguments).
5. All core arguments in the RC are marked in the accusative case, just as in all other subordinate clauses (except sequential ones).

In view of these characteristics, compare the following two sentences. The first is a simple MC in the past tense; the second is the same MC but modified by an RC:

(83) \textit{Ngabiya noo tukak.}

\begin{center}
\begin{tabular}{llllllll}
\textbf{ŋáb6i6a} & = & \textbf{noo} & & \textbf{tuka6kᵃ} & \\
\textbf{wear} & = & \textbf{PLUR} & & \textbf{REAL} & = & \textbf{PST} & \\
\end{tabular}
\end{center}

He used to wear a feather.

(84) \textit{Ngabiya noo tukaa na buɗam.}

\begin{center}
\begin{tabular}{llllllllllll}
\textbf{ŋáb6i6a} & = & \textbf{noo} & & \textbf{tuka-a} & = & \textbf{na} & & \textbf{buɗám-∅} & \\
\textbf{wear-PLUR-REAL} & = & \textbf{PST} & & \textbf{feather-ACC} & = & \textbf{REL} & & \textbf{SG} & & \textbf{black-REAL} & \\
\end{tabular}
\end{center}

He used to wear a black feather (lit. ‘a feather which is black’).

The common argument (CA) shared between the MC and RC in (84) is \textit{tuka-} ‘feather’. In the MC, the CA is an object marked in the accusative case, while
in the RC, it is the implied 3sg subject of the adjectival predicate buɗám-ón ‘to be black’. The RC modifies tuka- in the MC by specifying or restricting the reference of that argument (i.e., it is no longer just any feather; it is a feather which is black).

Ik only has restrictive relative clauses, the kind illustrated in (84) above. As such, they can only provide information about the CA that helps restrict its reference to an individual entity. Non-restrictive relative clauses that simply provide more information about an already known CA are not grammatical in the language. In the situation where a proper noun is modified by an RC in Ik, it implies that there are two or more people, places, or things with that particular proper name. Compare the following examples:

(85) *Atsaa ama na mita ncieebam.*
    [ats-á ám-á = [na mit-á nci-eb ám]RC ]MC
    come-REAL-PRF person-NOM = REL.SG be-REAL I[OBL]-friend[OBL]
    Here comes the guy that is my friend.

(86) *Atsaa Lotuka na mita ncieebam.*
    [ats-á lotuk-á = [na mit-á nci-eb ám]RC ]MC
    come-REAL-PRF Lotuk-NOM = REL.SG be-REAL I[OBL]-friend[OBL]
    1) **Here comes Lotuk, who is my friend.
    2) Here comes the (particular) Lotuk that is my friend.

9.8.1 Common argument

The fullest statement of the common argument (CA) in an Ik RC construction is found in the main clause (MC). There it occurs as a noun phrase: noun, pronoun, or demonstrative. The following examples illustrate the CA as a noun, demonstrative pronoun, and a locative adverbial demonstrative, respectively. In (87), the CA is the noun ínó- ‘animal(s)’, while in (88), it is the demonstrative pronoun kidáśai- ‘others’. In (90), the CA is the deictic locative adverbial demonstrative naí- ‘(t)here’:
(87) Inoa ni Icea kakiya ntuo da:

animal(s)-NOM = REL.PL Ik-ACC hunt-PLUR-REAL. they-COP ones-NOM

The animals that the Ik hunt, these are they:

(88) Nda kidiasai ni moo imaarosat.

And others[OBL] = REL.PL not-SEQ count-PASS-3PL

And others who are not counted.

(89) Kaa tsabo nayee noo itsyaketad.

go-REAL probably where= REL.SG.PST3 begin-INCH-REAL = DP

He is probably going to where he started from.

The CA in the main clause can have any grammatical function, being either a core argument (S/A/O) or any peripheral argument. As a result, the CA can take any case required by the clause syntax. (90) below presents the CA jákáma- ‘elder’ as the intransitive subject of the verb ats- ‘come’. And (91) shows the peripheral CA kān̄i- ‘year’ in the instrumental case since it is giving the time setting for the main clause in which it is found:

(90) Atsuo jakama noo ntanee taa ndo...

come-3SG-SEQ elder-NOM = REL.SG call-IPS-REAL = DP QUOT who[OBL]

And then came the elder who was called um, who…

(91) Kaino noo iyiaade atik,...

year-INS = REL.SG be-1SG-REAL = DP FILL-DAT

The year in which I was at the, uh…
Likewise, in the relative clause itself, the CA can also have any core or peripheral function. Since the CA is only stated in the MC and not in the RC, it is not relevant to comment on the nominal case in which the CA in an RC may occur. If it is the subject of the RC, the CA is cross-referenced on the verb with subject-agreement pronominals. If it is the object, then it is inferred from the grammatical context. If it is a peripheral argument, it is cross-referenced on the verb with the dummy pronominal {=’de}. But regardless of what type of argument the CA is in the RC, it is represented by one of the relative pronouns which are the topic of the next section, §9.8.2.

The following three examples show the CA in relative clauses functioning as subject, object, and peripheral argument, respectively. The CA in (92), ámá-’person’, acts as the subject of the verb *iwák*- ‘holler’ in the MC, while in the RC, it is the agent of the causativized verb *tsídzt-ét*- ‘flush out’:

\[
(92) \quad \text{Amá na tsamu tsídzteta inoa iwákuk.}
\]

\[
\text{[ám-á = na tsídzt-ét-a ínó-a]_{RC} iwák-ú-k⁺}_{MC}
\]

person-NOM = REL.SG carry-CAUS-VEN-REAL animal-ACC holler-3SG-SEQ

The person who flushes out an animal hollers an alarm.

By contrast, the CA in (93) is a core argument marked with the dative case in the main clause (*dakú-é*) but the object of the transitive verb *kam-uké*- ‘take hold of’ in the relative clause. The non-CA agent of the RC, *budámónicéá*, takes the accusative case as would any core argument:

\[
(93) \quad \ldots \text{dakwee sina Budamoniacea kamukota na.}
\]

\[
\text{dakú-é = sina budám-óni-icé-á kam-uké-a}_{MC} = \text{na stick-DAT = PST².REL.SG black-INF-AGT.PL-ACC hold-COMP-REAL = DEM.SG}
\]

[Beware of] this stick that Africans have taken hold of (i.e. guns).

Lastly, the noun phrase in (94), introduced by the preposition *kóteré* ‘because of’, marks the CA *kam- ‘year’ as peripheral argument in the oblique case. In the relative clause, this CA is would also be a peripheral
argument but one marked with the instrumental case (since it is a time concept). Because of that, its absence in the relative clause is marked with the dummy pronoun on the transitive verb kup-ʊ̃kʊ́-‘burn up’:

(94)  *Kotere kaini noo fetia kupuƙotee edik.*

\[
\text{kóteré} \quad \text{kaɪnɪ} = [\text{nɔɔ} \quad \text{fetí-á} \quad \text{kup-ʊ̃kʊ́-ɛ̊ = e} \quad \text{edi-k\textsuperscript{a}}}_{\text{RC}}
\]

because year[OBL] = REL.SG sun-ACC burn-COMP-REAL = DP grain-ACC

Because of the year in which the sun burnt up the grains.

### 9.8.2 Relative pronouns

Relative clauses in Ik can be recognized by three criteria: 1) the intonation contour in which the MC and RC are treated as one sentence prosodically, 2) the presence of relative pronouns at the beginning of the RC, and 3) the non-canonical constituent order within the RC. The particles introducing relative clauses are treated here as relative ‘pronouns’ instead of ‘markers’ since they are not invariable and do communicate some information, namely the grammatical number of the common argument and the tense of the relative clause. These Ik relative pronouns are already discussed in §5.6 but warrant further mention here as well. The table below presents the relative pronouns according to number and tense:

(95)  *Ik relative pronouns*

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>NON-PAST</td>
<td>= na</td>
<td>= ni</td>
</tr>
<tr>
<td>PST1</td>
<td>= nåa</td>
<td>= níí</td>
</tr>
<tr>
<td>PST2</td>
<td>= sìna</td>
<td>= sìni</td>
</tr>
<tr>
<td>PST3</td>
<td>= nɔɔ</td>
<td>= nuu</td>
</tr>
</tbody>
</table>

The relative pronouns are analyzed as enclitics because they form a phonological word with the preceding noun (evidenced by the post-lexical vowel harmony they participate in). And based on the forms in (95), it is evident that the Ik relative pronouns are closely related to the temporal
nominal demonstratives (see §8.2.2). Quite so, they are identical in form, the only difference being that since relative pronouns never appear clause-finally, they consequently do not have final forms. Like the demonstratives they originate from, the relative pronouns communicate number and tense.

For example, in (96) below, the relative pronoun $=na$ conveys two bits of information about the RC construction’s common argument $ŋƙáƙá$- ‘food’: 1) It is viewed as singular, and 2) the state predicated of it in the RC is in the present time or in general (gnomic). Likewise, in (97), the relative pronoun $=nuu$ communicates about the CA $roɓa$- that 1) it is plural, and 2) the action predicated of it took place in the remote past:

(96)  
Mita daŋa nƙaƙa Icce ne efa zuk.

\[
\begin{array}{ll}
\text{mit-a} & \text{dáŋ-á} \\
\text{ŋƙáƙá} & \text{icé-é} = [\text{na} \text{ ef-∅}]_{RC} \\
\text{be-REAL} & \text{white.ants-NOM} \\
\text{food[OBL]} & \text{Ik-GEN = REL.SG} \\
\text{tasty-REAL} & . \\
\end{array}
\]

White ants are an Ik food that is tasty.

(97)  
Atsaa roɓa nuu ka.

\[
\begin{array}{ll}
\text{ats-á-á} & \text{roɓ-a} = [\text{nuu} \text{ ka-∅}]_{RC} \\
\text{come-3SG-PREF} & \text{people-NOM = REL.PL.PST3} \\
\text{go-REAL} & . \\
\end{array}
\]

The people who went have come.

9.8.3 Relative clause structure

Relative clauses in Ik always immediately follow the CA in the main clause, regardless of constituents before the main clause or after the relative clause. Normally, the order of constituents in a main clause is VS or VAO, but when the CA is the subject of the main clause, it can be fronted and then followed by the relative clause and the main verb, making the constituent order SV or AVO. This can be seen in (92) above as well as in the following:
The sentence in (98) is a version of (99) below in which the subject has been put into special focus for pragmatic or stylistic reasons. (99) represents the unmarked constituent order for the same proposition.

(99)  **Isokuo ama na cea basaurek.**

isók-ú-o  ám-á = [na  ce-a  basaúré-k* ]
go.early-3SG-SEQ  person-NOM = REL.SG  kill-REAL  eland-ACC

The person who kills an eland goes early.

The constituent order within the relative clauses themselves also departs from that of unmarked main clauses. After the relative pronoun, then comes the subject (if mentioned) and the verb followed by any other overtly mentioned core arguments, peripheral arguments, adverbs, etc., making the RC constituent orders as follows: (rel)(S)V for intransitive clauses and (rel)(A)V(O) for transitive clauses.

Core arguments (A/S/O) can only be overt in an RC if they are not the CA of the whole RC construction. For example, in (100), the CA *tuka-* ‘feather’ is recapitulated in the RC as *ntsí-* ‘it’, resulting in an ungrammaticality:

(100)  **ŋabiya noo tukaa na ntsia buɗam.**

**[ŋáb-i-a = noo  tuka-a = [na  ntsí-á buɗám-Ø ] ]**
**wear-PLUR-REAL=PST3 feather-ACC=REL.SG it-ACC black-REAL

**He used to wear a black feather (lit. ‘a feather which it is black’).**

Likewise, in (101), the CA *înô-* ‘animals’ is recapitulated in the RC as *ńti-* ‘they’ with the resulting structure being ungrammatical:
Ik relative pronouns are omissable but only in the non-past. In the three past tenses, they are retained because they encode the tense of the RC. This is similar to Turkana where the full form of relative markers are used only in past tenses, a truncated form being used in the non-past (Dimmendaal 1983:308). Further conditions for the omission of Ik relative pronouns include: 1) When the CA in the MC is a demonstrative pronoun (§5.5), 2) when the CA in the MC is the head of a verbless clause, or 3) when the CA in the MC is followed by an anaphoric pronoun. In (102), an RC modifies the demonstrative pronoun ɗa; note the absence of a relative pronoun:

In the next example, the MC is a verbless clause whose head is a noun marked with the copulative case. This noun is functioning as the CA. Here again, no relative pronoun is present:

In this third and final example, the singular anaphoric pronoun =tdeé comes between the CA and the RC, with no intervening relative pronoun:
The number of verb-form types allowed in an Ik relative clause is restricted. For positive polarity, only realis forms are allowed. For negative polarity, only irrealis forms are allowed. Other forms, like sequential, simultaneous, and optative, cannot function as the predicate of a relative clause.

Relative causes can be negated. To negate one, the sequential negator moo (and allomorph noo) is used just after the relative pronoun. If the subject of the relative clause is overt, then it follows the negator. Being negated, the main verb of the RC then appears in its negative (irrealis) form, as in:

(104)  
jejeika dii nuu moo epanid
jéje-ik-a = ‘dííf = [nu-u mo-o ep-aní = d’T]RC
skins-PL-NOM = ANPH.PL = REL.PL not-SEQ sleep-IPS = DP
those sleepings skins that were not slept on

(105)  
iya kona iresie na moo nootoa fiyeat.
i-a kon-a fréši-e = [na mo-o ɲɔtɔ́6á fiye-át’]RC
be-REAL one ceremony-GEN = REL.SG not-SEQ men-NOM know-3PL
There is one ceremony that men do not know.

9.9 Adverbial clauses
Besides relative clauses that modify noun phrases, several other types of subordinate clause are used adverbially to modify other, main clauses. These adverbial clauses include the following nine types: temporal, simultaneous, manner, purpose, result, reason, conditional, hypothetical, and concessive clauses. The following sections discuss each type briefly.
9.9.1 Temporal

Main clauses in Ik may be modified by a subordinate temporal clause preceding or following it. Such clauses locate the proposition of the main clause in time, which is reflected grammatically in tense. Past and non-past tense are encoded by tensed subordinating conjunctions. Non-past tense is encoded by the conjunction ńɛ́ɛ́ and optionally with non-past adverbs.

Ik temporal clauses have the same structure as relative clauses and thus seem to be an adaptation from them. As a whole, the temporal clause stands in place of what would be a specific time word like ‘last year’, ‘today’, or ‘next week’, all of which would be peripheral arguments marked with the instrumental case. So temporal clauses have the structure of ‘the [X time unit] in which…’, better translated as ‘when…’. Because time concepts are peripheral arguments in Ik, their absence leaves a trace on the verb in the form of the dummy pronoun enclitic (=’de). The verb in a temporal clause is a realis form with the dummy pronoun which indicates that the relative pronoun qua subordinating conjunction stands for a time concept.

(106) *Ik temporal subordinating conjunctions*

<table>
<thead>
<tr>
<th></th>
<th>Past</th>
<th>Past perfect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-past</td>
<td>CONJ</td>
<td>(ńɛ́ɛ́)</td>
</tr>
<tr>
<td>Recent past</td>
<td>CONJ(.PST1)</td>
<td>náa</td>
</tr>
<tr>
<td>Removed past</td>
<td>CONJ(.PST2)</td>
<td>sına</td>
</tr>
<tr>
<td>Remote past</td>
<td>CONJ(.PST3)</td>
<td>noo</td>
</tr>
</tbody>
</table>

In first example sentence below, the removed past temporal conjunction sına introduces the temporal clause modifying its following MC:

(107) *Sina enukotia de ntsia, ṇaxetuk.*

\[
\text{[sına en-ukot-i-a = de ntsí-á]}_{\text{TEMP}} \quad \text{ńáʃ[é-t-u-k³]}_{\text{MAIN}}
\]

CONJ.PST2 see-AND-1SG-REAL = DP s/he-ACC startle-1NCH-3SG-SEQ

When I saw her (yesterday), she got startled.
In the second example below, the remote past-perfect temporal conjunction *nanoo* introduces the temporal subordinate clause:

(108)  *Nanoo ɲámatsarikaa kainie dee itsyaketatee,*

\[\text{[nanoo ɲámátsar-ika-a kami-ē = 'dēē itsyak-et-át-e = e]}_{\text{TEMP}}\]

CONJ.PST3.PRF sign-PL-ACC year-GEN = ANPH begin-INCH-REAL = DP

ts’eyoo inv.

ts’e-i-o ínw-a\[j\]_{\text{MAIN}}

die[PL]-3SG-SEQ animals-NOM

When signs of that year had (already) begun, animals died.

Another type of temporal subordinate clause is introduced with the conjunction *nēē* and follows the main clause. This type of temporal clause has an extra nuance of conditionality, making its meaning ‘if/when’ rather than strictly ‘when’. Examples include the following:

(109)  *Mayuo kwazikaa ngwee*

[ma-i-o kwáž-ika-a ŋgó-é give-3SG-SEQ clothing-PL-ACC we,EXC-DAT

nee tsamu ŋabukotanee teregik.

[néē tsamu ŋáb-ukot-an-é = e terégi-k\[a\]}_{\text{MAIN}}\]

CONJ ADV finish-COMP-IPS-REAL = DP work-ACC

And he gave us clothing, just if/when work was finished.

(110)  *...nda koto ima nee fara zeikotad.*

ńda = koto ima [néē fara ze-i֧kot-á = d\[a\]}_{\text{TEMP}}

and = then child[OBL] CONJ FUT3 big-COMP-REAL = DP

...and then the child, when it gets big in the future.
9.9.2 Simultaneous

A main clause can also be modified by a preposed simultaneous subordinate clause. The predicate of a simultaneous clause is a verb in the simultaneous aspect, marked by the suffix {-ke}. Such clauses are introduced with the conjunction \( na = \) (if in a narrative) or \( náá \) (if in a hypothetical/conditional sense). Some examples include the following:

(111) \( Na \ gbukotie, \ sikini ntśia deikao. \)
\[ \text{[na=ŋábʊƙɔt6ɪ6ɛ\_SIML zɪ́kɪ́nɪ ntsí-á dc-ɪka-3]} \]
\[ \text{CONJ = finish-COMP-3SG-SIML tie-SEQ s/he-ACC leg-PL-ABL} \]
When he finished, they tied him up by the legs.

(112) \( Naa \ enanie ts'īkak, gonuo ama dee. \)
\[ \text{[náa en-an-i-é ts'ɪká-k\_SIML gon-u-o ám-á=′déé]} \]
\[ \text{CONJ see-IPS-3SG-SIML bee-ACC look-3SG-SEQ person-NOM = ANPH} \]
When bees are seen, that guy takes a look.

Subordinate clauses with non-finite verbs in the simultaneous aspect are also attested after the matrix clause. In this position, they function in one of the language's two clause-chaining strategies (see §10.2.2). Clause-chaining is a syntactic and discursive operation. At the pragmatic level, chained simultaneous clauses can be construed as having a 'simultaneous' or 'manner' role in modifying the matrix clause. Choosing between the two is really a matter of pragmatic interpretation. Chained simultaneous clauses with a 'manner' interpretation are treated in the next section. Some examples of ones with a 'simultaneous' interpretation are given here below.

But first note that if the subject of a post-posed simultaneous clause is an overt argument in the main clause, it must take whatever case the main clause requires. This differs from the usual situation in subordinate clauses whereby the preverbal subject typically is in the accusative case. In the
following two examples, the subjects of both simultaneous clauses are in the nominative case because the main clause verbs are not 3-person:

(113) *Ogoima korobaikwa ts’eatik.*

ógo-ima-a kɔrɔ́b-a-ikw-a [ts’e-áti-k’]SIML
leave-1PL.EXC-SEQ calf-SING-PL-NOM die[PL]-3PL-SIML
And we left the calves dying.

(114) *Enukoṭía bee bia cemdie tokob.*

en-uḵot-i-á = bee bi-a [cem-ɪdɪɛ tɔkɔb-]SIML
see-AND-1SG-REAL = PST2 you.SG-NOM fight-2SG-SIML farming-INS
I saw you farming yesterday.

9.9.3 Manner

‘Manner’ adverbial clauses add some detail about the way the state or activity expressed by the main clause is actualized. Ik employs two types of manner clauses: 1) A postposed clause with a simultaneous verb form, and 2) a clause introduced by the morphologically complex conjunction naítá ‘since, how’ followed by a realis verb with the dummy pronoun {=ˊdɛ}.

The following two illustrate the first type of manner clause. In (115), the addressee of the imperative is directed to eat some things in such a manner that they be one-by-one. Then in (116), the person being spoken of is described as going somewhere in a limping manner. Note that while both subordinate clauses indicate an action simultaneous to that in the matrix clause, an overall ‘manner’ interpretation seems most appropriate:

(115) *Nke koniatiik.*

ηk-ɛ [kón-i-áti-k’]MANNER
eat-IMP.SG one-PLUR-3PL-SIML
Eat (them, they being) one-by-one.
In many instances what appear to be adverbs in Ik are actually post-matrix-clause simultaneous clauses with an impersonal 3SG subject. For example, in (117), the subject of the simultaneous verb maránjí is neither the person giving nor receiving the command. The impersonal 3SG subject instead expresses the favorable circumstances desired in the command to ‘hold well’. Similarly, the subject of the simultaneous verb hábie in (118) cannot also be the subject of matrix clause. It could, however, be either the adjunct terégo or an impersonal 3SG subject. Either the whole process of getting to work is ‘very hot’, or the work itself is ‘hot’:

(117) *Tiré maránjí!*

\[ \text{tir-é} \quad [\text{marán-í-k}]_{\text{MANNER}} \]  
\[ \text{hold-IMP.SG} \quad \text{good-3SG-SIML} \]

Hold it (it being) well!

(118) *Cemetataa terégo hábie pun!*

\[ \text{ccm-et-át-a-a} \quad \text{terég-o} \quad [\text{háb-i-e \ pun}]_{\text{MANNER}} \]  
\[ \text{fight-INCH-3PL-REAL-PRF} \quad \text{work-INS} \quad \text{hot-3SG-SIML} \quad \text{IDEO} \]

They have gotten busy working really hard (lit. ‘hot’)!

The second type of manner clause more precisely conveys the notion of ‘manner’. It does this through the use of the conjunction nàitá ‘how, as’, followed by verb bearing the dummy pronoun clitic \( = \text{'de} \) which represents a missing argument within the subordinate clause.

In the first example (119), the speaker intends to do something in the same manner as the addressee. Then in (120), the addressee is encouraged to wait and see the manner in which some issues will become resolved:
9.9.4 Purpose

The notion of purpose is expressed primarily through nominalized verbs acting as complements (see §9.12.2). However, two other types of subordinate clause can also convey purpose: 1) one with a sequential verb, or 2) one introduced by the Teso-Turkana conjunction (*ikoteré*, which in this instance means something akin to ‘so that…’). Moreover, these two types can be combined so that a sequential clause is introduced by (*ikoteré*).

In the first example below, the verb is marked grammatically only with the sequential impersonal passive suffix. But semantically, it implies that when the thing in question becomes a certain way, it is for a certain purpose.

(121) *Irese koto nti?*

[ir-ese = kótó  ntí]PURPOSE

be-sps = then  how

So that it’s like how?

In this second example, the conjunction (*ikoteré*) introduces a third person negative imperative whose expressed purpose is that people do not laugh:
(122) Taa kotere maa roɓa fek.
    taa  \{kóteré má-á roɓ-a fek\}PURPOSE
    QUOT so.that not-REAL people-NOM laugh-REAL
    (That) so that people don’t laugh.

The last example shows (Okoteré) introducing a purposive sequential clause:

(123) Kotere ikautoo cikam.
    \{kóteré ikáʊt-ɔ-ɔ cɪkám\}PURPOSE
    so.that cool-3SG-SEQ women-NOM
    So that the women cool it (i.e. food).

9.9.5 Result

Result clauses are formed with sequential verbs and the dummy pronoun \{=ˊdɛ\}. While the sequential aspect inherently indicates the logical and/or temporal follow-up of the preceding main clause, the dummy pronoun further emphasizes that something in the main clause yielded a particular result. It does this by marking a syntactically displaced peripheral argument that is located in the preceding clause. In the two examples below, the main clause contains the means or instrument resulting in the circumstances expressed by the second clause. For (124), money results in one being able to buy clothing; for (125), eating honey results in one getting satiated:

(124) Maraŋa ja kaudz, iryameidukwe ƙwazak.
    maráŋ-á = ja kaúdz-∅  \{iryám-é-ídu-kó = e ƙwaza\}RESULT
    good-REAL = ADV money-NOM get-VEN-2SG-SEQ = DP clothing-DAT
    Money is good, (such that) with it you get clothing.

(125) Nkini koto ciaakotinii jik.
    ŋk-ini = koto  \{ci-áá-kot-iní = i = jik\}RESULT
    eat-SEQ = then sated-DISTR-COMP-SEQ = DP = also
    Then they ate (honey), (such that) they also got sated by it.
9.9.6  Reason/Cause

Causal or ‘because’ clauses in Ik are subordinate clauses introduced with the plural pronominal *ɗi*- in the ablative case as *ɗúój*. This pronoun is then followed by either a) a possessive NP (in which case it is not a clause *per se*) or b) a relative clause. Because the common argument (*ɗúój*) shared between the main clause and relative clause is a peripheral argument in both, the verb in the relative clause is marked with the dummy pronoun. In (79) below, *ɗúój* is followed by the possessive NP *ńtí*, meaning ‘because of them’. This is not a causal clause but rather a causal peripheral argument:

(126)  *Gaana kija na duo nti.*

\[
gaan-a \quad \text{kij-á} = \text{na} \quad [\text{ɗú-ó} \quad \text{ńtí-∅}]_{\text{PERIPHERAL}} \\
\text{bad-REAL} \quad \text{land-NOM} = \text{DEM.SG} \quad \text{ones-ABL} \quad \text{they-GEN} \\
\]

This country is bad because of them (lit. ‘from those of them).

The structure in (126) is expanded in (127) with a relative clause modifying *ɗúój* instead of a simple possessive NP:

(127)  *Gaana kija na*

\[
gaan-a \quad \text{kij-á} = \text{na} \\
\text{bad-REAL} \quad \text{land-NOM} = \text{DEM.SG} \\
\]

\[
[\text{ɗú-ó} \quad \text{roɓa-} \quad \text{sáɓúnós-á} = \text{d“}]_{\text{REL.}} \quad [\text{duo} \quad \text{sabunosad.}]_{\text{CAUSAL}} \\
\text{ones-ABL} \quad \text{people-ACC} \quad \text{kill[PL]-RECIP-REAL} = \text{DP} \\
\]

This land is bad because people kill each other.

As mentioned in §9.8.2, relative clauses that modify the pronouns *ɗi* (sg.) and *ɗi* (pl.) are not introduced by a relative pronoun in non-past tenses. However, if a time/tense specification is desired for the relative clause, one of the tensed relative pronouns or tense particles is used, as in (128):
(128) *Ceesa ɲeka wicea*

> [cc-ə ɲek-a wicé-á]

| kill-REAL | hunger-NOM | children-ACC |

*dúo nii nkakaa kwatsad.*

> [dú-ó = nii ṣkáká-a kwáts-á = d°]₃₉

| ones-ABL = REL.PL.PST1 food-ACC small-REAL = DP |

Hunger is hurting the kids because food was little (earlier today).

The underlined plural tensed relative pronoun in (128) shows that the tense of the relative clause is recent past. Causal clauses can just as well be cast in a future tense, as in (129). Note the intentional suffix *-{és}-* on the main and relative-clause verbs, as well as the future tense *fara* just after *ɗúó*:

(129) *Ceesa ɲeka wicea*

> [cc-rs-á ɲek-a wicé-á]

| kill-INT-REAL | hunger-NOM | children-ACC |

> [dú-ó [fara ṣkáká-a kwáts-és-á = d°]₃₉]

| ones-ABL = FUT3 food-ACC small-INT-REAL = DP |

Hunger will hurt the kids because food will be little.

Semantically, what multiple things does the plural pronominal *ɗúó* substitute for in these causal clause constructions? It is not entirely clear, but it could be along the lines of words, thoughts, or actions on the part of the animate or inanimate entities from which the causality is emanating.

The pronominal phrases *ki = dūó = nii* or *ki = dūó = n* (see §5.5) can also be found at the beginning of main clauses instead of as a peripheral argument at the end. In this usage, the phrases have more the meaning of ‘because of that’, or more literally, ‘from those words’ or ‘from those actions’.
9.9.7 Conditional

Conditional sentences consist of a subordinate conditional clause (‘protasis’) and a main clause (‘apodosis’). Three types of conditional clause exist in Ik:

1) one introduced by the subordinating conjunction na’= ‘if’ followed by a sequential verb, 2) one introduced by the conjunctive phrase na=msi ‘if whether’ followed by a realis verb, and 3) one introduced by demusu ‘unless/until’ followed by either a realis or a subjunctive verb.

The first type of conditional clause always comes before the main clause and is first of all recognized by the conjunctive proclitic na’= ‘if’. If the subject of the conditional clause is made explicit, it takes the nominative case. The verb in the conditional clause is in the sequential aspect:

(130) Na atsiduk, maiduo ncik.

[na=áts-idu-k⁵]COND ma-idu-o ɲci-k⁵]MAIN
CONJ = come-2SG-SEQ give-2SG-SEQ I-DAT
If you come, give (it) to me.

(131) Na aja iyuo nebuk, iyee bats’.

[na=ɔ́ʝ6á i-u-o nébu-k⁵]COND=é e báts’-a]MAIN
CONJ = sore-NOM be-3SG-SEQ body-DAT be-REAL = DP pus-NOM
If a sore is on the body, there is pus in it.

With the conjunction na’=, the type of conditional clauses shown above have a present, gnomic, or even future tense. But they may also be put in the past tenses with the addition of the past tense particles, as in:

(132) Past-tense conditional clauses

na=káyuk⁰,… ‘If she goes,…’
na=náá ḳayuk⁰,… ‘If she had gone (earlier today),…’
ná=bee ḳayuk⁰,… ‘If she had gone (yesterday),…’
na=noo káyuk⁰,… ‘If she had gone (a while ago)…’
Conditional clauses may be negated through the use of the sequential negating verb *moo/noo* following the conjunction *na׳=*. And whereas affirmative conditional clauses contain verbs in the sequential aspect, negated conditional clauses contain the bare negative (irrealis) verb form:

(133)  
\[
\text{nā noo kā, iryametimā njitsanik.}
\]
\[
\text{[nā=nō-ō kā-]} \quad \text{iryám-ēt-ima \ njitsanĩ-k' }
\]
CONJ = not-SEQ go-3SG[IRR] get-VEN-1PL[EXC]SEQ problems-DAT
If he doesn’t go, we’ll get into trouble.

The second type of conditional clause is introduced by the conjunctive phrase *nā=mīsu*, a combination of *nā׳= ‘if’ and *mīsu* ‘whether’. This type of conditional clause may precede or follow the matrix clause. Its verb is in the realis modality, while that of the matrix clause depends on the discourse context but is often in the sequential aspect as it is below:

(134)  
\[
\text{nā mīsu tsīdzukōta ti, duₖotuo ti.}
\]
\[
\text{[nā=mīsu tsīdz-ukōt-a ti]} \quad \text{duₖot-u-o ti}
\]
CONJ = whether carry-AND-REAL ADV take-AND-3SG-SEQ ADV
If he rushes out this way, he’ll then take it this way.

(135)  
\[
\text{kwaatetiaa bita nā mīsu tudit,}
\]
\[
\text{kwaat-ɛt-ɪ-a-a bit-a [nā=mīsu tud-īt-\*a]}
\]
bear-INCH-1SG-PRF you.PL-NOM CONJ = whether five-2PL-REAL

\[
\text{nā mīsu leɓetsit, na mīsu adit.}
\]
\[
\text{[nā=mīsu leɓets-īt-\*a \ nā=mīsu ad-īt-\*a]} \quad \text{CONJ = whether two-2PL-REAL CONJ = whether three-2PL-REAL}
\]
I’ve born all of you, whether you are five, two, or three.

The third type of conditional clause is introduced by the conjunction *ɗɛmʊsʊ* ‘unless, until’. Instead of a sequential verb, this conjunction takes a verb in either in the realis modality or subjunctive mood. Because *ɗɛmʊsʊ* also can
mean ‘before’, context must determine how it is interpreted. In the next two sentences, it is interpreted as having a temporal-conditional sense:

(136) Biraa mena nesibetii demusu toida ncik.
   bira-a men-a nesīb-et-i [demusu tó-id-a pci-k]
   lack-REAL issues-NOM hear-INCH-1SG unless tell-2SG-REAL I-DAT
   There is nothing I can hear unless you tell me.

(137) Nta köii demusu atsidi nda nc.
   ṅt-a kö-í [demusu ats-idi ñda pc]
   not-REAL go-1SG unless come-2SG with I[OBL]
   I’m not going unless you come with me.

9.9.8 Hypothetical

Like conditional clauses, hypothetical subordinate clauses are also introduced by the subordinating conjunction na’= and contain sequential verb forms. But in addition to this, they involve the following tensed hypothetical auxiliary particles between na’= and whatever follows:

(138) Hypothetical auxiliaries

<table>
<thead>
<tr>
<th></th>
<th>Non-final</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>PST1</td>
<td>ƙá-naa</td>
<td>ƙá = nak*</td>
</tr>
<tr>
<td>PST2</td>
<td>ƙá = samu</td>
<td>ƙá = sam</td>
</tr>
<tr>
<td>PST3</td>
<td>ƙá = noo</td>
<td>ƙá = nok*</td>
</tr>
</tbody>
</table>

In simple, independent hypothetical clauses, the hypothetical auxiliaries occur once in the second position of the clause, for example:

(139) Atsia kanaa baratso nak.
   ats-i-a ƙa = naa barats-o = nak*
   come-1SG-REAL HYPO-PST1 morning-INS = DEM.SG.PST1
   I would have come this morning.
But in complex hypothetical clauses—the kind involving a subordinate clause—the hypothetical auxiliaries in (138) first introduce the protasis and are then repeated at the end of the main clause, or apodosis:

(140)  *Na kanaa narema birayuk,*  
\[ (\text{na} = \text{ká = naa} \quad \text{párem -a} \quad \text{bira -u-k}\text{\text{'}})_{\text{HYPO}} \]  
\[ \text{CONJ = HYPO = PST1} \quad \text{insecurity-NOM} \quad \text{not.be-3SG-SEQ} \]  
\[ \text{kaiisina kanak.} \]  
\[ (\text{ka-i-isin -a} \quad \text{ka = nak}\text{\text{'}})_{\text{MAIN}} \]  
\[ \text{go-PLUR-1PL.INC-REAL} \quad \text{HYPO = PST1} \]  
If insecurity were not there, we would go regularly.

9.9.9 Concessive

Concessive, or ‘even though’ adverbial clauses consist of the particles áta (from Swahili *hata* ‘even’) or *toni* ‘even’, plus a simultaneous clause, as in:

(141)  *Toni fiyetukodik!*  
\[ (\text{toni} \quad \text{fiyet -uk-3-idt-k}\text{\text{'}})_{\text{CONCESSIVE}} \]  
\[ \text{even \_fierce-COMP-2SG-SIML} \]  
Even though you grow fierce!

(142)  *Ata ts'ikaa joliakatie, efesukot.*  
\[ (\text{áta} \quad \text{ts'iká-á} \quad \text{jol-i-aak-áti-e})_{\text{CONCESSIVE}} \quad \text{ef és-ókát-a}^{*} \]  
\[ \text{even \_bees-ACC \_tasteless-PLUR-DISTR-3PL-SIML \_tasty-INT-COMP-REAL} \]  
Even if the honey (lit. ‘bees’) is tasteless, it will become tasty.

9.10 Verbless clauses

Changing gears now from subordinate back to main clauses: Two kinds of main clause are verbless: 1) the verbless copulative clause (§9.10.1) and 2) the verbless dative/genitive clause (§9.10.2). These are described next.
9.10.1 Verbless copulative clause

Verbless copulative clauses—covered in this section—are ‘verbless’ in the sense that they put a nominal marked with the copulative case in the predicate slot. This construction differs from the verbless dative/genitive clauses which are ‘verbless’ in the sense that they exhibit no predicate slot at all in the surface structure. In verbless copulative clauses, the predicative nominal can consist of a noun, pronoun, or nominalized verb. What allows a noun phrase to function as predicate is none other than the copulative case (described in detail in §6.3.8). In the copulative case, the copulative suffix (-ko) affixes to the underlying form of the nominal stem:

\[(143) \text{Copulative predicates}\]

<table>
<thead>
<tr>
<th>Lexical</th>
<th>Copulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>cekí- 'woman'</td>
<td>cekú-k' 'It's a woman'</td>
</tr>
<tr>
<td>ntsí- 's/he/it'</td>
<td>ntsú-k' 'It's she.'</td>
</tr>
<tr>
<td>dód-oní- 'to hurt'</td>
<td>dód-onu-k' 'It's pain.'</td>
</tr>
</tbody>
</table>

The copulative case enables a verbless grammatical alternative to the copula of identity \(mɪt\). Though \(mɪt\) expresses both identity and possession, the copulative case expresses strictly identity. Serzisko further qualifies the meaning of \(mɪt\) as one of ascription/description compared to that of the copulative which expresses ‘specification’ (1992:55ff).

Just as \(mɪt\) takes a copula subject (CS) and copula complement (CC), verbless clauses with nominal heads take a verbless clause subject (VCS) and verbless clause complement (VCC; Dixon 2010:160). Ik being an eminently argument-dropping language, the VCS is often omitted, leaving only the VCC in the copulative case. When the VCS is present, it takes the nominative case as would an S or A subject under most other conditions. In the following examples, the first clause represents a standard copular construction, while the second illustrates the verbless copula clause:
Though the propositional meaning of the copular and verbless copulative pairs in these examples is the same, fronting the complement argument does have the effect of bringing it into greater focus. So pragmatically and stylistically, a speaker may choose one mode of expression over the other.

Given that the head of verbless clauses is a noun phrase, there must be limitations on its allowed verblike characteristics. For example, a verbless clause cannot be negated as a verbed clause can be. Instead, the negating copula of identity bení- must be used. Also, besides the copulative case ending {-kɔ}, no other verbal suffix can be put on the head of a verbless clause. Nonetheless, verbless clauses do exhibit some verblike qualities. For example, they can be tensed (146) and modified by adverbs (147):

(146)  Buo naa?  Ncuo nak.
        bu-o=náa  jácu-o=nákᵃ
        you.SG-COP=PST  I-COP=PST
        Was it you (earlier today)?  It was I (earlier today).

(147)  Amoo tsabo.  Ntsuo ts’oo.
        ámó-o  tsábo  ntsú-ó  ts’ɔɔ
        person-COP apparently  s/he/it-COP probably
        It’s a person apparently.  It’s him probably.
9.10.2 Verbless dative/genitive clause

A second type of verbless clause communicates possession without the benefit of an actual verb in the surface structure. This construction has also been termed ‘predicative possessive’ (Heine & König 1996:50). It is called ‘dative/genitive’ here because it is not known which case suffix it involves. That is, in their non-final forms, the dative suffix {-ɛ} and genitive suffix {-ɛ} are identical. And since verbless clauses of this type have to do with possession, either case is theoretically admissible (see discussion in §9.2).

Verbless dative/genitive clauses have a different underlying structure than verbless copulative clauses. Whereas in the latter type, a nominal element functions as the predicate, verbless dative/genitive clauses manifest no overt predicate at all. So rather than being ‘verbless’ in the sense that something other than a verb fills the predicate slot, they are ‘verbless’ in the sense that there is no predicate on the surface. In the following examples, nouns marked with {-ɛ} come clause-initially. Either a dative or genitive interpretation of {-ɛ} is possible because both can encode possession:

(148)  *Ncicę ɲoka na.*
  Ńcî-e       ɲók-ã = na
  I-DAT/GEN  dog-NOM = DEM.SG
  This is my dog.

(149)  *Roɓee kuruɓaa ni.*
  Roɓe-e     kúrúɓá-a = ni
  people-DAT/GEN things-NOM = DEM.PL
  These are people’s things.

Depending on the analysis of the case marker {-ɛ}, Ńcicę in (148) could mean ‘to me’ or ‘of me’, and Roɓee in (149) could mean ‘to people’ or ‘of people’.
9.11 Focus and topic constructions

Ik uses three syntactic operations to alter the pragmatic status of a clausal argument. To bring a constituent NP into greater focus, a cleft construction is used. To highlight the topic of a particular sentence, a topical argument may be left-dislocated or ‘preposed’ before the main clause. And a discourse topic can also be emphasized by simply ‘apposing’ a noun phrase to a clause. Left-dislocation and apposition both emphasize the topic but differ in this regard: The left-dislocated NP is still also an argument in the main clause, while an apposed NP is not an argument in the main clause.

9.11.1 Cleft construction

Ik cleft constructions consist of a clefted clausal argument in the copulative case followed by the original main clause now in a subordinated form. As indicated by the copulative case marking, the Ik cleft construction takes the form of a verbless copula clause (§9.10.1) in which the copula complement (CC) is the clefted argument and the copula subject (CS) is the original, now subordinate main clause. It can be formulated as follows:

(150)  \[ \text{Ik cleft construction:} \quad [\text{NP}-\text{COP}]_{\text{CC}} [\text{SUBORD}]_{\text{CS}} \]

The following pair of sentences exemplify the Ik cleft construction. The first example is a pragmatically unmarked basic clause with the canonical word order for transitive clauses (VAO). In the second example, the direct object of the clause, \textit{mes}- ‘beer’, gets clefted and put in the copulative case. The original main verb, \textit{bëdëm}, then assumes its role as the predicate in a subordinate clause acting as the subject of the verbless clause \textit{mesa}:

(151)  \begin{align*}
\text{\textit{Bedëma mës.}} \\
\text{want-1PL,EXC-REAL beer-NOM}
\end{align*}

We want beer.
That the cleft construction involves a subordinate clause is shown by the case marking of any remaining overt arguments in the original clause. For example, the subject of the verb *bɛ́ɗɪ́m* in (153) is in the accusative case, the case all non-sequential subordinate clause subjects are marked with in Ik:

(153)  *Mesoo ngwaa bɛ́ɗɪ́m.*
\[
\begin{align*}
\text{messo-o}_{\text{cc}} & \quad [\text{ŋgó-á } \text{bɛ́ɗ-ɪ́m-∅]}_{\text{cs}} \\
\text{beer-COP} & \quad \text{we.EXC-ACC want-1PL.EXC-REAL}
\end{align*}
\]
It’s beer (that) we want.

The question remains, however, whether the subordinate clause in (153) is a relative clause. In the Kulik language So, clefted interrogative words are said to be modified by relative clauses (Carlin 1993:135). But for Ik, a relative clause interpretation for sentences like the one in (153) is ruled out on the basis that any tense markers immediately follow the clefted argument, as in (154). Relative clauses, by contrast, are tensed by the relative pronouns themselves, as in (155):

(154)  *Mesoo bee bɛ́ɗɪ́m.*
\[
\begin{align*}
\text{messo-ʌ}_{\text{cc}} & = \text{bee} \quad [\text{bɛ́ɗ-ɪ́m-∅}]_{\text{cs}} \\
\text{beer-COP} & = \text{PST2 want-1PL.EXC-REAL}
\end{align*}
\]
It was beer (that) we wanted (yesterday).

(155)  *Mesoo sini bɛ́ɗɪ́m.*
\[
\begin{align*}
\text{messo-ʌ}_{\text{cc}} & = [\text{sini } \text{bɛ́ɗ-ɪ́m-∅}]_{\text{cs}} \\
\text{beer-COP} & = \text{PST2.REL.PL want-1PL.EXC-REAL}
\end{align*}
\]
a) It is the beer that we wanted (yesterday).
b) **It’s beer (that) we wanted (yesterday).**
Cleft constructions are very common in Ik discourse, giving it a particular structural texture characteristic of the language as a whole, for example:

(156) *Woo noo nkian.*

\[
\text{wọ-ọ}_{cc} = ncc \quad [ŋk-ǐ-ánp-∅]_{cs}
\]

greens-COP = PST3 \quad eat-PLUR-IPS-REAL

It was greens (that were) eaten.

(157) *Ntsuo naa atsiaad.*

\[
\text{ntsú-ó}_{cc} = naa \quad [ats-ǐ-á = d^r]_{cs}
\]

it-COP = PST1 \quad come-1SG-REAL = DP

It’s why I came.

(158) *Ts’edoo koto kaitatee nkakak.*

\[
\text{ts’ɛ’dɔ́ ṣɔ̃c̄} = kɔtɔ \quad [kait-á-t-e = e \quad ŋkáká-k^a]_{cs}
\]

there-COP = then \quad taste-3PL-REAL = DP \quad food-ACC

So there is (where) they taste food.

(159) *Pakoicoo bee itsujkota awikak.*

\[
\text{pakó-ice-ɔ̃c̄} = bee \quad [itsúj-kɔt-a \quad aw-ika-k^a]_{cs}
\]

cave-AGT.PL-COP = PST2 \quad burn-COMP-3PL-REAL home-PL-ACC

It was the Turkana who burned down the homes.

9.11.2 Left-dislocation

Another way the language alters the pragmatic status of an argument is to left-dislocate it before the main clause. Doing so highlights the topicality of that argument. Ik left-dislocation can be formulated as follows, where S stands for the main clause and S’ stands for the sentence encompassing the main clause and preposed argument (notation from Payne 1997:274):

(160) *Ik left-dislocation: [NP-NOM S]_{s’}
The left-dislocated constituent may be a simple noun or a complex NP with modifiers like relative clauses. Unlike clefted constituents which take the copulative case, left-dislocated arguments take the nominative case. Besides being left-dislocated, the highlighted argument is set apart from the main clause by a clear pause. It may also receive solicitive intonation which consists of a rising boundary tone at the end of the NP (see §3.3.5).

In the first example below, the main clause subject roɓa ‘people’, along with its modifying relative clause, gets dislocated leftward. As predicted typologically (Payne 1997:275), the preposed agent NP is recapitulated in the main clause by means of the 3\(^{\text{PL}}\) subject-agreement suffix \{-át(i)-\}:

(161)  \textit{Roɓa ni uga ɲogoliɗiaa, dzigwata atik.}

\begin{tabular}{llllll}
roɓ-a = ni & úg-a & ɲáŋgíláɗi-aá & ŋáŋgíláɗi-aá & dzíg-w-at-a & átí-kⁿa \\
people-NOM = REL.PL & dig-REAL & gold-ACC & buy-3PL-REAL & FILL-ACC \\
\end{tabular}

People who dig for gold, they buy um…

In the next example, it is the object of the main clause (komos) that is left-dislocated. It is further highlighted by a substantial pause, which can be discerned in the example by the presence of final form (no final vowel).

Note, however, that the left-dislocated object is not recapitulated in the main clause. This is not surprising for two reasons: 1) Direct objects are not cross-referenced on verbs like subjects are, and 2) Ik tends to drop subjects and objects in all types of clauses (where they are understood contextually).

(162)  \textit{Komos, duƙesukoidia ceŋetiaamak.}

\begin{tabular}{llllllllllllll}
komos-∅ & duk-és-úkó-íd-a & ceŋetí-áma-kⁿ & \\
hindquarter-NOM & take-INT-AND-2SG-REAL & inlaw-AGT.SG-DAT \\
\end{tabular}

The hindquarter, you will take (it) to your in-law.

Peripheral arguments can also be left-dislocated. In this last example below, the preposed argument cua ‘water’ has the semantic role of ‘means’ in the main clause. It is recognized as topic here by the nominative case and
solicitive intonation consisting of a low-rising boundary tone. And it is recapitulated in the main clause through the dummy pronoun \('dɛ\) which indicates that a non-core (instrumental) argument has been relocated:

(163)  
\[
\text{\textbf{\textit{Cua dii nii, taa ntsuo epesukotanad.}}} \\
\text{cu\-a = ‘diî = nî} \parallel \text{ taa ntsú\-ó ep-ès-úkot-an\-á = d*} \\
\text{water-NOM = ANPH = DEM.PL QUOT it\-COP sleep\-COMP-IPS-REAL = DP} \\
\text{That water there, okay, that’s what people will go to sleep on (i.e. having drunk it to satisfy their thirst).}
\]

9.11.3 Apposition

Finally, an NP can simply be apposed to a following clause in which it has no syntactic or semantic role, though a pragmatic relationship is implied. This type of pragmatic operation can be formulated as follows, where \(S\) stands for the main clause (notation borrowed from Payne 1997:274):

(164)  
\[
\text{\textbf{\textit{Ik apposition: [NP] [S]}}} \\
\text{Apposed noun phrases are also separated from the following clause by a pause and often solicitive intonation. And the head of an apposed NP must take the nominative case. But unlike left-dislocated arguments, apposed NPs are not arguments in the clauses that follow them. As such, they are not recapitulated in those clauses in any way. For example, in the next example, the apposed NP simply expresses the reason for the proposition that follows. It does not figure into the main clause either syntactically or semantically:}
\]

(165)  
\[
\text{\textbf{\textit{Koróbaa atsiadee, tawanaa nędēkea imak.}}} \\
\text{[kórbá\-a \[ats-í-á = deé\]SUBORD\[tawán\-á-a nędēk\-a imá-k*\]}} \\
\text{thing-NOM come\-1SG-REAL = DP harm\-REAL-PRF illness-NOM child-ACC} \\
\text{What I came for, okay...Illness is harming (my) child.}
\]
9.12 Questions

Questions in Ik may be polar (yes/no) questions or content questions. Polar questions add an interrogative overlay to a sentence otherwise in the indicative mood. This overlay consists of a) the non-final form of the final morpheme in the clause and b) an interrogative intonation. Content questions, on the other hand, involve a) interrogative words that substitute for the clausal constituent they question, and optionally b) a topicalized structure where the interrogative word acts as a verbless clause (copula) complement. Each type of Ik question is described in more detail below.

9.12.1 Polar questions

Polar questions generally expect a simple confirmation or denial as a response. The response can be 'yes' (éé/ee) or 'no' (ńtóodó) or a repetition of the question in the affirmative. Such questions in Ik are recognized by two characteristics: 1) They end with the non-final allomorph of the last morpheme in the question (as opposed to the final form in an Indicative sentence), and 2) the last mora of the question takes a low boundary tone:

\[(\text{166})\]

\text{Maranja?} \quad \text{Maranj!}

\begin{align*}
\text{maráŋ-à} & \quad \begin{bmatrix} - & - & - \\ \end{bmatrix} \\
\text{good-REAL} & \\
\text{Is it good?} & \quad \text{maráŋ-∅} \quad \begin{bmatrix} - \\ \\
\text{good-REAL} & \\
\text{It's good.} &
\end{align*}

\[(\text{167})\]

\text{Maranja jiki?} \quad \text{Maranja jik!}

\begin{align*}
\text{maráŋ-á jikì} & \quad \begin{bmatrix} - & - & - & - & - \\ \end{bmatrix} \\
\text{good-REAL totally} & \\
\text{Is it totally good?} & \quad \text{maráŋ-á jikì} \quad \begin{bmatrix} - & - & - \\ \\
\text{good-REAL totally} & \\
\text{It's totally good.} &
\end{align*}

Besides the interrogative low boundary tone evident in (166) and (67), one may detect a slightly higher overall pitch level for the polar question. This higher pitch level does not affect tone at the lexical or phrase level but
merely raises the relative pitch of the whole sentence. The degree to which
the pitch is raised seems to be tied to the level of emphasis or emotion
behind the question. For more on the intonational tunes of indicative,
interrogative, and ‘solicitive’ sentences, refer back to §3.3.5.

Some further examples of Ik polar questions include these below. For each
clause-final element, its final form is shown in square brackets to indicate
how it would look if the clause were indicative instead of interrogative:

(168) *Maa noo tsitsiiƙotí jotea?*

má-á = noo  tsits-í-ƙot-i  jɔtɛ́-â\_INTERROG  [jɔtɛ́-k³]
not-REAL = PST3  roll-PLUR-AND-3SG  sisal.root-ACC

Did he not used to roll sisal roots?

(169) *Zekwida koto eda?*

zekw-id-a = koto  edâ\_INTERROG  [edâ]

live-2SG-REAL = then only

So then do you live alone?

(170) *Rebana nkáko jii?*

rêb-an-a  nják-ó  jù\_INTERROG  [jùk³]

withheld-IPS-REAL  food-INS  also

Is food also withheld (from him)?

(171) *Bona nêryanja njinia?*

bon-a  nêryaŋ-a  njíní-â\_INTERROG  [njíní-k³]

care.for-REAL  government-NOM  we.INC.-ACC

Does the government care for us?

In principle, any word, phrase, clause, or sentence in the language can be
questioned in a way that expects a confirmation or denial. Whatever
grammatical category the questioned element belongs to, it will be in its
non-final form together with the low boundary tone of interrogative
intonation. In (172) and (173), it is a simple NP that has been questioned, whereas in (174), a simultaneous subordinate clause is under query:

(172)  \textit{Ntsa?} \quad \textit{Ee, nts.}
\begin{align*}
\text{nts-} & \text{INTERROG} \\
\text{s/he-NOM} & \text{yes s/he-NOM} \\
\text{She?} & \text{Yes, she.}
\end{align*}

(173)  \textit{Awa ne erutsa?} \quad \textit{Ee, awa ne eruts.}
\begin{align*}
\text{aw-a=na} & \text{erúts-} \text{INTERROG} \\
\text{home-NOM} = \text{REL new-REAL} & \text{yes home-NOM} = \text{REL new-REAL} \\
\text{A new home?} & \text{Yes, a new home.}
\end{align*}

(174)  \textit{Gaanatie naa?} \quad \textit{Gaanatik.}
\begin{align*}
\text{gaan-áti-e=ñáå} & \text{INTERROG} \\
\text{bad-3PL-SIML}=\text{ADV} & \text{bad-3PL-SIML}=\text{ADV} \\
\text{They really being bad?} & \text{They being really bad.}
\end{align*}

When a particular clausal constituent is questioned rather than the whole clause, it is fronted into a cleft construction. In this construction, the focused element acts as a verbless clause complement and takes the copulative case. The rest of the clause then shifts into a subordinate clause structure. This syntax of this construction is the same as is used for content questions. The following examples compare non-focused polar questions (175 and 176) with their respective clefted equivalents (177 and 178):

(175)  \textit{Atsia naa kaudzoë?} \quad \textit{Did you come for money?}
\begin{align*}
\text{ats-id-a=na} & \text{kaúdzo-} \text{INTERROG} \\
\text{come-2SG-REAL= PST 1} & \text{money-DAT}
\end{align*}
(176) *Kaudzoo naa atsidee?*

kaúdzo-o = náa  ats-id-e = è
money-COP = PST1  come-2SG-REAL = DP_INTERROG

Was it money you came for?

(177) *Enita bee boroka?*

en-it-á = bee  borok-á INTERROG
see-2PL-REAL = PST2  bushpig-NOM

Did you see a bushpig (yesterday)?

(178) *Borokuo bee enita?*

boroku-ó = bee  en-it-á INTERROG
bushpig-COP = PST2  see-2PL-REAL

Was it a bushpig that you saw (yesterday)?

The true morphological marker of polar questions in Ik is the final, low boundary-tone comprising the interrogative intonational tune. In this, Ik differs from neighboring Teso-Turkana languages like Turkana which append the invariable question particle -á to utterances to make a polar question (Dimmendaal 1983:429). Heine & König posited -a as an interrogative particle in Ik too (1996:116), but this must be based on an incorrect analysis of the suffix {-a} which marks both nominative case and realis modality. If either of these morphemes came clause-finally in a polar question, it would definitely resemble the Teso-Turkana question particle.

### 9.12.2 Content questions

Content questions in Ik involve clauses in which a constituent has been replaced with an interrogative word. Unlike in some languages, only one interrogative word per question is permitted in Ik. Ik Interrogative words—see (179) below—include those corresponding to (and therefore standing in place of) (pro)nouns, adverbs, and verbs. Besides the interrogative words themselves, no other special morphological or intonational means are used.
Ik interrogative words

<table>
<thead>
<tr>
<th>INTERROG</th>
<th>Meaning</th>
<th>Word class</th>
</tr>
</thead>
<tbody>
<tr>
<td>ndo-</td>
<td>‘who?’</td>
<td>(pro)noun</td>
</tr>
<tr>
<td>ndá-/ńtá</td>
<td>‘where?’</td>
<td>(pro)noun</td>
</tr>
<tr>
<td>ńtíę-ęńi-</td>
<td>‘which (sg.)?’</td>
<td>(pro)noun</td>
</tr>
<tr>
<td>ńtíę-ęńi-</td>
<td>‘which (pl.)?’</td>
<td>(pro)noun</td>
</tr>
<tr>
<td>ńtíę-ęńi-/ńt-</td>
<td>‘when (+ specified unit of time)?’</td>
<td>(pro)noun</td>
</tr>
<tr>
<td>isi-</td>
<td>‘what?’</td>
<td>(pro)noun</td>
</tr>
<tr>
<td>ńtí</td>
<td>‘why (with DAT or ABL case)?’</td>
<td>(pro)noun</td>
</tr>
<tr>
<td>ktsós-</td>
<td>‘what quality (color, shape, etc.)?’</td>
<td>verb</td>
</tr>
<tr>
<td>taná-</td>
<td>‘how many?’</td>
<td>verb</td>
</tr>
</tbody>
</table>

As can be seen from (179), most Ik interrogative words are (pro)nouns and thus inflect fully for case. Some others, like ńtíę-ęńi- ‘which (sg.)?’ are compound nouns. The adverbial interrogative ńtí ‘how’ is an invariable particle, and the words ktsós- ‘what quality?’ and taná- ‘how many?’ are both intransitive verbs.

The word ndo- ‘who’ can be pluralized with the possessive plural suffix making ndo-ųńĩ- ‘who (pl.)’. In isolation, ńtá is the word used for ‘where?’, while ndá- is used when a case inflection is required. This latter form is likely a combination of the proto-interrogative *nd/nt- and aí- ‘side, place’ but should probably now be considered lexicalized (see §8.2.4 for a discussion of aí-’s role in the formation of locative demonstratives).

The singular and plural forms of ‘which’ are also based on the proto-interrogative morpheme *nd/nt- plus the possessum pronominal -ęńi-. The concept of ‘when’ in Ik is usually expressed through a combination of ńtíę-ęńi- ‘which’ plus the appropriate unit of time as its modifier in the genitive case, as in ńtíę-ęńi-Ľ pásdaɪ ‘which hour?’ or ńtíę-ęńi-Ľ arágwání ‘which month?’. A shortened form has arisen alongside ńtíę-ęńi-Ľ ódowin ńtíó-odów ‘when (which day)?’ (noted by Heine & König 1996:120).
Some paradigmatic similarity can be seen between the interrogative words and specific indefinite pronouns (as predicted by Dixon 2012:401):

(180) **Comparative interrogative/indefinite paradigm**

<table>
<thead>
<tr>
<th>Interrogative</th>
<th>Indefinite</th>
</tr>
</thead>
<tbody>
<tr>
<td>nd-áí-</td>
<td>kán-áí-</td>
</tr>
<tr>
<td>nité-éní-</td>
<td>kón-éní-</td>
</tr>
<tr>
<td>nité-éní-</td>
<td>kíni-éní-</td>
</tr>
<tr>
<td>nité-odów</td>
<td>kón-(i)t-ódoi</td>
</tr>
</tbody>
</table>

The main demonstrable difference between the word classes in (180) is that the first term in the interrogatives is the interrogative proto-form *nd/nt*, while in the indefinite pronouns, it is various forms of the root kón- ‘one’. It should be clear from the table in (180) and these preceding notes that the etymological basis for Ik interrogatives is a proto-form like *nd/nt* (with variable tone). This fits well with Ehret’s lexical reconstruction of proto-Nilo-Saharan in which he posits *nda* and *ndi* as proto-NS roots for ‘what?’, *ndé* for ‘which?’, and *ndé* for ‘who?’ (2001:310-311). The word isi- ‘what’ is more mysterious in that it has no watertight parallels in Kuliak or Teso-Turkana, nor is it mentioned in Ehret 2001. One possible link may be to the Kuliak So’s interrogative particle iı/ic ‘who?’ (Heine & Carlin 2010:17).

The interrogative verbs shown in (180) conjugate fully as an other verb. This is illustrated next with a paradigm of the verb taná- ‘be how many?’:

(181) **Conjugation of the interrogative verb taná-**

<table>
<thead>
<tr>
<th></th>
<th>taná-í</th>
<th>taná-íd</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>‘How many am I?’</td>
<td>‘How many are you?’</td>
</tr>
<tr>
<td>2SG</td>
<td>‘How many is s/he/it?’</td>
<td></td>
</tr>
<tr>
<td>3SG</td>
<td>‘How many are you (pl.)?’</td>
<td></td>
</tr>
<tr>
<td>1PL,EXC</td>
<td>‘How many are we (exc.)?’</td>
<td></td>
</tr>
<tr>
<td>1PL,INC</td>
<td>‘How many are we (inc.)?’</td>
<td></td>
</tr>
<tr>
<td>2PL</td>
<td>‘How many are they?’</td>
<td></td>
</tr>
<tr>
<td>3PL</td>
<td>‘How many are they?’</td>
<td></td>
</tr>
</tbody>
</table>
The verb *taná-* when used with singular subjects pragmatically conveys a measure of skepticism or even indignation. For instance, if someone is being asked to do too much alone, they might respond with *taná* ‘How many am I?’ Or similarly, if someone is boasting of all he can accomplish, one might rightfully inquire *tanád* ‘How many are you?’

The (pro)nominal interrogative words from (180) can replace clausal constituents right where they are, whether the clause is structurally unmarked (as in 182) or changed to a verbless clause (as in 183):

(182) *Beďa isik?*  
*béd-á isi-k*  →  *béd-á mesè-k*  
want-REAL what-ACC  
*S/he wants what? S/he wants beer.*

(183) *Isio beď?*  
*isi-o béd-∅  →  mesɔ-o béd-∅*  
what-COP want-REAL  
*What does s/he want? It’s beer s/he wants.*

The same is true for other interrogative words like *ndaí-* ‘where?’:

(184) *Keesa ndaik?*  
*ke-es-á ndaí-k*  →  *ke-es-á séda-k*  
go-INT-REAL where-DAT  
*She’s going where? She’s going to the garden.*

(185) *Ndayuo keesad?*  
*ndai-∅ ke-es-á = d*  →  *sédo-o ke-es-á = d*  
where-COP go-INT-REAL = DP  
*Where is she going? It’s to the garden that she’s going.*
The concept of ‘why?’ is typically expressed with the word *isi*—‘what?’ plus a) the dative case marking the semantic role of ‘purpose’ or b) the ablative case marking the ‘cause/reason’ semantic role. In this function, *isi* acts as a peripheral argument within the clause. Even in this role it can fall in the canonical post-VS or post-VAO position or be fronted:

(186) *Keesida isik?*
\[
\begin{align*}
\text{ke-es-id-a} & \quad \text{isi-k}^e \\
\text{go-INT-2SG-REAL what-DAT}
\end{align*}
\]
Why are you going (lit. ‘You are going for what (purpose)’)?

(187) *Keesida isu?*
\[
\begin{align*}
\text{ke-es-id-a} & \quad \text{isu-∅} \\
\text{go-INT-2SG-REAL what-ABL}
\end{align*}
\]
Why are you going (lit. ‘You are going from what (cause)’)?

(188) *Isio kéesidad?*
\[
\begin{align*}
\text{isi-o} & \quad \text{ke-es-id-a = d}^e \\
\text{why-COP} & \quad \text{go-INT-2SG-REAL = DP}
\end{align*}
\]
Why are you going (lit. ‘It is what you are going for/from’)?

Another way of expressing ‘what?’ is with the compound noun *isi-ɛnɪ́k’. This compound combines *isi*—‘what?’ with the possessum suffix *ɛnɪ́* into a compound marked with the dative case. This form of ‘why?’ is often used in isolation without other words, as in the stand-alone *isi-ɛnɪ́k* ‘Why?’.

9.12.3 Alternative questions

So-called ‘alternative questions’ (Dixon 2012:398-400) are made possible in Ik through the use of the disjunctive conjunction *kede* ‘or’. This conjunction joins noun phrases in a series or whole clauses into a complex sentence. Apart from *kede*, Ik alternative questions are not marked by any overt morphological or prosodic means. In the examples below, *kede* joins two
clauses that could each constitute polar questions on their own. Together they make up a content question whose answer will be the affirmation of one or the other. Note that the final constituent remains in its final form:

(189)  *Marança* *kede gaan?*

[marán-á]  *kede*  [gaan-∅]

good-REAL or bad-REAL

Is it good or (is it) bad?

(190)  *Giriana* *kede dzigwiƙotan?*

[gir-i-án-a]  *kede*  [dzígw-i-ikó̄t-an-∅]

keep-PLUR-IPS-REAL or sell-PLUR-AND-IPS-REAL

Were they regularly kept or regularly sold?

9.12.4 Tags

Ever given to rhetorical flourishes, Ik speakers may use one of several interrogative ‘tags’ to solicit a response from those listening to their speech. Each of the tags is a negated polar question to which the expected response is in the affirmative. The following two are representative:

(191)  *Benia nti?*  

beni-a  ntí̄ INTERROG

not.be-REAL like.that

Is it not so?

*Ntí.*

ntí

like.that

(It is) so.

(192)  *Nta kamati?*  

nít-á  kám-át-ì INTERROG

not-REAL be.like-3PL = DP

Are they (i.e. words) not like that?

*Kamatad.*

kám-át-a = d̆

be.like-3PL-REAL = DP

They are like that.
9.13 Complementation

Complementation—a clause filling a slot in the argument structure of another clause—is handled in Ik in two ways: 1) with a special type of complement clause and 2) with other ‘complementation strategies’ (Dixon 2010:405). An Ik complement clause has the following five characteristics (the first three of which are definitive according to Dixon 2010:370):

(193) 1) It has the internal structure of a clause.
2) It functions as the core argument of another clause.
3) It describes a proposition: fact, activity, or state.
4) Its complementizer is an argument in the matrix clause.
5) It takes the form of reported speech.

9.13.1 Complement clauses

Complement clauses (CoCl) in Ik are recognized by the initial complementizer toimena- that introduces them. This complementizer is a lexicalization of two roots: tód- ‘speak’ and mɛná- ‘words, issues’, resulting in a compound that means something akin to ‘saying (that)...’. Despite its verblike meaning, toimena- behaves grammatically as a noun: a) It fills an argument slot in the matrix clause, and b) it inflects for case.

Ik complement clauses evolved out of reported speech constructions (see §9.14). Technically, it is the quotative complementizer toimena- ‘saying’ that functions as the core argument of a matrix clause, while the ‘complement clause’ itself is treated as a direct quotation, i.e. the complement of toimena-. So point #2 of (193) is only true insofar as one considers the whole construction to be grammaticalized such that toimena- plus the direct quotation fill the argument slot of the matrix clause.

In terms of functional possibilities, toimena-clauses can fill the syntactic slots for object (O), copula subject (CS), copula complement (CC), and oblique peripheral argument. In (194), the complementizer toimena- is in the
accusative case, indicating that it and the clause it complementizes is the object (O) of the transitive verb ɦye- ‘know’ in 3SG:

(194)  
Nta ɦyei toimenaa sıts’a noo tatatiekwa nti.  
\[ntá ɦye-i \ [toimɛn-a \ [síts'-á = noo \ tátáti-ɛakw-a \ ŋt⁶]\]  
not know-3SG COMPL-ACC engage-REAL = PST3 aunt-man-NOM ADV  
He doesn’t know that (his) uncle got engaged like that.

In the next example, a toimɛna-clause is functioning as the copula subject (CS) of a verbless clause. The copula complement (CC) of the verbless clause is ntsú- ‘it’ which appears as ntsú-ó ‘it is...’ in the copulative case:

(195)  
Ntsuo toimena tezetoo menaicika mゅ.  
\[ntsú-ó \ [toimen-a \ [tɛ̊z-ɛt-ɔ-ɔ \ mená-ɛcκ-á \ mゅ^n]\]  
it-COP COMPL-NOM end-INCH-3SG-SEQ issues-PL-NOM all  
It’s that all the issues have ended.

The next example features a complement clause functioning as the copula complement (CC) of the negative copula verb bení-. With this verb, CCs typically take the copulative case, and this sentence is no exception:

(196)  
Benia toimenoo mitida ceki na gaan.  
\[beni-a \ [toimen-ɔ-ɔ \ [mit-id-a \ ceki = ná \ gaan-\O]\]  
not.be-REAL COMPL-COP be-2SG-REAL woman[OBL] = REL.SG bad-REAL  
It’s not that you are a bad woman.

In the next example, the complement clause is treated morphologically (with the oblique case suffix) and syntactically (noun in a series following ńda) as a peripheral argument. The origin of toimɛna- as an introducer of reported speech comes out clearly in this example: a) An audience for the reported speech is encoded as the extended object cɪkámée ‘to the women’ which even separates the complementizer from the quotation, and b) the quotative particle taa, otherwised used in quotative formulae, is present:
Because \textit{toimena}-clauses can express either factual or potential propositions, they exhibit a wide range of possible verb and clause types. With some verbs, like \textit{bɛ́ɗ} ‘want’, even hortatives and optatives can occur:

\begin{Verbatim}
(197) \textit{Bedá toimenaa taa gokaaketano.}
\end{Verbatim}

\begin{Verbatim}
\textit{bɛ́ɗ-á [toimen-a taa [gok-aak-ét-ano]_{oclO}}
\end{Verbatim}

\begin{Verbatim}
\textit{want-REAL COMPL-ACC QUOT seated-DISTR-VEN-HORT}
\end{Verbatim}

He wants us to all be seated (lit. ‘He wants that let’s all be seated’).

\begin{Verbatim}
(198) \textit{Bedída toimenaa yumetine ceki?}
\end{Verbatim}

\begin{Verbatim}
\textit{bɛ́ɗ-ɪ́d-á [toimen-a [ɪ̯ʊ́m-ét-mɛ ceki]_{oclO}}
\end{Verbatim}

\begin{Verbatim}
\textit{want-2SG-REAL COMPL-NOM engage-VEN-1SG[OPT] woman[OBL]}
\end{Verbatim}

Do you want me to engage a woman (lit. ‘that let me engage...’)?

As seen in (196) and (197), the quotative particle \textit{taa} (a phonologically reduced form of \textit{kʊta} ‘s/he says’) often accompanies \textit{toimena}. This particle functions as an optional introducer of reported speech (see §9.14). The Ik ‘saying’-words \textit{toimena} and \textit{taa} can be compared to similar forms in neighboring Teso-Turkana languages. For example, in Karimojong, the complementizer \textit{ɛtɛmar} is also the verb ‘to say’ and the quotative particle \textit{ɛbɛ́} is an irregular 3SG form of the verb \textit{ábala}, also meaning ‘to say’.

Lastly, complement clauses are negated just like non-complement clauses:

\begin{Verbatim}
(199) \textit{Nesibia toimena nta zekwidi atik.}
\end{Verbatim}

\begin{Verbatim}
\textit{nesib-i-a [toimen-a [ɪ̯ɪt-á zekw-ɪdی əti-k]_{oclO}}
\end{Verbatim}

\begin{Verbatim}
\textit{hear-1SG-REAL COMPL-NOM not-REAL live-2SG FILL-DAT}
\end{Verbatim}

I hear that you don’t live in, um...
9.13.2 Complementation strategies

Besides the toimena-clause types described above, Ik also uses two further complementation strategies: 1) nominalization and 2) clause chaining.

The verbal element of a complement clause can be nominalized instead of appearing as a full finite verb. This is a commonly used complementation strategy in Ik. Nominalized verbal complements can fill any core or non-core argument slot and thus take any required case ending. If the subject of the nominalized verb needs to be specified, for example if it differs from the main clause subject, it directly follows the complement verb in the genitive case. And if the nominalized verb is transitive, then its object also follows it (and the subject) in the genitive case. This means that if the complement clause is transitive and has a different subject than the matrix clause, the nominalized verb may be followed by two nouns in the genitive case.

For example in (200), the nominalized verb sáɓ-és ‘to kill (pl.)’ is the subject (S) of the intransitive verb gaan-ôn ‘to be bad’ and therefore takes the nominative case. Within the nominalized complement clause, sáɓ-és is a transitive verb with an object marked in the genitive case:

\[
\begin{array}{ll}
gaan-a_v & [sáɓ-és-a_{vX} [roɓa-œ]_S]_S \\
bad-REAL & kill[PL-INF-NOM people-GEN] \\
\end{array}
\]

Killing people is bad (lit. ‘The killing of people is bad’).

The next example presents a nominalized transitive clause filling the object slot of a matrix transitive clause. The transitive verb bol-és-úkot‘ to stop (doing something)’ has the nominalized clause modésìá wícé as its object, with m̥x̥d-es’ marked with the accusative case (since the subject of the main verb in the matrix clause is 3-person). Then, within the complement clause itself, the nominalized verb m̥x̥d-es’ ‘to deceive’ has its direct object encoded as a possessive modifier in the genitive case:
Nominalized verbs can also fill peripheral argument slots. In the next example, the nominalized verb *iráb-es* ‘to harvest millet’ is filling the slot of a peripheral argument in the dative case, denoting purpose:

(202) *Botuo cikama rebeaƙok, irabesik.*

And the women moved to the millet for harvesting (it).

The peripheral argument can be a complex complement clause appended to a main clause as if it were the last in series of noun phrases. In this next example, an entire transitive clause is encapsulated in multiple embedded noun phrases that fill an oblique argument slot in a preceding matrix clause:

(203) *...nda ʝa saɓesi ntsie loŋotae.*

...and then he killed the enemies (‘the killing of him of enemies’). Finally, a nominalized complement clause can occur as a predicative nominal in a verbless copula clause like the one in (204). This clause was uttered to an elder as an explanation for the aches and pains of growing old:

(204) *Dunesio ata dee.*

That thing (i.e. feeling ill) is ageing.
A second complementation strategy employed by Ik is clause chaining. After a main verb there may follow a sequential or simultaneous clause acting in a complementary role. If the subordinate clause is sequential, then it expresses an activity occurring after the main verb, either logically or chronologically. If the subordinate clause is simultaneous, then it expresses an activity loosely cooccurring with the main verb (see §10.2).

The deontic verb *ɪtámáán-* ‘behoove, necessitate’ (cognate with Teso-Turkana *ɪtamakma*) serves to illustrate both types of clause chaining since it can occur with either one. In first example (205), *ɪtámáán-* acts as the main verb in the initial main clause, followed directly by the sequential verb *déíduo* ‘and you (sg.) bring’ which is complementary to it:

(205)  
\[ɪtámáán6á [dé6ídu6o boniti6icík6á muɲ] \]  
\[behoove6 REAL bring62 SG VEN \]  
\[kind6 PL NOM all \]  
You must bring all the various kinds.  
('It behooves, and you bring all the various kinds.')

The next example involves *ɪtámáán-* again but this time with a simultaneous clause containing the simultaneous verb form *bɛ́ɗɛ́tɪ́ɪ́kᵋ* ‘I looking for’:

(206)  
\[ɪtamaana [bɛ́ɗέ́tɪ́ɪ́kɛ́ konienia awee bik] \]  
\[behoove-REAL want-VEN-1SG-SIML one-PSSM-ACC home-GEN you.SG-DAT \]  
I must look for another home for you.  
('It behooves, I looking for another home for you.')

9.13.3 Complement-taking verbs

The table in (207) presents a representative sample of Ik verbs that can take a *toimena*-complement as an argument. If any of these verbs uses other complementation strategies as well, these are also shown:
9.14 Reported speech

The Ik quote formula for reported speech consists of the verb *kut-* ‘say’ with a subject-agreement suffix cross-referencing the speaker. This is then followed by the addressee in the dative case if mentioned. After this may come the quotative particle *taa* (a reduced and grammaticalized form of *kuta* ‘s/he says’, like the Turkana irregular verb form *ebê* used as a quotative; Dimmendaal 1983:470), and then of course the quotation itself:

(208) *Reported speech:* kut-speaker (addressee-dät) (taa) $S_{QUOTE}$

A couple of examples of this quotative formula in context are as follows:
(209)  *Kutia ntsie, “Itemat.”*

\[
\begin{align*}
\text{kut-} & \quad \text{ntsí-} & \quad [\text{itém-}\text{át-}]_{\text{QUOTE}} \\
\text{say-}1\text{SG-SEQ} & \quad \text{s/he-}\text{DAT} & \quad \text{befeit-}3\text{PL-REAL}
\end{align*}
\]

And I said to her, “They are right.”

(210)  *Kutata biraa korobaa Ṉabat.*

\[
\begin{align*}
\text{kut-} & \quad \text{á-} & \quad [\text{bra-} \text{̄kɔ́rɔ́ɓá-a} \quad \text{ŋá-b-at-}]_{\text{QUOTE}} \\
\text{say-}3\text{PL-REAL} & \quad \text{lack-REAL} & \quad \text{thing-NOM} \quad \text{wear-}3\text{PL-REAL}
\end{align*}
\]

They say there is nothing they are wearing.

As Serzisko correctly pointed out, both direct and indirect speech can be reported with the direct quote formula given above (1987:72-73). In other words, when the verb *kut-* is involved, both types of reported speech are encoded grammatically as if they were direct quotations. An indirectly encoded quotation would require that the quotation be a complemental argument of the verb. But this is not possible with the *kut-* formula.

Rather, as expected crosslinguistically (Kroger 2005:226), a quotation found in the formula above is not treated as an argument of the verb *kut-*. Instead, it is an extra-syntactic sentential ‘complement’. This can be seen in Ik from two angles. First, unlike the complementizer *toimɛna-* (§9.13.1), the quotative particle *taa* is invariable, that is, not inflected for case. Second, when the content of an indirect quotation is the interrogative pronoun *isi-* ‘what?’ instead of a full sentence, *isi-* takes the oblique case, the case that is used for, well, oblique arguments. This can be seen in the next example:

(211)  *Kutana taa isi roɓa?*

\[
\begin{align*}
\text{kut-} & \quad \text{an-} & \quad \text{táá} & \quad [\text{isi}]_{\text{QUOTE}} & \quad [\text{roɓa}]_{\text{VOCATIVE}} \\
\text{say-}1\text{PS-REAL} & \quad \text{QUOT} & \quad \text{what[OBL]} & \quad \text{people[OBL]}
\end{align*}
\]

It is said (that) what, people?

*What shall we say, folks?*
If a quote in Ik were treated grammatically as an argument of the verb (as in indirect quotes), nominative case (for 1st and 2nd person subjects) and accusative case (3rd person subjects) would have to be indicated somewhere, e.g. on a complementizer or on isi- if it was filling the quotation slot.

Compare the following grammatical and ungrammatical sentences:

(212)  
\[
\begin{align*}
\text{Kuta is?} & \quad \text{**Kuta isik?} \\
\text{kut-a} & \quad [\text{is}]_{\text{QUOTE}} \quad \text{**kut-a} \quad [\text{isi-k}^c]_{\text{QUOTE}} \\
\text{say-REAL} & \quad \text{what}[\text{OBL}] \quad \text{**say-REAL} \quad \text{what-ACC} \\
\text{What does she say?} & \quad \text{What does she say?}
\end{align*}
\]

From the examples above, it can be seen, then, that a quotation in Ik is not a core argument—nominal or complemental—of the verb kut-. Nevertheless, both direct and indirect speech can be reported, as the following show:

(213)  
\[
\begin{align*}
\text{Kuta Lomeria, “Atsesi.”} \\
\text{kut-a} \quad \text{lomeri-a} \quad [\text{ats-\-s-\-i-\-∅}]_{\text{DIRECT.SPEECH}} \\
\text{say-REAL} \quad \text{Lomeri-NOM} \quad \text{come-\-INT-1SG-REAL} \\
\text{Lomeri says, “I’m coming.”}
\end{align*}
\]

(214)  
\[
\begin{align*}
\text{Kuta Lomeia atses.} \\
\text{kut-a} \quad \text{lomeri-a} \quad [\text{ats-\-s-\-∅}]_{\text{INDIRECT.SPEECH}} \\
\text{say-REAL} \quad \text{Lomeri-NOM} \quad \text{come-\-INT-REAL} \\
\text{Lomeri says he’s coming.}
\end{align*}
\]

Both (213) and (214) are directly encoded, though they encode direct and indirect speeches, respectively. Because of this structural ambiguity, both sentences are ‘opaque’ (Serzisko 1987:72) with regard to the reference of the subjects within each quotation. Without context, it is not known which of the following translations would best represent the data above:

(215)  
\[
\begin{align*}
\text{For (213):} \quad \text{Lomeri}_A \text{ says, “I}_A \text{ am coming.”} \\
\text{Lomeri}_A \text{ says I}_B \text{ am coming.}
\end{align*}
\]
(216) For (214): Lomeri, says he is coming.
Lomeri, says he is coming.
Lomeri, says, “He is coming.”

Serzisko suggests that the quotative particle taa is obligatory for indirect quotations (1987:74), but this has not been confirmed in my data. It seems, rather, that its use is optional and flexible. For example, it even shows up before the main verb, as in taa kʊtaná taa ‘That it is said that…’.

In his 1987 study of the verb kʊt-, Serzisko insightfully traces out the various paths of development the verb has taken in Ik. Besides merely reporting speech, it is also used as a verb for thinking, naming, intending, wanting, and communicating a sound or even an event. Each of these developments is given one example in the following sentences:

(217) Thinking: Kutia kede buo nak.
kut-i-á kede bu-o = nálk’
say-1SG-REAL or you.SG-COP = PST
I thought maybe it was you.

(218) Naming: Kutana edie ntsie is?
kut-an-a édi-e ntsí-é is
say-IPS-REAL name-DAT s/he-GEN what[OBL]
What is she called/what is her name?

(219) Intending: Kutia kone awak.
kut-i-á kó-ne awá-k’
say-1SG-REAL go-1SG[OPT]home-DAT
Well, I’m about to go home.

With regard to its intending function, the verb kʊt- may have grammaticalized into the So future time marker kó- (cf. Carlin 1993:58).
(220) Sound:  
*Kutini wir!*

\[
\text{kut-\text{-}m} \quad \text{wir} \\
\text{say-3PL[SEQ]} \quad \text{IDEO}
\]
And they went *zoom*!

(221) Event:  
*Kutoo kija lej.*

\[
\text{kut-\text{-}\text{-}} \quad \text{kij-\text{á} lej} \\
\text{say-3SG-SEQ land-NOM} \quad \text{IDEO}
\]
And the land caught on fire.

All the examples above retain the surface structure of a quotative sentence, even though they have developed semantically in various ways. One further development of *kut*, however, takes as an argument a noun or a nominalized verb in the dative case. Perhaps in the surface structure, the nominalized argument takes the slot of an addressee (hence the dative case) instead of the quotation. In this usage, *kut* acts as a sort of modal verb, expressing desire/intention in (222) and action toward something in (223):

(222) Modal 1:  
*Kutata idzesie...*

\[
\text{kut-\text{-}át-a} \quad \text{idz-esi-e...} \quad \text{(Serzisko 1987:82)} \\
\text{say-3PL-REAL shoot-INF-DAT}
\]
Then they shot...

(223) Modal 2:  
*Kwitidoo modo ripak.*

\[
\text{ku(t)-ídb-\text{-}} \quad \text{mfd-ripa-k}^\text{*} \quad \text{(Serzisko 1987:85)} \\
\text{say-2SG-SEQ groud.bee-hole-DAT}
\]
And you jumped in the ground-bee hole.
9.15 Comparative constructions

Ik has two types of comparative construction. One is a mono-clausal construction and the other bi-clausal (types A2 and F, respectively, in Dixon’s system of classification; 2012:350, 358). The discussion here uses the following terms, borrowed from Dixon (2012:344):

(224) **Comparative construction terminology**

<table>
<thead>
<tr>
<th>COMPAREE</th>
<th>that which is being compared</th>
</tr>
</thead>
<tbody>
<tr>
<td>STANDARD</td>
<td>what the comparee is being compared to</td>
</tr>
<tr>
<td>PARAMETER</td>
<td>the gradable property shared in the comparison</td>
</tr>
<tr>
<td>INDEX</td>
<td>degree to which the comparee differs from standard</td>
</tr>
<tr>
<td>MARK</td>
<td>marker of the grammatical function of the standard</td>
</tr>
</tbody>
</table>

Accordingly, the following table lays out the components of Ik’s two types of comparative construction, each of which are then described below:

(225) **Ik comparative constructions**

<table>
<thead>
<tr>
<th></th>
<th>Type A2 (mono-clausal)</th>
<th>Type F (bi-clausal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPAREE</td>
<td>S in NOM case</td>
<td>A in NOM case</td>
</tr>
<tr>
<td>STANDARD</td>
<td>NP in ABL case</td>
<td>NP in ACC case</td>
</tr>
<tr>
<td>PARAMETER</td>
<td>head of intransitive predicate</td>
<td>head of initial predicate (intrans. or trans)</td>
</tr>
<tr>
<td>INDEX</td>
<td>—</td>
<td>transitive medial verb (e.g. ( l\overline{b} ) ‘defeat’)</td>
</tr>
<tr>
<td>MARK</td>
<td>ABL case</td>
<td>ACC case</td>
</tr>
</tbody>
</table>

9.15.1 Mono-clausal comparative construction

The Type A2 comparative construction in Ik is mono-clausal: All its components fall within a simple clause. The comparee is the subject of an intransitive predicate, usually an adjectival verb. The standard against which the comparee is compared is a peripheral argument in the ablative case. In this type of comparative construction, there is no index:
(226)  *Zeia nka bu.*

\[
[ze-i-á]_{PARAMETER} \quad [ŋık-a]_{COMPAREE} \quad [bu-∅]_{STANDARD}
\]

big-1SG-REAL   I-NOM   YOU.SG-ABL

I am older than you (lit. ‘I am big from you.’).

(227)  *Maranja da na*

\[
[marán-y-á]_{PARAMETER} \quad [d-a = na]_{COMPAREE}
\]

good-REAL   one-NOM = DEM.SG

\[
[k₁ = d₃-ʒ = ke]_{STANDARD}
\]

DIST = one-ABL = DEM.SG.DIST

This one is better than that one (over there).

This type of construction is susceptible to some ambiguity. When the head of an intransitive predicate is an adjectival verb followed by a non-core argument in the ablative case, the sentence can have a different meaning than comparison. Note the two possible interpretations of this statement:

(228)  *Gaana ncu.*

\[
[gaan-a] \quad [ńcu-∅]
\]

bad-REAL   I-ABL

\[
[a) \quad S/he/it is worse than me. 
  b) \quad S/he/it is bad to me (according to me). 
\]

The ambiguity lies in the fact that the ablative can encode the experiencer role as well as the standard of comparison. The choice between the two interpretations must be made on pragmatic, contextual grounds.
9.15.2 Bi-clausal comparative construction

Type A2 comparative constructions in Ik serve to compare two entities in terms of a gradable property (parameter). Type F constructions can do the same thing, as well as compare in terms of any parameter, be it a state or an action. Type F constructions are bi-clausal. The first clause is the initial clause in a bi-clausal chain, either intransitive or transitive, for example:

(229)  
Kwatsa...                      Tokobiya edia...
   kwáts6á       tokob-i-a       edí-á
   small-REAL    farm-PLUR-REAL  grain-ACC
   It’s small…    He farms grain…

To such simple clauses as these can be added a comparative clause with a medial verb, either sequential or simultaneous. One medial verb Ik uses is ɪlɔ́ - ‘defeat’ which has close parallels in Karimojong (-lɔ́) and Turkana (-lán). (The Teso-Turkana infinitive form akɪélɔ́ is often used in Ik instead of ɪlɔ́; besides comparison, it can be used to mean ‘instead (of)’.) In this comparative chained clause, the comparee is still the subject as in the main clause but must be A even if it is an S in the main clause. This is because ɪlɔ́ is a transitive verb. Its O then is the standard of the comparison. So the simple clauses in (229) may be extended as follows:

(230)  
Kwatsa ntsa iloyee ncik.
   [kwáts6á    nts6a]INITIAL   [ɪlɔ́ɪ́ɛ́              ɲ́ci6kᵃ]MEDIAL
   small-REAL    he-NOM    defeat-3SG-SIML I-ACC
   He's smaller than me (lit. ‘He’s small, he defeating me’).

(231)  
Tokobiya edía iloyoo ngwaa mun.
   [tokob-i-y-a edí-á]INITIAL [ɪlɔ́ɪ́ɛ́ ɲgó-á  mun]MEDIAL
   farm-PLUR-REAL grain-ACC  defeat-3SG-SEQ we.EXC-ACC all
   He farms grain more than all of us (lit. ‘and defeats us all’).
Some verbs like kwáts- 'small, young' and ze- 'big, old' can appear in either type of comparative construction but with different meanings. For example, the sentence kwátsía bu can only mean either a) 'I am younger than you' or b) 'I am lower than you in status'. To get the meaning 'I am smaller than you', a Type F construction must be used: kwátsía ilšiaa bi.

9.15.3 Equative clauses

To compare two equal or nearly equal entities, Ik uses two verbs instead of a special syntactical construction. These verbs are ikwáán-ón 'to be the same, similar in quality' and ıryáán-ón 'to be the same, similar in physical characteristics (like size or shape)'. Both of these verbs have Teso-Turkana parallels in aki-kwaan and a-rian 'to be equal' (Barrett 1988:70).

(232) Ikwaanida nda babo.
    ikwaan-id-a    ŋ'da  bábo
    be.same-2SG-REAL with your.father[OBL]
    You resemble your father.

(233) Nta dakwitina ni ıryaanat.
    ŋt-á     dakw-itín-á = ni  ıryaan-át' i
    not-REAL    tree-PL-NOM = DEM.PL be.similar-3PL
    These trees are not the same.

9.15.4 Superlative clauses

Ik also has no special construction to express superlative status either. Instead, it simply adds the adjective muña 'all' to modify the standard in Type F comparative constructions, making the standard a universal plural, e.g.:

(234) Toda maranjie ilóyoo robãa muña.
    tôd-a    marân-j-i-e    iló-í-o    robã-a  muña
    speak-REAL good-3SG-SIML defeat-3SG-SEQ people-ACC all
    He speaks better than everyone else (lit. 'and defeats all people').
9.16 Negation

Negation in Ik is signaled by a combination of highly irregular, paradigm-less negator verbs (235 below) and irrealis marking on the negated verb. The negator verbs show agreement for an impersonal 3-person subject. One of them, ṅít-, always appears in the realis modality with a negated complemental main verb in the irrealis modality. The other, ma-/na-, can appear in either the realis or irrealis modalities (in the sequential aspect as moo/noo). For past and present perfect tenses, its verbal complement is in the irrealis modality, while for prohibitives (negative imperatives), the complement is in the realis modality. Beyond these two negator verbs, two lexical verbs, birá- and bení-, are used to negate copula of location and copula of identity verbs, respectively. The table in (235) presents the negator verbs with the verb and clause types they can negate:

(235) Ik negator verbs

<table>
<thead>
<tr>
<th>Verb type</th>
<th>Clause type</th>
</tr>
</thead>
<tbody>
<tr>
<td>ṅít-</td>
<td>Main</td>
</tr>
<tr>
<td>ma-/na-</td>
<td></td>
</tr>
<tr>
<td>a) Past realis</td>
<td>Main</td>
</tr>
<tr>
<td>b) Present perfect</td>
<td>Main</td>
</tr>
<tr>
<td>c) Imperative</td>
<td>Main</td>
</tr>
<tr>
<td>d) Irrealis</td>
<td>Subordinate</td>
</tr>
<tr>
<td>(as mo-o/no-o)</td>
<td></td>
</tr>
</tbody>
</table>

The negating morphemes presented in (235) are analyzed here as defective verbs rather than merely negating particles for the following reasons:

1. They fill the clause-initial slot, which is reserved for the main verb.
2. They take modal suffixes (e.g. realis {-a} and sequential {-(k)ɔ}).
3. The negator ma-/na- can be modified by tense enclitics, which only modify the clause predicate.
4. The irrealis (sequential) negator moo/noo can bear the dummy pronominal enclitic {=ˊdɛ}, which otherwise attaches only to verbs.
In terms of etymology, the Ik negator verbs can be traced to ancient proto-Nilo-Saharan forms (Ehret 2001:218-223). The realis-negating verb *ńté- likely originates in the proto-‘Northern Sudanic’ suffix *-to that is believed to have also negated indicative clauses. Though perhaps this ancient negator crossed phyletic boundaries into Afroasiatic, if the Cushitic language Afar’s defective negating morpheme *-innio is any indication (Mahaffy, n.d., p. 33). According to Ehret, the prefix *n- in the Ik *ńté- developed as an independent morpheme, though its function may not be reconstructable today.

For its part, the Ik negator verb *ma-/na- seems obviously related to the proto-‘Eastern Sahalian’ prefix *máé- that is said to also have negated irrealis clauses (Ehret 2001:218-223). It too has widespread Nilo-Saharan and Afroasiatic reflexes. For example, Turkana’s defective negator *meéré is believed to consist of the morphological sequence *ma-e-ra-s of which the first is the negator *ma- (Dimmendaal 1983:453). A parallel is also found in the Lowland Cushitic languages Afar and Saho: In Afar, the ‘principal negator’ is *ma- (Mahaffy, n.d., p. 20), while in Saho, the negator of imperative and imperfective clauses is ma- or mi- (Banti & Vergari 2005:7).

And although the Ik parallel usually appears with H-tone as máa or náa, it is analyzed as ma-/na- on the hypothesis that it was (is?) used with the present perfect suffix {‘ka} with its floating H tone. This was first postulated by Heine & König (1996:89) and is corroborated by Ik’s sister Kuliak language So’s ‘perfective negator’ that has the form *mak (Carlin 1993:58). The Ik negator ma- together with its present perfect suffix {‘ka} would produce the final form *má-kə and the non-final form má-a. A form like *má-kə is preserved in So but lost in Ik because: 1) Negator verbs never occur clause-finally (where the final form of {‘ka} could appear), and consequently, 2) the /k/ is lost in clause-initial positions leaving only má-a. This analysis would also help explain why the sequential form is mo-o and not mó-o. But because the analysis is still a bit speculative, the form má-á/ná-á or má-a/ná-a is glossed throughout the grammar as not-REAL instead of not-PREF.
9.16.1 Indicative and interrogative

Non-past, indicative, realis clauses are negated with \( \text{ńt} \)-, which then takes the morphologically negated verb as a complement in the irrealis modality:

\[
\begin{align*}
\text{Kod.} & \quad \text{Nta kod.} \\
\text{ńt-á} \quad \text{kó-ð}^i & \quad \text{ńt-á} \quad \text{kó-ð}^i \\
\text{not-REAL} \quad \text{go-2SG[IRR]} & \quad \text{not-REAL} \quad \text{go-2SG[IRR]}
\end{align*}
\]

You’re going.       You’re not going.

Indicative and interrogative clauses are both negated the same way:

\[
\begin{align*}
\text{Nta kaat.} & \quad \text{Nta kaatí?} \\
\text{ńt-á} \quad \text{ká-áði}^i & \quad \text{ńt-á} \quad \text{ká-áði}^i_{\text{INTERROG}} \\
\text{not-REAL} \quad \text{go-3PL[IRR]} & \quad \text{not-REAL} \quad \text{go-3PL[IRR]}
\end{align*}
\]

They aren’t going.    Are they not going?

The only difference between the two sentences in (237) is phonological: The final vowel of the 3pl suffix is fully voiced in the interrogative mood.

Past tense realis clauses are negated with \( \text{ma-/na} \)- in the realis modality (and/or present perfect aspect?; see last paragraph on p. 583), with the negated verb as a complement in the irrealis modality:

\[
\begin{align*}
\text{Maa naa kod.} \\
\text{ńt-á-á} = \text{ná} \quad \text{kó-ð}^i \\
\text{not-REAL} = \text{PST1} \quad \text{go-2SG[IRR]}
\end{align*}
\]

You didn’t go (earlier today).

Subordinate clauses and sequential medial clauses are negated with \( \text{moo/noo} \), which is analyzed here as the negator verb \( \text{ma-/na} \)- plus the sequential aspect suffix \( \{-(k)\} \). As with the realis \( \text{máa/náa} \), the negated verbal complement of \( \text{moo/noo} \) is in the irrealis modality. Examples include:
An interesting structural feature of Ik negation is that while the negator verbs function as the main verb of the clause and are marked for an impersonal 3sg subject, the subject of the negated verb, if overt, fills the normal syntactic slot for subject. Compare the following sentences:

In (241), a normal VS intransitive clause, the removed past tense clitic =bee follows the verb and is then followed by the overt subject ŋk³ ‘I’. Then, in (242), the tense clitic follows the negator verb as it would a main verb. The clause's semantic subject, ŋka, then follows the tense clitic as if it were the subject of the negating verb. However, it is in fact the subject of the complement verb kóí that follows it. It is interesting to note that in most types of subordinate clauses, any overt preverbal subject would take the accusative case. So in (242) there seems to be a mismatch between syntax
and semantics: The syntax treats ŋ́ka like the main clause’s subject, while semantically, it is the subject of the following complemental verb ƙóíⁱ.

Ik can only negate full dependent and independent clauses. It has no derivational processes for creating negative lexemes. Neither can smaller clausal constituents like noun phrases be negated morphologically. They can be negated syntactically and semantically by first being topicalized. To illustrate this, the verb brá- ‘not be’ in the following sentences negates various clausal arguments that are modified by headless relative clauses:

(243)  
Biraa ama iya naye na.

\[
\begin{array}{llll}
\text{bíra}-\text{a} & \text{ám}-\text{á} & \text{i-a} & \text{naí-é=na} \\
\text{not.be-REAL} & \text{person-NOM} & \text{be-REAL} & \text{here-DAT = DEM.SG} \\
\end{array}
\]

Nobody is here (Lit. ‘There is no person (who) is here.’).

(244)  
Biraa ama ntsia iŋaaresad.

\[
\begin{array}{llll}
\text{bíra}-\text{a} & \text{ám}-\text{á} & \text{ntsí-á} & \text{ŋaar-es-á=dê} \\
\text{not.be-REAL} & \text{person-NOM s/be-ACC} & \text{help-INT-3SG = DP} \\
\end{array}
\]

He is helping nobody (Lit. ‘There is no one he is helping.’).

(245)  
Biraa keda ƙaad.

\[
\begin{array}{llll}
\text{bíra}-\text{a} & \text{kéd-a} & \text{ká-á=dê} \\
\text{not.be-REAL} & \text{place-NOM} & \text{go-REAL = DP} \\
\end{array}
\]

He’s going nowhere (Lit. ‘There is no place he is going to.’).

9.16.2 Prohibitive

The structure of imperative versus prohibitive clauses is quite different in Ik. In an imperative clause, the bare verbal stem is given the singular imperative suffix {-ɛ́} or the plural imperative suffix {-i̯}. But in a prohibitive clause, no special morphemes are involved. Instead, the prohibitive construction consists of the negator verb ma-/na- with a conjugated verbal complement in the realis modality, for example:
(246)  Kae!                                Maa kod!
  ka-e'       →     má-á      k-ôd-a
  go-IMP.SG    not-REAL   go-2SG-REAL
  Go!                             Don’t go!

(247)  Ogoe kai.                        Maa ka.
  ógo-e       ka-i'     →     má-á     ka-∅
  let-IMP.SG   go-3SG[OPT] not-REAL   go[3SG]-REAL
  Let him go.                     Don’t let him go.

Semantically, these prohibitives are ‘irrealis’ in the sense that the predication has not happened and is even forbidden from happening. However, grammatically, the Ik prohibitive is marked as ‘realis’ with the realis suffix {-a} (implying temporal actuality) on both the negating verb and the complemental main verb. This kind of ‘polarity reversal’—where negative imperatives occur with realis suffixes—is reportedly only rarely attested in other languages around the world (Dixon 2012:112).

9.16.3 Copula clauses

Although the copula of identity (mut-) and the copula of cocation (i-) can be negated with either negator verb, Ik also has two lexical verbs that function as negative copulae. These negative copulae seem to have been (partly) grammaticalized from the synchronic lexical verbs birá- ‘lack’ and bení- ‘be unique’. The sentences below illustrate both ways copular verbs can be negated—first with negator verbs and second with negative copulae. Note how morphological case suffixes change going from one type to the other:

(248)  Nta ntsa iyi awak.
  ñt-á     nts-a    i-i     awá-kê
  not-REAL  s/he-NOM  be-3SG  home-DAT
  She’s not at home.
(249) Biraa ntsa awao.

bira-a nts-a awá.

not.be-REAL s/he-NOM home-ABL

She’s not at home (lit. ‘She lacks from home.’).

(250) Nta nka mitii waanaam.

ńt-á ŋk-a mítii wáána-am

not-REAL I-NOM be-1SG visitor-AGT.SG[OBL]

I am not a visitor.

(251) Benia nka waanaamak.

beni-a ŋk-a wáána-ama-k

not.be-REAL I-NOM visitor-AGT.SG-COP

I am not a visitor (lit ‘It is not, I am a visitor.’).

As described earlier (§9.10.1), Ik verbless copulative clauses consist of nouns inflected with the copulative case suffix {ko}. These clauses are negated with the negative copula bení. When this occurs, the complement of the negative copula can take either the nominative or copulative case.

(252) Nekek.

néke-k

hunger-COP

It’s hunger.

(253) Ncuk.

jícu-k

I-COP

It’s me.

In (252), the noun neke- receives a H tone on its first syllable as a result of high-tone insertion disrupting a sequence of more than three L tones.
9.16.4 Negative tags

Ik has two negative ‘tags’ that can be used following either positive or negative statements. When they are used, the speaker normally expects a corresponding positive reply. These tags and their replies are as follows:

(254) \[ \text{Nta kamatii?} \quad \text{Kamatad!} \]
\[
\begin{align*}
\text{nt-á} & \quad \text{Kám-åti} = \text{INTERROG} \\
\text{not-REAL} & \quad \text{be.like-3PL[IRR]} = \text{DP} \\
\text{Are they (i.e. words) not like that?} & \quad \text{They are like that!}
\end{align*}
\]

(255) \[ \ldots \text{kede benia nti?} \quad \text{Ntia ja!} \]
\[
\begin{align*}
\text{kede} & \quad \text{beni-a} \quad \text{ńtí} \\
\text{or} & \quad \text{not.be-REAL} \quad \text{like.that} \\
\ldots \text{or is it not like that?} & \quad \text{Just like that!}
\end{align*}
\]

Finally, Ik has both positive and negative independent polarity particles: \(\text{ee/éé ‘yes’ and ntóodó ‘no’}\). The particle \(\text{ntóodó}\) seems to be morphologically complex, though it cannot be fully parsed out. In any case, it seems to incorporate the negator verb \(\text{ńt-}\). In Ik, contrary to English, a negative reply to a negative question can be preceded by \(\text{ee/éé ‘yes’}\), and positive reply to a negative question can be preceded by \(\text{ntóodó ‘no’}\). Consider the following:

(256) \[ \text{Negative question:} \quad \text{Nta bedidi?} \]
\[
\begin{align*}
\text{nt-á} & \quad \text{béd-idi} = \text{INTERROG} \\
\text{not-REAL} & \quad \text{want-2SG[IRR]} \\
\text{Don’t you want (it)?}
\end{align*}
\]

(257) \[ \text{Possible answers:} \quad \text{Ee, nta bedí.} \quad \text{Ntoodo, bedí.} \]
\[
\begin{align*}
\text{ee} & \quad \text{nt-á} \quad \text{béd-i} \\
\text{yes not-REAL} & \quad \text{want-1SG[IRR]} \quad \text{no want-1SG-REAL} \\
\text{Yes, I don’t want (it).} & \quad \text{No, I want (it).}
\end{align*}
\]
10 Sentences and Beyond

Up to this point, the discussion of syntax has been concerned with the formation of individual noun phrases and clauses, main and subordinate. It has also covered the formation of complex sentences that combine a matrix clause with a subordinate clause. The present chapter moves beyond clause-level syntax to examine the joining of two or more main clauses (§10.1) and Ik’s primary clause-linking strategy—clause chaining (§10.2).

10.1 Clause coordination

Clause ‘co-subordination’, or clause chaining, is the language’s preferred method for linking clauses. However, the coordination of two independent clauses is also observed. Such coordination, the topic of the following section, can be used to communicate a relationship of addition, contrast/counter-expectation, or disjunction between two or more clauses.

10.1.1 Additional

The addition of one independent clause to another is usually handled by first nominalizing the second clause and then joining it to the first clause with the connective ńda ‘and’. Once the second clause is nominalized, it is then treated syntactically as a peripheral, oblique argument. This is reflected morphologically by the fact that the main verb of the nominalized clause takes the oblique case. Here are some examples:

(1) Hodetuo bilikeretea nda imojiresi ɦyʊƙʊmʊ́.  
   hóɗ-ét-u-o  bɪ́lɪ́kɛrɛtɛ́-á  ńda ɪmɔ́ʝɪ́rɛ́sɪ́ ɦyʊƙʊmʊ́-ɬ.  
   free-INCH-3SG-SEQ spurfowl-ACC and twist-INF[ABL] neck-GEN  
   He then freed the spurfowl and twisted its neck.  
   (‘And he freed the spurfowl and twisted its neck.’)
(2) *Gameese ja gwee na nda ats‘esukot.*

\[
gám-é-ese = ja \quad gwé-é = na \quad ŋda áts‘-és-ukot“ \]

kindle-INCT-SPS = ADV bird-DAT = DEM.SG and eat-INF-CONN[obl]

So then a fire was made for the bird, and it was eaten.

(‘And it was kindled for this bird and the eating.’)

(3) *Keesia Kaaɓongie ts‘oo nda poroni barats.*

\[
ke-es-i-a \quad kaabong=ɛ \quad ŋda \quad pór-ɔni \quad barats-o \]

go-INT-1SG-REAL Kaabong-DAT and proceed-INF[obl] morning-INS

I’m going to Kaabong and will proceed in the morning.

(‘I’m going to Kaabong now and the proceeding in the morning.’)

If the subject of an added second clause needs to be made explicit (same or different from the first clause), it can appear in one of two positions: 1) before the nominalized verb in the oblique case or 2) after the nominalized verb in the genitive case. In position (1), its takes the oblique case because the preposition *ńda* interprets it as a peripheral argument of the first clause (see example 4). In position (2), it takes the genitive case because it modifies the NP head which is the nominalized verb (see example 5):

(4) *...nda ja nci atsoni awak.*

\[
ńda = ja \quad nci \quad ats-oni \quad awá-kᵉ \]

and = ADV I[obl] come-INF[obl] home-DAT

...and then I came home (‘and I to come home’).

(5) *...nda ja atsoni ncie awak.*

\[
ńda = ja \quad ats-oni \quad nci-e \quad awá-kᵉ \]

and = ADV come-INF[obl] I-GEN home-DAT

...and then I came home (‘and to come of me home’).

From the position of *nci* in (4), one might suspect that it is the first term in a compound with *ats-on* ‘to come’. However, the first term in a compound often changes the tone of the second term. In light of this, compare the
following phrases which contrast the type of nominalized clause in (4) with a compound. The ungrammaticality of the second phrase shows that the structure in (4) does not in fact involve a compound. Otherwise, the tones on the nominalized verb *ats-on* in the second example would be changed:

(6) 

*...nda ntsí atson.*  **...nda ntsi-atson.**

ñá an tsí ats-ón  **ñá an tsí-áts-ón**

and she[OBL] come-INF[OBL]  **and she-come-INF[OBL]**

...and she came.  ...and she came.

Double imperatives are grammatical in the language (see §7.7.6). But a relationship of addition between two imperatives is can also be encoded by using the imperative mood for the first imperative, then either the sequential aspect (7) or a nominalized verb (8) for the second, for example:

(7)  

*Maxane gookee, kwiiudoo ntsie ats.*

máʃán-e nóo-keé ku(t)-dɔ-ɔ ntsí-é ats-∅

greet-IMP.SG your.mother-DAT say-2SG-SEQ she-DAT come-IMP.SG

Greet you mother, okay, and tell her to come.

(8)  

*Kae koo ke nda zekwetoni kijak.*

ka-e kɔ́ɔ=keó nda zekw-ét-ɔńi kijá-k*e

go-IMP.SG there=DEM.DIST and sit-INCH-INF[OBL] ground-DAT

Go over there and sit down (on the ground).

10.1.2 Contrastive

In its most basic expression, contrast or counter-expectation (as well as addition) can be communicated in Ik through simple parataxis, or ‘intonational coordination’ (Serzisko 1992:120). Such apposition of two main clauses leaves the precise pragmatic interpretation up to the context. However, the clitic-like adverb (=)kɔtɔ is typically present to enhance the utterance with such notions as ‘then’, ‘so’, ‘and’, and ‘but’, for example:
Some Ik speakers, especially those having learned other languages, find alternative ways to express contrast. This may be for example, by borrowing a contrast word from Karimojong (naíti) or Swahili (lakini).

### 10.1.3 Disjunctive

Disjunction is signaled by the presence of the disjunctive keɗe (which has the parallel kori in Teso-Turkana). Like índa ‘and/with’, keɗe ‘or’ can link both noun phrases and independent clauses. The following examples illustrate disjunction with keɗe and variety of verb and clause types:

(11) ...*paka deese yâŋa keɗe kwaatese nk.*

paka dē-ese yāŋ-a keɗe kwaât-ē-ese ŋk

until bring-VEN-SPS my.mother-NOM or birth-VEN-SPS I-NOM

...until my mother is brought (i.e. married) or I am born.

(12) *Ogoe njaposi,...*

ógo-e njap-3s-I-k'

let-IMP.SG open-PASS-3SG-SIML
Leave it open, or put something on it.

(13)  Kamiya noo die kede maa noo kamiyid?
like-PLUR-REAL=PST3 ones-DAT or not-PRF=PST3 like-PLUR-3SG=DP
Was it like these, or was it not like these?

10.2 Clause chaining

Clause chaining is the linchpin of Ik discourse. As defined here, it is the linking of one or more clauses with non-finite verbs to a clause with a finite verb. The syntactic relationship between the initial or controlling clause and the chained clauses is the subject of debate; some describe it as ‘quasi-coordinate’ (Haiman & Monroe 1983:xii) and others as ‘co-subordination’ (Van Valin & LaPolla 1997:455). It is not clearly coordinative or subordinative and thus may be considered a hybrid of the two (Schröder 2013a:2). In Ik, chained sequential clauses are more coordinative, while chained simultaneous clauses seem more subordinative.

In many languages, particularly outside of Africa but also in Ethiopia, a clause chain begins with a sequence of non-finite clauses culminating in a final clause that bears the TAM specifications of the whole chain. But in Ik, as in neighboring Teso-Turkana languages like Toposa, the clause chain begins with the controlling finite clause and is then followed by one or more non-finite clauses (Schröder 2013b:5). This ‘post-nuclear’ orientation of the clause chain is well-attested in Africa but rarer elsewhere (Payne 1997:321).

Ik exhibits two kinds of chained clause: sequential and simultaneous. The markers or indicators of these clauses are the verbal inflectors that bear the same labels (§7.8.1 for sequential, §7.8.2 for simultaneous). As the label
implies, sequential clauses in a clause chain carry the sequence of mainline or foregrounded information in any kind of text with sequential events. Simultaneous clauses, on the other hand, convey offline contextual circumstances that cooccur with events or states in clauses preceding them. The initial, controlling element that creates the TAM setting for a clause chain may consist of any non-chained verb or even an adverbial phrase.

**10.2.1 Sequential clause chains**

The analysis of sequential clause chaining in this grammar is only preliminary. But it should serve as an introduction to what could turn out to be a fruitful topic. Sequential clause chains communicate sequential states or events. As such, they are the predominant clause type found in narratives. Because of that, the sequential aspect had previously been called the ‘narrative mood’ (e.g. Heine & König 1996:76). But sequential clauses are found in many types of discourse, from narrative to procedural to expository to exhortatory, even imperative. Sequential clauses are marked with a combination of high-tone suppression and an eclectic paradigm of special subject-agreement suffixes (see also §7.7.1). The following table presents the sequential paradigm for *bɛ́ɗ* ‘want’ and *wet* ‘drink’. Note the inclusion of the sequential impersonal passive (*SPS*) marked by {ɛsɛ́}:

(14) Sequential verb paradigm

<table>
<thead>
<tr>
<th></th>
<th>Non-final</th>
<th>Final</th>
<th>Non-final</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>bɛ́ɗ-ia-a</td>
<td>bɛ́ɗ-ia-k’</td>
<td>wet-ia-a</td>
<td>wet-i-a-k’</td>
</tr>
<tr>
<td>2SG</td>
<td>bɛ́ɗ-ɪdu-ɔ</td>
<td>bɛ́ɗ-ɪdu-k’</td>
<td>wet-idi-o</td>
<td>wet-idi-k’</td>
</tr>
<tr>
<td>3SG</td>
<td>bɛ́ɗ-ɔ́-ɔ</td>
<td>bɛ́ɗ-ʊ́-k’</td>
<td>wet-u-o</td>
<td>wet-u-k’</td>
</tr>
<tr>
<td>1PL.EXC</td>
<td>bɛ́ɗ-ɪma-ɑ</td>
<td>bɛ́ɗ-ɪma-k’</td>
<td>wet-ima-a</td>
<td>wet-im-a-k’</td>
</tr>
<tr>
<td>1PL.INC</td>
<td>bɛ́ɗ-ɪsmʊ-ɔ</td>
<td>bɛ́ɗ-ɪsmʊ-k’</td>
<td>wet-isini-o</td>
<td>wet-isinu-k’</td>
</tr>
<tr>
<td>2PL</td>
<td>bɛ́ɗ-ɪtʊ-ɔ</td>
<td>bɛ́ɗ-ɪtu-k’</td>
<td>wet-iti-o</td>
<td>wet-itu-k’</td>
</tr>
<tr>
<td>3PL</td>
<td>bɛ́ɗ-ɪmɪ</td>
<td>bɛ́ɗ-ɪn</td>
<td>wet-ɪn</td>
<td>wet-ɪn</td>
</tr>
<tr>
<td>SPS</td>
<td>bɛ́ɗ-ɛsɛ</td>
<td>bɛ́ɗ-ɛs</td>
<td>wet-ɛsɛ</td>
<td>wet-ɛsɛ’</td>
</tr>
</tbody>
</table>
The following excerpt from a 3-person narrative serves to illustrate some of the morphological, syntactic, and discourse characteristics of chained sequential clauses. Note the sequential markers in bold print and the introductory temporal phrase *na kónító ódoue baratso* ‘One day, in the morning…’ that sets the temporal context for the clause chain that follows:

(15) *Na konto odowue baratsoo,*  
*[na=kón-it-ó ódou-e barats-o6]ADV  
CONJ = one-SING-INS day-GEN morning-INS  
One day, in the morning,

*ipuo taƙaikak,*  
*[ip-u-o taƙá-ika-k^e]SEQ1  
cast-3SG-SEQ shoe-ACC  
he cast (his) shoes (in divination),

*eguo taƙaika ebak,*  
*[eg-u-o taƙá-ika ɛ́ba-k^e]SEQ2  
put-3SG-SEQ shoe-PL-NOM gun-ACC  
and the shoes made (the shape of) a gun,

*ipuo naɓo,*  
*[ip-u-o naɓ0]SEQ3  
cast-3SG-SEQ again  
and he cast (them) again,

*egini ebak.*  
*[eg-ini ɛ́ba-k^e]SEQ4  
put-SEQ gun-ACC  
and they made a gun.

The chained clauses in (15) carry no TAM information apart from the sequential aspect that shows the semantic relationship of sequentiality with
all preceding clauses, starting with the temporal NP *baratsoó* ‘in the morning’. What is not shown in (15) (for reasons of space) is that at the beginning of the narrative, the tense of the narrative is set in the remote past first of all with the adverbial phrase *kam-ɔ*=nɔɔ *lopiarie* ‘in the year of Lopiar,…’, in which the relative pronoun nɔɔ marks remote past tense.

The clause chain in (15) is taken from a narrative, but sequential clauses are also found in other texts, for example one with an imperative controller:

(16) *Kae Kaabonjik,*

[ka-e kaaɓɔ́ŋɪ6kᵋ]IMP

go-IMP.SG Kaabong-DAT

Go to Kaabong,

*dzigweiduo riy,*

[dzígw-e-idú-ó ri-ɔ]SEQ1

buy-VEN-2SG-SEQ goat-NOM

buy a goat,

*deiduo awak,*

[d-é-ídú-o awá-kᵋ]SEQ2

bring-VEN-2SG-SEQ home-DAT

bring (it) home,

*toŋoliduk,*

[toŋɔ́l6ɪ́dʊ6 kᵋ]SEQ3

slaughter-2SG-SEQ

slaughter (it),

*ilakasitukodukoo jak.*

[ɪlák6ás6ɪt6ʊƙɔ6ɪdʊ6 kɔ́ = ɔ́ ʝak₆ᵃ]SEQ4

happy-ABST-CAUS-COMP-2SG = DP elders-NOM

and make the elders happy with it.
The sequential impersonal passive (SPS; §7.9.4) is found in the same types of discourse as the non-passive sequential forms. Like the impersonal passive (§7.9.3), the SPS omits and depersonalizes the subject (A/S) of the verb to which it affixes. It is found on both transitive and intransitive verbs, as in Ṙke-es‘ ‘And it is/was eaten’ and ke-es‘ ‘It is/was gone (i.e. ‘people went’).

The following excerpt from an expository/procedural text illustrates the use of the suffix {-esɛ} encoding sequential passivized activities. In this text, part of the procedure for grinding snuff tobacco (a favorite among the Ik) is laid out in a step-by-step sequence. The agent carrying out the procedure is not in view, though all sequential verbs in this excerpt are transitive. In lines 2, 4, 6 & 7, the objects of the passivized verbs are overt, encoded as subjects in the nominative case. In line 5, they are left implicit:

(17) 1 Naa iryametanie gwasak,
[ naï  iryám- ě-t-an-i- ě  gwasá- k*]₃ADV
CONJ get-VEN-IPS-SIML stone-DAT
When a stone is gotten,

2 Ṙweese ɲabalanţi.
[ŋu-ese ɲabáláŋtǐ-ə]₃SEQ1
grind-SPS soda.ash-NOM
soda ash is ground.

3 Naa ɲabalanţiia iwidimeti,
[ naï  ɲabáláŋtǐ-á  iwid-ím- et-i-k*]₀ADV
CONJ soda.ash-ACC pulverize-MID-INCH-3SG-SIML
When the soda ash is finely ground,

4 Ṙgeesee lotoɓ,
[eg-eses e lɔ́tɔ́ɓ ]₄SEQ2
put-SPS = DP tobacco-NOM
tobacco is put in it,
5 *nda ɲweese paka ɲapudumukotuk,*  
[ńda ɲo-esse páka ɲapúd-úm-ukot-u-ka³]_{SEQ3}  
and grind-SPS until powdery-PHYS2-COMP-3SG-SEQ  
and it’s ground until it becomes powdery,

6 *ikakeese dakwin,*  
[ikáké-esse dakw-in-∅]_{SEQ4}  
separate-SPS wood-POSS.PL-NOM  
and its woody stems are separated out,

7 *ogweese nayaa ɲapudum,*  
[ógo-esse nay-á ɲapúd-úm-∅]_{SEQ5}  
leave-SPS where-NOM powdery-PHYS2-REAL  
and the powdery part is left,

8 *nda ipapeesi cuo misí mes.*  
[ńda ipápé-ésí cu-o misí mes-²]_{NORMALIZED COMPL}  
and moisten-SPS water-INS either beer-INS  
and it is moistened with either water or beer.

As (17) shows, sequential clause chains can be interrupted and reinitiated by adverbial clauses expressing simultaneity, marked by the conjunction *náá.* Such clauses encode temporality relative to the sequential clauses that follow them, not the absolute temporality set by the controlling clause.

On a continuum between coordination and subordination, sequential clauses are more coordinative. This is reflected syntactically in their invariable VSO constituent order and canonical case marking, both characteristics of unmarked main clauses. The next examples—the first a non-past realis clause and the second a sequential clause—both have VAO order with nominative-marked subjects and accusative-marked objects:
At the same time, chained sequential clauses are subordinate to, or dependent on, a preceding TAM-specifying element. In that sense, they are subordinate—but at a supra-clausal rather than intra-clausal level.

### 10.2.2 Simultaneous clause chains

Simultaneous clause chains communicate circumstances cooccurring with the event or state in the preceding clause. The preceding, controlling clause can be any kind of clause: realis, sequential, imperative, or even another simultaneous clause. The simultaneous marker is the suffix \(-kɛ\) attached to the underlying (irrealis) forms of the subject-agreement suffixes. The following table shows this in paradigms for \(bɛ́ɗ\) ‘want’ and \(wêt\) ‘drink’:

<table>
<thead>
<tr>
<th>(19) Simultaneous verb paradigm</th>
<th>Non-final</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG bɛ́ɗ-ĩ́ɪ-ke</td>
<td>bɛ́ɗ-ĩ́ɪ-kᵊ</td>
<td>wet-ĩ́-ke</td>
</tr>
<tr>
<td>2SG bɛ́ɗ-ĩ́dᵊ-e</td>
<td>bɛ́ɗ-ĩ́dᵊ-kᵊ</td>
<td>wet-ĩ́-e</td>
</tr>
<tr>
<td>3SG bɛ́ɗ-ĩ-e</td>
<td>bɛ́ɗ-ĩ-kᵊ</td>
<td>wet-ĩ-e</td>
</tr>
<tr>
<td>1PL.EXC bɛ́ɗ-ĩmᵊ-e</td>
<td>bɛ́ɗ-ĩmᵊ-kᵊ</td>
<td>wet-ĩmᵊ-e</td>
</tr>
<tr>
<td>1PL.INC bɛ́ɗ-ĩsᵊ-e</td>
<td>bɛ́ɗ-ĩsᵊ-kᵊ</td>
<td>wet-ĩsᵊ-e</td>
</tr>
<tr>
<td>2PL bɛ́ɗ-ĩtᵊ-e</td>
<td>bɛ́ɗ-ĩtᵊ-kᵊ</td>
<td>wet-ĩtᵊ-e</td>
</tr>
<tr>
<td>3PL bɛ́ɗ-ātᵊ-e</td>
<td>bɛ́ɗ-ātᵊ-kᵊ</td>
<td>wet-ātᵊ-e</td>
</tr>
</tbody>
</table>

As seen in (19), the simultaneous verb paradigm is all regular, apart from the non-final 1SG form which contains the final form of \(-kɛ\). This is because the non-final form would create a dispreferred tri-vowel sequence.
Non-finite simultaneous verbs appear in both a) preposed adverbial clauses introduced by a conjunction and b) post-posed chained clauses without a conjunction. It is only the latter type that is considered a chained clause, though both types are common in discourse. In the following excerpt from the same narrative sampled above (15), both types of simultaneous clauses are present, but only the chained clauses are indicated with bold print:

(20)  

\[
\text{Na } \gamma\text{abu } \kappa\text{otie, zikini } ntsia \text{ deikao,} \\
\text{[na=} \gamma\text{ab- } \kappa\text{ot-1-e]}_\text{ADV} \quad [z\text{ik-}i\text{ni } ntsi-} \text{a } d\text{e-i}ka-3]_\text{SEQ} \\
\text{CONJ = finish- COMP-3SG-SIML tie-SEQ he-ACC leg-PL-ABL} \\
\text{When it finished, they tied him up by the legs,}
\]

\[
\text{nda xikesu } \kappa\text{otot } ntsie \text{ dakuk,} \\
[\text{n}da \quad [\text{k}ik-\text{e}s- } \kappa\text{ot}i \quad ntsi-} \text{e } d\text{ak}\text{u-k}^\prime]_\text{NOMINALIZED} \\
\text{and hang-INF-AND[OBL he-GEN tree-DAT} \\
\text{and they hung him in a tree,}
\]

\[
\text{ikaa iyie kijee} \\
[ik\text{a-}a \quad i-i-e \quad kij-e]_\text{SIML1} \\
\text{head-ACC be-3SG-SIML ground-DAT} \\
\text{his heading (being) down,}
\]

\[
\text{tudulik.} \\
[tudul-i-k^*]_\text{SIML2} \\
\text{upside.down-3SG-SIML} \\
\text{(being) upside down.}
\]

In (20), the first chained simultaneous clause, \text{ik\text{a-}a iyie kijee ‘his head (being) down’} is controlled by the directly preceding clause with the nominalized verb \text{zik\text{e}suk}\text{ot}^\prime. The second chained clause, \text{tudulik}, consists only of the verb and is controlled by the simultaneous clause directly preceding it.
On a continuum between coordination and subordination, simultaneous clauses fall closer to subordination. This is evident syntactically in that a) they exhibit the SVO constituent order of other subordinate clauses and b) any overt core arguments, regardless of the grammatical person and number of the subject, take the accusative case as in other subordinate clauses. The third line from (20) is repeated in (21) to illustrate these points. Note that the constituent order is SV, and the overt subject, *ikáá* ‘head’ is both preverbal and marked in the accusative case:

(21) 
...*ikaa iyie kije*,

```
   iká-á     i-í-ë     kije-ëPERIPHERAL
   head-ACC  be-3SG-SIML ground-DAT
```

...*(his) head (being) down,*

The subordinate nature of simultaneous chained clauses is also seen discursively in that they take the sequence of events temporarily ‘offline’. For example, in a narrative, they interrupt the mainline to provide contextual details like the fact that the guy’s headed was hanging down, upside-down. To get back to the mainline sequence, a pre-posted simultaneous clause is often used. This occurs a few lines later in the story of (20), after the man’s wife got worried and went to look for him:

(22) *Na kayie, itayoo amee inenosik.*

```
   [na=ƙai-e]ADV  ita-í-ë     ame-ë  [inénó-ós-i-k*]SIML
   CONJ = go-3SG-SIML reach-3SG-SEQ person-DAT hang-PASS-3SG-SIML
```

*When she went, she found the guy hanging.*

Lastly, chained simultaneous clauses may function in specific ways: as adverbial manner clauses (§9.6.2), as one of the complementation strategies (§9.11.2), and in bi-clausal comparative constructions (§9.13.2). These three functions are reiterated here with one example each. In (23), the simultaneous clause relates the manner in which a fire climbed up a hill:
In this second example, the chained simultaneous clause acts as a complement to the main verb *itámáán* - ‘behoove/necessitate’:

(24)  

*Itamaana*

itámáán-a
necessitate-REAL
It is necessary (that)

*bedetiike koneenia awee bik.*

[béd-ét-í-kɛ́  kóní-ɛ́n-f-a  awé-é  bi-kɛ́]SIML
want-VEN-1SG-SIML  one-PSSM-ACC  home-GEN  you.SG-DAT
I look for another home for you.

And in this last example, the chained simultaneous clause acts as an adverbial manner clause in a bi-clausal comparative construction:

(25)  

*Kwatsa ntsa iloyee nciik.*

kwáts-a  nts-a  [ilš-í-ɛ́  jíci-kɛ́]SIML
small-REAL  he-NOM  defeat-3SG-SIML  I-ACC
He’s smaller than me.
Appendix A—Sample Texts

The following five sample texts exemplify different genres of Ik discourse: narrative, procedural, expository, animal fable, and proverbial. The texts are presented mostly clause by clause (with some exceptions) and are interlinearized in four lines with: 1) the popular orthography, 2) the linguistic orthography (morphologically analyzed), 3) analytical glosses, and 4) translation into English. The translation is a balance between idiomatic and literal. An attempt has been made to render the Ik into natural English, for the most part, with clarifying comments were necessary.

1 Lɔŋɔ́tᵃ (Enemies)

This first text is a written narrative, mostly in the third person but intertwined with a first person perspective (that of the narrator). The author is Longoli Philip from Timu. The story is about a time when Turkana warriors ambushed the author's village, threatening people's lives and stealing food and other belongings. It describes a typical scenario, one that is unfortunately still too often repeated to this day (i.e. 2014).

Kono kainie noo iyaanee Mayee Đkw,

mita noo kiʝa otae,

mit-a = noo  kiʝ-á  otáí
be-REAL = PST3  land-NOM  dry.season[OBL]

it was dry season,
nda iyiima noo Baratiawak.
ňída i-i-ím-a = noo barati-áwa-k
and be-PLUR-1PL.EXC-REAL = PST3 fig.tree-home-DAT
and we were at Fig Tree Place.

Mita noo kija odow, didia watik.
mít-a = noo kí-j-á ódo-v didi-a wát-i-k
be-REAL = PST3 land-NOM day[OBL] weather-ACC rain-3SG-SIML
It was daytime, pouring rain.

Na didia watie,
na = didi-a wát-i-
CONJ = weather-ACC rain-3SG-SIML
As it was raining,

iya noo gozowa jii, budamie tik.
i-a = noo gózow-a = jii budám-i-e tik
be-REAL = PST3 mist-NOM = also dark-3SG-SIML EMPH
there was also mist, totally dark.

Na saranie epa hoikoo,
na = sár-áni-é ep-a hó-íko-o
CONJ = still-IPS-SIML sleep-REAL hut-PL-ABL
When people were still sleeping in (their) huts

duo nuu didia watee,
dí-ó = nuu didi-a wat-é-e
ones-ABL = REL.PL.PST3 weather-ACC rain-REAL = DP
because it was raining,
A gun was heard going off.

At the sounding of the gun,

the enemies ran by the home in both directions,

it being (an attempt) to meet, but meeting stymied them

because the strong outer fence

was on the side next
Fataraakee xaino gai.
fátára-ake-e ja-in-o 'gái.
vertical.ridge-mouth-DAT direction-POS.PL-INS both
to the top of the vertical ridge in both directions.

Enesa ntie toimenaa
en-és-á ńtí-e toimen-a
see-INF-NOM they-GEN COMPL-ACC
Upon their seeing that

Ityoonukotaa imanona ntie awoo xaino muñu,
itión-ukot-á-á imán-ón-a ńtí-e awó-ó ja-in-o muñ
difficult-COMP-REAL-PRF meet-INF-NOM they-GEN home-ABL dir.-POS.PL-INS all
their meeting around the home from all directions had become difficult,

Damatini awaa bubuno kontiaak.
damat-ini awá-á bubun-ɔ kóń-t-ák
pelt-SEQ home-ACC coals-INS one-SING-
they opened fire on the home straightaway.

Bunumoo ja roɓa
bun-óm-ɔ=ja roɓ-a
split-MID-3SG-SEQ = ADV people-NOM
So then people scattered

Nuu iyata koo kwaro awae.
=nuu i-át-a kó kwar-o awá-ɔ
=REL.PL.PST3 be-3PL-REAL there:DAT mountain-INS home-GEN
who were on the far upper side of the home.
With the other people,
**kaatie muŋu fataaraakak.**
go-3PL-SIML all vertical.ridge-mouth-DAT
going all to the top entrance of the vertical ridge.

*Napei roɓaa bunumee,*

from people-ACC split-MID-REAL = DP
From the time people dispersed,

*ama na tsamu gooza imaa kanee nda dzeron,*

person-NOM = REL SG just throw-REAL child-ACC back-DAT and tear-INF
anyone who just threw (their) baby on (their) back and tore off,

**kaini kaatie mariŋikagwariik.**
go-SEQ go-3PL-SIML inner.fence-PL[OBL]-top-PL-INS
went going by way of the tops of the inner fences.

*Toni wice, na mitoo ɗi dakwaa dzera,*
even children[OBL] CONJ = be-3SG-SEQ one[OBL] wood-ACC tear-REAL
Even the children, if it was one that (a piece of) wood tore,

*moo weretsukot, naikotuk.*
not-SEQ cry.out-AND-3SG endure-COMP-3SG-SEQ
he did to cry out but endured it.
So then people were going to hide themselves at the entrance of the ridge.

And it kept on raining.

And people endured the weather;

it was only the issues of the enemies that were difficult.

There had been one man

who had not seen people dispersing
duo nanoo epee mododok.
do-d na=noo ep-é=e mɔɗɔ́ɗɔ́kᵃ
ones-ABL PRF=PST3 sleep-REAL=DP cocoon-ACC
because he had been sleeply soundly.

Arutona ebitinie,
arút-ón-a ɛ́b-ɪ́tɪ́nɪ́-ɛ
sound-INF-NOM gun-PL-GEN
The sounding of the guns,

ntsuo tukureta ntsia nda ja ntsi jii dzeron,
ntsí-ó tukur-et-a ntsí-á ā̃da=ja ntsi =jɪ jì dzer-ɔn
it-COP jolt-INCH-REAL he-ACC and = then he[OBL] = also tear-INF[OBL]
that’s what jolted him, and then he too tore off

tubie mucea taŋaikinie awo gigirok.
túb-i-e muce-á taŋá-řk-ĩ-mi-ɛ aw-o ɡígiro-kᵉ
follow-3SG-SIML path-ACC cohort-PL-POSS,PL-GEN home-INS down-DAT
following the trail of his companions downwards by way of the home.

Moo fiyei toimenaa
mo-o fiye-i tóimena-a
not-SEQ know-3SG COMPL-ACC
And he did not know that

ɓuketa nabee logota awaakok.
ɓu-k-et-a ná=bee ɓəŋt-á awá-áƙo-kᵉ
enter-VEN-REAL INFR=PST1 enemies-NOM home-inside-DAT
the enemies had apparently entered inside the home.
While the enemies were still pillaging the huts,

granaries, and as they caught chickens,

They tied the guy and kept on gathering up belongings.

Neither did they beat (him).

It was just a matter of them saying to him,
“Kaa naa roɓa ndaik?”
ƙa-a = náa   roɓ-a   ndaí-kᵊ
go-REAL = PST1  people-NOM where-DAT
“Where did the people go?”

Raʝetuo ntsa kutoo “Nta fiyeii.”
ráʝ-ét-i-o   nts-a   kut-ɔ-ɔ   ŋt-á   fiye-i'
return-VEN-3SG-SEQ  he-NOM  say-3SG-SEQ not-REAL  know-1SG
He replied and said, “I don’t know.”

Na konia loŋotomee kwatsa atsie,
na=kɔnɪ́-á   lɔŋɔ́tɔ́mɛ́-ɛ   kwáts-á   ats-i-e
CONJ  = one-ACC  enemies-SING-GEN  small-REAL  come-3SG-SIML
When a small one of the enemies came,

n oo moo iyi, ikametanie ntsia,
= noo  mó-ó  i-i  ikáм-ét-aní-é  ntsí-á
= REL.SG.PST3  not-SEQ  be-3SG  catch-VEN-IPS-SIML  he-ACC
who was not there when he (the Ik) was caught,

iɗafoo ntsik,
iɗáf-ɔ  ntsí-kᵊ
slap-3SG-SEQ  he-ACC
he slapped him (the Ik),

dódio obo idzesik
dóɗ-u-o  ğb-ɔ  ídz-esi-kᵊ
point-3SG-SEQ  gun-INS  shoot-INF-DAT
aimed with the gun to shoot,
nda ama weretsonukot.

ń‘da ámá weréts-án-ukɔt‘
and person[obl] cry.out-INF-AND[obl]
and the (Ik) guy cried out.

Kutuk, “Ogoe nci, abaŋǃ”
kut-u-k’ ógo-e jìci abáŋ-ɔ
say-3SG-SEQ leave-IMP.SG I[obl] my.father[obl]
He said, “Leave me, my father!”

Nesibesa kidiasayee logotee
nesíb-es-a ki = diá = sai-é lọŋtẹ-ẹ
hear-INF-DEF = ones = other-GEN enemies-GEN
When the other enemies heard

amaa weretsukotie,
ámá-a weréts-ókɔt-i-ẹ
person-ACC cry.out-AND-3SG-SIML
the guy crying out,

kutini ɗìimee ne,
kut-ìì ì-ime-e = ne
say-SEQ one[obl]-child-DAT = DEM.SG.MED
they said to that little (Turkana) guy,

“Eja ceida logotoma ngoe!
ej-á cé-id-a lọŋt-5m-a ọgọ-ę
not-REAL kill-2SG-REAL enemies-SING-NOM we.EXC-GEN
“Don’t kill our enemy (the captured Ik man)”
Benia naa bi.
beni-a = náa
not.be-REAL = PST1
It wasn’t you.

Ngoo naa ikametim
ŋgó-ó = naa
we.EXC-COP = PST1
catch-VEN-1PL.EXC-REAL
It was we who caught (him),

nda ngoo aminio ceesim.”
ńi’dá  ŋgó-ó
and we.EXC-COP
we.person-POSS.PL-COP
kill-INT-1PL.EXC-REAL
and it is we, the ones responsible for him, who will kill (him).”

Nesibesa amee logotee ni todetatie,
nesib-es-a
hear-INF-NOM
person-GEN
enemies-GEN = DEM.PL
When the guy heard these enemies talking (this way),

todziyoo gured.
todi-ú-o
stop-3SG-SEQ
his heart stopped.

Kutoo guro, “Badukotia kontiaakt!”
kutọ-ọ
say-3SG-SEQ
die-INS
die-INS
He thought (lit ‘said by heart’), “I’m going to die straightaway!”
Then they collected the things they plundered in one place.

And they freed the guy and said to him, “Cook!”

And again they said to him, “Grind!”

When he finished grinding, he cooked (posho).

The cooking finished, they said to the guy,

“Go sit beside that food.”
Garesini koto nta amina nda nkaka nti,
ger-és-íni =koto ńt-á ám-í̄n-a ń’da njá́ká ńtí-∅
serve-IPFV-SEQ =then they-NOM person-POS.PL-NOM and food[OBL] they-GEN
Then they served themselves with their food,

rebinī amak.
ré-b-íni ámá-k̄
deny-SEQ person-ACC
but denied the (Ik) guy (any food).

Na ciaakotatie, kisanini kuruɓadiicikaa nti.
na =ci-áá-kot-áti-e kisán-íni kúrúɓádi-iciká-a ńtí-∅
CONJ =sated-DISTR-COMP-3PL-SIML divide-SEQ things-VAR.PL-ACC they-GEN
When they got full, they divided up their possessions.

Na enatie toimenaa isesukotataa,
na =en-áti-e toimena-á is-és-úkot-át-a-a
CONJ =see-3PL-SIML COMPL-ACC heavy-IPFV-3PL-REAL-PRF
When they saw that they had got overloaded,

kutini amee, “Menaicikoo bitie kidāa.
kot-íni ámé-e mná-icikó-o biti-e ki =dí-á
say-SEQ person-DAT things-VAR.PL-COP you.PL-GEN MED =ones-NOM
they said to the (Ik) guy, “Your things are those.

Kaed, napei duo aea nda dì ts’agwā.”
ka-é=d’ napei dí-ó aë-a ń’da dì ts’ágwá-∅
go-IMP.SG =DP from ones-ABL ready-REAL and ones[OBL] raw-REAL
Go with them, from the ready (cooked) ones to the raw ones.”
Dođini ja muceek.
dódíni = ja  muceé-k
point-SEQ = then  path-ACC
Then they took off.

Kutini amee, “Imaxane ja birobeb!
kut-uni  ámé-e  imáfán-e = ja  bi-rófá-k
say-SEQ person-DAT greet-IMP.SG = then  you.SG-people-DAT
And they said to the guy, “Greet your people then!

Atsima naa
ats-ím-á = naa
come-1PL.EXC-REAL = PST1
We came (earlier today),

mitie ijalaesì bitie iriametone nkakee
mit-í-e  njaal-êsi  bití-e  iriám-ét-oni-e  nkoaké-e
be-3SG-SIML frighten-INF[OBL] you.PL-GEN acquire-VEN-INF-DAT food-DAT
it being (a matter of) frightening you to get food

duo rebittee ngwaa
dí-ò  réb-i-ité = e  nkoá
ones-ABL deny-PLUR-2PL-REAL = DP we.EXC-ACC
because you deny us (food)

nee kutimee bitie
nêé  kut-ím-ê = e  bití-e
CONJ say-1PLEX-REAL = DP you.PL-DAT
when we say to you
‘Biroo ngo odoiciko ni atsiimad’.

assist-IMP.PL we[OBL] day-VAR.PL-INS = REL.PL come-PLUR-1PL.EXCL-REAL = DP

‘Assist us on the days that we usually come’.

Na koto enie toimenaa kaa logota muju,

CONJ = then see-3SG-SIML COMPL-ACC go-REAL enemies-NOM all

So when he (the Ik man) saw that all the enemies were going,

woyuo roɓaa fatarakaakoo.
call-3SG-SEQ people-NOM vertical.ridge-mouth-ABL

he called the people from the entrance of the vertical ridge.

Kutoo, “Ee, roɓa noo fatarakkee,
say-3SG-SEQ yes people[OBL] there:DAT vertical.ridge-mouth-DAT

He said, “Hey, people at the top of the vertical ridge,

itetuo kaa logot!”

return-VEN-IMP.PL go-REAL enemies-NOM

come back, the enemies are going!”

Atsesukoo ja roɓ.
come-IPFV-3SG-SEQ = DP = ADV people-NOM

So people started coming back from there.
They discovered the things that were missing from their homes, and found those that were there and those that were not.

So later when people were telling stories at the sitting place in the evening,

one of the elders said,

“Hey people, why did the children not cry when we fled, the inner fence tearing (us) up?
Ikwa fiyea wika jii badonia toimenaa gaana?"
So (does this mean) children also know that death is bad?"

Fekuo roba detedetanin.
And people fell all over laughing.

Ita noo koto emuta
So the story

noolonotaawakatee ngots'edee.
of the enemies playing with us amounted to that.
2 Rókés (Beekeeping)

This second text is an example of the ‘procedural’ genre in Ik. Its author is again Longoli Philip. The text describes various procedures involved with beekeeping. Beekeeping is an activity central to Ik culture as it provides a high-energy food as well as a source of income. In the surrounding areas, the Ik are known as expert beekeepers or wild-honey gatherers.

Mita rokesa irtisisi ts'ikae nda nkaka dadae.
mit-a rók-és-a irtis-ésí ts'iká-e ń'da ṅkáká dada-e.
be-REAL beekeep-INF-NOM tend-INF[OBL] bees-GEN and eating[OBL] honey-GEN
Beekeeping is tending bees and eating honey.

Bunetana kanaxa, sotes,
śó-n-é-t-an-a kanaʃa-∅ sot-es
cut.cylindrical.object-VEN-IPS-REAL beehive-NOM carve-SPS
A beehive is cut (from a hollow tree), carved,

ń'da ber-et-ésí makúl-ìka-e.
and braid-INGH-INF[OBL] grass.hive.cover-PL-GEN
and grass beehive covers are braided.

Na itayee rokesik,
na=íta-i-ŋ rók-ési-k-e
CONJ =reach-3SG-SIML beekeep-INF-ACC
When it reaches (time for) beekeeping,

kawése kodótki, titirik nda rikwitin.
káw-é-esé kódétyt-iŋ-titiř-ik-Ø ń'da rikw-itin
cut-INGH-SPS hooked.stick-PL-NOM forked.stick-PL-NOM and pole-PL[OBL]
hooked sticks, forked sticks, and long poles are cut down for use.
Kaweeze naɓo mịzi₃,
kàwé-ese nàbó mịzi₃-∅
cut-INCH-SPS again vine.rope-NOM
Moreover, vine rope is cut for use,

ṇɗa ɲurutietesi kakee
ńɗa ɲur-ut-i-et-ēsi kàkè-ê
and cut-CAUS-PLUR-INCH-INF[OBL] leaves-GEN
and leaves are all diced up

ni sisibesie kanaxae.
=ni sisìb-esì-ê kanaʃa-∅
= REL.PL rig.with.leaves-INF-DAT beehive-GEN
that are for rigging the beehive with leaves (to lure bees).

Itsëkeese koto dakwa
ítsëkè-ese=kòtò dàkw-a
prepare-SPS then tree-NOM
Then the tree is prepared

na mita ntsi rokesanee kanaxaak,
= na mìt-a ntsì ròk-ēs-an-ē=e kanaʃaa-k∅
= REL.SG be-REAL it[OBL] beekèep-INT-IPS-REAL = DP beehive-ACC
that is the one the beehive will be kept in,

ṇɗa ìpeteesi naye epitesukotanee kanaxaak.
ńɗa ípeté-ēsì nai-ê ep-ìt-ésukot-an-ē=e kanaʃaa-k∅
and form-INF[OBL] there-GEN lie-CAUS-INT-AND-IPS-REAL = DP hive-ACC
and the place is ‘platformed’ where the beehive will be laid down.
Zikese kanaxa nda ineneesuƙoti dakuk.

The beehive is then tied and hung up in the tree.

Epituƙwese nda zikes.

It's laid down and tied down.

Na nabukotik, kokese akina makuliko

When (that's) finished, its openings are shut with grass hive covers,

ndα sisibesi egesee koto irurubesik.

it's rigged with leaves, and then sticks are put in it to support the covers.

Kokesukota akinie,

After the openings are closed up,

idoŋidogese dakaimo gwariedeo.

it is rapped on its top with a little stick.
Kutoo koto ro kesiana,
say-3SG-SEQ =then beekeep-INF-AGT.SG-NOM

And then the beekeepers says,

“Wowooj, atse Ronotu, Lopuwaa,
whistle[IDEO] come-IMP.SG Ronotu-ABL Lopuwaa-ABL
“(Whistling), come from Ronot, from Lopuwa,

Lopokoko, Morujoolee, mmm...”

from Lopokok, from Morujoole, (humming).”

Nda ja kanaxaa ineton
and=then beehive[obl] inhabit-VEN-INF[obl]
And then the beehive is inhabited

nee itaee odeedek.
reach-REAL =DP day-POSS.SG-ACC
when it reaches its day.

Zekoo koto aragwaniko kede kainiko ni zekwad.
sit-3SG-SEQ =then month-PL-INS or year-PL-INS =REL sit-REAL =DP
And then it sits for (however many) months or years that it sits.
When the bees (i.e. honey) get sweet,

one goes to have a look (at them).

When one goes to look, one carries these things:

a leather bag, fire, a vine rope—and then one goes.

the hooked sticks are confirmed (to see) if they are in good shape.
When it has started getting dark, fire is kindled,

and the honey-checker climbs up into the tree.

And then the man on the ground ties the leather bag

and the leaves that are for rigging the hive (to lure more bees)

when scooping (the honey) is over with,

(all the while) there is a spatula or flat lids inside the leather bag.
Na jiroo zikoo kaʒok, ineneikotuk.
na = jír-ɔ zík-ʒ-ɔ kaʒo-ŋ ak-ɛ inéné-ikot-u-ŋ
CONJ = after-INS tie-3SG-SEQ torch-ACC hang-AND-3SG-SEQ
Later, he (the honey-checker) ties a torch and hangs it up (in the tree).

Itoona kaʒoe, ipukukod,
rt3-ŋn-t káʒo-e ipúk-ú-kó = d’
reach-INF-NOM torch-GEN fan-3SG-SEQ = DP
When the torch reaches (the hive), he (the checker) fans it (lit. ‘on it’)

nda ŋaɲesi akoo na moo ts’uwid.
ń’dá ŋáɲ-ɛsɪ akó-ŋ = na mó-ɔ ts’uw-i = d’
and open-INF OBL mouth-ABL = REL.SG not-SEQ come.and.go-3SG = DP
and opens (the hive) at the opening that bees aren’t coming and going from.

Ntsuo mita ntsi ɗaɗaa iyad.
ntsí-ŋ mít-t ntsi dáda-a i-á = d’
it-COP be-REAL it OBL honey-ACC be-REAL = DP
It’s the one (opening) that the honey is at.

Na mitie aka na ts’uwad,
na = mít-t ɛ aka = na ts’uw-á = d’
CONJ = be-3SG-SIML mouth = REL.SG come.and.go-REAL = DP
As for the opening that bees come and go from,

mita kidaa sed.
mít-t k1 = dá-á séd be-REAL MED = one-NOM field OBL
that one is the ‘field’ (where bees raise larvae).
Eating honey from the treetop is customarily prohibited,

nee gonanee kanaxaak.

whenever a beehive is being checked.

If honey is eaten from the tree top,

the person (who did it) throws himself down, according to Ik custom.

Then when scooping (the honey) is over with,

he (the checker) slings the leather honey bag down to the ground.
Ikamukotoo koto da kijoo eook,
kam-and-3SG-SEQ = then one-NOM land-ABL leather.bag-ACC
And then the one on the ground catches the leather bag

Kidzimetesuo dusesinema kijak.
kidzim-et-es-i-o = then one-NOM land-ABL leather.bag-ACC
while the scooper man descends back to the ground.

Naa koto nee kidiakonia itetee kijaa,
naa = then one-NOM land-ABL leather.bag-ACC
reach-VEN-REAL = DP land-ACC
Then when that one reaches the ground,

Dusetini koto dia mita nkam,
dus-et-ini = then one-NOM land-ABL leather.bag-ACC
they scoop out the eatable (honey),

Nda atsoni awee nee awaa fiyotogad.
nda = and come-INF[OBL] home-DAT then one-NOM be-REAL eat[OBL]
and come home if home is near.

Naa awaa yekie, epin.
naa = then one-NOM home-ACC far-3SG-SIML sleep-SEQ
If home is far, they sleep.
3 Ceŋ (Woodpecker)

This third text, also written by Longoli Philip, is an example of the ‘expository’ genre. It gives insight into the Ik practice of divination, in this case a combination of Angang ‘seeing a bird or an animal on a journey’ and augury ‘watching the flight of birds’ (Hiebert, Shaw, & Tiénou 1999:184). In this text, it is the woodpecker that reveals impending good or bad fortune to the traveler according to the direction from which its call is heard.

*Mita ceŋa gwaa*
mit-a ceŋ-á gwaa
be-REAL woodpecker-NOM bird[OBL]
A woodpecker is a bird

*na dodiya naɓaatikaa roɓak.*
= na dóc-f-i-a naɓáát-iká-a roɓa-ke
= REL.SG show-PLUR-REAL luck-PL-ACC people-DAT
that typically shows fortunes to people.

*Iwiya nee bekesanee muceeo.*
iw-i-á née bek-és-án-e = e muceé-o
strike-PLUR-REAL CONJ walk-IPFV-IPS-REAL = DP path-ABL
It usually calls (lit. ‘strikes’) when one is walking on the way.

*Iya koto bacikika ts’aguse*
i-a = kótó báci-k-ik-á ts’agúsé
be-REAL = then area-PL-NOM four
So there are four areas

*ni ceŋaa iwiyas:*
= ni ceŋá-á iw-i-á = de
= REL.PL woodpecker-ACC strike-PLUR-REAL = DP
that the woodpecker typically calls from:
Bacikika dii, ntuo da:
bácìk-ìk-á = ‘díí ńtí-o d-a
area-PL-NOM = ANPH.PL they-COP ones-NOM
Those areas, they are these:

wax, jir, nkakakwet, betsinakwet.
wàʃ-Ø ∪r-Ø ṃká-kwɛt-Ø betsíná-kwet-Ø
ahead-NOM behind-NOM eating-hand-NOM left-hand-NOM
ahead, behind, righthand side, lefthand side.

Na koto ama kede roɓa ṣekeṣin,
na = kótó ám-á kede robá ṣeke-ṣín
CONJ = then person-NOM or people[OBL] walk-IPFV-SEQ
So when a person or people go walking,

iwoo ceŋa waxu,
iw-i-o ceŋ-a wàʃu-Ø
strike-3SG-SEQ woodpecker-NOM ahead-ABL
and a woodpecker calls from ahead,

ntsuo toimena,
ntsí-ó toimen-a
it-COP COMPL-NOM
it means (lit. ‘it is’) that

koda waxie biraa mena iy.
kó-d-a wáʃi-e bir-a men-a i-a
go-2SG-REAL ahead-DAT lack-REAL issues-NOM be-REAL
you’re going ahead and there are no problems.
Naa iwie jiru, ntsuo toiminga

náa  iw-i-e  jiru  ntsí-ó  toimen-a
CONJ  strike-3SG-SIML  behind-ABL  it-COP  COMPL-NOM

If it calls from behind, it means that

iya kinimena waxie
i-a  kíní-men-a  waʃt-ɛ
be-REAL  some-issues-NOM  ahead-DAT

there are some problems ahead

ni raješetas bia jirik.
=ni  raj-et-és-át-a  bi-a  jirí-k’
=REL.PL  return-VEN-INT-3PL-REAL  you.SG-ACC  behind-DAT

that will return you back.

Naa moo miti nti,

náa  mo-o  mt-í  ntí
CONJ  not-SEQ  be-3SG  so

When it’s not like that,

kwiiɗoo iya kinimena ni iyata jirie
ku(t)-ɗa  i-a  kíní-men-a  =ni  i-át-a  jirí-ɛ
say-2SG-SEQ  be-REAL  some-issues-NOM  =REL.PL  be-3PL-REAL  behind-DAT

you (can) say there are some problems behind

ni raješukotata bik.
=ni  raj-és-ʊkot-át-a  bi-k’a
=REL.PL  return-INT-AND-3PL-REAL  you.SG-ACC

that will return you back (that way).
Naa iwie nkakakwetao,
náa  iw-i-e  ṉkáká-kweta-6
CONJ  strike-3SG-SIML  eating-hand-ABL
When it calls from the righthand side,

kwiidoo iya kinimena
ku(t)-udɔ-ɔ  i-a  kíni-men-a
say-2SG-SEQ  be-REAL  some-issues-NOM
you (can) say there are some problems

takanetesa kwetoo dee,
takan-et-ɛs-á  kwetɔ́-ɔ́  =`dɛé
appear-VEN-INT-REAL  hand-ABL = ANPH. SG
that will appear on that side (lit. ‘hand’),

kede koneena korobadie na enesukoid,
kede  kíni-ɛn-á  kórɔbbádi-e = na  en-ès-úkó-íd-ɔ
or  some-PSSM-NOM  thing-GEN  = REL. SG  see-INT-AND-2SG-REAL
or some thing that you will see,

misi inoo kede amak.
misi  inó-o  kede  ámá-k
whether  animal-COP  or  person-COP
whether it’s an animal or a person.

nda nabo mita toimen
ń’da  na bó  mit-a  toimena
and  again  be-REAL  COMPL[OBL]
And furthermore it means that
imanesida nda koneeni amee waxoo
iman-és-id-a ŋ'da kóni-én ámé-e wajú-ɔ
meet-INT-2SG-REAL with some-PSSM[OBL] person-GEN ahead-ABL
you will meet with someone ahead

kedé kinimen.
kedé kíní-men
or some-issues[OBL]
or some problems.

Naa iwie betsinakwetoo,
náa iw-i-e betsíná-kwetô-ɔ
CONJ strike-3SG-SIML left-hand-ABL
When it calls from the lefthand side,

kwidoô pàbaaαtu ná da
ko(t)-ûd-ɔ pàbááti-ɔ = ná da-∅
say-2SG-SEQ luck-COP = REL.SG nice-REAL
you (can) say it's the good fortune

na nkáee kede menicikikee
= na ŋkáké-e kede mená-iciké-e
= REL.SG food-GEN or things-VAR.PL-GEN
that is of food or of things

ni maranjaaka ni takana bie waxu.
= ni maran-áák-á = ni taken-et-á bi-e wajú-∅
= REL.PL good-DISTR-REAL = REL.PL appear-VEN-REAL you.SG-DAT ahead-ABL
that are good that (will) appear to you ahead.
4 Ámázea Máw³ (Mr. Lion)

This fourth text is one of many Ik ‘animal fables’. Its author is still Longoli Philip, though this is only his version of a tale well-known by many. Most Ik animal fables involve one animal being particularly clever and deceptive. In this story, told by Tortoise, Rabbit deceives all the animals into going to visit Mr. Lion, who has fallen ill. But Mr. Lion is well enough to eat every animal that comes into his cave. Tortoise realizes this before committing the same fatal error. Only Rabbit and Tortoise survive Mr. Lion’s feeding spree.

“Kainiko nuk”, kutoo Kaea,
kaɪ́nɪ́k6o=nukᵘ    kʊt6ɔ6ɔ   kaẽ-a
year-PL-INS = DEM.PL.PST3 say-3SG-SEQ tortoise-NOM
“Years ago,” Tortoise said,

“Mitiya noo Mawa amazeama inoe.
mít-i-á=noo    máw6á   ámá-ze-áma    ínó-ε
be-PL-REAL = PST3 lion-NOM person-big-person[OBL] animals-GEN
“Lion was the master of the animals.

Epiya noo pakwee mitie awa ntsí.
ep-í-a =noo    pakó-é    mit-i-e awa ntsí-∅
sleep-PL-REAL = PST3 cave-DAT be-3SG-SIML home[OBL] he-GEN
He used to sleep in a cave as his home.

Konto odowe, inuukotoo neba ntsík.
kóń-t-ó    odou-e    mú-úkót-ε-ε    néb-a ntsí-k³
one-SING-INS day-GEN weigh.down-COMP-3SG-SEQ body-NOM he-ACC
One day, he fell ill (lit. “the body weighed him down”).
Kutoo Tulua,
say-3SG-SEQ rabbit-NOM
Rabbit said,

“Inwa muɲu kaini enimosia nda Amazea Maw.”
animal(s)-NOM all go-SEQ see-RECIPI ACC with person-big-lion[obl]
“All the animals (should) go visit with Mr. Lion.”

Kot, na mitoo ino
but CONJ = be-3SG-SEQ animal[obl]
But, as for the animal

na kaa enimosia nda Amazea Maw,
that goes to visit with Mr. Lion,

ats'ukotoo kidda!
eat-COMP-3SG-SEQ DEF = one-ACC
he (Mr. Lion) eats that one all up!

Konto odowe,
one-SING-INS day-GEN
One day,
**Kayuo kæa enimosia nda Amazea Maw.**

Tortoise went to visit with Mr. Lion.

Na itayee pakwasakaa,

When he reached the cave entrance,

Enuo deikaa kaatie akwedee mën,

he saw all the footprints going inside,

Biresoo kida itetata biyak.

without any of them coming back out. Why?
Tametoo toimenaa
tám-ét-o-a toimena-a
think-INCH-3SG-SEQ COMPL-ACC
He thought that

iya kinimena itiyosa pakwaaƙo,
i-a kíní-men-a itíyá-ós-a pakó-áƙɔ-∅
be-REAL some-issues-NOM do-PASS-REAL cave-inside-ABL
there are some strange things being done inside the cave,

duo inoa
dí-ó ínó-a
ones-ABL animals-NOM
because the animals

ni kaa enimosia nda Amazea Maw,
=ni ka-a én-ímósí-a ń'da ámá-zea-máŋ
=REL.PL go-REAL see-RECIP-ACC with person-big-lion[OBL]
that go to visit with Mr. Lion,

biraa kiɗa iteta biyak.
brra-a ki=ɗ-a it-et-á biá-kŋ
lack-REAL DEF = one-NOM return-VEN-REAL outside-DAT
not a one comes back outside.

Enuo Kaea toimenaa
en-i-o kaɓ-a toimena-a
see-3SG-SEQ tortoise-NOM COMPL-ACC
Tortoise saw that
te ats’ukotaa ts’oo Amazea Mawa inoa
té áts’-úk’ot-á-á ts’òó ámá-zea-máw-á ínó-a
EMPH eat-COMP-REAL-PRF now person-big-lion-NOM animals-ACC
of course, Mr. Lion has likely eaten up the animals

ni kaiya enimosia nda ntsǃ
= ni ka-i-á én-ímós-i-a ñda ntsǃ
= REL.PL go-PLUR-REAL see-RECIP-ACC with he[OBL]
that are continuously going to visit with him!

Tametoo naɓo kutuk,
tám-ét-ɔ-ɔ naɓó kʊt-u-k’
think-INCH-3SG-SEQ again say-3SG-SEQ
He thought again and said,

“Nka jii, na koyaa pakwaakwee na
ŋk-a=jjí na =kó-ia-a pakó-aƙwe-e = na
I-NOM=too CONJ=go-1SG-SEQ cave-inside-DAT=DEM.SG
“I too, if I go inside this cave

enimosia nda Amazea Maw,
én-ímós-á ñ’dá ámá-zea-má
see-RECIP-NOM with person-big-lion[OBL]
to visit with Mr. Lion,

ats’esukotana nka jik,
áts’-és-uköt-an-a ŋk-a=jk’e
eat-INT-COMP-IPS-REAL I-NOM=too
I too will be eaten all up,
nda tezetoni fiyekesie ńci!
ń'da té-z-et-ɔnĩ fiyek-esi-ê ńci-∅
and end-INCH-INF[obl] live-INF-GEN 1-GEN
and my life will end!

Ts'edoo tametoo itionik,
ts'ëd-ɔ d-tám-ɛ-ɔ ñtí-ɔni-ka
there-ABL think-INCH-3SG-SEQ return-INF-DAT
From there he thought about going back,

nda kooni ntsie ntsiawak.
ń'da k-o-oni ntsi-ë ntsi-áwa-ka
and go-INF[obl] he-GEN he-home-DAT
and he went to his home.

Na mitie Tulu
na =mit-1-e tulú
CONJ =be-3SG-SIML rabbit[obl]
As for the Rabbit

noo imoda kidiasayaa inoe,
= noo mšd-á ki =díá-sáí-á inó-∅
= REL.SG.PST3 trick-REAL DEF =ones-other-ACC animals-GEN
who tricked the other animals,

moo kai enimosia nda Amazea Maw,
mo-o ka-i én-ímósí-ɔ ń'da ńmá-zea-má∅
not-SEQ go-3SG see-RECIP-ACC with person-big-lion[obl]
he didn’t go to visit with Mr. Lion
because he knew that

Mr. Lion was eating up the other animals.

Rabbit lived from then on, as did the other animals

who didn’t go visit with Mr. Lion.
5 Taɗápítotósí-icík'a (Sayings)

The following community aphorisms were compiled by Longoli Philip at my request for 'Ik proverbs'. As such, they may exemplify the 'proverbial' genre, though they convey less timeless wisdom than prohibitive superstition.

*Maa podeida ema okoo mup.*

not-REAL peel-VEN-2G-REAL meat-NOM bone-ABL all

Don’t peel the meat from all the bone,

*iti a nedeke a bia paka ikaruko dik.*

sickness-NOM you.SG-ACC till thin-COMP-2SG-SEQ

(lest) sickness will ??? you until you grow thin.

*Ima na xeba ntsiƙwaatetesico.*

child-NOM = REL SG fear-REAL s/he-bear-VEN-INF-AGT.PL-ABL

A child who fears his or her parents

*iryameta fiyekesie na zikib.*

acquire-VEN-REAL live-INF-DAT = REL. SG long-REAL

gains a long life.

*Na natoloka takanetuk.*

CONJ = rainbow-NOM appear-VEN-3SG-SEQ

If a rainbow appears,
kwaataa ɲarama gwaak
bear-REAL-PRF girls-SING-NOM bird-DAT
a girl has given birth out of wedlock (lit. “in the birds”, i.e. in the air)

kijoo na takenetad.
land-ABL = REL.SG appear-VEN-REAL-DP
in the land that it (the rainbow) appears.

Cema cikoroikoo sedikee
fighting-NOM boundary-PL-ABL garden-PL-GEN
Fighting over the boundaries of gardens

ŋura didia sedikoo dii.
brake-REAL rain-ACC garden-PL-ABL = ANPH.PL
cuts off the rain from those gardens.

Na soreima ceyoo poposaa,
boy-child-NOM kill-3SG-SEQ lizard-ACC
If a boy kills a lizard,

tsayaa-kota iditina ɲwaati.
dry-PLUR-DISTR-COMP-REAL breast-PL-NOM his.mother-GEN
his mother’s breasts dry up.
Na ts'ika inukuto loɗuruaa,  
na = ts'ik-a in-úkot-i-o lodúrú-aá  
CONJ = bees-NOM colonize-AND-3SG-SEQ granary-ACC  
If bees colonize a granary,

badukota koneena amee awoo dee.  
bad-uƙot-a kọ́n-én-á ámé-e awó-ó = ‘déé  
die-COMP-REAL some-PSSM.SG-NOM person-GEN home-ABL = ANPH.SG  
someone dies from that home.

Na ceidoo amaa,  
a = cé-íd-a ám-aá  
CONJ = kill2SG-SEQ person-NOM  
If you kill a person,

duketa sea ntsie bik.  
dúk-et-a se-a ntsí-é bi-k’  
hinder-INCH-REAL blood-NOM he-GEN you.SG-ACC  
his blood hinders you.

Na idema goruo bia nee maidee,  
a = idém-a gó-r-í-o bi-a néé ma-íd-e = é  
CONJ = snake-NOM go.over-3SG-SEQ you.SG-ACC CONJ sick-2SG-REAL = DP  
If a snake goes over you when you are sick,

maranjkoid.  
maranj-ukó-id-∅  
good-COMP-2SG-REAL  
you get well.
Na dzuesiduo daya,
na = dzu-es-idi-o       dàŋ-á
CONJ = steal-IPFV-2SG-SEQ. white.ants-NOM
If you steal white ants,

nta bia hakweidi hakwesio na far.
ńt-á       bi-a     hakw-é-ídi    hakw-ésí-o = na       far
not-REAL. you.SG-NOM collect.ants-VEN-2SG collect.ants-INF-ABL = REL. FUT3
you do not collect (white ants) at the next collecting.

Na ima na kwatsa zeƙwetoo karatsie babatie,
a = im-a = na      kwáts-á    zékw-ét-ɔ-ɔ  karatsi-e  bábati-e
CONJ = child-NOM = REL. small-REAL. sit-VEN-3SG-SEQ. stool-DAT. his.father-GEN
If a small child sits on his or her father’s stool,

ipeda ntsia badonik.
ipéɗ-á     ntsí-á    bad-oni-k'
jinx-REAL. he-ACC. die-INF-DAT
he or she is jinxing him to die.

And lastly, an Ik tongue-twister:

Zike zina zoto zuku
zik-ɛ       zna     zɔt-ɔ       zuku
tie-IMP.SG. zebra[OBL] chain-INS very
Tie the zebra tightly with a chain,

zeikotuo zizukotukwee zuku zekok.
ze-îkót-i-ɔ     ziz-uֱkot-i-kọ = e     zuku     zekó-k'
big-COMP-3SG-SEQ. fat-COMP-3SG-SEQ = DP very sitting-DAT
and he will get big and get very fat for staying around.
Appendix B—Ik Root Lexicon

The following list of Ik lexical roots and their English glosses has been extracted from a larger computer (FLEx) database. The goal behind the formatting of this lexicon has been to make Ik lexical roots, mostly nouns and verbs, available for historical-comparative studies that may yield further insights about the internal and external classification of Kuliak. As such, every effort has been made to allow the lexical roots themselves to come to the fore. For nouns, this means an abstract (hyphenated) lexical form that reveals the unpredictable root-final vowel which every noun has. For verbs, this means that if the infinitive form skews the underlying root tone, the verbal root is then presented in parentheses after the headword. High tone on the lexemes is marked with an acute accent (´), while low tone is left unmarked (see §3.2.1 for details on tone realization).

In many instances, a particular root is only attested in combination with one or more other derivational affixes. To the degree that these derivational affixes have been described, they are separated out to reveal the bare root. No doubt in the process of separating putative morphemes errors have been made, but hopefully future research can help fix the incorrect parses.

The glosses or definitions found in this lexicon have been continually worked on but still leave a lot to be desired. For example, there is still an appalling number of glosses of biological species that reveal almost no information. Most of the information on plantlife comes straight out of Heine 1999, to which I am indebted. Several new tree names have been added since then, but their English and/or scientific names are yet unknown. Another problem is when glosses reveal very little about the actual usages of a word. A definition like ‘to be rough’ sounds fine but lacks precision. Thus, refining and expanding the written Ik lexicon will continue to be a major need and goal for the documentation and development Ik.
### Aa

<table>
<thead>
<tr>
<th>Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ábadz-et-ésí-</td>
<td>to cast down</td>
</tr>
<tr>
<td>abáŋi-</td>
<td>(my) father</td>
</tr>
<tr>
<td>abeta-</td>
<td>sitatunga</td>
</tr>
<tr>
<td>abúba-</td>
<td>spider</td>
</tr>
<tr>
<td>abubuk-ésí-</td>
<td>to scoop water out</td>
</tr>
<tr>
<td>abubuk-óni-</td>
<td>1) to roar</td>
</tr>
<tr>
<td>abut-et-ésí-</td>
<td>to sip</td>
</tr>
<tr>
<td>abifil-án-óni-</td>
<td>to roll around</td>
</tr>
<tr>
<td>abúluk-án-óni-</td>
<td>to fall off/down</td>
</tr>
<tr>
<td>adabia-</td>
<td>medicinal plant sp.</td>
</tr>
<tr>
<td>adensga-</td>
<td>bird sp.</td>
</tr>
<tr>
<td>áduduk-ésí-</td>
<td>to pour from a small opening</td>
</tr>
<tr>
<td>adááda-</td>
<td>ringworm</td>
</tr>
<tr>
<td>ade-</td>
<td>quant. three</td>
</tr>
<tr>
<td>adúngúú-</td>
<td>indigenous harp</td>
</tr>
<tr>
<td>aé-oni-</td>
<td>1) to be lit 2) to be ripe</td>
</tr>
<tr>
<td>agita-</td>
<td>metal bead(s)</td>
</tr>
<tr>
<td>águj-ési-</td>
<td>to gulp liquid</td>
</tr>
<tr>
<td>aji-</td>
<td>white-ant pestle</td>
</tr>
<tr>
<td>aká-</td>
<td>1) mouth 2) opening</td>
</tr>
<tr>
<td>aká-kúgu-</td>
<td>jaw</td>
</tr>
<tr>
<td>akaréri-</td>
<td>white-ant hole trap</td>
</tr>
<tr>
<td>akatáti-</td>
<td>gourd lid</td>
</tr>
<tr>
<td>ákátni-</td>
<td>to clear the throat</td>
</tr>
<tr>
<td>akílika-</td>
<td>mind, intelligence; fr. Swa. akili</td>
</tr>
<tr>
<td>akínó-</td>
<td>greater kudu</td>
</tr>
<tr>
<td>akóσkóσ-</td>
<td>bird sp.</td>
</tr>
<tr>
<td>akůkúr-oni-</td>
<td>to crawl, creep</td>
</tr>
<tr>
<td>akwétékwét-án-óni-</td>
<td>to slither</td>
</tr>
<tr>
<td>ákáf-oni-</td>
<td>to yawn</td>
</tr>
</tbody>
</table>

### akáró-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>n. palate</td>
</tr>
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</table>

### akatí-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>n. 1) nose 2) nostril</td>
</tr>
</tbody>
</table>

### akólá-án-óni-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>v. to swing</td>
</tr>
</tbody>
</table>

### akůkúr-σ-oni-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>v. to creep; cf. akůkúr- ‘crawl’</td>
</tr>
</tbody>
</table>

### akó-| n. inside, inner part |

### akaláa-| n. augur buzzard |

### alámár-án-óni-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>v. to sway</td>
</tr>
</tbody>
</table>

### alárá-| n. shrub sp. (Gweria) |

### álifu-| n. thousand; from Swa. elfu |

### alóló-ésí-| to handle |

### alóló-ŋoni-| 1) to worry |

### áná sí-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>n. male kudu</td>
</tr>
</tbody>
</table>

### ance-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>n. plant sp. (Vigna frutescens)</td>
</tr>
</tbody>
</table>

### an-etu-ésí-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>v. to remember</td>
</tr>
</tbody>
</table>

### aŋaraσá-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>n. sorghum var.</td>
</tr>
</tbody>
</table>

### aŋarasá-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>n. gravel</td>
</tr>
</tbody>
</table>

### aŋaú-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>n. yellowish tobacco leaves</td>
</tr>
</tbody>
</table>

### aŋir-ési- (aŋir-)

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>v. to turn, steer</td>
</tr>
</tbody>
</table>

### aŋópán-óni-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>v. to be hopeless</td>
</tr>
</tbody>
</table>

### aŋóléleí-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>n. tapeworm</td>
</tr>
</tbody>
</table>

### aŋópépét-án-óni-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>v. 1) to be strewn about 2) to have a seizure</td>
</tr>
</tbody>
</table>

### aŋópí-| n. to jump |

### arágwani-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>n. 1) moon 2) month</td>
</tr>
</tbody>
</table>

### ar-óni-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>v. to cross over</td>
</tr>
</tbody>
</table>

### arirá-

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>n. flame</td>
</tr>
</tbody>
</table>
arié- n. small intestine
arúrúb-oni- v. to stalk
arút-óni- v. to make a sound
asaka- n. 1) door 2) clan
  3) chapter
asíní-oni- v. to dream
asunání- n. African pencil cedar
  
  (Cupressus lusitanica)
át(i)- n./v. general ‘filler’ word
atonjó- n. spotted hyena
ats-oni- v. to come
áts’a- n. Sycamore fig
áts’-ési- v. 1) to gnaw, eat chewy foods 2) to cause sharp pain
áug-oni- v. to feed at night
awá- n. 1) homestead 2) place
auk-esi- (aúk-) v. to inhale food;
  cf. aúg-
ái- n. 1) side 2) place

**Bb**

babaa- n. armpit
babatí- n. his/her father
báboo- n. your father
badi- n. giant
bad-iréti- n. wizardry, witchcraft
bad-oni- v. 1) to die 2) to collapse
  3) to be broken
bakutsi- n. chest
bakúlúm-oni- v. to be thick (of thread)
bal-ési- v. 1) to ignore, overlook
ban-ési- v. to sharpen

baro- n. 1) livestock 2) wealth
baráj-óni- v. to recline, relax
baratí- n. fig tree (Ficus 
  platypylia)
baratsó- n. 1) morning 2) tomorrow
báritsoní- n. tiny ant species
barisá- n. male rock hyrax
bar-oni- v. to be wealthy; cf. baro-
basáúré- n. lesser eland
basá- n. 1) ray 2) dot, spot
batán-óni- v. 1) to be easy 2) to 
  be kind 3) to be cheap
báts-ési- v. to scrape off outer layer
báts’á- n. pus
béber-ési- v. to pull, draw out
bédîbedúu- n. 1) butterfly 2) 
  paper letter; cf. bódîbodúu-
be-em-óni- v. to crack slightly
beku- n. male warthog
bení-óni- v. 1) to not be 
  something 2) to be unique
betsín-óni- v. to be on the left side
béúr-et-óni- v. to cry (of predators)
bezek-án-óni- v. to fail to cross 
  paths
bedjéd-óni- v. to be delicately thin
béf-ési- v. 1) to want 2) to look
  for 3) to almost do
befá- n. puff adder
bef-úd-óni- v. to be hefty
bef-ɔk- ōm- ɔnì- v. to be hefty
bél-ér- ɛm- ɔnì- v. to be bug-eyed
ber- ɛsì- v. 1) to build 2) to braid
 3) to spear many times
bi-  pro. you (sg.)
bíba- n. dove, pigeon
bíróó- n. bird species
bisáká- n. appetite for meat
bìti-  pro. you (pl.)
bítési- v. 1) to spray 2) to blow bubbles
bits- ét- ɔnì- 1) to die 2) to be worn out
biá- n. outside
bíz- ɛsì- v. to press
bíbí- n. chicken bone
bídá- n. gall bladder
bílíkeretèè- n. Yellow-necked spurfowl
bíloɔr- 1. n. bird species
bìŋ- ɛsì- v. to give grudgingly
bìŋ- n. red water worm
bíráùt- ɔnì- v. to be inadequate
bír- ɛsì- v. to help by giving
bír- ɔnì- (brá-) v. to lack, not be
bít- ét- ɔnì- v. to multiply
bobááa- n. my grandfather
bobatí- n. his/her grandfather
bóbóoo- n. your grandfather
bódìbòdùu- 1. n. 1) butterfly 2) paper letter; cf. bédìbedùu-
bóg- ɛsì- v. to catch by surprise
boketi- n. plant stem
bokibòki- n. outer throat
bok- Ĭm- ɔnì- v. to get stuck
ból- on- uktì- v. to stop doing sth.
bol- on- uktì- v. to stop doing sth.
bóm- ɔnì- v. to be thickly-rooted
bonì- n. 1) kind 2) matriclan
bonóréni- n. clay
bòre- n. 1) chicken tail 2) small gourd
bóruku- n. bushpig
bòsi- n. ear
bós- Ĭn- ɔnì- v. to be blue-gray
böt- a- n. 1) load 2) migration
böt- oni- v. to move, migrate
bòts- ɔnì- v. to be empty, hollow
bòjá- n. 1) nightjar 2) idiot
bòjókò- n. Cussonia arborea
bòdìbòdÁsì- n. fontanelle
bòc- n. large intestine
bòdòkò- n. 1) bark, husk 2) gun safety mechanism
bòf- ɔd- ɔnì- v. to be puffy
bòfòkòrè- n. he-goat
bòbò- ɔnì- v. to be red-brown
bòkùkò- n. chewy honeycomb
bòkòsì- n. spinal column
bòk- Ĭt- ínì- n. bride
bólì- n. latrine
bòn- ɛsì- v. 1) to care for, feed 2) to domesticate
bòp- Ĭd- ɔnì- v. to be brittle
bòp- Ĭnì- v. to be orangish
bòr- Ĭd- Ĭm- ɔnì- v. to be sleepy-eyed
bɔrɔƙɔ́ n. cone of tobacco
bɔr-ʃm- v. 1) to be tired, bored
bɔrɪ-ʃm- v. to be expansive
bɔrɔr-ɔn- v. to cry out in fear
bɔrɔy-ʃm- v. to be gapped
bɔs-ɛs- v. to contribute
bɔt-ɛs- v. to shave
bu-an-ɔn- v. to get lost, disappear
búa- n. cloud of dust; cf. bûřé-
bubua- n. 1) belly 2) underneath
bubuf-án-ɔn- v. to blister
bud-ɛs- v. to hide oneself
búd-ɛs- v. to hide sth.
budfama- n. darkness
bud-àm-ɔn- v. to be dark, black
bud-úd-ɔn- v. to be soft
budf-úd-ɔn- v. to be spongy
buk-ɔn- v. to lie prostrate
bukuk-án-ɔn- v. to lose sleep
bukur-ɛs- (bukúr-) v. 1) to cover
up 2) to spill
bukù- n. marriage (all aspects)
bul-ɔn- v. 1) to be empty, vacant
bulukétí- n. container for liquids
bulúkúm-ɔn- v. to be thick
bun-ɔn- v. to join up with
bùnjeni- n. moss
buré- n. dust; cf. bûd-
bur-ád-ɔn- v. to be soft
buratsi- n. bat-eared fox
burukáli- n. Turkana-land
burukutsi- n. kneecap
busubusi- n. water lily
bút-ɛs- v. to drink like a cow
butsa- n. bird playground
búůbu-an-ɔn- v. to be scarce, rare
buboná- n. 1) hot ember 2) bullet
buláj-ám-ɔn- v. to be weak
bolobuláti- n. Drimia Altissima pl.
bur-ɔn- v. 1) to jump 2) to fly

bɔr-ɔn-  v. 1) to jump 2) to fly

ɓ6
ɓaɓ-án-ɔn- v. to be cracked
ɓaɓar-án-ɔn- v. to sit waiting
ɓají- n. Boscia angustifolia tree
ɓakibák-ɔn- v. to be bitter
ɓalńji- n. toothbrush tree
(Salvadora persica)
ɓal-íd-ɔn- v. to glisten
ɓaŋ-ɔn- v. to be loose
ɓárik-ík-ɔn- v. to be piquant
ɓaribá-ʃm- v. to be medium-sized
ɓar-ɔn- v. to be sour
ɓáts-ɛs- v. to stir to cool
ɓatsil-år-ɔn- v. to have an
unpleasant taste
ɓek-án-ɔn- v. to be immoral
ɓel-ém-ɔn- v. 1) to crack 2)
daybreak
ɓets'-ɔn- v. 1) to be white, clear
2) to be clean
ɓeɓel-ɛs- v. to divide
ɓɛɓé-ʃm- v. to have a burning
sensation
ɓɛk-ét-ɔn- v. to hatch
ɓɛkibék-ɔn- v. to rustle
ɓek-ésí- v. to walk
ɓek-et-ésí- v. to accost
ɓel-ésí- v. to crack
ɓet-él-ém-oni- v. to be shallow and wide
ɓets'-id-šd-šni- v. to be whitish
ɓiba- n. egg
ɓil-ésí- v. to cut out
ɓil-ìm-oni- v. to get punctured
ɓir-íd-oni- v. to be soggy
ɓir-ìm-oni- v. to break
ɓibít-ésí- v. to drink by sucking
ɓilbil-ésí- v. to break into pieces
ɓisá- n. spear
ɓoó- n. escarpment
ɓoóoni- v. to be deep
ɓóbósa- n. perfume made from the *Terminalia brownii* tree
ɓoko-án-eti-oni- v. to be purple
ɓolibil- n. 1) goiter 2) waddle 3) hood of a vehicle
ɓolise- n. *Croton dichogamus* plant
ɓolõ- n. small red gourd
ɓolokotsi- n. small oblong gourd
ɓol-öm-oni- v. to break off
ɓolón-öm-oni- v. to be circumsized
ɓonji- n. edible plant species (*Balanites pedicellaris*)
ɓoré- n. livestock corral (kraal)
ɓotonju- n. 1) pounded white ants 2) bunch of bananas
ɓotsátí- n. chisel, drill
ɓots-ét-ésí- v. to pluck out
ɓóko- n. slope, bank
ɓólé- n. shin
ɓóŋ-šn- v. to be nearly ripe
ɓórit-oni- v. to have pus
ɓórit-öm-oni- v. to be thick, of blood
ɓórts-šm-oni- v. to be wet
ɓótí- n. dry leftover maize mush
ɓúk-ésí- v. to lift up
ɓúk-óni- v. 1) to enter 2) to commit adultery
ɓulúr-üm-oni- v. to scar over
ɓúrukúk-óni- v. to sprout
ɓutúr-üm-oni- v. to short and thick
ɓú-üm-óni- v. to get dislocated
ɓúkólá- n. Gerrard’s acacia (Acacia gerrardii)
ɓul-ésí- v. to rush out
ɓun-ésí- v. to cut a tubular object
ɓun-oni- v. to pass by
ɓun-üm-šn- v. to scatter

Cc
caalí- n. cooking stone
ceímá- n. oil
cédicedíi- n. game of hopskotch
ceki- n. woman, wife
cénjá- n. joke
cébení- n. wooden spatula
céb-esí- v. to shape stone
cé-esí- v. 1) to kill 2) to injure
cemeri- n. herb
cem-oni- v. to fight
czná- n. woodpecker
cici-an-óni- v. to repent
cicidea- n. bird species
cikóroi- n. boundary
cikó- n. male
cikámá- n. women, wives
ci-oni- v. to be satiated
cook-ésí- v. to shepherd
coori- n. bangle
cu-an-óni- v. to be liquid
cucué- n. moist chill
cucu-an-óni- v. to feel compassion
cué- n. 1) water 2) girl
cukúdumu- n. male mountain
    reedbuck
cúrúku- n. 1) bull 2) male

dabija- n. bird species
dab-úd-oni- v. to be mushy
dadáŋi- n. my grandmother
dadati- n. his/her grandmother
dádoo- n. your grandmother
dakí- n. 1) tree, plant 2) wood
dalisa- n. Dolichos oliveri plant
dánjá- n. white ants (termite sp.)
deké- n. leather hind-apron
defu- n. quarreling
demio- n. Wild olive (Olea europaea africana)
d-et-ésí- v. to bring
dew-oni- v. to be strong
drá- n. 1) foot, leg 2) footprint 3)
    wheel
dedcsa- n. willow warbler
dég-em-oni- v. to bend down
dej-éd-oni- v. to be squat
der-él-esí- (deýél-) v. to raise the
    leg to kick
der-éd-oni- v. to be anemic, feeble
derékö- n. 1) wasp 2) desert rose
    (Adenium obesum)
didii- n. 1) weather 2) rain
didisá- n. female pudendum
dikwá- n. dance, song
dililitśá- n. biting gnat species
dim-ésí- v. to refuse, reject
diridir-óni- v. to be sugary sweet
dir-íd-oni- v. to be hard when full
dirijjí- n. gums (in the mouth)
diyo- n. sitting place, courtyard
dikh-ésí- v. to rest the head on a
    stool as a pillow
dodikí- n. plant sp. (Canthium)
dódoku- n. malnutrition,
    kwashiakoor
dód-oni- v. to hurt, ache
dodzi- n. vagina
dokíra- n. old honeycomb
dol-ésí- v. 1) to blossom 2) to pull
    back the foreskin
dololots’í- n. soaked sorghum
dómá- n. pot
dón-ésí- v. to donate
do-oni- (da-) v. 1) to be nice 2) to be beautiful
dos-ésí- v. to thatch
doʃ-ésí- v. to attempt
dɔdɔmɔ́rɔ́nɪ- v. to look timidly
dɔdɔr-ɔ́nɪ- v. to scoot on buttocks
dokof-i-esi- v. to express hatred
dɔba- n. mud
doʃa- n. eye drainage
doʃ-és-ókɔtí- v. to berate
duʃ-és-uʃotí- v. to take
duláts'-ámn-oni- v. to be juicy-fat
dulúkukúu- n. small round gourd
dul-úm-óni- v. to have sudden diarrhea
dún-ésí- v. to be old
dununú-oni- v. to be tiny
duʃ-úl-ɔ́n-ɔ́-ní- v. to be blunt
dúsé- n. plains below escarpment
dub-ésí- v. to mix with water
dob-ésí- v. to catch with hands
dob-esi- v. to catch with hands
dog-um-ɔ́n-í- n. water beetle
dóg-um-ɔ́n-í- v. to be paralyzed
dum-ɛ́d-ɛ́m-ɔ́n-í- v. to be talkative
dumóná- n. dung beetle
dorudurá- n. 1) black boring insect 2) radio 3) phone
dzabula- n. female lesser eland
dzál-ɔ́n-í- v. to cry for no reason
dzara- n. red-billed oxpecker
dzɛr-ésí- v. to tear
dzibéri- n. axe
dzíguwa- n. commerce
dziʃá- n. base of slope
dzóga- n. Pappea capensis tree
dzoni- n. well, source
dzɔf-ɛ́t-ɔ́n-í- v. to be greedy
dzoluğ-án-ɔ́n-í- v. to leave angrily
dzuú- n. theft, thievery
dzúʃudzuk-i-esi- v. to keep promising but postponing

Dɗ
dɑɗa- n. honey
dɑɗít-ɛ́sí- v. to eat or drink indiscriminantly
dák-ɔ́n-í- v. to talk thickly
dáʃùt-ɛ́sí- v. to hit, strike
dámú- n. brain
damat-ɛ́sí- v. to pelt
damidá-ɔ́n-í- v. to dance happily
damòsu adv. 1) fast 2) conj. unless 3) before
dapal-ámn-í- v. to be flat-sided
darádará-án-ɔ́n-í- v. to shed
darám-ɔ́n-í- v. to scratch bloody
das-ɔ́n-í- v. to be flat (e.g. an area)
datádát-án-ɔ́n-í- v. to be rotten
datán-ámn-ɔ́n-í- v. to be flat-sided
datólón-ɔ́n-í- v. to purge
dau- n. 1) knife 2) propeller blade
derɛtú- n. Sudam gum
arabic/Three-thorned acacia (Acacia senegal)
deró- n. rat, mouse
ɗeséɗés-án-őni- v. to be cracked in pieces
deweni- n. Berchemia discolor tree
dede-an-őni- v. 1) to rush, gush 2) to flare 3) to pitter-patter
défè- n. small animal skin
dëge- n. Tamarind tree seeds
déka- n. butter churn
dékw-őni- v. to be tasteless
dél-ėm-şni- v. to continue
dél-őni- n. to latch onto with teeth
dêm-ėd-őni- v. to be talkative
dëndèn-ősi- v. to lie around
dęp-ėd-őni- v. to be thin and flat
dërreta- n. pieces of kindling
dëss-ėm-şni- v. to be cut off
dëtedé-án-őni- v. 1) to be scattered 2) to laugh hysterically
dët-ėsì- v. to blow a blowgun
dëtsédéts-şni- v. to stink badly
dëdëdëw-şni- v. to be hollow
dé- pro. ones
diaaká- n. infant, baby
díde- n. 1) donkey 2) vehicle
diiti- n. bird species
dip-ǐm-őni- v. to sediment
diéró- n. semen, sperm
dírîbô-őni- (diribá-) v. to be too heavy to move
dîsá- n. underworld, hell
dît-ėsì- n. to transplant seedlings
dîw-őni- v. 1) to be red 2) to be well-worn (of footpaths)
dî- pro. one
didît-et-ėsì- v. to pick-pocket
didît-őni- v. to take final breaths
dîm-ősì- v. 1) to be stopped up 2) to be stone-deaf
dîpɔɔ- n. 1) animal bed 2) open air market
dît-şni- v. to be higher
dód-ėsì- v. 1) to point 2) to show
dódoo- n. sheep
dodôba- n. baby sling
dôkôtsi- n. sorghum variety
doli- n. abandoned beehive
doon-őm-őni- v. to have a bad eye
dôridôr-őni- v. to be first-fruits
dôrôge- n. roan antelope
dôsi- n. 1) tree gum 2) candle
dotidôt-őni- v. to be strewn about
dow-őni- v. to be unspoiled
doj-ôd-őni- v. to be healthy
dôjôka- n. gourd pulp
dôan(f)- n./v. weeding
dôfá- n. shrew
dôgîdôgî- n. yellow sugar ant
dôk-şd-őni- v. to be yummy
dôkôl-şm-ůni- v. to stammer
dôk-ůni- v. to be wet
dôlê- n. 1) small pumpkin 2) ulcer
dêm-şd-ůni- v. to be gooey
dôr-şd-ůni- v. to be gooey
dôsô- n. Vigna plant species
ɗɔs-ɗɔnì- v. to be gummy
dɔtò- n. rubber
dɔts-ɛsì- v. to add, combine
dɔjɛati- n. star
dɔʃ-ɗɔnì- v. to be wobbly, unstable when walking
du-esì- v. to uproot
duksè- n. 1) pollen 2) egg yolk 3) anything yellow
duk-ɛsì- v. to walk stiffly
duk-ǔd-oni- v. to be round
duk-ǔm-oni- v. 1) to give off smoke, steam 2) to disintegrate from overcooking
duƙúk-oni- v. to be secretly sick
duƙút-ɛsì- v. to flatulate loudly
dùrá- n. fetus
dus-ɛsì- v. to scoop out
dus-ǔm-oni- v. to snap apart
duta- n. big gourd for water
dut-ǔd-oni- v. to be utterly rotten
dukái- n. honey-beer mash
dum-ɛsì- v. to pick up
dum-ǔd-oni- v. to be well-cooked
dùr-ɛsì- v. to pull out
e- di- n. name
ed-esi- v. to carry on the back
eći- n. grain(s)
eg-ɛsì- v. to put
e- i- n. chyme
e-i-etu-ɛsì- v. to fill up
ekú- n. 1) eye 2) seed 3) headlight
emin-ɛsì- v. to pull
em-oni- v. to swell
émúr-oni- v. to suffer from pain
emusia- n. Euclia schimperi plant
emutì- n. 1) story 2) news
en-ɛsì- v. 1) to see 2) to understand
eŋúnú- n. lastborn
ēoo- n. leather bag
ège-oni- v. to be full
ep-oni- v. 1) to lie down 2) to sleep 3) to have sex
erèg-ɛsì- v. 1) to use 2) to send
éríf-oni- v. to fill white-ant trapping holes
eruménì- n. spear shaft
erúnà- n. nocturnal termite
erút-ůnì- v. to low (of cows)
erúts-ůnì- v. to be new, fresh
erúʃ-ůnì- v. to have loose stool
eset-ɛsì- v. to ask
ets’i- n. feces
eűze- n. male cape buffalo
ewédi- n. small, bitter, white wild potato sp. (Dioscorea)

Ee
gakwá- n. man, husband
gan-ɛsì- v. to be happy, joyful
gası- n. truth
ebet-ɛsì- v. to insult, mock
ebút-oni- v. to roar
eće-oni- v. to move out of the way
Εɛ
γάνι- n. a woman’s sister-in-law
έβα- n. 1) animal horn 2) gun
έδά adv. only
ef-ɔnɪ- v. 1) to be tasty 2) to be fun 3) to be funny
έκρό- n. muscle fiber
έκω-ɔnɪ- v. to be ahead
έμɪt-ɔnɪ- v. 1) to wheeze 2) to groan in pain
έν-έσ-υκάτι- v. to take by force
έμ-ς-όνι- v. to be weak
έςά- n. drunkenness
cέα- n. termite(s)

Έf
fάδο- n. scale
fάδ-ικό- n. pangolin
fάδ-ές-ι- v. to remove a thorn
fάδ-έτ-όνι- v. to feel well-being
fάδ-όνι- v. 1) to be bitter 2) to prophesy
fάίδο- n. ebony tree species
fακ-άδ-όνι- v. to be broad
fαλ-όνι- v. to go without food
fάτάρα- n. vertical ridge
fάτσ-όνι- v. to lie face-up
fέ-ές-ι- (fά-) v. to boil
fέ- n. bath
fεκ-ονί- v. to laugh
fεν- n. 1) digging stick 2) horn hoe
fεν- n. breaking wind
fε-όνι- v. to bathe
fετ- n. 1) sun 2) thirst 3) clock
fετιέτι- n. nape of neck
fέν-έδ-όνi- v. to be gorged
fετέλ-έμ-όνι- v. to be shallow
fίf-ονί- v. to pester, annoy
fιίφ-όνι- v. to be a cool breeze
fιιφíριφ-άν-όνι- v. to come and go as a vagabond
fιíρ-όνι- v. to be so full it hurts
fιίριτςí- n. bird species
fιίριτςí-ς-ι- v. to trample
fιρ-ονί- v. to be thick like a full sack of grain
fιτ-εσí- v. to wash, clean
fιτ-ίδ-όνι- v. to be dull
fιόφότα- n. path
fιό-όνι- v. to whistle
fόλόλ-όμ-όνι- v. to be unobstructed
fόλ-ονι- v. to shed
fοτόλ-όνι- v. to be a clear pathway
fοτσα- n. gorge, steep valley
fόδέ- n. 1) loincloth 2) mudflap
fοξόδ-όμ-όνι- v. 1) to be flakey
fοξόδ-όμ-όνι- v. to be lightweight
fος-π-έσι- v. to winnow
fος-π-όνι- v. to be barren (land)
fουλ-ύμ-όνι- v. to be sloped
fυλούρύυ- n. turaco
furέςι- v. to scavenge
fυτ-έςι- v. to blow
futs’áts’-éí- v. to put down carelessly
fúuts’-í-éí- v. to resuscitate
fúút-óni- v. to breathe

Gg
gaan-óni- v. 1) to be bad 2) to be dangerous 3) to be angry
gadárá- n. slime
gad-éí- v. to not be enough
gad-óni- v. 1) to vandalize 2) to be commit domestic violence
gafar-éí- v. to scoop up and eat with fingers
gafígaflí- n. 1) lung 2) radiator
gaga-an-óni- v. to laugh while talking
gáí quant. both
gaj-ád-óni- v. to talk thickly
gak-ím-óni- v. to be invalid
gák-óni- v. to leave before dawn
gákúr-úm-óni- v. to be bad-tempered
gam-éí- v. to kindle a fire
garájí- n. Sterculia stenocarpa pl.
gár-éí- v. to serve food
gasara- n. cape buffalo
gasoó- n. warthog
gats-ád-óni- v. to be rocky
gáüs-úm-óni- v. to be shaggy
gážadí- n. red-pod terminalia
  (Terminalia brownii)
gég-éí- v. to guzzle
gegjí- n. Boscia coriacea plant
géfá- n. 1) blemish 2) ascites
géfér-éí- (géfér-) v. to stab
gidá- n. cloud
gíga- n. elephant trunk
gígí-óri- n. down
gíjíta- n. razor
gír-éí- v. to keep
gírúú- n. locust, cricket
gíj-éí- v. to shave hair
gízár- n. concave surface of grinding stone
gob-ét-óni- v. to look like rain
godíí- n. Diospyros scabra tree
góg-éí- v. to pierce, perforate
gogorojí- n. 1) spine 2) midrib
gógor-óni- v. 1) to be spinal 2) to be ridge-like
gok-óni- v. 1) to be awake, alert 2) to have sexual relations with a sleeping partner
gók-óni- v. to be seated
gómóíá- n. Maerua pseudopetalosa plant
gomojó-í- n. Cyperus distans plant
gon prep. until, up to
gon-éí- v. to look, check on
gon-és-ét-óni- v. to wake up
góóz-éí- v. 1) to throw 2) to neglect 3) to vote
gór-éí- v. 1) to go over 2) to pass an examination
gójóú- n. mist, fog
gɔɓ-ɗɔnɪ- v. to be impenetrable
gɔɗɛ- n. bee larva
gɔɗɛm- n. breastbone
gɔɗɛ-ɔnɪ- v. to be very old
gɔka- n. larynx, voicebox
gɔk-ɗ-ɔnɪ- v. to be stiff, unsupple
gɔlɛgal-άn-ɔnɪ- v. to wind around
gɔmɔrú- n. Nubian acacia (Acacia nubica)
gɔnɛ- n. 1) stump 2) splinter
gɔɾiɡɔr- n. 1) hoof 2) bare foot
gubɛsí- n. thigh
gub-ɛsí- v. to cover
gudús-ama- n. burnt piece of wood
gufá- n. foam, froth
guʝe- n. Commelina plant sp.
gùr- n. 1) heart 2) abdomen 3) soul, spirit 4) engine 4) battery
gùr-àn-ɔnɪ- v. to be quick-tempered
gubérá- n. leopard
gora- n. Sickle bush (Dichrostachys cinerea)
guts'ur-ɛsí- (guts'ør-) v. to chase angrily
gwaá- n. bird
gwaa- n. stomach
gwaɓ-ɔnɪ- v. to leave angrily
gwaɓs't- n. 1) giraffe 2) camel
gwaɓi- n. belly
gwaláti- n. lip plug
gwáṃ-ɔnɪ- v. to stand
gwaɓ- n. 1) lesser galago (bushbaby) 2) trousers
gwar-ɛsí- v. to throw downward
gwaría- n. top
gwarie- n. top
gwasá- n. 1) stone, rock 2) grinding mill 3) nugget 4) battery 5) medal
gwegwer-it-i-ɛsí- v. to scribble
gwel-ɔnɪ- v. to forget
gwɛts'-ɔnɪ- v. to be sweet
gwɛrfɛ́-ɛ́n- v. 1) to be dishevelled 2) to be gaunt
gwé- n. groove, stand of trees
gwid-íd-ɔnɪ- v. to be limber
gwir-ɔnɪ- v. to jump up and down

Hh
haak-ʊŋɔt-ɪ- v. 1) to lose one's way 2) to fail 3) to be sorry
habu- v. beehive in a tree
háb-ɔnɪ- v. 1) to be hot 2) to be stingy
hádaad-án-ɔnɪ- v. to be a poor shot
hádol-om-ɔnɪ- v. to not match, fit
haj-ád-ɔnɪ- v. to be loosely tied
hakaik-ɛsi- v. to forget
hákát-ɔnɪ- v. to be boastful
hakw-ɛsí- v. to gather wild game, esp. white ants
hamu-ɛsí- v. to grind finely
<table>
<thead>
<tr>
<th>English Word</th>
<th>Yoruba Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>diarrhea</td>
<td>haré-</td>
<td>n.</td>
</tr>
<tr>
<td>to have diarrhea</td>
<td>harít-</td>
<td>v.</td>
</tr>
<tr>
<td>hyena</td>
<td>haúu-</td>
<td>v.</td>
</tr>
<tr>
<td>to be cooked tough</td>
<td>ha-úd-oni-</td>
<td>v.</td>
</tr>
<tr>
<td>to be pot-bellied</td>
<td>hebúl-ám-oni-</td>
<td>v.</td>
</tr>
<tr>
<td>to see quickly</td>
<td>hir-oni-</td>
<td>v.</td>
</tr>
<tr>
<td>1) slowly 2) carefully</td>
<td>hįjɔ́ adv.</td>
<td></td>
</tr>
<tr>
<td>chameleon</td>
<td>hići-</td>
<td>n.</td>
</tr>
<tr>
<td>bedroom</td>
<td>hrwkoń-</td>
<td>n.</td>
</tr>
<tr>
<td>house, hut</td>
<td>hoo-</td>
<td>n.</td>
</tr>
<tr>
<td>to free 2) to take off</td>
<td>hof-é-sí-</td>
<td>v.</td>
</tr>
<tr>
<td>clothing</td>
<td>3) to divorce</td>
<td></td>
</tr>
<tr>
<td>come free, loose</td>
<td>hof-óm-óni-</td>
<td>v.</td>
</tr>
<tr>
<td>to cut 2) to butcher, dress an animal</td>
<td>ho-èsí-</td>
<td>v.</td>
</tr>
<tr>
<td>to drive</td>
<td>hön-ésí-</td>
<td>v.</td>
</tr>
<tr>
<td>to chase animals</td>
<td>hön-ésí-</td>
<td>v.</td>
</tr>
<tr>
<td>bustard, heron</td>
<td>họto-</td>
<td>n.</td>
</tr>
<tr>
<td>to step deep into</td>
<td>hábut-ésí-</td>
<td>v.</td>
</tr>
<tr>
<td>leaves eaten raw</td>
<td>hurémù-</td>
<td>n.</td>
</tr>
</tbody>
</table>

**H'fi**

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<tr>
<th>English Word</th>
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<tr>
<td>to know</td>
<td>fiye-ésí-</td>
<td>(<em>i̯e̯e-</em>) v.</td>
</tr>
<tr>
<td>bone marrow</td>
<td>fíega-</td>
<td>n.</td>
</tr>
<tr>
<td>cow, cattle</td>
<td>fíyọ-</td>
<td>n.</td>
</tr>
<tr>
<td>to be near, close</td>
<td>fíyọ́-ág-oni-</td>
<td>v.</td>
</tr>
<tr>
<td>to step aside</td>
<td>fíyéd-ún-ukọ́-i-</td>
<td>v.</td>
</tr>
<tr>
<td>to live, be alive</td>
<td>fíyẹ́k-èsí-</td>
<td>v.</td>
</tr>
<tr>
<td>vomit</td>
<td>fíyọ́na-</td>
<td>n.</td>
</tr>
<tr>
<td>to be fierce</td>
<td>fíyẹ́t-oni-</td>
<td>v.</td>
</tr>
<tr>
<td>neck</td>
<td>fíyukumú-</td>
<td>n.</td>
</tr>
<tr>
<td>to be worried</td>
<td>jálólóŋ-óni-</td>
<td>v.</td>
</tr>
<tr>
<td>to leave in late afternoon or evening</td>
<td>fban-oni-</td>
<td>v.</td>
</tr>
<tr>
<td>pumpkin or cucumber peel</td>
<td>3) wrist-knife</td>
<td>fbot-oni-</td>
</tr>
<tr>
<td>leaves eaten raw</td>
<td>1) to sprain 2) to set a bone fracture</td>
<td>fburubur-oni-</td>
</tr>
<tr>
<td>to sprinkle flour</td>
<td>1) to beat out 2) to collect firewood after a fire 3) to look for sth. lost</td>
<td>íbẹ́ṣẹ́-ésí-</td>
</tr>
<tr>
<td>to change 2) to turn (over) 3) to roll a hen over a sick person</td>
<td>íbélẹ́-ésí-</td>
<td>v.</td>
</tr>
<tr>
<td>to be energetic</td>
<td>íbírá-án-óni-</td>
<td>v.</td>
</tr>
<tr>
<td>to be forgetful</td>
<td>íbílé-óni-</td>
<td>v.</td>
</tr>
<tr>
<td>to strip off bark, skin</td>
<td>íbọ́bọ́l-èsí-</td>
<td>v.</td>
</tr>
<tr>
<td>to be hollow</td>
<td>íbọ́bọ́r-ósí-</td>
<td>v.</td>
</tr>
<tr>
<td>to dangle</td>
<td>íbọ́k-èsí-</td>
<td>(íbók-</td>
</tr>
<tr>
<td>to promise</td>
<td>íbọ́l-ét-èsí-</td>
<td>v.</td>
</tr>
</tbody>
</table>
iɓolíɓól-esi- v. to rummage
iɓolóŋ-esi- v. to circumcise
iɓonifón-iasi- v. to touch affectionately
iɓóŋ-ônì v. to repeat, redo
iɓóŋ-àn-ösí v. to be unfriendly
iɓúɓú-ésí v. to clear land early
iɓúli-àń-önì v. to have nothing
iɓúŋé-ésí- (iɓúŋá-) v. 1) to punish severely 2) to torture
iɓúr-esi- (iɓúr-) v. to replant
iɓut-esi- (iɓút-) v. 1) to give aid 2) to pay dowry
iɓuts-úm-ét-ônì v. to be mistaken
iɓutúɓút-ésí v. to dump
iɓutúɓút-ônì v. to be thick like a tree trunk
iɓwat-esi- (iɓwát-) v. to handle roughly
icé- n. Ik people
icé-áma- n. Ik person
ídème- n. 1) snake 2) tapeworm
ídë-ésí v. to knock
ídul-ônì v. to be a wave
íduludul-ésí v. to knead
ído- n. 1) breast, teat 2) milk
ídzan-an-esí v. to be well-off
ídz-esi v. to shoot
ídź-ônì v. to ooze clear liquid
idáiy-esí- (idáí-) v. to keep back
ídás-ónì v. to lie in silent ambush
idédéŋ-ésí v. to swell (lymph nodes)
idékë- n. airplane; fr. Swahili ndege 'bird, airplane'
iden-esi- (idén-) v. to take on credit; fr. Swahili deni 'debt'
idenjíɗë-ésí- v. to do on purpose
idík-ônì v. to coagulate, clot
idíl-ésí- (idíl-) v. to beat severely
idíl-önì v. 1) to be halfway through 2) to be full
idódók-ésí- v. 1) to heap in one place 2) n. outer baby sling
idok-ésí- (idók-) v. 1) to add on top 2) to pour in drops
idókól-и-esi- v. to collect the remainder
idolidól-önì- v. 1) to be patched or spotted 2) to get rusty 3) n. blight
idómë-ésí v. to take turns
idómó-ésí v. to toss in the mouth
idonj-esi- (idónj) v. to beat
idos-esi- (idós-) v. to neuter by crushing spermatic cords
idó́t-ónì v. to hop, jump
idóküós-ónì v. to stay put
idúz-ónì v. to run away
idyat-ésí- (idyát-) v. to put contributions together
ifáfúk-ónì v. to resuscitate
ifófó-ésí v. to eat crops early
ifúkúfuƙ-ésí v. to sniff
ifúl-önì v. to go before dawn
ifulúfúl-oni  v. to have explosive diarrhea
ígom-oni  v. 1) to bark 2) to strut
ígor-ésí  v. to jump or go over
ígujujú-oni  v. to be busy
ígulaj-oni  v. to bubble, boil
íguma  n. unripe, inedible crops
íjáká-án-óni  v. to get rich
íjiná-án-óni  v. to ignore someone
íjok-ésí  (íjók-) v. to lend, entrust
íjók-óni  v. to drool
íjúrúr-oni  v. to look down shyly
iká  n. head
ikábur-ésí  v. to wrap the body
ikábób-oni  v. to be skeleton-like
ikádó-ésí  v. to mix randomly
ikaike-ésí  (ikaiká-) v. 1) to remove chaff 2) to whip
ikálajáár-án-óni  v. to be unable to make ends meet
ikási-ésí  v. 1) to work 2) to do;
fr. Swahili kazi ‘work’
ikázane-ésí  (ikázana-) v. to be determined; fr. Swahili-kazana ‘persevere’
iked-ésí  (iked-) v. to be angry at relatives
ikékęp-óni  v. 1) to be steady 2) to be hard-working
ikok-ésí  (ikók-) v. to crack bones to remove marrow
ikóki-án-óni  v. to be an orphan
ikókór-ésí  v. to walk up a tree
ikokót-ésí  v. to follow secretly
ikókóyaa  n. ceremony to initiate seasonal dances
ikólíp-án-óni  v. to be childless
ikómó-óni  (ikómá-) v. to hurry ahead, go ahead
ikonjíkóŋ-ésí  v. to knock at
ikonjíkóŋ-óni  v. to live long
ikóŋ-óni  v. to swear
ikópí-óni  v. to condense
ikórim-ésí  v. to side-step
ikóteré  conj. because of
iku-ód-ésí  v. to pick the nose
iku-ésí  (iku-) v. to warm up
íkúji-án-óni  v. to do miracles
íkúkúr-ésí  v. to dig with claws
íkúrúf-án-óni  v. to be poor
íkuts-ésí  (íkúts-) v. to ostracize
íkutúkút-óni  v. 1) to walk backwards 2) to be talkative
íkwá-án-óni  v. to be the same
íkwár-ét-óni  v. to revive
íkwílil-óni  v. to cry, scream
íkwó-óni  (íkwá-) v. to crow
íkóf-óni  v. to avoid
íkók-i-ósí  v. to be doubtful
íkól-és-ukotí  v. to make a score
íkolota  n. gourd without a cover
íkórúu  n. 1) centipede 2) millipede 3) long semi-trailer
íkúkúr-ésí  v. 1) to erode 2) to scratch (of fowl)
íkulúkúl-óni  v. to walk around
iƙúm-únósí- v. to hate each other
iƙú-óni- v. to cry out
iƙur-esí- (iƙùr-) v. to stir
ilábú-ésí- v. to smoothen with water
iláfúƙoni- v. 1) to be nauseated 2) to have a heart attack
ilákizoni- v. to be nauseated
ilálé-ésí- (ilálá-) v. to be unfit to live with
ilámáár-án-óni- v. to scatter
ilanj-ésí- v. to evade
iléléb-et-oni- v. to float
ilé-ér-án-óni- v. to be clearly seen
ilegbugu- n. black ant species
iléjí-án-óni- v. to work part-time
ilekóo- n. plant species
iléléb-ésí- v. 1) to carry in a group 2) to winnow
ilélémú-oni- v. to shout
ilenj-ésí- (ilenj-) v. to be taller
ilép-óni- v. to dance toward the girls/women
ilerilé-oni- v. to rap on the head
iler-óni- v. 1) to be naked 2) to sway while walking
ilérmó-oni- v. to argue over s.b.
iléúr-ésí- v. to use a tool to look inside something
ilrán-oni- v. to smell of blood
ilibédé- n. green snake sp. (maybe Blue racer?); cf. ilíɓ-
il-ésí- (ilí-) v. to smoothen, e.g. with beeswax
iliíl-ósí- v. to be seamless, unbroken
iliít-ésí- v. to spew a lot of words
ililís-ésí- v. 1) to shake to remove dust or water 2) to bite, shake, and release
ilím-ésí- (ilím-) v. to dip in liquid
ilímít-ésí- v. to mention
ili-osí- (ilí-) v. 1) to be hard-of-hearing 2) to be patched with mud
ili rê-et-oni- (ilírá-) v. to complain
ilódián-óni- v. to be segregative
ilókóts-ésí- v. to exchange equally
ilor-ésí- (ilor-) v. to space
ilós-ésí- (ilós-) v. 1) to change, transform 2) to translate 3) to mistake sth. for sth. else
ilujúlúj-oni- v. 1) to be filled to the brim 2) to be divided equally
ilúk-án-et-oni- v. to be pointed downward (of horns)
ilúkús-ésí- v. 1) to turn 2) to barter
ilúkúr-oni- v. to coil up
ilúlúw-ésí- v. to go in and out
ilún-óni- v. to pass by (e.g. time)
ilúr-óni- v. to stay in a hut of mourning
íma- n. child
imádiŋ-án-oni- v. 1) to be impossible
2) to fail to see
game on the hunt
imákó-oni- v. 1) to be twisted up
2) to have a difficult labor
imámáɗ-ősí- v. 1) to hang around food
2) to escape cleverly
imánińmá-i-ősí- v. to weave
imáń-ór-oni- v. to be dizzy
imedéméd-án-oni- v. to crack
iménik-án-oni- v. to agree but not follow through
imets-ősí- v. 1) to overtake 2) to inherit
imímíj-ősí- v. 1) to raise eyebrows
2) to wink
imíń-ór-oni- v. to trespass in a house
imítíır-oni- v. to be blurry, hazy
imónjke-ősí- (imónjka-) v. 1) to cut upper branches
2) to tangle
imúnukú-ór-oni- v. to clench
imutúmút-ór-oni- v. to refuse food when angry
imwánj-ór-oni- v. 1) to look around fearfully
2) to avoid see one’s mother-in-law
inákwí-ősí- (inákú-) v. to destroy
inéné-ősí- v. to hang, dangle
ín-ősí- v. to inhabit, colonize
inyám-án-ór-oni- v. to be escorted
inín-ősí- v. to get reliable news

iniń-ősí- (iniń-) v. to try, test
inip-ősí- (inip-) v. to beat severely
inińpón-ór-oni- v. to be slow
iniń-ór-oni- v. to be arrogant, proud
ínó- n. animal(s)
ińal-ősí- (ińal-) v. to mix
ińat-i-ősí- v. to bump against
ińék-ės-ukotí- v. to break
iń-ősí- v. to knock over
ińets’ėy-ór-oni- (ińets’ėi-) v. to pretend
ińik-ór-oni- v. to show negative emotions on one’s face
ińińi-ősí- v. to rub off, erase
ińip-ősí- (ińip-) v. to trim (hair or grass)
ińóś-őń-ősí- v. to repeat, redo
ińótöl-ősí- v. to leave bottom open
ińóńuk-ősí- v. to grind after pounding
ińláë-ört-ór-oni- v. to get well
ińårú-ór-oni- v. 1) to sprout 2) to have shaving bumps
ińatcję-ór-oni- (ińatći-) v. to straddle
ińáwá-án-ór-oni- v. to be open
ińáyé-ősí- v. to doubt
ińók-ór-oni- v. to be poor
ińolńól-ősí- v. to be alert for danger
ińom-ősí- (ińom-) v. to gulp down
i-ór-oni- v. to be (somewhere)
ipánjke-esí- (ipánjka-) v. to hire, rent; fr. Swahili -panga
ipánw-ésí- (ipánjó-) v. to move away
ipár-i-ésí- v. to break in, vandalize
ipásó-oni- v. to have free time
iped-ésí- (ipéd-) v. to jinx, hex
ipelet-ámá- n. wood-chip
ip-ésí- v. 1) to thresh 2) to thrash, whip 2) to cast in divination
ipéyé-ésí- v. to confirm or initiate into men’s age-group
ip-i-és-ukotí- v. to defeat, outdo
ipiipi-oni- v. to be air
ipiipi-eesí- (ipiipi-) v. to level
ipiír-oni- v. to jump and kick
ipíké-ésí- (ipíká-) v. to beat s.b. on the rear who is lying down
ipol-esí- (ipól-) v. to pull out of the ground
ipúké-ésí- (ipúká-) v. to rule
ipuk-ésí- (ipúk-) v. to fan, wave
ipúɲé-ésí- (ipúɲá-) v. to eat a funeral goat
ipuɲ-ésí- (ipuɲ-) v. 1) to tilt 2) to carry in a sheet
ipuɲ-ét-oni- v. to find to be so-so
ipúrče-ésí- (ipúrá-) v. to smoke out
ir-ams- n. jerk (dried meat)
iráká-án-óni- v. to be jealous
ire-ésí- (iré-) v. to clear
iréńi-án-óni- v. to be a ruffian
irer-ésí- (irér-) v. to observe closely
ir-ésí- v. to slice into strips
ir-ésí- n. ceremony
iref- n. water-snail shells
irít-ésí- v. to ferry, transfer
iriji-ósí- v. to be tight
irikířik-óni- v. to glitter
iríké-ésí- (iríká-) v. 1) to polish with sth. 2) to drag noisily
iríkířik-ésí- v. to saw
irim-ésí- (irim-) v. 1) to go in circles 2) to spy
iró-óni- (irlá-) v. 1) to stay all day 2) to fast for a day
irip-et-ésí- v. to skim off top layer
iriré-ésí- (irirá-) v. to gather up
irirík-ésí- v. to reduce heat
iríw-ésí- (iríw-) v. to fence around
iríj-i-ésí- v. to search for unsuccessfully
irok-ét-ésí- v. to invent, compose
irókó-óni- v. to be near death
ir-óni- v. to be a certain way
iróřk-ésí- v. to ceremonially open the harvest season
iróřób-ésí- v. to do controlled burning
iróřór-ésí- v. to hollow out
iróřó-óni- v. 1) to have a whitish color 2) to fade in color 3) to rust through
irot-esi- (irót-) v. 1) to do repeatedly 2) to delegate 3) to transfer
irőɓ-esi- (irúɓ-) v. to chew hard foods
iruk-et-esi- v. to heap in one place
irúɓ-oni- v. to sing
irıpó-oni- v. to rain sporadically between wet and dry seasons
irúrk-ési- v. to move in and out
irúrumó-oni- v. 1) to moan 2) to roar, 3) to swarm 4) to hum
irutuméni- n. front wing or leg
irúút-éési- v. to break off piece by piece
irwan-esi- (irwán-) v. to multiply
irwáp-óni- v. to droop shut (of eyes)
irwat-esi- (irwat-) v. to sprinkle
iryám-ét-oni- v. to get
irýén-és-ukotí- v. to clear a place
isi- 'interr. pro. 1) what 2) why
isalí-oli- v. to have bad teeth
isép-óni- v. to flow
isérá- n. jackal
isérér-óni- v. 1) to be upright 2) to move straight ahead
isésélt-ési- v. to prune, trim
isídó-oni- v. to remain behind
isípís-p-óni- v. to jog
isír-esi- (isír-) v. 1) to decorate 2) to dress up 3) to embroider
isíse-ési- (isísá-) v. 1) to practice 2) to hum
isísí-ési- v. to narrate, recount
isítíye-esi- (isítiya-) v. to use
ísó- n. flood, flow
isók-óni- v. to go early
isómé-ési- (isómá-) v. to read; fr. Swahili -soma ‘read’
is-oni- v. to be heavy
isó-óni- (isá-) v. 1) to do first 2) to eat first, before elders
isud-ési- (isúd-) v. to lie
isw-eesi- (isu-) v. to break wind silently
isyón-óni- v. 1) to have pity 2) to forgive
iʃukúʃúk-ési- v. to bend down and shake
itála-ési- (italá-) v. to menstruate
itál-í-án-óni- v. to be forbidden
it-amá- v. carrion
ítán-óni- v. to hope, daydream
itárákán-ési- v. to pretend
itébúk-óni- v. 1) to swell 2) to be stuffed 3) n. rabies
itèd-esi- (itéd-) v. to section a fallen tree
itéél-ési- v. to dam up
itékíték-ési- v. to nod the head
itel-esi- (ittel-) v. 1) to look (at) 2) to watch 3) to care for
itém-óni- v. 1) to fit 2) to be right, fitting 3) to be enough
iteritér-oni- v. to move with balance
ít-ési- v. 1) to find 2) to check on
itétém-ési- v. 1) to describe 2) to evaluate 3) to copy
it-ét-óni- v. to come back
itib-esi- v. to pack, arrange
itibítib-ési- v. to cut into planks
itik-esi- (itik-) v. to hold down
itik-i-es-úkotí- v. to rape
itikítik-oni- v. to feel faint
itiñ-ési- v. to cook
iti-óni- (ité-) v. to go back
itti-óni- v. 1) to be difficult 2) to be important 3) to be expensive
itité-ési- (ititá-) v. to pacify
itírák-ési- v. 1) try 2) to catch in the act 3) to skid to a stop
itiritir-ési- v. to stomp
itirón-oni- v. to be fast
itifik-ési- v. to hold back
ititiñ-oni- v. to be brave-hearted
ititér-ési- v. to protect, defend
itityé-ési- (ititá-) v. to do, make
itóó-ési- (iták-) v. to interrupt
itodítod-ési- v. to peck
itóóko-oni- v. to be thin
it-óni- v. to be a certain size or quantity
itóñ-et-ési- v. to change
itónjil-ési- v. to make teeth ache with coldness
itónjó-oni- v. to doubt, be unsure
itópén-oni- v. to be ugly
itosítós-ési- v. to peck
itówé-ési- (itówá-) v. to bless seeds to mark the new year
itóyé-ési- (itóyá-) v. to cut after spearing
itsádén-ési- v. to witness
itseditséf-oni- v. to hop
itsékó-oni- (itséká-) v. to climb on
itséléli-oni- v. to perch
itsen-ési- (itsén-) v. to beg manipulatively
itsód-óni- v. 1) to limp 2) to split up in search of game
itsó-ít-és-úkotí- v. to satisfy hunger for meat
itsókó- n. sunbird
itsólá- n. bird sp.
itsópó-oni- v. to have sharp eyes
itsudútsúd-ési- v. to plant close together
itsulútsúl-ési- v. to mix, mingle
itsum-ési- (itsúm-) v. to pierce
itsúr-óni- v. to keep boiling
itsúrú-ési- v. to spear a cow
itsw-eesi- (itsu/itso-?) v. to cauterize
itsyá-ét-oni- v. to begin
itsyát-óni- v. 1) to be resistant 2) to recover from illness
itsˈópó-oni- v. to be attentive
itūbá- n. 1) trough 2) boat, canoe
itufūtūd-ésí- v. 1) to be multi-
colored 2) to plait patterns
ituk-esí- (itúk-) v. to gather up
itūkūd-oni- v. to bend
itulákán-ésí- v. to gulp liquid
itulér-on-ukotí- v. to utterly forget
itulúm-oni- v. to hurdle
itúm-éti-oni- v. to spend time with
itumúr-án-oni- v. to be unaware
itúr-óni- v. to be proud
itúrúm-ésí- v. to treat unfairly
ituyúr-ésí- v. 1) to pitter-patter
2) to burp a baby
itúts-óni- v. 1) to be blackish 2) to
give off a musky odor
itútú-ésí- v. to dust off
itútúr-ósí- v. to be round, circular
itúlúm-ésí- v. to act abruptly
itwàŋ-óni- v. to lose the way
itwar-ésí- (itwár-) v. to chase off
itwellítwel-ósí- v. to be black with
spots
itweŋítweŋ-óni- v. to twinkle
ityak-esí- (ityák-) v. to forge
jukū́ük-ésí- v. to ram in
iwáki-óni- v. 1) to make an alarm
2) to weep loudly 3) to ring
(of ears)
iwakúwák-oni- v. to flap wings
iwáll-oni- v. to go off course
iwaŋ- v. to get warm by a fire
iwási-oni- v. to be first/last in line
iwatíwát-ésí- v. to bite and toss
iwe-ésí- (iwa-) v. to cool with a
big spoon
iw-ésí- v. 1) to hit, strike 2) ring
3) to take a picture
iwéwèr-ésí- v. to whistle to locate
a honey-guide (bird)
iwíp-ésí- v. to singe
iwítíwit-óni- v. to swerve, dodge
iwítsíwíts-ésí- v. to wag
iwíts-óni- v. to fly noisily
iwófwód-ésí- v. to insert into a
hole
iwol-ét-ésí- v. to be a page
iwóŋ-óni- v. to praise oneself
iwór-óni- v. to wander from home
iwós-ét-oni- v. to be impassably
steep
iwótsi- n. mortar
iwots-ésí- (iwóts-) v. to pound
with mortar and pestle
iwóts-óni- v. to be pointed
iwówè-ésí- (iwówá-) v. to dust
iwówór-ésí- v. 1) to whistle 2) to
make a large hole
iwulák-ésí- v. to arrate, loosen soil
iwúp-óni- v. 1) to walk, swaying
the head 2) to bow
iyalíyál-óni- v. to feel sleepy all
the time
iyàŋ-esí- (iyáŋ-) v. to insult
iyanjian-oni  v. to feel thirsty all
the time
fy-e-esi  (*țiše-)  v. to know; cf. fiy-
iyér-oni  v. to be twisted
iyetse-et-esi  v. 1) to pour 2) to
miscarry
iyikiyik-esi  v. to move forward
iyiyi-esi  v. to ululate
iyoliyol-esi  v. to lower by rope
iyom-amá  n. work of art
iy (y)-oni  v. to be (somewhere)
iyonjyony-esi  v. to shake buttocks
iyó-oni  v. to be right
iyopjoponi  v. 1) to jump up
and down 2) to dance (of
women) 3) to see-saw
iyóp-oni  v. to bend down
iyótso-esi  v. to be deliberate
ízið-oni  v. to speak little
ízokom-esi  v. to dress in rags
ízot-amá  n. solid food with gravy
ízuzu-esi  v. to sprinkle flour on
boiling water

It
jap-és-ukotí  v. to handle with
care
fbad-esi  v. to knock (over)
ibanj-esi  (ibán-)  v. to bump
íbatal-esi  v. to carry in a sling
íbat-esi  (íbat-)  v. to break by
dropping

fbedfibed-oni  v. 1) open eyes
slowly 2) to sneak up
fbbrbr-oni  v. to jabber
confusedly
fbét-esi  v. to plant
fbots-amá  n. milk cream
fbots-esi  v. to curdle
fbojeb-ési  v. to interfere with
ibáán-oni  v. 1) to be stupid,
ignorant 2) to be illiterate
fábéé-ési  (íbába-)  v. to treat
gently
ibák-úni  v. to be next to
íbal-esi  (fíbal-)  v. 1) to worry 2) to
shock, appall 3) to waste
íbám-úni  v. 1) to be free 2) to be
unoccupied, unemployed 3) to have free time
igailbí-óni  v. to be clumsy
íbat-esi  (íbat-)  v. to mislead
íbél-ési  v. to split into pieces
íbëbi-óni  v. to lay eggs
íbëkibé-ésí  v. to disturb
íbëlé-óni  v. to lack self-control
íbesíbés-esí  v. to shatter, splinter
íbilr-ún-ukotí  v. to lose sth. on
one's person
íbilíbil-óni  v. to be inconsistent
íbi-úni  v. to have a stomach
illness
íbítsíbíts-ésí  v. to wiggle through
íbóst-esi  (íbóst-)  v. to strip off bark
íbó-úni  v. to hurry
ɪɓʊ́r-ɪnu- v. 1) to be warm
ɪɓʊ́rʊ́ɓʊ́r-ɪnu- v. to do quickly
ɪɓʊts-esí- (ɪɓʊts-) v. to fail
ɪɓʊts-ɪnɪ- v. to sułk
ɪɗadam-ɪsí- v. 1) to grope, molest
2) to go downhill slowly
ɪɗulidul-ɪsí- v. to pour from a small opening
ɪɗaar-ɪsí- v. 1) to ambush 2) to lay claim to
ɪɗaf-esí- (ɪɗaf-) v. to slap, clap
ɪɗaki- n. Portulaca quadrijida plant
ɪɗák-ɪnɪ- v. to lack
ɪɗám-ɪnɪ- v. to walk aimlessly
ɪɗanɪɗan-ɪsí- v. to press bit by bit
ɪɗat-esí- (ɪɗat-) v. to spank
ɪɗé-es-ʊkotí- v. to drop in
ɪɗem-esí- (ɪɗem-) v. to give someone the ‘evil eye’
ɪɗé-ɪnɪ- v. to strike (of a snake)
ɪɗep-esí- (ɪɗep-) v. to pick up one by one
ɪɗer-esí- (ɪɗer-) v. to decorate
ɪɗid-esí- (ɪɗid-) v. to cut into strips
ɪɗikil-ɪnɪ- v. to be about to finish
ɪɗim-esí- (ɪɗim-) v. 1) to make, do
2) to prepare, organize 3) to kill using black magic
ɪɗɪŋ-ɪnɪ- v. to be narrow
ɪɗi-ɪnɪ- v. to fall down (of seeds from a plant)
ɪɗi-ɪnɪ- v. to put a slaughtered animal on fire
ɪɗir-ɪnɪ- v. to be or move in a straight line
ɪɗits-esí- (ɪɗits-) v. to beat, whip
ɪɗšb-esí- v. to arrange in heaps
ɪɗšdw-ɪsí- (ɪɗšdw-) v. to cook an appetizer
ɪɗšn-ɪnɪ- v. to drip
ɪɗŋɪɗɪn-ɪsí- v. to knock on sth.
ɪɗar- n. early cultivation
ɪɗts‘-esí- (ɪɗts‘-) v. to talk continuously
ɪɗb-ɪnɪ- v. 1) to be cold 2) to be weak 3) to be polite
ɪɗ-ɪnɪ- v. to be far
ɪɗn-ɪnɪ- v. to converse, talk
ɪɗŋ-ɪnɪ- v. 1) to breathe 2) to rest
ɪ-ɪsí- v. to clear and smoothen ground
ɪɗt-ɪsí- v. to rescue, save
ɪfalifal-ɪsí- v. to chase away
ɪɗa-esí- (ɪɗa-) v. to drag
ɪɗfɪŋ-ɪsí- v. to ruffle up
ɪɗad-ɪsí- v. to eat insatiably
ɪɗatsqats-ɪsí- v. to swallow without chewing
ɪɗŋ-ɪsí- v. to repay after a delay
ɪɗɔrb-ɪnɪ- v. to jump far
ɪɗu-ɪsí- v. to gulp far
ɪɗuququq-ɪnɪ- v. to swish water
ɪɗwɪqwɪ-ɪsí- v. to beautify
ɪ́ɡwɪʝɪr-ɔnɪ v. to leave an argument angrily
ɪʝaƙɪ́ʝáƙ-ɛ́sɪ v. to eat like a dog
ɪʝɛ́m-ɔ́nɪ v. to be quiet
ɪʝɪl-ɔ́nɪ v. to move in a line
ɪʝɪ́r-ɛ́sɪ v. to pour to the last drop
ɪʝʊk-ɛ́sɪ (ɪʝʊ́k-) v. to push
ɪʝʊl-ɛsɪ (ɪʝʊ́l-) v. to arrange alternately
ɪkááb-ɛ́sɪ v. to remove bad grain
ɪkákáp-ɛ́sɪ v. to scoop out
ɪkákɛ́-ɛ́sɪ (ɪkáká-) v. to sift
ɪkam-ɛsɪ (ɪkám-) v. to catch, grab;
cf. Swahili -kamata ‘catch’
ɪkam-ɛ́sɪ v. to negotiate for marriage
ɪkáɲ-ɔ́nɪ v. to fast
ɪkat-ɛ́sɪ (ɪkát-) v. to try
ɪkats-ɛ́sɪ (ɪkáts-) v. to mind, care
ɪkáút-ɛ́sɪ v. to chill, cool
ɪkɛ́f-ɛ́sɪ (ɪkɛ́f-) v. to curse s.b. with a difficult labor
ɪkɛ́tɛ́ɗ-ɛ́sɪ v. to raise
ɪket-ɛ́sɪ (ɪkét-) v. to choke
ɪketiket-ɛ́sɪ v. to get someone’s attention secretly
ɪkɪfɪts-ɛ́sɪ v. to enter a deep hole
ɪkɪr-ɛ́sɪ (ɪkɪ́r-) v. 1) to threaten 2) to trumpet (of elephants) 3) to crash (of close lightning)
ɪkɪt-ɛ́sɪ v. to be impatient
ɪkt- n. head-pad
ɪkʊl-ɛ́sɪ (ɪkʊ́l-) v. to shave smooth
ɪkwal-ɛ́sɪ (ɪkwál-) v. to form straight poles
ɪkwarɪ́kwár-ɛ́sɪ v. to scatter on the ground for drying
ɪkwatɪ́kwát-ɛ́sɪ v. to touch seductively
ɪkwɛ́rɛ́ɗ-ɔ́nɪ v. 1) to be hard-working 2) to squirm away
ɪkwɛ́tɪ́kwɛ́t-ɛ́sɪ v. to round up
ɪkwɛ́tɪ́kwɛ́t-ɛ́sɪ v. to try
ɪkwɛ́tɪ́kwɛ́t-ɛ́sɪ v. to prevent
ɪkwɛ́tɪ́kwɛ́t-ɛ́sɪ v. 1) to corral 2) to help in a fight
ɪkɛ́lɛ́m-ɛ́sɪ v. to remove one testicle
ɪkɛ́lɛ́m-ɛ́sɪ v. to crack seeds
ɪkɛ́lɛ́m-ɛ́sɪ v. to remove one testicle
ɪkɛ́lɛ́m-ɛ́sɪ v. to trail a honeyguide (bird)
ɪkɛ́r-ɛ́sɪ (ɪkɛ́r-) v. to mark
ɪkɛ́r-ɛ́sɪ v. to burn slowly
ɪkɛ́-ɔ́nɪ v. to shield
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Indian jujube (*Ziziphus mauritiana*)

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ɪlɔ-ɛsí- (ɪlɔ̀-) v. 1) to defeat 2) to compete with 3) to be more/less than
ɪlɔkílɔk-ɛsí- v. to wrap around
ɪlɔkér-ɛsí- v. to cross the legs
ɪlɔ-ɛsí- (ɪlɔ̀-) v. to mix flour with cold water
ɪlɔlɔk-ɛsí- v. to thin out
ɪlɔlɔr-ɛsí- v. to feed children first
ɪlɔŋ-ɛsí- (ɪlɔ́ŋ-) v. to chase
ɪlɔŋɔts-ɛsí- v. to dress inappropriately
ɪlɔ-ɛsí- (ɪlɔ́-) v. to go
ɪlɔp-ɛsí- (ɪlɔ́p-) v. to transfer
ɪlɔy-ɔnɪ v. to be weak
ɪlɔ-ɛsí- (ɪlɔ́-) v. to carry on one's person
ɪlɔlômʊ-ɔnɪ- v. to swim
ɪlɔlɔ-ɛsí-  v. 1) to make spherical 2) to bribe
ɪlɔmólöl-ɛsí- v. to munch happily
ɪlɔ́z-ɔnɪ- v. to doze off
ɪlwár-ɔnɪ- v. 1) to be unneeded 2) to be unemployed
ɪmar-ɛsí- v. to count
ɪmáf-ɛsí- (ɪmáf-) v. 1) to apply topically 2) to bandage
ɪmak-ɛsí- (ɪmák-) v. to wind around
ɪmámɛ-ɛsí- (ɪmámɛ́-) v. 1) to appease, calm 2) to sweet-talk
ɪmán-ɛsí- (ɪmán-) v. 1) to vow 2) to threaten
ɪmás-ɛsí- (ɪmá-) v. to throw
ɪmá táŋ-ɛsí- v. to chew tobacco
ɪmátsär-ɛsí- v. to mark
ɪmáfáŋ-ɛsí- v. to wave, greet
ɪmádɛl-ɛsí- v. 1) to give or withhold grudgingly 2) to backbite
ɪmád-ɔnɪ- v. 1) to flash 2) n. lightning
ɪmél-ɛsí- (ɪmél-) v. to flicker (the tongue)
ɪmídil-ɛsí- v. to look with one eye
ɪmídɛmíd-ɛsí- v. 1) to squeeze through 2) to enlarge a hole
ɪmídɛts-ɛsí- v. to close up a hole
ɪm|m|ɛ-ɛsí- v. to pour in small quantities
ɪmímj-ɛsí- v. 1) to wiggle 2) to shrug
ɪmínín-ɛsí- v. to fiddle with
ɪmís-ɛsí- (ɪmís-) v. to care, mind
ɪmáfɛsí- (ɪmáf-) v. to deceive
ɪmáfáł-ɔnɪ- v. to be sooty black
ɪmjír-ɛsí- v. to twist, intertwine
ɪmál-ɛsí- (ɪmáł-) v. to organize
ɪmsíŋ-et-ɛsí- v. to warm sth. up
ɪmsínɛf-ɛsí- v. to smear with stomach contents
ɪmármɛ-ɛsí- v. to avoid taxation
ɪmáumuk-ɔnɪ- v. to not see well
ɪmújúmúj-ɔnɪ- v. to gather spit

(*Ricinus communis*)
ɪmʊ́kɛ́6ɛ́sɪ́6 (ɪmʊ́ká6) v. to persevere
ɪmʊ́mʊ́ʝ6ɛ́sɪ́6 v. 1) to rinse the mouth 2) to chew carefully
ɪmʊ́mʊ́6ɔnɪ6 v. to chuckle
ɪmʊ́mʊ́r6ɛ́sɪ́6 v. to do/eat quickly
ɪmʊ́mw6ɔ́ɔnɪ6 (ɪmʊ́mʊ́6) v. to have all one wants or needs
ɪmʊ́-6ɔnɪ6 v. to be a twin
ɪmʊ́-6ɛ́sɪ́6 v. to be under-cooked
ɪmʊ́-et-6ɔnɪ- (ɪmʊ́sá-) v. to start fermenting (of grass, tobacco)
ɪmʊ́-mʊ́t-6ɔ́sɪ́6 v. to sulk, brood
ɪmʊ́-6ɛ́sɪ́6 v. 1) to pound into paste
ɪmʊ́-6ɛ́sɪ́6 v. to chew, ruminate
ɪmʊ́-6ɛ́sɪ́6 v. to chew carefully
ɪmʊ́-6ɛ́sɪ́6 v. to twist the mouth in fear or anger
ɪmʊ́-6ɛ́sɪ́6 v. 1) to bear teeth 2) to be easily angered
ɪmʊ́-6ɛ́sɪ́6 v. to pound into paste
ɪmʊ́-6ɛ́sɪ́6 v. to nibble
ɪmʊ́-6ɛ́sɪ́6 v. to cry in discomfort (of infants)
ɪmʊ́-6ɛ́sɪ́6 v. to feel annoyed
ɪmʊ́-6ɛ́sɪ́6 v. 1) to poison 2) to intimidate, frighten
ɪmʊ́-6ɛ́sɪ́6 v. to grind roughly
ɪmʊ́-6ɛ́sɪ́6 v. to help
ɪmʊ́-6ɛ́sɪ́6 v. to put aside
ɪmʊ́-6ɛ́sɪ́6 v. to chew carefully
ɪmʊ́-6ɛ́sɪ́6 v. to cut into pieces
ɪmʊ́-6ɛ́sɪ́6 v. to coo
ɪmʊ́-6ɛ́sɪ́6 v. to respond rudely
ɪmʊ́-6ɛ́sɪ́6 v. to retell a story
ɪmʊ́-6ɛ́sɪ́6 v. to glance sideways
ɪmʊ́-6ɛ́sɪ́6 v. to strut along, the neck bouncing
ɪmʊ́-6ɛ́sɪ́6 v. to grumble
ɪmʊ́-6ɛ́sɪ́6 v. to be flat
ɪmʊ́-6ɛ́sɪ́6 v. to sit on the ground
ɪmʊ́-6ɛ́sɪ́6 v. 1) to deflect 2) to wipe away liquid
ɪmʊ́-6ɛ́sɪ́6 v. 1) to be weak 2) to be unreliable in work

ɪmʊ́-6ɛ́sɪ́6 v. to arrange, pack
ɪmʊ́-6ɛ́sɪ́6 n. milk-bush (Euphorbia tirucallii)
îpápé-éṣí- (îpápá-) v. to moisten
îpas- n. stomping-feet dance
îpás-ёт-ён- v. to dance, stomping the feet
îpéèr-ён- v. 1) to spend many days 2) to starve
îpel-ésí- (îpél-) v. to peel off
îpépét-ésí- v. to strew about
îperîpèr-ён- v. to move from person to person, in fighting, speaking, etc.
îpépté-ésí- (îpétá-) v. to ‘platform’
îpiprí-an-ön- v. to be intelligent
îpîjík-ésí- v. to investigate
îpím-ésí- (îpîm-) v. 1) to measure 2) to test; fr. Sw. ku-pima
îpînîpîn-ён- v. to pour or leak in small drops
îpirîpîr-et-ён- v. to rise, of the sun
îpit-ésí- (îpît-) v. to tighten
îpîpîr-ésí- v. to twist fiber
îpîkák-ön- v. to solidify when cooled (of heated foods)
îpîm-éto-ён- v. to dash off
îpîn-ён- v. to grind quickly
îpîpîn-ён- v. 1) to wrap together 2) to stuff in a container
îpîts-ésí- (îpîts-) v. to plaster
îráb-ésí- v. to harvest finger millet
îráfrå-ён- (îrá-) v. to be shiny red
îrák-ím-éto-ён- v. 1) to have an orgasm 2) to get high 3) to have a seizure, pass out
îrañ- n. small corn-cob pieces
îrañ-ésí- (îrañ-) v. to spoil, ruin
îráp-és-okâ- v. to lay claim to
îrárák-ésí- v. 1) to crack grain 2) to mix grains while grinding
îrar-ésí- (îrar-) v. to gather scattered material
îreb-ésí- (îreb-) v. to chop up into little pieces
îrebíreb-ésí- v. to cause throbbing
îrèj-ésí- (îrèj-) v. to clear land
îrem-ésí- (îrem-) v. to scare off
îret-ésí- (îrèt-) v. to prevent
îrèd-ésí- v. to keep a tight hold on
îrèd-ön- v. to die
îrît-án-ön- v. to be sticky
îrîj-ésí- (îrîj-) v. to tie tightly 2) to rub
îrîk-ésí- (îrîk-) v. 1) to surround 2) to divide into groups
îrn-ésí- v. to look inside
îrin-ён- v. to turn
îrîts-ésí- v. to keep, care for
îradíríd-ésí- v. to do controlled burning
îrarsí- n. Maerua triphylla plant
îrârâk-ân-ön- v. to get too busy
îrum-ésí- v. to cling
îrûrûb-ésí- v. to insert a stick to hold a hive’s grass cover
îsal-ésí- (îsal-) v. to winnow, sift
îsal-ён- v. to be right
îsèb-ésí- (îseb-) v. to scarify
isɛ-ɛsɪ́ (isá- v. 1) to miss 2) to survive a mishap

isɛ́ƙɔ́6án6óni6 v. to be disobedient

isɛ́lɛ́t6ɛ́sʊƙɔtɪ́6 v. to ricochet

isɛ́p̩-ɔ́nɪ6 v. to be lame, paralyzed

isfil-ɛsí v. to pick out, sort out

isf̩t-ɛsí v. to accuse

isika- n. bullrush

iskar-ɛsí v. to completely overpower, even after victory

isk-ɛsí (isîk- v. 1) to cover a hole 2) to pump a ball 3) to eat too much

islí-án-ɔní v. 1) to be careless 2) to do dirty jobs

islí-ɔnɪ6 v. to be peaceful

ism-ɛsí (isím-) v. to peel sweet stalks

isnák-ɔnì v. to sprout (of maize cobs)

is-ɛsí (is- v. 1) to let slide 2) to swallow without chewing 3) vulg. to give birth

isökîsk-ɔnì v. 1) to run while kicking or bucking 2) to coast

ism-ɛsí (ism-) v. to cut brush carelessly

isǿrɛ́sí v. to sip slowly

isǿrɪ́-ɛsí v. to shove along the ground

isɔ́sù́-ɛsí v. to stir (while sleeping)

isɔ́wɔ́-ɔnì v. to walk slowly

isuk-ɛsí (isúk-) v. 1) to pass, overtake 2) to surpass

isumùsùm-ɔnì v. 1) to jog 2) to slowly accelerate

isùɲ-ɛsùm-  v. to finish off

isùsù-ɛsí v. to oppose

isut-ɛsí (isú-t-) v. to move

isùwɔ́-ɔnì (isùwá-) v. to be overcrowded (of crops)

iʃafɛ-ɛsí (iʃáfá-) v. to shake off

iʃf̩m̩-ɛsí (iʃ̩f̩m̩-) v. to fall

iʃf̩ts-ɛsí (iʃ̩ts-) v. to exchange

ıták-ɔnùkɔtɪ v. to be confused

ıtákɔ́wàn-ɔnì v. to start first

ıtákɔ́l-ɛsí v. 1) to be closed up 2) to fit so-so

ıtal-ɛsí (ıtál-) v. to forbid, ban

ıtámá-án-ɔní v. to behove, be necessary (must)

ıtánjá-ɔnì v. to be fussy

ıtáš-ɛsí v. to give a lesser share

ıtátám-ɛsí v. 1) to teach, train 2) to preach 3) to advise

ıtáté-ɛsí (ıtátá-) v. to walk (trans.)

ıtátsù́-án-ɔní v. to be lazy

ıtɛ̄-ɛsí (ıtɛ́-) v. to cut the ears of oxen for decoration

ıtɛ́ɛ́-ɔnì v. to sit/lie with legs straight

ıtɛ́ɛ́r-ɔnì v. to stand in a line facing one direction

ıtɛ́n-ɔní v. to be straight
ɪ tep-ɛsi- (ɪtɛp-) v. to inseminate, copulate (vulg. to fuck)
ɪ tepɪtɛp-ɔni- v. to skip from rock to rock
ɪ tɛtɛ-ɔni- v. to balance
ɪ tɛ-ɛtni- v. to arrive (here)
ɪ tɛɓiɓ-ɔni- v. to have contractions
ɪ tɪl-ɛsi- v. to have a negative effect
ɪ tɪlɪtɛl-ɔni- v. to hurt, of joints
ɪ tɛnbɛ-ɛsi- v. to move (body part)
ɪ tɛ-ɛsi- (ɪtɛŋ-) v. to force
ɪ tɛ-ɛni- v. to delay
ɪ tɛ- n. Flame tree (*Erythrina abyssinica*)
ɪ tɛw-ɛsi- (ɪtɛw-) v. to strain liquid
ɪ tɛdɛ-ɔni- v. to wither
ɪ tɛkɛd-ɔni- v. to have a stitch in one's side
ɪ tɛkɛ-ɔni- v. 1) to hobble 2) to be paralyzed in both legs
ɪ tɛl-ɛsi- (ɪtɛl-) v. to char food
ɪ tɛmɛ-ɔni- v. to be next to
ɪ tɛŋɛ-ɛsi- v. to assault
ɪ tɛ-ɛni- (ɪtɛn-) v. 1) to reach 2) to find
ɪ tɛrɛɛ-ɛsi- v. to make ridges
ɪ tɛtɛŋɛ-ɛsi- v. to tap (of woodpecker)
ɪ tɛtɛrɛ-ɛsi- v. to rub on a stone
ɪ tsak-ɛsi- (ɪtsak-) v. to break into pieces
ɪ tsɛn-ɛsi- (ɪtsɛn-) v. to disturb

ɪ tsɛ-ɛn-ɛsi- (ɪtsɛɛ-) v. to behave badly
ɪ tsɛdɛtsɛ-ɛsi- (ɪtsɛédɛtsɛ-) v. to dig holes randomly
ɪ tsɛɛr-ɔni- v. to fall, of first rains
ɪ tsɛɛtsɛ-ɛsi- (ɪtsɛɛtɛɛ-) v. to clamber up
ɪ tɛfɛ-ɛsi- (ɪtsɛf-) v. to clean with fingers
ɪ tsik-ɛsi- (ɪtsɛk-) v. to charge, order
ɪ tsɛpɛtsɛ-ɛsi- (ɪtsɛpɛtsɛ-) v. 1) to vaccinate 2) to have goosebumps
ɪ tɛr-ɛni- v. to be right
ɪ tsɛbiɛtsɛ-ɔni- v. to be multi-colored
ɪ tsɛkɛtsɛ-ɛsi- (ɪtsɛkɛtsɛ-) 1) bend up and down 2) to crack a whip
ɪ tɛmɛ-ɛsi- (ɪtɛmɛ-) v. to pound into flour
ɪ tsɛ-ɛni- v. to dive down 2) to clamber down
ɪ tsɛl-ɛsi- (ɪtsɛl-) v. 1) to pay for an impregnated girl 2) to redeem kids from a divorced husband
ɪ tsɛ-ɛn-ɛsi- (ɪtsɛɛ-) v. to gather
ɪ tsɛɛ-ɛsi- (ɪtsɛɛ-) v. to burn
ɪ tɛrɛtsɛ-ɛsi- (ɪtsɛɛtɛɛ-) v. 1) to pour out 2) to over-spend
ɪ tsɛtɛtɛtɛtɛ-ɛsi- (ɪtsɛɛtɛɛtɛɛ-) v. to be disgusted
ɪ tsɛɛkɛ-ɛni- v. to be nearly ripe
ɪ tɛr-ɛsi- (ɪtɛr-) v. 1) to pour into 2) to give rectally
ɪ tsɛɛ-ɛsi- (ɪtsɛɛ-) v. 1) to wrap 2) to hog-tie an animal
ɪ tɛtɛ-ɛsi- (ɪtɛtɛ-) v. to sew, mend
ɪʊɗ-ɛsɪ́ v. to organize
ɪʊm-ɛsɪ́ v. to capture a bride
ɪwár-ɛsɪ́ v. to plaster with mud or manure
ɪwas-ɛsɪ́ (ɪwás-) v. 1) to smear, rub on 2) to clean with oil
ɪwáwáɗ-ɛsɪ́ v. to dice into pieces
ɪwáwɛ́-ɛsɪ́ v. to caress
ɪwɛ́ɛ́l-ɛsɪ́ v. to spread, scatter
ɪwɛt-ɛsɪ́ (ɪwɛ́-) v. to sip slowly
ɪwď-ɛsɪ́ v. to grind into powder
ɪwɪ́-ɛn-  v. to shine
ɪwínɛ́-ɛsɪ́ v. to quarrel constantly
ɪwízl-ɛsɪ́ v. to wink an eye
ɪwók-ɛsɪ́ (ɪwók-) v. to shake a gourd filled with water
ɪwók-ɛ́ni v. to be proud, arrogant
ɪwóŋ-ɛn- v. to intend to do
ɪwóő-ɛ́ni v. to be frail and timid
ɪwosfówş-ɛ́sɪ́ v. to cut meat while weapon is still in it
ɪwuf-ɛsɪ́ (ɪwóf-) v. to gather
ɪwóľ-ɛ́ni v. 1) to ignore 2) to be arrogantly unteachable
ɪzɔfùzəb-ɛ́sɪ́ v. to whip with small sticks

Jj
jejei- n. leather sleeping mat
jíjei- n. opposite sloped bank

Jj
jà́-gwaa- n. helmeted guineafowl
jaé- n. Gramineae grass sp.
jagw-e- n. daughter
jáká- n. elders
jakátós- v. 1) to gag 2) to be nauseated
jakw-ád-oni- v. to be cowardly
jalán-óni- v. 1) to be different 2) to be foreign
jáláts- n. plant sp. found on Turkana plains (Kenya)
jam-úd-oni- v. to be velvet
jani- v. broom; cf jen
jaọ- n. shrub sp. (Grewia bicolor)
jarám-ét-oni- v. to freeze still
jaul-ím-oni- v. to be bald
je-ə- ni- v. 1) to stay 2) to survive
jení- n. broom; cf jan
je-änner- v. to be pure white
jjido- n. Acalypha fruticosa plant
jíki adv. always
jíke adv. also, too
jíki adv. 1) completely, totally, very 2) forever
jikijik-őn- v. to sway gently
jilififi- n. ash starling
jilîó- n. small bird sp.
jirri- n. behind
jiróku- n. sharp stick
jolilé- n. black kite
jorijorí- n. cricket
ʝɔɓ6ɔnɪ6 v. to be medium-sized
jɔk-ɛşí v. to look at, watch
jakalokaa- n. demonic trance
jɔl-ɔnɪ v. to be bland, tasteless
jɔşde- n. small fiber rope
jɔrɔrɔ- n. 1) army ant 2) soldier
jɔtɛ- n. small *Adenium obesium* sisal, whose root is used by boys in spearing practice
jul-amá- n. chunk (e.g. of meat)
ju-esí v. 1) to roast 2) to bake
jujuu- n. plant sp.
jamû- n. soil, dirt
jumujum-âsí- n. sand
jûn-ánde- v. to make trouble
jûr-ɛşí v. to massage
jûrumú- n. branch
jûr-ùt-ùm-ɔnɪ v. to be slippery
jôt-ɛşí v. 1) to slip out 2) to milk

Κk
kabâda- n. 1) rag 2) paper
kabasá- n. flour
kábil-an-et-ɔnɪ v. 1) to be multi-textured (of meat) 2) to be black and white (of livestock)
kâbusubus-án-ɔnɪ v. to be blue-gray
kâfa- n. 1) diaphragm 2) pectoral
kaʃana- n. oblong gourd
kafélébel-án-ɔnɪ v. to bank
(while flying)
kafûrûts-án-ɔnɪ v. to be murky
kâdîfo- n. maize or sorghum blossoms
kaðokói- n. black-faced vervet monkey (and blue monkey?)
kâd-óni v. to expect
kaðós-ùm-ɔnɪ v. to be petite
kaéa- n. 1) tortoise 2) tortoise-shell guitar 3) small vehicle
kafu- n. thorn
kaidei- n. pumpkin
kaikó-óni- (kaiká-) v. 1) to be dim 2) to get dark at dusk
kait-esi- (kaît-) v. 1) to taste 2) to test 3) to experience
kamí- n. year
kaká- n. leaf
kak-àd-án-ɔnî- v. to be leaf-green
kakir-ɛşí v. to twist around
kâlê- n. debt
kalâpâ-án-ɔnî v. to be flat
kaléêtsèr-án-ɔnî- v. to be rickety
kâmár-án-ɔnî- v. to be horizontal
kamudurâd-ɔnî- v. to be stupid
kaná- v. back
kanajàa- v. beehive
kân-ɛşí v. 1) to lick 2) to wipe off
kán-ùnî- v. to be cloudless
kânumú- n. simsim
kaŋ-àd-ɔnî- v. to be hard to chew
kaŋɛra- n. gourd
kapuratà- n. *Ipomoea wightii* vine
karâmû- n. male lesser eland
karám-óni- n. to be unable to work
karatsi- n. 1) chair, stool, seat 2) political office
karɛɛ6 n. Canthium pseudosetiflorum plant
karofó- n. scorched earth
karonjó- n. harvest season
káruɓúu- n. unripe maize
káruɓúɓ6óni6 v. to be inflated
káruɓúɓ6óni6 v. to be inflated
karuts’u- n. carrot; fr. English?
kasɪ́ta6 n. hook-thorn acacia (Acacia mellifera)
káts-éde- n. front part
kats-ési- v. to look at sth. while shielding eyes from the sun
katumání- n. maize variety
kaúdzo- n. 1) Craibia laurentii plant 2) money
káu- n. ash(es)
kaw-ési- v. to cut by swinging a sharp tool
káxo- n. 1) tassel 2) lamp, torch
kazaaan-óni- v. to be scattered
kazití- n. anus
kéaa- n. army; fr. K.A.R., the King’s African Rifles
kédi- n. 1) unit of time 2) unit of space 3) opportunity
kedí-án-et-oni- v. to be black with a white rump
kiŋomú- n. seeds
kírérébú- n. millet left to sprout the following year
kirotí- n. sweat
kiʃó- n. freshly cut switch
kiyańtu- n. upper grinding stone
kipúr-án-et-oni- v. to be red-brown
kírarápá- n. 1) layer of slime on stagnant water 2) skin on boiled milk 3) outer layer of stomach
kitó-ési- v. to be what color?
kiwílá- n. newly cleared garden
kíz-mái- v. to move in single-file
kódó- n. leprosy-like skin disease
kódó-óni- v. to be bent upwards (of horns)
kodoú- n. Grant's gazelle
kókírí-kó- n. bird sp.
kókó- n. mountain ridge
kókó-ósí- n. thistle-like plant
(Asparagus flagellarsis)
koko-ési- (kók-) v. to line a hole with sisal leaves to catch ants
kol-án-ét-oni- v. to have a white stripe
kolimé- n. patas monkey
kólítsi- n. neck-tie
kóló- n. bird sp.
kóló-ósí- n. animal skin clothing
komol-án-óni- v. to have patches of color
kómoló- n. Canthium lactescens tree
komómá- n. 1) scale 2) cracked skin 3) plant sp.
komosí- n. buttock
komótsá- n. elephant's trunk
koní- n. muscle, ligament, tendon
kopa- n. 1) vulture 2) funeral goat
kopikopí- n. ankle
kóri-án-eti-ni v. to be spotted like a giraffe
kóri-ét-oni- (kɔr-) v. to wrestle, struggle
kóróro- n. spotted eagle owl
koryó-óni- v. to have labor pains
koto adv. 1) so, then 2) but
kotimá- n. hole in a tree
kotoba- n. female greater kudu
kots-ésí- v. to fetch (e.g. water)
kots-oni- v. to be trapped
koʃ-és-úƙotí- v. to remove a scab
kɔb-oni- v. to be fresh and hard
(of maize)
kɔ́ddza- n. yellow-necked spurfowl
kɔ́fná- n. whiff, scent
kɔka- n. small reeds
kɔk-ésí- v. 1) to close 2) to cover
kɔkɔs-án-oni- v. to mature fully
kalá- n. he-goat
kɔllí- n. cucumber-like plant
kɔlɔl-án-óni- v. 1) to be old 2) to be infertile
kɔn- n. one
kɔnísí- n. incest
kɔn-ή-ésí- v. to cook
kɔrɛ- n. fried meat
kɔr-ɛt-ésí- v. to char
kɔrɔɓádi- n. thing
kɔrɔf-ím-oni- v. to be emaciated
kɔrɔkú- n. 1) finger 2) claw
kɔt-ésí- v. to banish, exorcise
kɔtɔrá- n. oribi
kótsá- n. scabies
kɔw-óni- n. 1) to be old, 2) to be chronic 3) to be old-fashioned, outdated
kua- n. grass
kúb-oni- v. to be unseen
kúbura- n. big container
kúba- n. hill
kúcé- n. rocky home of hyraxes
kúf-óni- v. to be short
kukáti- n. young primates
kuku-an-óni- v. to scamper down
kukudetsí- n. bird sp.
kukuseni- n. 1) underground storage hole 2) ground-hive
kumuts-án-óni- v. to be joined
kunétá- n. Ximenia americana tree
kupukú- n. pestle
kup-oni- v. to be cloudy
kuri- n. 1) shade 2) shelter 3) assembly, meeting
kuri- n. Vepris glomerata plant
kur-ésí- v. to defeat
kúrtóádi- n. things, belongings
kurkurí- n. cloth-eating insect
kúrtókúrí- n. 1) shadow 2) spirit, ghost 3) reflection 4) photography 5) idol
kurkúr-óni- v. to avoid eye-contact
kuts-ák-óni- v. to urinate
kutsúbae- n. plant sp.
kútųnį- n. knee
kutútá- n. large ant-hill
kuɓáa- n. husband of my wife's sister
kʊfá- n. drizzling rain
kuɓaɓá- n. bushbuck
kup-ɛ́si- v. to burn
kʊ́raɪ6 n. wait-a-bit acacia (Acacia brevispica)
kʊrakɪ6 n. raven, crow
kʊ́rʊ́kʊ́r6ɔ́sɪ́6 v. to work hard
kʊt6ɔnɪ6 v. 1) to say 2) to name 3) to intend to do 4) to do
kwárá n. troop of baboons
kwɑ́sɪ́6 v. 1) to damage 2) to cause a negative change
to prevent
kwɛreb-a- 1) to damage 2) to cause a negative change
kwɛ́sɪ́6 v. 1) to be chewy 2) to be blunt (teeth)
kwalikwáli6 1) to be little, small 2) to be young
kwɛ́lɛ́ɗá6 1) to be big and pointy (of ears)
kwɛ́lɛ́sɪ́6 v. 1) to wait 2) to expect 3) to protect a garden from pests
kwɛ́sɪ́6 n. termite that appears after rain
kwɛ́sɪ́6 1) arm, hand 2) branch 3) sleeve
kwɛ́dɔ́nɪ6 v. to be delicate
kwɛ́d-ɛ́sɪ́6 n. to have an erection
kwir-idoni6 v. to be slippery
kwɛ́lsɪ́6 n. francolin
kwitsilá-idi6 n. to be juicy
kwɛ́sɪ́6 v. to get dislocated
kwil-ɛ́sɪ́6 n. 1) to grow suspicious 2) to be embarrassed
kwɛ́sɪ́6 n. hyrax
kwɛ́sɪ́6 (kwɛ́sɪ́ka-) v. to grimace as if laughing
kwɛ́sɪ́6 v. to anoint in blessing
kwɛ́sɪ́6 n. mountain
kwɛ́sɪ́6 1) urine 2) progeny
kwɛ́sɪ́6 v. 1) to be young
kwɛ́sɪ́6 2) to be persistent in getting details
kwɛ́sɪ́6 v. to be big and pointy (of ears)
kwaɗ-ɛ́sɪ́6 v. 1) to wait 2) to expect 3) to protect a garden from pests
kwɛ́sɪ́6 n. grasshopper
kwɛ́sɪ́6 n. termite that appears after rain
kwɛ́sɪ́6 n. to be stubbornly opposed to other
ƙir-oni- v. to thunder
ƙiroti- n. upper riverbank
ƙidz-esi- v. to bite
ƙit-ési- v. to harvest by plucking
ƙis- n. leather strap
ƙódofóo- n. centipede
ƙokat-ési- v. to do physical therapy
ƙokóo- n. big gourd used as a pot
ƙoko-án-ési- v. to stretch (body)
ƙolomú- n. 1) spoon 2) spade
ƙol-oni- v. to have a nosebleed
ƙon-oni- (ka-) v. to go
ƙóré- n. muscle behind kneecap
ƙóbá- n. 1) navel 2) umbilical cord 3) pistol grip
ƙóbukúbú- n. fig tree sp.
ƙád-oni- v. to cry, complain
ƙádsta- n. hook, hooked instr.
ƙá-ési- v. to straighten
ƙáfá- n. 1) calabash 2) plate
ƙákóta- n. hornbill sp.
ƙáré- n. 1) calabash ladle 2) spade
ƙáránám-óni- v. to be brittle
ƙar-óni- v. to strut, swagger
ƙád-esi- v. to pour out
ƙúdükúdu- n. red biting ant sp.
ƙúló- n. log used to bar gate
ƙuts'ats'i- n. lymph node, gland
ƙúz-um-oni- v. to be tilted over
ƙúd-ési- v. 1) to turn in the mouth with one’s tongue 2) to suck
ƙúj-úd-óni- v. to be full (of mouth when someone is talking)
ƙúk-ím- n. derogatory name for young children
ƙúkúmán-óni- v. to turn one’s back
ƙulé- n. elbow
ƙots'á- n. 1) insect 2) worm
ƙwáakwáa- n. go-away bird
ƙwáatá- n. frog, toad
ƙwáat-ési- v. to give birth
ƙwač-oni- v. to be few, little
ƙwárá- n. scar
ƙwaza- n. 1) clothing 2) goat-skin 3) wedding ceremony involving a goat-skin
ƙwesé- n. 1) broken calabash 2) piece of junk
ƙwí-ési- v. to sprain, dislocate
ƙwí-óni- v. to be bright green

LI
labáŋ-ám-oni- v. to have a wide opening
lafu- n. joint of scapula to chest
lafár-ám-óni- v. to be gaping
lajám-ét-óni- v. 1) to collapse 2) to wilt, wither
lakám-óni- v. to go down out of sight
lakat-i-ési- v. to eat quickly
laŋ-ád-óni- v. to be warm (weather)
lanjir-ôni  v. to be wide, stout
lara-  n. tobacco pipe
lásó-ika-  n. waterfall
liatí-  n. his/her brother
lebêts-ôni-  v. to be two
lebetse  quant. two
leb-úd-ôni-  v. to be bulgy
lédá-  n. lizard sp.
lejée-  n. 1) mental illness 2) demon possession
lelemukání-  n. handleless tool or weapon
lel-ési-  v. to eat insatiably
lemú-án-et-ôni-  v. 1) to be hornless 2) to be fat
léó-  n. your brother
lerúk-úm-ôni-  v. to be mediumsized
leta-  n. beaded dress or loincloth
lêtsá-  n. tiny termites
lêúzo-  n. charcoal
leweñi-  n. 1) ostrich 2) bustard
leba-  n. liquid honey (excl. wax)
lebén-êm-ôni-  v. to be wide open
leó-ôni-  v. to be careless
leem-êt-ôni-  v. to appear
léj-ôni-  v. to catch on fire
leck-ési-  v. to get from storage
lél-ôni-  v. to be openly visible
lená-  n. ratel, honey badger
leñér-êm-ôni-  v. to be circumcised
leñ-ési-  v. 1) to hunt for wild honey 2) to look for food
leñór-ûm-ôni-  v. to be naked
lera-  n. white-thorn acacia (Acacia seyal)
ler-êd-ôni-  v. 1) to be dried hard 2) to be hard-headed
lêza-  n. parasitic plant
lif-ïd-ôni-  n. 1) to be dull 2) to be silent
likíd-ôsi- (likít-)  v. to reach a distant goal
lik-êsi-  v. to nod
lil-ët-ôni-  v. to be shocked
lij-êsi-  v. to pump
lir-ôni-  v. to be unliftably heavy
lîni-ôsi-  v. to be blocked
likíd-ûm-ôni-  v. to be narrow at the middle, broad at the top
lit-ôni-  v. to be new growth
lw-íd-ôni-  v. to be smooth
lobáa-  n. grandchild
lobûrûjì-  n. mold
lobái-  n. bone disease
lóbíliwási-  n. white-tailed mongoose
lobòla-  n. morning glory (Basella alba)
lobózo-  n. donkey snout
lóbúlukúju-  n. HIV-AIDS
lobúrûtutu-  n. bird sp.
loba-  n. 1) cowtail swisher 2) silk
lôdedé-  n. Cucumis figarei plant
lôdikôró-  n. scorpion
lôdîwéí-  n. Maerua angolensis pl.
lóɗúmélá- n. firefly or glowworm
lóɗúm-óni- n. to sink down
lóɗúrúu- n. 1) granary 2) bank
lofilitsíi- n. Sudan gum arabic

(Acacia senegal)
lófúku- n. owl
logeréɲoó- n. grain-eating insect
lofíróku- n. grass sp.
lójúulúu- n. sorghum variety
lokáliliníi- n. black snake sp.
lókemúu- n. thumb piano, sanza
lókíɓóbóó- n. agama lizard
loki- n. parrot
lokilók-óni- v. to wobble
lokilórójó- n. queen bee
lokírítidídíi- n. maize variety
lokítóɲíi- n. hard black stone
lokitoŋo- n. threshold
lokobéle- n. chronic thief
lok-ód-oni- v. to be unsteady
lókdédéma- n. Toddalia asiatica pl.
lokoitíi- n. big waist beads
lókóko- n. worker ant, termite
lokódodo- n. leather water-bag
lokososi- n. anthill with a large opening
lokúɗukudéti- n. Capparis tomentosa plant
lokumú- n. Mimusops kummel tree
lokek-esí- (lokók-) v. to eat glutonously
lokíllíi- n. brown parrot
lokólé- n. eagle
lokóz-ôm-oni- v. to be long-necked
lokúu- n. drinking gourd
lolaɓó- n. to move in a group
lolá- n. to be stuck together
lóméléwá- n. widow, widower
loménió- n. swift, swallow
lomérúká- n. plant sp.
lomila- n. honeycomb formed 3-4 days after hive colonization
lómilímílá- n. glandular swelling
lómoloróó- n. tip of the roof
lomúkí- n. type of gun
lonzútú- n. wedding ceremony involving mixing seeds
lonjiro- n. Meyna tetraphylla tree
lonjór-ôm-oni- v. to be bigger in a spherical shape
lópemú- n. level, storey
lópeñ- n. ghost
lopeí- n. pancreas
lopótsá- n. 1) egg white 2) knee fluid
lópu- n. small edible gourd sp.
lóridá- n. pain while urinating
lorionjoni- n. threshold
lorité- n. plant sp.
lorokoní- n. small adze
lösínáká- n. smut
lösuaŋa- n. stone anvil
losúku- n. candidiasis
lotabuseni- n. whirlwind
lotáđánan-esi- v. 1) to enter by force 2) to rebel
lotímálem-oni- v. to be emaciated
lotiwúóto- n. bird sp.
lótórobétí- n. Zehneria scabra pl.
lotsoro- n. red-billed firefinch
lösósóto- n. fly sp.
lötósúmu- n. small shack
lotsílotsí- n. animal-hoof rattle
lotúđuzée- n. nickname for a hyrax: “no tail”
loukú- n. 1) predator 2) monster
loúpalí- n. cobra
lóúpee- n. Pachycarpus schweinfurthii plant
loyetée- n. kind of barbet
lɔɓalɪ́- n. drying rack
lɔɓɛlɛɲɪ́- n. spoiled millet
lɔ́ɓɪ́rɪɓɪ́rá- n. 1) spinal cord 2) marrow of backbone
lɔ́ɓɪ́zɪ- n. roof top
lɔ́ɓɔ́ŋɪɓɔ́ŋɪ- n. Kleinia tree sp.
lɔɓʊ́kɛʝɛ́- n. type of stool
lɔkaapí- n. shoelace
lɔkapetá- n. abdominal sickness
lɔkapúrá- n. steam
lɔkatata- n. African wild date palm (*Phoenix reclinata*)
lɔkaudé- n. weevil
lɔkéjóu- n. water running down a flat surface
lɔkéróo- n. *Cassia singueana* tree
lɔksúnáa- n. mastitis
lɔktorá- n. pinworms
lɔkóá- n. hooked stick
lɔkórí- n. pubis, pudenda
lɔkóđá- n. small granary
lɔkutórá- n. 1) funnel-like calabash stem 2) funnel
lɔkɔɗɪ́ƙɔ́ɗ- n. to be tall-necked
lɔkɔ́ŋʊ- n. sacred tree
lɔléćóu- n. cholera
lɔlɔwɪ́ɪ- n. *Commiphora campestris* plant
lɔmɛ́ʝɛ́kɛlɛ́ɛ- n. cockroach
lɔmɛ́lɪ́ɪ- n. lizard sp. (possibly striped skink)
lɔmɛ́ɗaátɪ́- n. *Triumfetta annua* (Datura stramonium)
lɔmɔ́ɗaátɪ́- n. inedible mushroom (Datura stramonium)
lɔmɔ́ɪ- n. black fly sp. associated with warthogs
lɔŋɪzɛtɛ́- n. black fly sp. associated with warthogs
lɔŋɪzɛtɛ́- n. black fly sp. associated with warthogs
lɔŋɪzŋjízá- n. 1) root disease 2) toe wound
lɔŋstá- n. enemies
lɔɔrɔ́nɪ- n. glow of a fire
lɒpɛ́ɗɛpɛ́ɗ- n. bat
lɔpɪ́rɪpɪ́rɑ- n. wood-boring insect
lɒptɑ́f- n. platform
lɔ-ɔd-ɔnɪ- v. to be bulbous
lɔtɑfara- n. Gramineae grass sp.
lɔtɪ́lɪ́lɪ- n. grass seeds that pierce clothing and poke the skin
lɔtɑ́fɑ- n. tobacco
lɔtsɪ́kό- n. garden rain shelter
lɔtsŏ́gɔmɑ- n. grass sp.
lɔwɪ́dɪ́- n. trap for small animals
lɔwɪ́nɪ́- n. small tree bee
lɔwɪ́rɪwɪ́r-ɔ́nɪ- v. to sprint
lúɡumɑ- n. hard maize meal
lụj-ů́d-ɔnɪ- v. 1) to be weak-necked 2) to be plump
lukɑ- n. squirrel
lúkúɗuɗ-ːán-ːɔ́nɪ- v. 1) to slither 2) to meander, zig-zag
lukǻm-ɔnɪ- v. to be insufficient
luk-ɛsí- v. to swallow
lùl-ɔnɪ- v. to be distantly seen
luluwul-ɛsí- v. to rub with legs
lum-ů́d-ɔnɪ- v. to be pliable
lúluwul- n. small pieces of firewood
luɗ-ɔnɪ- v. to congregate
lujulů́j-ɔnɪ- v. to be full
lwáŋ-ɔnɪ- v. to drop out of sight
lyam-ád-ɔnɪ- v. to be powdery

Mm
madám-ɔnɪ- v. to fall behind
mádɪńi- n. 1) spleen 2) organization
makúl- n. grass beehive cover
mak-ɛș-ůkọ́tį- v. to give away
malaků́r- n. Vigna frutescens plant
malor- n. Sansevieria robusta pl.
maŋ-ád-ɔnɪ- v. to be too thick
marán-ɔnɪ- v. to be good
marů́j- n. homestead fence
másălukɑ- n. ground white ants
masán-ɔnɪ- v. to rot, decay
matů́j- n. cheek
máó- n. lion
máșinjį- n. fatty lining of heart
máyaa- n. common reedbuck (?)
may- n. sickness
mázmáź-ɔnɪ- v. to be sweet-sour at the onset of fermentation
me-ɛsí- (ma-) v. to give
meleké- n. Lannea schimperi tree
meleti- n. grass sp.
merî́j-án-ɔnɪ- v. to be spotted
mėtá- n. Cadaba farinosa plant
mė́- n. bundle of miraa wrapped in grass and milk-leaf leaves
mekelēl-ɔnɪ- v. 1) to be unbreakable 2) to be unchewable
mekemekáń- n. pangolin
mɛ́l̩kůrɑ- n. wild cowpeas
mená- n. 1) words 2) issues 3) problems 4) compl. what
mérdédé- n. *Vernonia cinerascens* plant
merreb-â- n. v. to be cowardly
mese- n. homebrew beer
mets-â- n. v. to erect poles
mezra- n. superb starling
misdz-â- n. v. to smell, stink
mifirigîr-ân-â- n. v. to be hazy
mi-â- n. v. to reject as unsatisfactory
miléku- n. *Canthium pseudosetiflorum* tree
milîl-â- n. v. 1) to be syrupy sweet 2) to be watery
misi comp. 1) whether 2) either
misimîs-â- n. v. to be seen afar
midîkî- n. grey-headed sparrow
mîjîl-â- n. v. to be tiny, narrow
milîâî- n. *Gramineae* plant sp.
mil-îd-â- n. v. to be sparkly
mil-îdî-â- n. v. to be smooth
mîn-îsî-1 v. to love
mîn-îsî-2 v. to fix an iron implement on a tool/weapon
mnîk-îm-â- n. v. 1) to be gummy 2) to be frugal
mînî-â- n. wild cat
mip-â- n. v. to be deaf
mîkî- n. green mamba
mînîf-îm-â- n. v. to be smaller than expected (e.g. of a hole)

misái- n. *Rhus natalensis* shrub
misîsî- n. *Gnidia subcordata* shrub
mitimîf-â- n. v. to be sweet-sour
mitîrîm-â- n. v. to be withered
mit-â- n. v. to be (sb. or sth.)
mîtsî- n. testicle
mîyiya- n. *Hippocratea africana* pl.
mîga- n. uncut vegetation
mîkolî- n. *Ozoroa insignis* tree
momọâ- n. 1) maternal uncle 2) son of a sister
momotâ- n. his/her maternal uncle
mo-â- n. (ma-) v. to be sick
mîr-ô- n. v. to grow, sprout
mîkî-â- n. v. 1) throat 2) voice 3) shaft
mîr-ô- n. v. 1) to fear 2) to respect 3) to run away
mîjî-â- v. to peel off
mîkî-â- n. v. to cover white-ant hill with grass and soil
mîkî-â- n. small pool in rock
mîkî-â- n. v. to gossip
mî-â- n. v. to wilt, wither
mîza- n. *Grewia villosa* tree
muceé- n. 1) path 2) way, method 3) destiny, luck
muč-ésí- v. to bury
múdźudúu- n. Senegal coucal
múdźık-án-óni- v. 1) to be blind 2) to close the eyes
mujál-ám-óni- v. to be bland like undercooked porridge
mukétí- n. flesh between jaws
mukúa- n. night
muń-ám-óni- v. to be brown
mulárán-óni- v. to be upset (of stomach)
mumú-án-óni- v. 1) to be far-sighted 2) to be too far to see
múmuta- n. Selaginella phillipsiana moss sp.
mupu quant. all
múrotsío- n. tree sp.
muruté-éku- n. open path
mususabáa- n. biting grub that Ik children play with
musus-án-óni- v. to be hung-over
moka adv. 1) forever 2) never 3) really, totally
mokut-ési- (mukót-) v. to close up like a fist
mökésí- n. tree bee
mukór-óm-óni- v. to be hunchbacked
mólokoč-óm-óni- v. to have gas and/or nausea
múmó-óni- v. 1) to grieve in anger 2) to be going off (food)
mur-ésí- v. to ferment (e.g. flour for beer)
muroni- n. 1) Cynodon dactylon plant 2) tobacco garden
musa- n. Euphorbia grandiformis tr. mutuó- n. wooden pin, needle

Nn
náabúsi- n. hedgehog
naasepañá- n. worker bee
nabéza- n. allergy
náb-ón-úkóti- v. 1) to finish, complete 2) to be enough
nabálámorúu- n. mouse sp.
nábó adv. 1) again 2) moreover
nádzaka- n. my friend
nadépe- n. flea
nadiaka- n. 1) long dress 2) hair on back of head
náf-óni- v. to call out rudely
náganága- n. monitor lizard
na-íd-óni- v. to be gummy
nattakípúratá- n. caracal
nakaríbá- n. pods, husks
nakatumání- n. maize var.
nakiríri- n. sheath
nakolítáka- n. striped snake sp.
nakúsó- n. animal sleeping place
nakútá- n. wooden hoe-like tool
nakafú- n. 1) tongue 2) language
nákíraa- n. striped hyena
nakólíti- n. log brace (for gates)
nakölé- n. 1) sinus 2) room
nakw- v. to suck, suckle
nakw-inda- v. 1) to be attractive 2) to fit well
nakwini- n. stick to hold snares
nalemuza- n. bird sp.
nalidi- n. sorghum var.
nalój- v. to be loose-fitting
nalogyata- n. desert wilderness
namedó- n. back of the head
námúi- n. sister-in-law
nanjumji- n. axe-head
naporamo- n. bird sp.
napélemu- n. bird sp.
napériti- n. campsite
naporowáa- n. pumpkin sp.
napódee- n. namaqua dove
naróu- n. viper sp.
naruje- n. neighborhood
nasemé- n. big oblong gourd
nasorongi- n. large intestine
nateóó- n. worker termite
natélewáa- n. rat sp.
natóba- n. sorghum var.
natajáa- n. hyena nickname
natolokaa- n. rainbow
natscrá- n. striped ground rat
nats- v. to cook repeatedly
natsi-ka- n. grass granary cover
natsíbúlí- n. female bushbuck
natúku- n. group discussion
na-ud-ina- v. to be flimsy
ńda prep/conj. 1) and 2) with
ndai- inter. pro. where?
ndo- inter. pro. who?
nébu- n. 1) body 2) self
nes- v. 1) to hear 2) to listen
ne-nda- v. to endure
nepe-án- v. to argue
ner-éd- v. to be wobbly
nérnér- v. to be unbalanced
nesek-án- v. 1) to be clean 2) to be healthy
nikw-inda- v. to be tough (stiff)
nikwinik- v. to be flimsy
nim-edi- v. to scout out
nir-ida- v. to be sticky
nisitsinitsi- n. fatty nape of neck
nok-ési- v. to block off
noknók- v. to be shaky
nok-ódn- v. to flimsy
no-ósá- (na-) n. cleverness
nosa- n. noise
nats-ódn- v. to be sticky
ńtí- pro. they
ńtóróndó inter. no
ntsí- pro. he, she, it
nts'ak- v. to defecate
nusu- n. deep sleep
nats-ési- v. to mend with mud
nónóó- v. to escape
nusá- n. male leopard
Ny

náajúni- n. dormouse; means ‘not seen’ in Karimojong

nábulán- n. vest

nábaaráti- n. wrist-knife

nábaɓáá- n. scaly skin

nábaɓúu- n. plant sp. whose leaves are pepper-red

nábaáit- n. dawn

nábaaraasán- n. first layer of thatch

nábolf- n. 1) girls’ beaded skin garment 2) beaded decoration

ná búsi- n. 1) painless swelling 2) plant sp. used to treat knees

náburai- n. maize

nábúrét- n. sheath

nábwaá- n. hot scrubland

nácádaá- n. decorative animal skin

nádaδ-éí- v. to collect garden rubbish

nádúi- n. crater, volcano

nájoreé- n. gang

nájaaráa- n. button

nákááɗoŋo- n. cowbell, rattle

nákásaoo- n. robe

nákabíri- n. sorghum variety

nákabɔbwáátá- n. finger ring

nákádenjoo- n. women’s apron

nákaraká- n. round cap

nákakuráa- n. metal hoe

nákalaáta- n. metal basin, pan

nákáliriktí- n. metal-tipped stick

nákaloó- n. alarm

nákamaridúku- n. cotton

nákamukaá- n. vine sp.

nákámusi- n. darkness

nákamuláraá- n. pepper plant

nákaparatá- n. aluminum earring

nákápurtí- n. whistle

nákarátí- n. fig tree sp. (Ficus)

nákátürbáá- n. fruit tree sp.

nákiláka- n. brassiere

nákolá- n. 1) string 2) thin body part 3) rope neck-trap

nakuji- n. god, God

nákujáa- n. riverbed waterhole

nálaajáití- n. long grass sp.

nálakutsí- n. wedding ceremony where new wife makes beer for her husband’s elders

nálakamáítí- n. collarbone

nálamorúu- n. flute, pipe

nálemú- n. rooster’s crown

nálésoó- n. light, thin garment

nal-id-oní- v. to be squishy

nálukutújuú- n. caracal, serval?

námaá- n. grass for thatching

namadájí- n. tick

námakadáá- n. AK-47 rifle

námakadjí- n. soda ash

námakajjé- n. 1) gonorrhea 2) urinary tract infection

námakukú- n. M-shaped stool

námali- n. 1) arrow, bullet 2) boy
ɲámánmaní- n. *Hibiscus aethiopicus* plant
ɲámartióti- n. 1) wire bracelet 2) round metal earring
ɲamatidáá- n. type of gun
ɲámatsari- n. mark, sign
ɲámódó- n. meat from front of animal thighs
ɲánamó- n. lake, sea
ɲännọ- n. leather whip
ɲińiwáńi- n. cactus
ɲañá-án-etu- n. to be yellow
ɲañál-óm-etu- n. to have a gap in the teeth
ɲañalúrá- n. kidney
ɲañaróó- n. immature maize
ɲañ-é- n. to avenge
ɲañufú- n. 1) ostracized hyena 2) beast, monster
ɲaparań- n. slingshot, catapult
ɲapadér- n. large inedible gourd
ɲapalań- n. red soil
ɲapalaranj- n. broken pot piece
ɲápár- n. flat lid
ɲapatsolé- n. bare patch
ɲapayéli- n. bare patch of ground
ɲapú-úm-etu- n. to be powdery
ɲapokání- n. government
ɲaráma- n. girl
ɲarákwá-ák- n. lonely place
ɲarárá- n. cheetah
ɲaráta- n. wall
ɲarámu- n. insecurity, unrest
ɲarárika- n. fat mashed together
ɲarúkómu- n. 1) a cold 2) phlegm
ɲárömá- n. injury
ɲárúpepé- n. long blowing horn
ɲássaaji- n. saddle
ɲasali- n. *Cassia hildebrandtii* plant
ɲasànajño- n. ground bee sp.
ɲatalí- n. 1) custom 2) taboo
ɲátsái- n. trap
ɲátó- n. beaded belt
ɲatsrir- n. tailbone
ɲátúfuú- n. big oblong gourd
ɲátańmu- n. sword
ɲa-úd-etu- n. to be crystallized
jíci- (NOM ḫk) pro. 1
ɲébétuńtí- n. waterbuck
ɲéńróo- n. stick with a knot on one end; rungu in Swahili
ɲébuné- n. straw for sipping beer
ɲéburí- n. drum
ɲéburíi- n. bohor reedbuck
ɲéburócó- n. cartridge
ɲébúrubúri- n. upper riverbank
ɲeccaako- n. washing brush
ɲečaańlá- n. tree sp.
ɲénjí- n. long digging stick
ɲédińji- n. lard
ɲédińporí- n. 1) tobacco smoke residue 2) earwax
ɲédukóri- n. place where a clan harvest white-ants
ɲégeńsi- n. 1) leg-hairs 2) spur
ɲégińri- n. bamboo
ɲéjemú- n. bog
ɲékélí- n. 1) joint 2) plant segment
ɲékiliriŋí- n. striped fox sp.
ɲékilitóni- n. wild okra-like plant
ɲekinerí- n. meat cut
ɲékipiyési- n. initiation
ɲekísóriti- n. 1) venom 2) potion
ɲékurúmu- n. Turkana milk gourd
ɲékútama- n. leather oil container
ɲekuluú- n. clay pot
ɲékűruwo- n. riverbed pool
ɲéleɓuléɓuú- n. Ochna plant sp.
ɲéliwolíwoó- n. infertile couple
ɲélúruú- n. quail
ɲémílií- n. salt
ɲéműkatsí- n. scum
ɲémụkụ- n. ant species
ɲéműketí- n. topi
ɲémurűŋuu- n. miraa
ɲéŋamá- n. joint ligaments
ɲéŋesóó- n. Rhynchosia hirta plant
ɲépíriaa- n. hippopotamus
ɲépórosí- n. big scar
ɲépulée- n. groundnut
ɲerá- n. girls
ɲeríɓáa- n. military operation
ɲeríɓiriɓí- n. mirage
ɲeríɓiriɓí- n. earthquake
ɲerímamaá- n. driftwood
ɲérinkisi- n. line
ɲérípipíi- n. brick kiln
ɲéríi- n. 1) large box trap 2) door curtain 3) slaughtering
ɲéríwi- n. outer fence
ɲérimatsí- n. rear spear-tip
ɲéripéé- n. sporadic rain between wet and dry seasons
ɲeryanja- n. 1) government 2) modernity
ɲésibálíltuíú- n. yellow stone var.
ɲésítí- n. ground bee sp.
ɲesokolókée- n. men's shorts
ɲésoto- n. pointed granary cover
ɲeteedéé- n. 1) headdress feather-holding spring 2) front sight
ɲétéliteli- n. 1) bird waddle 2) earlobe scar
ɲéntendée- n. palm tree sp.
ɲétépesí- n. 1) long lip-plug 2) small reeds used to make a granary
ɲétilí- n. Uganda kob
ɲetipápa- n. crocodile
ɲétiliríka- n. flat basket
ɲétsúrfí- n. watercourse
ɲétułée- n. flute, whistle
ɲéturukúkuú- n. chicken backbone
ɲetuú- n. aardwolf
ɲuédeé- n. wild carrot-like plant
ɲeuria- n. duel
ɲeúríánète- n. animal resting spot
ɲeb-ésí- v. to grumble to oneself
ɲebọ́ŋí- n. white ibis
ɲɛɓʊraŋɪ́ - n. snuff container
ɲɛcáá́ - n. folded cloth worn around the head
ɲɛčelebé̩ - n. nickname for something black
ɲɛcɪptaá - n. arrow
ɲɛcumuá - n. colobus monkey
ɲɛd-éd-oni - n. to protrude
ɲɛdɛkbɛ - n. sickness, disease
ɲɛdɛs-ede - n. trigger
ɲɛdɪ́a - n. concluding marriage ceremony
ɲɛdɪ́i̩ - n. 1) tsetse fly sp. 2) talking drum
ɲɛdɪ́ri - n. female beisa oryx
ɲɛdɔ́nɪɗ - n. to be born with extra fingers or toes
ɲɛdɪ̩ki - n. musical rattle
ɲɛ́esa - n. guy, dude
ɲɛ́esse - n. boulder
ɲɛ́eskɛte - n. comb
ɲɛ́klamaá - n. he-goat sacrificed for a new wife
ɲɛ́klɔ̩daá - n. beaded bracelet
ɲɛkpetɛ́ - n. flat part of back
ɲɛkɪ̩pyɛ́ - n. earth spirit, demon
ɲɛkɔ̩skaká̩tɛ - n. shelter
ɲɛkɔ̩tɔwɔ̩ - n. physical exhaustion
ɲɛkɔ̩skɔ̩tɛ - n. aggregate stones
ɲɛkɔ̩lu̩meɛ́ - n. wooden container
ɲɛkɔ̩raraa - n. skin disease (e.g. mange or shingles?)
ɲɛkwɛ́ - n. swollen testicles (hydrocele?)
ɲɛ́kɛ - n. 1) hunger 2) famine
ɲɛkili - n. bangle
ɲɛkrɔ̩kɔ̩ri - n. saw
ɲɛkwɛ́rɛ́te - n. rake
ɲɛlekerɛ́ - n. roof-reed running horizontally under thatching
ɲɛlɛ́lɪ̩ - n. corpse
ɲɛlemaa - n. dance in which one holds another’s waist
ɲɛlí̩mimí - n. drizzling rain
ɲɛli̩rɛ́ - n. sword
ɲɛlí̩skalaki - n. vine
ɲɛmɛ́leɛ̩ - n. aluminum jewelry
ɲɛmɛ̩lɛkou - n. hoe
ɲɛmerai - n. sorghum var.
ɲɛmí̩dɛ̩mí - n. ear infection
ɲɛmukšo - n. mingling stick
ɲɛnɛ́nɛ̩ - n. 1) bundle of crops 2) swarm of bees
ɲɛnukɔ̩nu̩ko - n. mole
ɲɛɲer - (ɲɛɲɛ́r) - v. to slide apart
ɲɛɲ-ɛ́si - v. to commit violent crimes
ɲɛɲʊnɪ - n. gold dust
ɲɛɲɛ́dɛ̩ɛɛ̩ - n. small piece of aluminum jewelry
ɲɛɲɛ́lʊʊ́ - n. mole
ɲɛɲɛnɛ - n. type of gun
ɲɛɲɛ́nɛkɛ - n. beard
ɲɛɲɛ́tɛá - n. hinge
ɲɛɲɪ̩kɛstɛ - n. lower arm or leg
ɲepité- n. manner, behavior
ɲerreťe- n. marsh
ɲérkiri- n. *Hoslundia opposita* pl.
ɲserebɔ- n. 1) penis shaft 2) curved tool 3) gearshift
ɲeseko- n. attitude
ɲesilbɑa- n. knitting needle
ɲesilisi- n. ligaments joining ribs to backbone
ɲesotce- n. wild carrot-like plant (*Hypoxis obtusa*)
ɲeterekeke- n. tetanus
ɲetilti- n. earring
ɲetɔkidé- n. sunflower
ɲetunet- n. chicken-fox
ɲeurexe- n. sweet-smelling weed
ɲeuroslatsi- n. *Indigofera arrecta* pl.
ɲewokɔ- n. face beads
ɲiwēněe- n. Sugar bush (*Protea gaudii*)
ɲikwaamwiya- n. starling sp.
ɲiminjimati- n. to have gas/bloating pain
ɲimir-esi- n. 1) to clean hands 2) to give to someone's child
ɲip-idoni- n. to be soft
ɲiņi- pro. we (including hearer)
ɲiņoŋar- n. bowl-shaped cap made of human hair
ɲiņoŋari- n. camp
ɲiŋode- n. antbears
ɲiŋomée- n. plant with yellow, gummy fruit (*Cordia sinensis*)
ɲódomoŋolee- n. maize var.
ɲóðoși- n. colostrum
ɲokɔdaburí- n. gerenuk
ɲokɔdope- n. grass sp.
ɲokolípi- n. barren person
ɲokokoró- n. game of throwing spears at objects
ɲokolokoléti- n. tree whose yellow fruits are edible
ɲokorimiti- n. 1) terracing 2) garden boundary
ɲolí- n. dik-dik
ɲolódo- n. horizontal roof beam
ɲomokojo- n. leftovers
ɲomongó- n. cassava
ɲomöròtoto- n. python
ɲórioi- n. mold, mildew
ɲorokó- n. thin person
ɲorótoniti- n. upper arm
ɲósoto- n. 1) large lid 2) temporary shelter used in hunting or gardening
ɲota- n. friend from another tribe
ɲotòbori- n. swamp
ɲotoodóo- n. cane with curved neck used by Turkana women
ɲowodii- n. ground groundnuts
ɲskɔŋɔŋɔ- n. bird sp.
ɲakɔŋɔ- n. chicken
ɲakɔŋüti- n. forceps
ɲskɔpe- n. valley
ɲolɔti- n. okra
ɲomor-esi- v. to abuse verbally
ɲɔ́nɔmɔkɛ́rɛɛ́- n. *Withania somnifera* plant
ɲɔŋɔ́r6ɔ́m6ɔnɪ6 v. to be dirty
ɲɔ́ŋɔtsánɪ́6 n. confusion, chaos
ɲɔpɔɗɔkʊ́ʊ6 n. *tsetse fly* sp.
ɲɔpɔlɪ́6 n. flesh below ribs
ɲɔrɔnɪ́6 n. famine
ɲɔrɔ́pʊ́ɔ6 n. ritual animal organs
ɲɔ́sɔ́ɔ́ƙatá6 n. deep hole-trap
ɲɔtɔ́6 n. men, husbands
ɲɔ́tɔɗɔpáa6 n. small lantern
ɲɔ́tsɔ́ɓɛɛ́6 n. *giraffe* hair cap
ɲʊm6ɛ́sɪ́6 v. to choose
ɲʊ́ɲ6ɛ́sɪ6 v. to collect (e.g. rubbish)

ŋabérí6 n. rib
ŋāb-esi- v. to wear, dress
ŋabiti- n. beads
ŋabóbo- n. 1) *playground* 2) *dancing floor*
ŋāb-on-ukɔtɪ- v. 1) to finish, complete 2) to be enough
ŋafŋąd- ámb- v. to cause burning pain (e.g. eyes or skin)
ŋābọlalaá- n. cent
ŋáçádai- n. *animal skin leggings*
ŋadzulú- n. *solidified sheep blood*
ŋadʃɛ́tɛ́- n. *sandal*
ŋádɔkaná- n. *coconut tree sp.*
ŋáitɔ- n. porridge
ŋaƙɔƙukó- n. *sour milk, yogurt*
ŋalɛ́pána6 n. fresh milk

ŋalub-óni- v. to be toothless
ŋāmá- n. sorghum
ŋamnjäm- ámb- v. to rush into things
ŋămírɔ- n. *soaked maize mush*
ŋamurí- n. duiker
ŋān-ɛsí- v. to open
ŋapokó- n. *leather legging*
ŋăpuř- n. *type of local beer*
ŋarăb- ámb- oni- v. to have a rough texture
ŋaríamu- n. *dark stone ground up to dye women's hair*
ŋarąrąyá- n. money
ŋar-ód- ámb- v. 1) to be rocky 2) to contain rocks (e.g. gizzard)
ŋat- ámb- v. to run
ŋatăbi- n. pumpkin sp.
ŋăturú- n. 1) flower 2) *pollen*
ŋawilá- n. chaff
ŋawę- ámb- v. to be open, frank
ŋajábu- n. *placenta*
ŋaj- ét- ámb- v. to be startled
ŋel- ámb- v. to be chipped, dented
ŋéra- n. *four-pronged mingling stick*
ŋę- pro. we (excluding hearer)
ŋiib mañana- n. *bird sp.*
ŋiiit-esi- (ŋiit-) v. to soften
ŋikādidi- n. *bird sp.*
ŋikisala- n. *law*
ŋila- n. gizzard
ŋilėtsi- n. shame
ŋim-án-óni- v. to meet
ŋimú-í- n. twins
ŋir-ési- v. to remove rubbish
ŋirot-án-óni- v. to be whitish-gray
ŋitsení- n. ghost
ŋits'ei- n. edible mushroom sp.
ŋiy-óni- v. to be damp
ŋibábut-í- n. waterbuck
ŋibalelé- n. edible mushroom sp.
ŋii-ési- v. to rub off
ŋikafepidépu- n. flea
ŋikalutozó- n. pumpkin sp.
ŋiliñil-án-óni- v. to be cut up
ŋimáká- n. young men
ŋísili- n. 1) silk 2) optic nerve
ŋitésu-şió- n. banana var.
ŋitsaní- n. trouble, hardship
ŋítúmka- n. bedbug
ŋíf-óni- v. 1) to be strong 2) to be hard 3) to be expensive
ŋiz-ési- v. 1) to clear the throat 2) to hawk, peddle 3) to slander
ŋikafere-tí- n. 1) sparks 2) gold flakes
ŋikañoki- n. pimple
ŋkarakocói- n. bottlecap game
ŋkérépe- n. madness
ŋkó-óni- (ŋká-) v. to get up, stand
ŋkálía- n. fish
ŋkwángái- n. aluminum lip plug
ŋkáká- n. food
ŋkwáá- n. traditional healer
ŋodól-óm-óni- v. to be lame
ŋóki- n. 1) dog 2) poor person
ŋoré- n. colored soil
ŋoró-óni- v. to be spotted black and white
ŋorôts-án-óni- v. to drain (of a wound)
ŋotó- n. mud plaster
ŋó- n. your mother/aunt
ŋób-óni- v. to look guilty
ŋóf-ési- v. to stuff food in one's mouth
ŋór-óni- v. to be early
ŋórñ-ám-óni- v. to be soiled with dirt or food
ŋóró-óni- v. 1) to growl 2) to snore
ŋóts-óni- v. to be tight
ŋóz-ési- v. to glare at s.b.
ŋu-ési- v. to struggle over sth.
ŋúnó- n. rope
ŋus-ési- v. to grab, snatch
ŋúzum-an-óni- v. to quarrel
ŋu-bú-ó-óni- v. 1) to be brittle 2) to be stretchy, flexible
ŋódóñódó- n. 1) waterbug 2) tadpole
ŋudús-ó-óni- v. 1) to be short and stout 2) to be born without limbs
ŋu-ési- v. to grind
ŋomúŋum-án-óni- v. to be mixed with pockets of flour or uncooked bits of food
ŋurá- n. cane rat
ŋur-ésí- v. 1) to cut 2) to break 3) to cross
ŋururún-šn- v. 1) to sprout 2) to regrow (of hair)
ŋurúsái- n. *Justiceia* plant sp.
ŋwaá- n. female animal
ŋwááti- n. his/her mother
ŋwaná- n. garden that has been harvested more than once
ŋwanŋwán-šn- v. to be average, so-so, mediocre
ŋwaf-óni- v. to be disabled

Oo
obóléni- n. hip
óbujo- n. rhino
odosi- n. large number, multitude
ódou- n. day, daytime
ódza- n. dry season
óde-eku- n. ford
odomori- n. male bushbuck
ofuri- n. 1) leather bag 2) pocket
ógod-ésí- v. to keep for later
ógo-esí- v. 1) to leave, let 2) to forgive, excuse
óðiðík-óni- v. to sing loudly
oklójóró- n. queen bee
ók- ét-úkótí- v. to keep aside
ókírotí- n. bird sp.
olíbóó- n. getting free things without working for them
oliota- n. alpha male baboon
ol-ól-óni- v. 1) to be lightweight 2) to be active 3) to be eager
oní- n. abandoned homestead
oşerepé- n. rufous beaked snake
oşori- n. elephant
oşorofofo- n. cartilage
oregeme- n. lone male baboon
orikiriki- n. 1) large container 2) compound, homestead
oroméni- n. secretary bird
orómóó- n. Bruce’s green-pigeon
osorosi- n. barren woman
ot-ésí- v. 1) to pour 2) to put poles in holes 3) to brew 4) to have an abortion
ots-ésí- v. to climb
otsibila- n. bird sp.
otsuru- n. premium tobacco
owaa- n. fruit of the desert date

ɔɔ
ɔba- n. inner cheek
ɔbera- n. *Hibiscus cannibus* plant
ɔb-êsí- v. 1) to occupy 2) to hold the ‘floor’ when speaking
ɔdéka- n. 1) gate 2) patriclan 3) chapter
ɔfa- n. cough
ɔf-ɔd-óni- v. 1) to be lightweight 2) to be easy
ɔɗɔɔká- n. 1) dry honeycomb 2) eggshell
ɔgɛra- n. male monkey
ɔɡɔnɔ- n. Grewia tanax shrub
ɔjá- n. 1) wound, sore 2) knot
ɔká- n. bone
ɔkɔtsí- n. 1) step 2) meter, yard
ɔlí- n. grass sp.
ɔl̊írt- n. female hyrax
ɔmíʃá- n. 1) peel 2) scab
ɔŋɔrán-eti- v. 1) to be reddish-brown 2) to be dirty, murky
ɔrú- n. bird sp.
ɔrɔrɔ- n. small river, stream
ɔ́tái- n. rainy season
ɔ́za- n. bottom

Pp
paɗók-óm-oni- v. to have a sunken-in stomach
paɗo- n. small cave
pak-ési- v. to split in two
pakó- n. cave
palór-óm-oni- v. to be bald
papad-ósí- v. to be left over
parpar-óm- v. to glisten
pâupáu- n. scout bee
pedpéped-án-oni- v. to flap wings
pep-ém-oni- v. to walk in a flat-butocked way
pélédéke- n. short-leaf tobacco
pêl-ém-ét-oni- v. to appear
pesel-amá- n. small piece
pid-ési- v. to pass between
pik-ód-oni- v. to be worn smooth
pir-íd-oni- v. 1) to be glittery 2) to feel fine
piɗ-íd-oni- v. to be sleek
piɗ-ím-oni- v. to be squinty-eyed
piɗ-ód-oni- v. to be slippery
pod-ési- v. to husk
pok-ési- v. 1) to wedge 2) to eat big chunks
pol-ósí- v. to scavenge hungrily
pór-óni- v. to proceed
poróri- n. nearly mature maize
poroti- n. 1) lid 2) bent stick used to remove seeds from gourds
poj-ési- v. to peel
poj-ód-oni- v. to be talkative
poɗ-ód-oni- v. to move gracefully
poɔsa- n. lizard
poɔsk-óm-oni- v. to move clumsily
pot-ód-oni- v. to be slick
pul-ési- v. to pierce, perforate
púruru- n. measles
puuru- n. chicken pox
púusi- n. cat
puus-óm-oni- v. to be short, fat
puʒó-óm-oni- v. to be stubby
purak-ám-oni- v. to be soft to eat
pur-oni- v. to survive
pusɛl-ém-oni- v. 1) to be brittle 2) to be left-over
putöm-óm- v. to pass right through
Rr
rábuf-ɔni- v. to squat or crouch in an attempt to hide
rágani- n. wild edible tuber
rágo- n. 1) ox 2) infertile man
raj-ɛsí- v. 1) to return 2) to answer
rafák-ám-ɔni- v. to be gravelly
ramu- n. pile of dried *Euphorbia* branches
ram-ɛsí- v. 1) to remove more than one 2) to be polygamous
rara-ɛn-ɔni- v. to fall gently
rárím-ɔni- v. 1) lose wealth 2) to be exhausted
ratatán-ɔni- v. to be squat
rat-ɔni- v. to be at ground-level
ráts-ɛsí- v. to mend
rébe- n. finger millet
réb-ɛsí- v. to withhold, deny
reded-án-ɔni- v. to crackle
régirég-ɔni- v. to chatter noisily
reŋ-ɔni- v. to faint, collapse
rét-ɔni- v. to be bent, slouched
rébe- n. drizzling rain
rdɛ-ɛn-ɔni- v. to be tender
rdɛ-ɛsí- v. to squeeze
rɛɛt-ɛsí- v. to defeat, conquer
refkɛp-ɔni- v. to sit down abruptly (e.g. from weakness)
rɛ-ɛd-ɔni- v. 1) to work without resting 2) to do what one wants
rekɛp-ɛm-ɔni- v. to be stunted
réf-ɛsí- v. to scrape, shave
res-ɛd-ɔni- v. to be penetrably thin
ribirib-án-ɔni- v. 1) to be near-sighted 2) to be cross-eyed 3) to have shallow holes
ribirib-ɔni- v. to glimmer
ridziridz-án-ɔni- v. to be shredded
rié- n. goat
rí-ɛnósí- v. 1) to run after each other (of children) 2) to pursue in an illicit sexual relationship
ríjá- n. bush, forest
rikiriki- n. rocky outcropping
riko- n. long pole
rika-ɔn- n. brewing gourd
rim-ɔni- n. to hide, be hidden
ripá- n. hole in the ground
ririi-ɛn-ɔni- v. to be sweltering
ririsa- n. tree sp.
ris-ɛsí- v. to insult
rit-ɛsí- v. to push soil away from a hole
ritɛd-ɔni- v. to be scrumptious
ridɛsí- v. to sink in (e.g. teeth, needles, etc.)
rim-ɛsí- v. to take shelter in
ris-ási- n. blaze
rits-ɛsí- v. to catch up to s.b.
roba- n. people
rogirogi- n. 1) tortoise shell 2) tortoise shell bell
roiró-óni- v. to break loose
rori- n. Acacia tree sp.
róróí- n. waist
ròb-đọ-ńi- v. to be rubbery
ròbá- n. animal collar
rdf-ési- v. to pierce with thorn or needle
rò-ési- v. 1) take remainder of meat home after a hunt 2) to enter a dark space
ródge- n. mountain reedbuck
raj-đọ-ńi- v. 1) to be squishy, mushy 2) to be arthritic
ròk-ési- v. to mount a beehive
ròkò- n. Tamarind (Tamarindus indica)
ròkòrk-án-ńi- v. to be hoarse
róm-ńi- v. to be dense (e.g. an unburned thicket)
ròm-ési- v. to force sth. that does not fit properly
ròrt-ńi- v. to walked hunched over
ròrt-ési- v. 1) to spy 2) to check on
ròwá- n. flat, treeless area
rub-đét-ńi- v. to fall (e.g. a tree)
rub-ńi- v. to groan in pain
rùgetsi- n. protruding part
rùgurug-án-ńi- v. to be uneven
rujùr-új-án-ńi- v. to be swollen and wrinkly

rukúdzo- n. Zanthoxyllum chalybeum tree, with sharp thorns that deliver poison
rùkùrùk-óni- v. to be nervous
rùm-án-ńi- v. 1) to fall 2) to have an accident 3) to fail
rumurúmá- n. sharp stubs of burnt grass
rùs-úd-ńi- v. to be tender
rùt- n. sweet beer
ruts-ési- v. 1) to repair again 2) to force s.b. to go somewhere
rutúduma- n. pigeon
rùb-ési- v. to hang in the house
rùb-ńi- v. to sprout
rùgùdùm-ńi- v. to be bent over
rùj-ńi- v. to have a short neck
rùkò- n. hump (e.g. of a cow)
rùr-ńi- v. to bruise
rùt-ési- v. to blow the nose
rw-ési- (rù-) v. 1) to string through a hole 2) to pass through
rw-eesi- (ru-) v. to uproot

Ss
sái- pro. some other(s)
sábai- n. fatty stomach lining
saba- n. river
sáb-ési- v. to kill (more than one)
ságo- n. snare
sakámá- n. liver
sálíl-et-oni- v. to go asleep (of limbs)
sáñamáti- n. soft rock
sanjáñ-oni- (sanjáñ-) v. to be rough and bumpy (skin on tongue or plucked chicken)
sarísarís- n. bridge of nose
sár-óni- v. to still/not yet be
sasara- n. chewed beeswax
sátá- n. shallow rock pool
saúk-úm-oni- v. to be fuzzy
sawatš- n. shoulder
sawâts-ám-oni- v. to have patches of grass
sea- n. blood
séí- n. white or pink quartz
séb-ési- v. to sweep
sebur-án-óni- v. to look unkempt and unhealthy
sédé- n. garden
seekô- n. soup, broth
sega- n. umbrella thorn (Acacia tortilis)
segeri- n. soft-wood tree sp. (Steganotaenia araliacea)
seínení- n. Stereospermum kuntianum tree
sekán-ám-oni- v. to be shallowly concave
sekwér-óni- v. to scurry up
sekél-án-óni- v. to be thin like old dry piece of wood
séméded-án-óni- v. to be sloped
semél-ém-oni- v. to be oval
serei- n. big calabash bowl
serínaa- n. sorghum variety
ses-i-an-óni- v. to have whispered discussions
sekamâni- n. chaff with seed
sek-ési- v. 1) to shave smooth 2) to peel, scrape off
selét-ém-oni- v. to be slippery
srrrep-ési- (srrép-) v. to slide horizontally
sewa- n. stick
sidilée- n. turtle
sigirigiri- n. mane
sikwâr-ám-oni- v. to be shabby
sikw-ési- v. to braid
siká- n. dew
sikisík-án-ét-oni- v. to be grainy in color or texture
simá- n. fibrous string or rope
siñú-óni- v. to have a furrowed brow
siñoni- v. to be upset
sirâ- n. message, announcement
sits’a- n. 1) hair 2) sacrifice
sits’-ési- v. to engage, betroth
sib-án-óni- v. to have an early pregnancy
síb- n. yeast, leaven
síb-óni- v. to stand around (of more than one person)
sídor-óm-oni- v. to be lean
sí-ési- v. to smear with goat dung
during funeral ceremony
síkšɔ̀-ési- v. to winnow
sík-šni- v. to hesitate
sílaɫ̀-án-óni- v. to be watery
sílɔ̀lɔ̀-já- n. dwarf mongoose
símíɗdù- n. tiny invisible thing
símíɗmíɗ-ésí- v. to knead
símí-šni- v. to rust
sín-ési- v. to cover with branches
(e.g. a corpse)
símjā- n. small black ant sp.
sítɔ̀- n. large-leaf albizia (*Albizia grandibracteata*)
sírì- n. edema
sísì- n. honey-beer, mead
sísìb-ésí- (sísìb-) v. to lure bees
sísiká- n. middle
sokol-án-óni- v. to be curved
    forwards (of horns)
sómomómój-óni- v. to be a rash
sore- n. boy
sosóbosi- n. sausage tree (*Kigelia africana*)
sot-ésí- v. to carve, sculpt
síká- n. calabash without a stem
sɔkɔ̀- n. 1) root 2) hoof
sɔlsɔl- n. sharp grass sp. that can
cut the skin
sɔn- n. clitoris
sɔl-ésí- v. to pluck
sɔsá- n. beeswax
sɔb-án-óni- v. to prepare to go

sugurá- n. 1) wind 2) spirit 3)
    disease 4) telephone
súmá- n. haze
súrọ- n. shaded field
súsá- n. maize cob
sut-óni- v. to respond as a group
sua- n. barb, spine
sùb-ésí- v. to influence, persuade
sùb-ésí- v. to kill with a hex
sùfà- n. lowest (last) rib
sùk-ésí- v. to fail to find
sùk-šni- v. to itch
suló-úm-óni- v. to be conical
supa- n. 1) breath 2) spirit
sùrà-šùr-óni- v. to be lanky
sùt-ésí- v. 1) to brush teeth 2) to
    sand smooth

Σʃ
Jàbút-ésí- v. to eat side dishes
    without the staple food
Jàkùts-úm-óni- v. to be
cavernously deep
Ják-àt-óni- v. to draw saliva
Jàku- n. remains of meat on hide
    after animal has been skinned
Jáná- n. direction
Jàra- n. bladder
Jàts-oni- v. to escape, go in exile
Jà-úd-óni- v. to be paper-thin
Jér-óni- v. to burp, belch
Jèb-èd-óni- v. to be tender
Jèb-òn- v. to be afraid, timid, shy
ʃɛsɪ́ v. to spray, sprinkle
ʃɛʃɔnɪ v. to be stuffed, bloated
ʃikw-ama n. bush bandit
ʃik-óni v. to hang up
ʃúpari n. late evening/early night
jok-óm-óni v. to sprout
ʃọ-oni v. to be a refugee
ʃọt-án-óni v. to be perfect
ʃọjouu Asclepiadaceae vine sp.
ʃɔ́b-ési v. to choose, select
ʃọd-ɔnʊƙɔtɪ v. to regain normal color (of skin)
ʃɔ́ŋ-ési v. to fix a gourd handle
ʃɔpɔŋ women’s fur cloak
ʃɔr-şd-óni v. to dilute
ʃɔts-ési v. to exchange, trade
ʃut-ési v. to drive through a hole
ʃuʃu- an-ukatí v. to regain normal color (of skin)
ʃʊ́r-ési v. to leave parts of soil undug out of laziness

Tt
taasám-óni v. to be sour
taatsa- n. payment
tábu n. large pink/red flower
often worn by little girls
tábari n. West
tabani- n. 1) wing 2) fin
tábari- n. pool, waterhole

tabarbari n. insect sp.
tábas an-et-óni v. to have reddish spots
táb-esi v. to touch
táb-óni v. 1) to foam up 2) to boil over 3) to climb all over each other (e.g. ants)
táburubur-óni v. to be hot (of the ground)
tafórt-án-ét-óni v. to enter puberty
tabá n. large rock, boulder
tabé-esi (tabá-) v. to extend hands for mercy or alms
tabak-ési v. to carry in arms
tafal-ési (tabál-) v. to plunder
tafól-óni v. 1) to dance in victory 2) to boast in one’s exploits
tabó-óm-óni v. to have flat buttocks
tadádán-óni v. to be bitter but edible
tadán-óni v. to persevere
tadap-ési (tadáp-) v. 1) to mend, patch 2) to ambush
tadats-án-óni v. to be abandoned
tafák (tafk-ési-) v. to spread under (e.g. bag to catch flour)
taftay-óni (tafi-) v. to spin
tajak-ési (taják-) v. to hold in the mouth
tajal-ési (tajál-) v. to give up, give in
takaɗ-esí- (takáɗ-) v. to despise

takán-óni- v. to be visible

takári- n. face, forehead

ták-esi- v. to mean, intend

takw-ésí- v. to step (on)

takái- n. shoe

takám-óni- v. to be sudden

takata- n. call-and-response prayer

talak-esí- (talák-) v. to release

talali-domo- n. small animal that steals food from homes

taló-óni- (talá-) v. to be nauseated
	compliment (friend or bull)
tamáfs-án-óni- v. to smile

tamán-ét-óni- v. to pass around

tam-ésí- v. to think

tamura- n. 1) beard 2) pubic hair

tanaŋ-esí- (tanáŋ-) v. 1) to plaster with mud 2) to knock or
bump 3) to box with fists

tanš-śni- (taná-) v. to be a number

tapš-óln- v. to spread out

tañat-esi- (tañat-) v. to struggle
for a share, claim

tañatsár-óni- v. to fork

tán-ési- v. to make an appeal to
	accuse

táráb-i-ésí- v. to check pockets

taráɗáa- n. 1) groundnut, peanut 2) striped ground squirrel

taraŋ-ésí- v. to place nearby

tarát-és-oni- v. to have bad manners

tari-śni- v. to be pregnant

tásá- n. 1) grave 2) ghost

tasaɓ-esí- (tasáɓ-) v. 1) to add more 2) to exaggerate

tasál-óni- v. to cancel, call off

tasáp-ét-oni- v. to initiate into elderhood

tasší-śni- (tasá-) v. to stroll

tas⁻esí- (tasá-) v. to raise (e.g. a child)
tatif⁻ían⁻óni- v. to be wet and dirty (e.g. a wound)
tatía⁻n. plant sp.
tat⁻oni- v. to spit

tató⁻ni- v. to worry, be anxious

tátóo- n. your paternal aunt

tatsáf⁻óni- v. 1) to go away from others 2) to be singled out

tatsší⁻śni- (tatsá-) v. 1) to shine 2) be crisp and clear (weather)
tátsi⁻śni- v. 1) to be unused 2) to be unobstructed

tatún⁻n. chin
tawad-esi- (tawáɗ-) v. to dig for water
tawan-esi- (tawán-) v. 1) hurt, harm 2) to act harshly toward
tebelékesi- n. scoop made from half a calabash
tébin-ési- v. to lean on (e.g. a walking stick)
tefús-üm-oni- v. to be abnormally short and plump
tenuse- n. male beisa oryx
terégi- n. 1) work 2) ministry
ter-ési- v. 1) to divide 2) to intervene 2) to judge
tetiŋ-oni- v. to be thick
téb-esi- v. to get, receive
té-ét-oni- v. to fall, drop
tekčen-ési- (trakč-) v. to check (to see if ready)
tékéd-em-oni- v. to be shallow
tekker-amá- n. soldier ant
tékéz-em-oni- v. to be shallow
télé-esi- (tele-) v. to spread open
téléts-ōni- v. to fork, split
tẹ́njéf-ounsi- v. to provoke each other
tẹŋel-esi- (tẹŋel-) v. 1) to chip, dent 2) to excise lower teeth
tẹŋéri- n. state of being culturally restricted from certain areas
térekéké- n. meningitis
terrér-ōni- v. to be sharply bitter
tér-ési- v. to move aimlessly
tes-ōni- v. to be unfixably broken
tet-ési- v. to kick
tewe-esi- (tewę-) v. to broadcast
tewera- n. bridge
tewer-esi- (tewęr-) v. to blacken hair
téezed-ōnu- v. to bend one leg
téz-et-ōnu- v. to get finished
tibolokoni- n. fingernail, toenail
tígak-oni- v. to crouch briefly
tikoju- n. *Lantana trifolia* shrub
tikorotóto- n. *Aloe wilsonii* plant
tikóts-ōm-oni- v. to be shallow (of tree-hole water)
tilani- n. buffalo thorn (*Ziziphus abyssinica*)
tiléni- n. pupil (of eye)
til-ım-oni- v. to cool down after boiling
tilokotsi- n. African grey hornbill
tilóts'-ōm-oni- v. to be ill-fitting in a larger hole
timélí- n. small stick for supporting a roof or trap
timói- n. tail
timu-ozá- n. alpha male baboon
tin-oni- v. to be thick and opaque
tinátijáa- n. rat sp.
tir-ési- v. to inseminate, have sexual relations with
tir-ési- v. 1) to hold 2) to have tirógi- n. molar
tisíl-óni- v. to be quiet, lonely (of a place)
titi-an-óni- v. 1) to be hot 2) to be feverish 3) to be fashionable
titik-esí- (titík-) v. to try to prevent
titirá- n. 1) forked pole 2) ladder
titir-ésí- v. to support
tits'-és-úkotí- v. to keep hidden
tífíb-és-óni- v. to be constipated
tífídl-óni- v. to summersault
tíbí-šm- v. to protrude
tíbó- n. tall grass sp.
tígaramatsí- n. eldest child
tíír- n. Acacia tree sp.
tíki-et-ésí- v. to hang inside house
tíkɔra- n. hail
tılíw-óni- v. 1) to be pure, pristine
2) to be a virgin
tímif-esí- (tímíf-) v. to lick fingers
țnjíp- n. black ant sp.
tírfr-esí- (țífrf-) v. 1) to snoop 2) to wander in a group 3) to lie in wait
tírùkùkí- n. tiny person
tírríŋ-šm- v. to have good fortune
títíjí- n. heel
ttítom-esí- (ttótm-) v. to learn by watching
ttits'-ésí- v. to fill up a hole
tw-ids-óni- v. to be tiny
tóbiribir-óni- v. to ascend
tób-ésí- v. 1) to strike (e.g. with spear) 2) to raid, attack
tóbúl-óni- v. to fear strange happenings
tóda- n. 1) speech, talk 2) language
tódó-óni- v. to start doing sth.
tódu-óni- v. to explode
tófórók-ét-óni- v. to compose bull praise-songs loudly while walking home at night
tóíd-óni- v. to have scoliosis
tóip-án-óni- v. to be a youth
tókóp-és-úkotí- v. to take by force
tókú-ét-óni- v. to change one's mind or behavior
tók-áma- n. white ant sp. believed to cause weight loss
tókírá- (tókíró-óni-) v. to rush toward
tólép- (tólép-ét-ésí-) v. to get more than others
tol-ésí- v. to pull up, pull off
tolí-óni- v. to creep
tolu-ésí- (tolú-) v. to betray
tomalaɗoo- n. strep throat
tomup-esí- (tomúp-) v. 1) to cut the ears 2) to break bread
tonok-esí- (tonók-) v. to sit, lean against
tonyám-óni- v. to stalk
tonjel-óni- v. to branch, fork
to(o)mí́n- n. ten
topét-óni - v. to slant gradually outwards (of horns)
topóɗ-óni - v. to talk to oneself when upset
topon-esí- (topón-) v. to notch animal ears
topút-ét-óni - v. to duplicate
torem-esí- (torém-) v. 1) to move forcefully 2) to brew
torik-ésí- v. to lead
torobó - n. breastbone
torón-óni - v. to fast from food
toróŋ-óm-oni - v. to have ridges
torop-esí- (toróp-) v. 1) to link, join 2) to move in single file
torú-óni - v. to sit with legs extended
toryáb-óni - v. to be in labor
toryóŋ-óni - v. to curve backwards (of horns)
tosíp-óni - v. 1) prance 2) to splash lightly (of rain)
totír-óni - v. to climb
totóo - n. maternal aunt
totok-esí- (totók-) v. to weave thread going up and down
totóti - n. his/her maternal aunt
totséɗ-óni - v. to creep up
totsesí- (totsér-) v. to handle, manage
tots-et-esí - v. to grade, mark
totw-esísí - (totú-) v. to take evil charms out of the body
touk-esí - (toûk-) v. 1) to cut down 2) to retch, gag
toum-óni - v. to be amazed, awestruck
towát-és-úkotí - v. to throw with a stick
towúry-án-oni - v. to lie down
towúts-óni - v. to crash through brush
toyó-ón-ukotí - v. to heal up
tòbɛ́l6 - n. maize mush, ‘posho’
tòbɛ́-nú - v. to be exact, correct
tòbɛ́l-esí- (tòbɛ́l-) v. to split
tòbɛ́n-ét-ɔnì - v. to elicit a response, either good or bad
tòbɛ́l-esí- (tòbɛ́l-) v. to fold
tòbɔk6 - n. 1) piece of a broken pot 2) frying pan
tòbɔ́rɔ́k6án-oni - v. to grow feathers
tòfɔ́ɗ6-ɔ́nɪ6 - v. to ooze
tɔjɛm6-ɛsɪ́6 (ɔjɛ́m6) v. to mock
tɔka - n. soft indentation between the collarbones
tɔkɛ́ɛ́r6-ɔnɪ6 - v. to move in an orderly way, place to place
tɔkì-ɔnì - v. to confess
tɔkɔba - n. cultivation, agriculture
tɔkɔ-d-esi - (tɔkɔd-) v. to hold by the handle
tɔkɔɗɪ́kɔ́ɗ-ɔnĩ- v. to have menstrual cramps
tɔk-ɔnĩ- v. to be tall, thin, straight
tɔkɔɾ-ɛsĩ- (tɔkɔr-) v. to distribute
tɔk-ɛsĩ- v. to contribute to a cost
tɔkɔtɔká- n. snail, slug
tɔlɛ́lɪ́6ɔnĩ6 v. to trickle
tɔlɔka6 n. trapping
tɔlʊk-ɛsĩ- (tɔlʊk-) v. 1) to encircle
2) to summon to trial
tɔlʊŋ-ɔn-ʊƙɔtɪ́6 v. to storm off after an argument
tɔmɛ6ɛsĩ́6 (tɔmɛ́6) v. to track
tɔmɛrɪ́mɛ́r6ɔnĩ6 v. to suffer
tɔmɛn-ɛsĩ- (tɔmɛn-) v. 1) to love so much it hurts 2) to cause excruciating pain
tɔmɛr-ɛsĩ- (tɔmɛr-) v. to share
tɔmɛtsɔk-án-ɔnĩ- v. to be bumpy, pimply (of skin)
tɔmʊdɔŋ-ɛsĩ- v. to wind, roll up
tɔmʊp-ɛsĩ- (tɔmʊp-) v. to believe
tɔŋɛnɛn-ɛsĩ- v. to dice up
tɔŋɛm- (tɔŋɛm-ɛsĩ-) v. to give just a little bit
tɔŋɛl-ɛsĩ- (tɔŋɛl-) v. to slaughter
tɔ-ɔn-ukɔtĩ- v. to set (of sun)
tɔɔs-ɛt-ɔnĩ- v. to be common
tɔɔsɛŋ-ɔnĩ- v. to be afternoon
tɔbrɛpɨɾ-ɔnĩ- v. to rise in a circular motion (e.g. smoke)
tɔpɛnɛpɛn-ɛsĩ- v. to make round (e.g. stone in sculpting)
tɔrɛş-ɛsĩ- (tɔrɛ-) v. to coerce
tɔr-ɛsĩ- v. to do randomly
tɔrɔb-ɛsĩ- v. 1) to give gifts, esp. to newborn twins 2) to reward
tɔr-ɔd-ɔnĩ6 v. to be compacted
tɔrɔmɲa- n porcupine
tɔsɛ-ɛt-ɔnĩ- v. to approach under cover
tɔsɛ-ɛɛ-ɛsĩ- v. to choose, prefer
tɔsɛs-ɔnĩ- v. to sin, err
tɔsɔdɔk-ɔnĩ- v. to be pounded into mush
tɔtá- n. 1) sisal plant waste, left over from rope making 2) cooked sour vegetables
tɔtsɛ-ɛsĩ- (tɔtsɛ-) v. to control
tɔtsɛɛ-ɔnĩ- v. 1) to be careful 2) to be sensitive to light
tɔtsɔdɛs-ɛsĩ- (tɔtsɔdɛ-) v. to pluck feathers or wool
tɔtsɛɛ-ɛsĩ- v. 1) to crush, pound with a stone 2) to tap a tree
tɔtun-ɛsĩ- (tɔtun-) v. to hug
tɔtʊp-ɔnĩ- v. to be the next
tɔwat-ɛsĩ- (tɔwat-) 1) to sprinkle 2) to spy from afar
tɔw-ɔnĩ- v. to leak
tɔwɔrʊm-ɔnĩ- v. to incubate
tɔwɔt-ɔnĩ- v. to grow upward
tɔyɛ-ɔnĩ- v. to bleed in a trickle
tɔb-ɛsĩ- v. 1) to follow 2) to track
tɔbɛr-ɛsĩ- v. to dig new ground
tɔbʊt-ɛs-ʊkɔtĩ- v. to shed
tude quant. five
tuf-ád-oni- v. to be leathery
tufúl-óni- v. to bow (i.e. head)
tufús-úm-oni- v. to be naked
tuf-ád-oni- v. to be spongy
tufúlá- n. field rat
tuka- n. feather
tukúdü-óni- v. to be bent, crooked
tukukúp-óni- v. to have a sweet smell and/or taste
túkuléti- n. small round gourd
tukut-esí- (tukút-) v. to dig out (e.g. earwax or soil)
túkútuku- n. jigger, sand-flea
tulárói- n. Commiphora plant sp.
tuleli- n. 1) Sodom’s apple (Solanum incanum) 2) Dead Sea fruit (Calotropis procera) 3) Eggplant
tulí-án-et-oni- v. to be white with black eye patches
tulúu- n. rabbit, hare
túmbaba- n. Dolichos kilimandscharicus plant
túna- n. 1) flower bud 2) abscess
turu- n. tree sp. in whose shade tobacco is planted
turu-esí- (turú-) v. to throw
turúj-óni- v. to be coiled
túrúkükúu- n. red-eyed dove
turuneti- n. Carissa edulis tree
turún-óni- v. 1) to have a bowed-over posture 2) to mourn
tus-úd-oni- v. to be blunt
tusúk-óni- v. to be curled up
tutúf- (tutuf-án-óni-) v. to show signs of maturity
tutuk-ésí- v. to heap up
tuut-esí- (tuút-) v. to castrate
tuðon-ésí- v. to cover, suffocate
tuðut-ésí- (tuðót-) v. to solidify (e.g. by stirring)
tuðuɗsɛ́- n. Black Jack weed (Bidens pilosa)
tuf-ésí- v. to sew
tukur-esí- (tukúr-) v. to strip off soft, green sisal bark
tukutuk-án-í- n. Ipomoea spathulata plant
tuloŋ-esí- (tuloŋ-) v. to abhor
tumuŋuŋ-esí- (tumúdúŋ-) v. to fold
tun-ésí- v. to pinch
tunuk-esí- (tunúk-) v. to bury
tósi- n. Klipspringer
tutsu-esí- (tutsů-) v. to wring out
tutufa- n. Combretium tree sp.
tutuk-ésí- (tutúk-) v. 1) to hem, knit 2) to plait 3) to squeeze
tówá- n. 1) praying mantis 2) first scoop of pounded white ants, designated for an elder
tuw-øm- v. to germinate
tózud-ésí- v. to plug holes
tózுŋ-ésí- v. to carry on the shoulders
Tsts

tsá- (tsó-óni-) v. to be dry
tsábatsab-án-óni- v. to quiver
tsábo adv. apparently, obviously
tsafola- n. tree bark rope
tsákátsák-án-óni- v. 1) to be litered with sth. 2) to be insecure 3) to be pocked
tsak-ét-óni- v. to fall slowly
tsákúde- n. firestick
tsákól-óm-óni- v. to be long-legged, spindly; cf. tságor-
tsala- n. Capparaceae plant sp. whose seeds are eaten

tsaltitsál-óni- v. to be wet, sticky
tsam-ésí- v. to like, love
tsaña- n. gap
tsáñ-ésí- v. 1) to anoint, smear 2) to paint
tsap-ésí- v. to brew
tsarátáni- n. mountain cleft
tsiáro- n. weaverbird
tsar-ín-án-ésí- v. to be hopeless
tsrökó- n. oryx
tsaúb-úm-óni- v. to be tall and thin
tsek-óni- v. 1) to be bushy, hairy 2) to be full to the brim
tserededfī- n. Osyris abyssinica tr.
tserékí- n. bone connecting big toe with ankle
tsefěk-úm-óni- v. to chew half-cooked food
tsefa- n. bush cleared for cultivation
tserékěk-úm- v. to be stiff
tsétá- n. bloody drainage
tsetseku- n. 1) Tarenna graveolens tree 2) rib cartilage
tsífīla- n. bird sp.
tsídz-esí- v. to carry
tsíd quant. all, whole
tsik-óni- v. to be startled
tsír-án-óni- v. 1) to hurt 2) to have varicose veins
tsítsa- n. hawk (esp. black kite)
tsítsik-ésí- (tsítsik-) v. to roll
tsírf- n. narrow ridge descending like the rib of a mountain
tsikó- n. tree sp.
tsíptsíp-úm- v. 1) to make tiny bubbles 2) to be spotted
	tsírmú- n. metal
tsírf-ít-ésí- v. to set upright
tsítsí- n. honey-guide (bird sp.)
tsítsíná- n. small stick tool (e.g. for getting honey from a gourd)
tsídítsonó- n. bird sp.
tsoé- n. wild hunting dog
tsoi- n. season
tsokóbo- n. 1) bird sp. 2) game played by men
tsokolor- n. cylindrical gourd
tsokótsók-án-óni- v. to be a mixture of fat and meat
tsólé- n. bee-eater (bird sp.)
tsó-óní- (tsá-) v. to be dry
tso-oni- (tse-) v. to rise (of sun)
tsoríama- n. bird sp.
tsoriti- n. blood vessel
tsorokoníi v. mosquito-like insect
tsógor-om-oni- v. to be thin, weathered, and wiry
tsón-óní- v. to squat
tsórá- n. baboon, gorilla
tsor-ési- v. to bleed
tsóts-óní- v. to have sharp eyesight
tsbá-án-et-oni- v. to have virginal breasts
tsúd-oni- v. to have well-endowed buttocks
tsufúl-úm-oni- v. to be deeply concave
tsulátí- n. tuft of hair or feathers
tsuta- n. tip of circular roof
tsútsá- n. fly
tsutsuk-ési- (tsutsúk-) v. 1) to rub with hands 2) to tan leather
tsuwaa- n. 1) run 2) race
.tsóba- n. bird tail
tsó-ésí- v. to sip
tsudutsud-ésí- v. 1) squirm 2) to scope sth. out before stealing
tsúkudód-óní- v. 1) to shiver 2) to be shy 3) to move cautiously
tsúmá- n. desert move (Balanites aegyptiaca)
tsorúf-úm-óni- v. to be conical
tsóúra- n. white thorn acacia
(Acacia hockii)

Ts'ts'
ts'áb-ési- v. to hate
ts'adí- n. fire
ts'afú- n. chewed chewing tobacco
ts'ága- n. dirt, filth, stench
ts'ágúšé quant. four
ts'ágw-ooní- (ts'ágw-) v. 1) to be raw 2) to be uncooked
ts'ál-ési- v. to remove to the side
ts'ál-id-oni- v. to be oily (of food)
ts'álób-i-ési- v. to touch sexually
ts'álúb-oni- v. to splash in water
ts'ání- n. louse, lice
ts'anání- n. crop-destroying insect
ts'e-óní- v. to be extinguished
ts'ól-óní- v. to die (of many)
ts'ca- n. skin, hide
ts'í-ét-oni- v. to be the last
ts'úká- n. 1) bee 2) honey
ts'mo- n. taboo against husbands of pregnant wives hunting
ts'irít-óní- v. 1) to spit through gap in teeth 2) to spurt
ts'írú-óní- v. 1) to be right, proper 2) to be upright
ts'íts'-ési- v. to track
ts'íts'-óní- v. 1) to be sharp 2) to be greedy, jealous 3) to have unprotected sex
ts'oli- n. drop
ts'oditi-esí- (ts'odè-) v. to put in small quantities (dots or drops)
ts'ök-ésí- v. to mix honey with water until it is bitter
ts'ökómá- n. *Sclerocarya birrea* tree
ts'öl-ìn- v. to be watery
ts'úbu- n. grass sp.
ts'úde- n. smoke
ts'óba- n. grass cover
ts'obolátí- n. stopper, plug
ts'uf-óni- v. to barely appear
ts'óguramá- n. medicinal tree sp.
ts'un-ésí- v. to kiss
ts'ots'óó- n. garbage, rubbish
ts'ót-ésí- v. 1) to suck juicy fruit 2) to absorb 3) to make a sucking sound in derision
ts'uw-óni- v. to go in and out in clumps or bunches

**Ww**
wa- (we-esí-) v. to harvest waa- n. greens, vegetables wááka- n. game, playing wáána- n. 1) asking, begging 2) prayer 3) religious service waat-ésí- v. to soak in water wád-óni- v. to boil, simmer waínó- n. hunter’s call for help in carrying meat home wak-ésí- v. to break off (e.g. a tree branch or animal bone) waláa- n. sorghum variety wal-ám-óni- v. to get light (dawn) walswál-ìn- v. to wave in wind warwarí- n. *Dombeya quinqueseta* tree was-óni- v. 1) to stand 2) to be stationary 3) to be stagnant wat-óni- v. to rain wats’ó- n. rock-crevice beehive wafí- n. ahead, front wázo- n. young female animal wéés-án-óni- v. to be lazy w-ésí- (ó-) v. to call, name weléwel-án-óni- v. to be brittle werés-óni- v. to cry out wet-ésí- v. 1) to drink 2) to smoke, snuff tobacco wédiwéd-ìn- v. to flutter wéen-ìn- v. to move fast wékéki- n. vine rope

**Uu**
úde- n. kind of smooth grass úg-esí- v. to dig up-án-óni- v. to accompany uréma- n. *Pentarrhinum insipidum* plant urúrá- n. deep river or pool ut-ésí- v. to blaze a trail útcò- n. liquid oil
wela- n. 1) narrow animal path 2) small gate 3) window
wérék-és-oni- v. to get up quickly
wets'-ésí- v. to break off the edge
wídzo- n. evening
wicé- n. children; cf. imá-
wil-ím-oni- v. to have muscular aches and pains
wirá-ésí- v. to get from various places
witsiwits-ét-oni- v. to get dark
wízíwiz-et-ésí- v. to scribble
wíd-id-án-oni- v. to clench in teeth
wil-oni- v. to feel pain
wíŋ-id-oni- v. to be syrupy
wízí-il-oni- v. to retch
wórók-ók-oni- v. to dehydrate
wówój-ésí- v. to overfill
wud-oni- v. to burn (e.g. food)
wuj-úd-oni- v. to be jiggly
würukuk-án-oni- v. to have birth contractions
wut-ésí- v. to trespass on the chance of not getting caught
wulók-úm-oni- v. to be enthusiastic

Yy
yaŋ-úd-oni v. to be solid
yáŋi- n. my mother
yáyóo- n. your sister
yaoyau- n. stream

yeýáa- n. my sister
yeáti- n. his/her sister
yrm-éd-oni- v. to be delicate
yídi-id-oni- v. to be eager to work
yum-úd-oni- v. to be soft inside
yu-úd-oni- v. to be soft (of soil)
yu- n. lie, falsehood
yók-úm- v. to doubt

Zz
zadì-id-oni- v. to be arched
zamuj-án-oni- v. to be wrinkly
ze- (zo-oni-) v. 1) to be big 2) to be old 3) to be in authority
zéb-esi- v. to throw overhand
zekw-oni- (zekè-) v. 1) to sit, be seated 2) to stay, live
zíb-oni- v. to roam around idly
zikíb-oni- v. to be tall, long
ziláám-óni- v. to be exhausted
zítá- n. winnowing basket
zik-ésí- v. 1) to tie 2) to arrest
zman- n. zebra
zíz-esí- v. to blame
zo-oni- v. to be big; cf. ze-
zaɓat-i-esí- v. to whip two children at the same time
zóta- n. chain

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zaɓ-úd-oni- v. to be soft (e.g. mattress, ripe fruit, soil)
Appendix C—Conjugations of Similar Verbs

<table>
<thead>
<tr>
<th>itóon- (ita-) ‘to reach’</th>
<th>Present</th>
<th>Future</th>
<th>Imperative singular</th>
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</thead>
<tbody>
<tr>
<td>1SG</td>
<td>itáí</td>
<td>itesí</td>
<td>itač</td>
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<tr>
<td>2SG</td>
<td>itáíd</td>
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<th>itéóon- (ití-) ‘to delay’</th>
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<th>itétóni- (ít-) ‘to come back’</th>
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<th>itétní- (nt-) ‘to arrive here’</th>
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<td>ítóni- (ít-) ‘to be a certain size’</td>
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<th>ít-ési- (ít-) ‘to get a dead animal’</th>
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References


Schrock, Terrill (2013). Case as a meta-categorial heuristic in Ik grammaticography. Paper presented at the Nilo-Saharan Colloquium at the University of Cologne, Köln, Germany.


Schrock, Terrill (In preparation). On whether ‘Dorobo’ was a fourth Kuliak language.


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Samenvatting

Dit boek omvat een analyse van het Ik (Icé-tód), een Kuliak (Rub)-taal gesproken door 7500 mensen in noordoost Oeganda. Het levert een zo volledig mogelijke basisinventaris van de klank/vorm/betekeniseenheden die samen de grammatica van het Ik vormen. Het boek kan voortborduren op een solide traditie van vijftig jaar taalbeschrijving. Desalniettemin vult het een aantal belangrijke gaten op. De noodzaak voor een vollediger beschrijving is nijpend gezien het feit dat de twee andere leden van de subgroep, Nyang’ia en So/Tepeth, op het punt van uitsterven staan. Een tweede doel van deze studie is dan ook een precieze en adequate geschreven weergave te bieden van het Ik voor het geval, door de krachtige neiging tot assimilatie aan het Engels en de Teso-Turkana talen uit de Oost-Nilotische (Nilo-Saharaanse) taalfamilie, ook Ik verloren gaat. Een derde doel van deze studie is een duidelijker beeld mogelijk te maken hoe Ik gerelateerd is aan de andere talen in de regio, met name door parallellen voor te stellen voor de grammaticale morfemen van het Ik.

Hoofdstuk 1 begint met een korte inleiding over het Ik-volk, hun geschiedenis, de ecologie van hun leefgebied, economie, samenleving, godsdienst en cultuur. Hierop volgt een inleidend overzicht over de taal van de Ik, waarbij onderwerpen zoals de controverses rond de genetische classificatie aan de orde komen, maar die ook een typologische karakterisering van de taal geeft en onderwerpen als variatie, invloeden door taalcontact, etnolinguistische vitaliteit en eerdere publicaties over het Ik behandelt. Het hoofdstuk sluit af met een beschrijving van de methodologie, het veldwerk, de verzameling van de gegevens en hun beschikbaarheid, en tenslotte de spelling. Hieruit wordt duidelijk hoe het Ik dat lange tijd in haar bestaan bedreigd was maar toch kans zag voort te bestaan door aanpassing zonder zijn eigenheid op te geven.
Hoofdstuk 2 behandelt de segmentele fonologie. Hierbij komen de dertig contrastieve medeklinkers en de negen klinkers aan bod met hun allofonische realisaties zoals het stemloos worden van klanken in finale positie, assimilatie naar plaats van articulatie en glottale effecten. Bij de bespreking van lettergroepstructuur wordt een onderscheid gemaakt tussen fonetische en fonologische lettergrepen om het stemloos worden klinkers voor een pauze te verklaren. Ten slotte behandelt het hoofdstuk morfofonologische regels zoals haplogenie, ontwrijving, niet-finale deletie en klinkerharmonie. Dit laatste is een verschijnsel dat van belang is bij de morfologische analyse in alle onderdelen van de grammatica.


Hoofdstuk 4 geeft de basiseigenschappen van het naamwoord. De kenmerken van een lexicale wortel worden benoemd, aangevuld met opmerkingen over reduplicatie en archeïsche voorvoegsels. Daarna komen de strategieën aan bod om getal uit te drukken: singulatieven, pluratieven, suppletieve meervouden, possessieven, en naamwoorden die niet voor getal gemarked zijn. Ik heeft een relatief arm systeem van nominale affixatie dat gecompenseerd wordt door de (voor)naamwoord - (voor)naamwoord-
samenstellingen die functies als agentief, verkleinwoord, interne en variërende meervoudigheid, en relationele locatieven uitdrukken. Op het eind van de hoofdstuk krijgt de lezer een overzicht over verwantschapstermen, persoonsnamen, namen voor volkeren en voor plaatsen.

Hoofdstuk 5 vervolgt met een beschrijving van de vele verschillende voornaamwoorden in de taal. Eerst behandel ik de persoonlijke voornaamwoorden, gebonden en vrije, dan het unieke bezittelijke onpersoonlijke voornaamwoord. Vervolgens komen de volgende voornaamwoorden in detail aan bod: onbepaalde, interrogatieve, aanwijzende, betrekkelijke, wederkerende, distributieve en aansporende voornaamwoorden, en tenslotte het zogenaamde “dummy voornaamwoord” dat vereist is ter vervanging van een perifeer zinsdeel dat verplaatst is.

Ieder naamwoord en voornaamwoord is verplicht gemarkeerd voor naamval. Dit wordt besproken in hoofdstuk 6. Dit hoofdstuk vormt de brug tussen de nominale woordsoorten en de andere woordsoorten omdat de naamvalmarkeerders zich in een grammaticaliseringsproces bevinden naar gebruik in andere onderdelen van de grammatica zoals het verbale systeem. Ik beschikt over een uitgebreid naamvallensysteem met acht naamvallen: obliek, nominatief, instrumentaal, ablatief, genitief, accusatief, datief, en copulatief. De naamvallensachtervoegsels met hun complexe allomorfie en hun semantische rollen worden uitgelegd in dit hoofdstuk. De mogelijke oorsprong van de naamvallensachtervoegsels en hun verdere grammaticalisatie komen eveneens aan bod.

Hoofdstuk 7 behandelt het werkwoord. Het hoofdstuk begint met een overzicht van de mogelijke segmentale en tonale stucturen van de werkwoordswortel. Vervolgens behandel ik de derivationele, directionele en subject-markerende achtervoegsels. Daarop volgt een discussie over modaliteit, die zich toespitst op het onderscheid tussen realis en irrealis, dat op de eerste plaats een vormelijke opdeling inhoudt en slechts ten dele een

Hoofdstuk 8 sluit de morfologie af met een presentatie van de overige woordsoorten. Deze omvatten kwantificeerders, demonstratieve, bijwoorden, conjuncties, voorzetsels, tussenwerpsels, ideofonen, en imperatieve gebruikt ten opzichte van kinderen. Daarna komen tijdsanderings aan bod. Ten slotte worden begroetingen behandeld. Hoewel deze geen woordsoort op zichzelf vormen worden ze wel veelvuldig gebruikt, zijn retorisch van belang en hebben een ritueel karakter.

Hoofdstuk 9 maakt een begin met de analyse van de syntax van zinsdelen en zinnen. Eerst wordt de structuur van de naamwoordgroep uitgelegd, daarna de structuur van eenvoudige hoofdzinnen inclusief causatieve zinnen, zinnen met koppelwerkwoorden en zinnen met hulpwerkwoorden. Het omvangrijkste onderdeel van dit hoofdstuk is de bespreking van de structuur en functie van de vele soorten ondergeschikte zinnen die het Ik kent, met bijzondere aandacht voor zinnen zonder werkwoord, focus en topic constructies, vragen, complementzinnen, indirecte rede, constructies van vergelijking en negatie. Dit hoofdstuk vormt een eerste aanzet voor de verdere analyse van de syntax van het Ik.

Het tiende hoofdstuk overstijgt de grenzen van de zin en behandelt kort de strategieën om zinnen met elkaar te verbinden als toevoeging, tegenstelling of alternatief. Het hoofdstuk eindigt met een discussie van zinsaaneenschakeling. Ik maakt gebruik van sequentiële en simultane werkwoordsvormen om ketens van zinnen te creëren in een zogenaamd co-
subordinerend verband. Aangezien zinsaaneenschakeling een areaal kenmerk is (het komt ook in Oost-Nilotische talen voor) en steeds meer aandacht krijgt, zijn deze beschrijvende observaties over het Ik een relevante bijdrage.

De eerste appendix is een verzameling van vijf teksten in het Ik met interlineaire vertaling: “Vijanden”, “Bijenteelt”, “Specht”, “Koning Leeuw”, “Gezegden” waaronder enkele verboden en een tongbreker. De tweede appendix is een lexicon van Ik wortels. Ten slotte geef ik de vervoeging van zeven voorbeeldwerkwoorden.
Curriculum Vitae

Terrill Brian Schrock was born on August 12, 1980, in the small, southern railroad town of Atmore, Alabama, U.S.A. Though much of his childhood was spent in the American South, he also lived with his family among Bantu peoples on the shores of Lake Victoria in Tanzania, between 1987-89 and 1995-97. From 2000-2001, Terrill took part in a study-abroad program in Aktau, Kazakhstan, where he studied Kazakh and taught English. By 2003, he earned a BA degree in French and Russian languages from the University of South Alabama. In 2007, he completed an MA in Applied Linguistics from the Graduate Institute of Applied Linguistics in Grand Prairie, Texas. While working as truck-loader for UPS and an intern at the commercial translation firm RussTech Inc., Terrill joined Wycliffe Bible Translators and SIL in 2004. In 2008, he and his wife Amber were assigned by SIL to the Ik project in northeastern Uganda where they have been since, working in language development and healthcare. They are now the proud adoptive parents of two Ik/Karimojong girls, Lemu Immaculate and Kaloyang Mercy, and live with them by Timu Forest in Ikland at the edge of the Rift Valley.