TOPICS IN HO MORPHOPHONOLOGY AND MORPHOSYNTAX

by

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DISSERTATION ABSTRACT

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Ho, an under-documented North Munda language of India, is known for its complex verb forms. This dissertation focuses on analysis of several features of those complex verbs, using data from original fieldwork undertaken by the author.

By way of background, an analysis of the phonetics, phonology and morphophonology of Ho is first presented. Ho has vowel harmony based on height, and like other Munda languages, the phonological word is restricted to two moras.

There has been a long-standing debate over whether Ho and the other North Munda languages have word classes, including verbs as distinct from nouns. Looking at the distribution of object, property and action concepts, this study argues that Ho does, in fact, have word classes, including a small class of adjectives.

Several new morphological analyses are given; for example, what has previously been called 'passive' is here analyzed as 'middle'. The uses of the middle *-oʔ* in Ho overlap with uses documented for other middle-marking languages, suggesting that this is a better label than 'passive'.

Ho traditionally marks aspect in the verb rather than tense, especially for transitive verb constructions. Several aspect suffixes follow the verb root. Ho is developing a periphrastic past tense construction with the past tense copula form

taikena. Also, the combination of perfect(ive) aspect suffixes and the transitivity suffix -*ḍ* always gives a past tense interpretation, to the extent that -*ḍ* may be re-grammaticalizing to past tense.

Three types of complex clauses are discussed in the dissertation: complement clauses; relative clauses and serial verb constructions. Like many South Asian languages, Ho has productive serial verbs and several serialized verbs are grammaticalizing to become more like auxiliary verb constructions.

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CHAPTER I

INTRODUCTION

This chapter introduces the Ho language and provides some background for the rest of the dissertation. Section 1.1. shows Ho's position in the Munda group of languages and gives some information on Ho speakers. Previous research on Ho is described in section 1.2. and section 1.3. details the documentation project which provided the database for the linguistic analyses presented here. Section 1.4. gives an overview of the dissertation, and finally section 1.5. gives some basic information about Ho grammar.

1.1. The Ho Language and Its Speakers

Ho is a North Munda language, spoken in Central Eastern India. It is spoken in the East Singhbum district of Jharkhand and the Mayurbhanj and Keonjhar districts of the state of Orissa, India. Figure 1.1 shows the distribution of all the Munda languages in India. The number of speakers of Ho is estimated at around 1 million (from the 2001 census of India[1]).

The Munda language family constitutes the Western branch of the bigger Austroasiatic family. Mon-Khmer languages, spoken primarily in Vietnam, Cambodia, Laos and Thailand, have traditionally been presented as forming the Eastern branch; however there has been debate on the internal classification of the Mon-Khmer family as a whole (see, e.g., Diffloth 2005, Sidwell 2005).

[1] `http://www.censusindia.gov.in/Census_Data_2001/Census_Data_Online/Language/Statement8.htm`

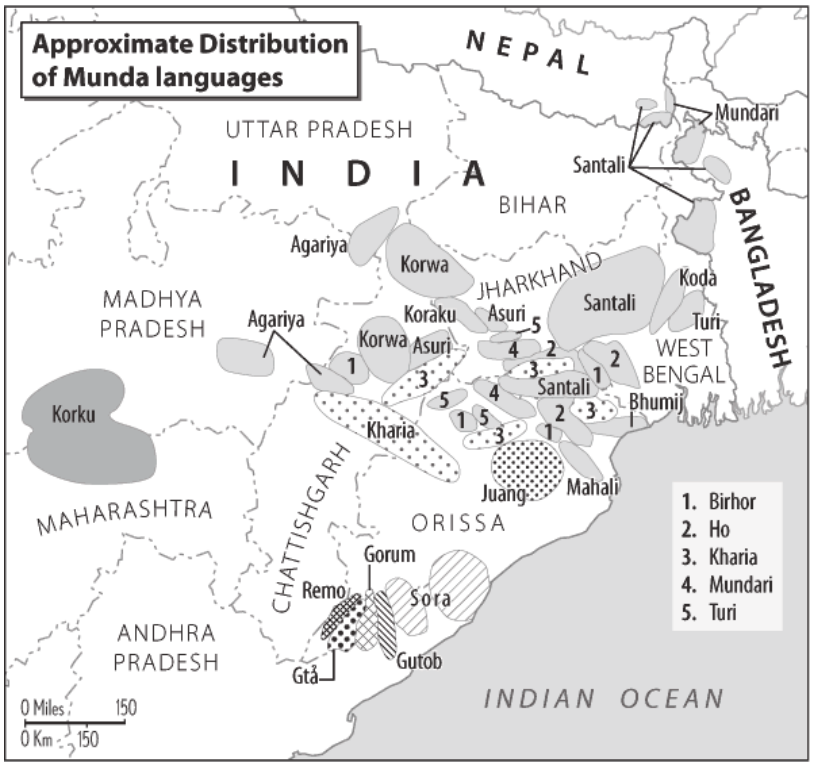

FIGURE 1.1. Approximate distribution of the Munda languages (from Anderson 2008:02)

Figure 1.2 shows a classification of the Munda group of languages, following Anderson (1999). This figure is a revision of the traditional classification (e.g., Zide & Stampe 1964). Anderson's revisions concern the South Munda languages so I will not describe them here. Ho belongs to the Kherwarian branch of the North Munda family. The latest edition of *Ethnologue* lists 14 languages in the Khewarian branch; Asuri, Birhor, Koda, Kol, Ho, Korwa, Mundari, Munda[2], Mahli, Santali, Turi, Agariya, Bijori (also Binjhia, Birjia) and Koraku (Lewis et al. 2013). Santali, Mundari and Ho are the largest with respect to numbers of speakers.

[2]It is not clear whether the *Ethnologue's* "Munda" (ISO unx) is really a different language from "Mundari" (ISO unr) but they are listed separately in *Ethnologue*.

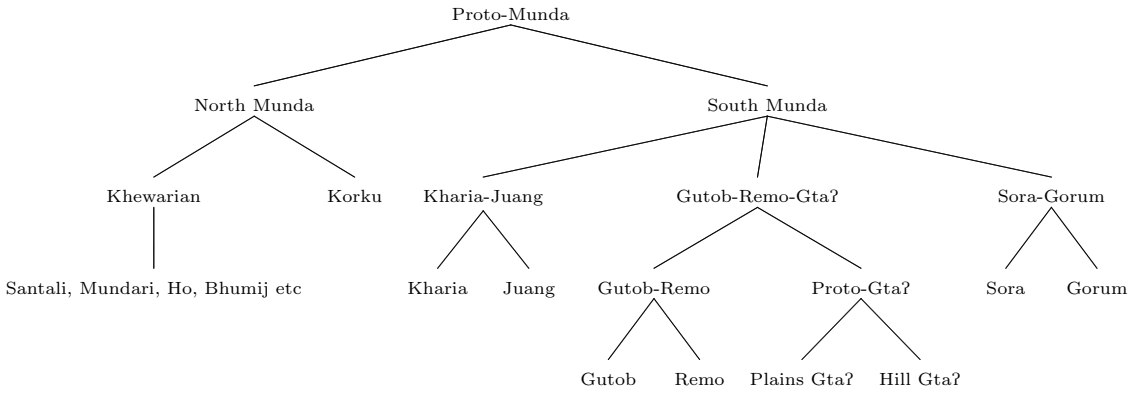

FIGURE 1.2. Classification of the Munda languages (from Anderson 1999)

The name Ho comes from *ho:* 'human, man' in the Ho language and speakers call their language *ho: basa* or *ho: kaji*. Ho is very closely related to Mundari, to the extent that some researchers have called Ho and Mundari dialects of the same language rather than separate languages (Pinnow 1959, cited in Osada 2008). According to Anderson et al. (2008), there is about 80-85% similarity between Mundari and Ho, at least for the Mayurbhanj dialect of Ho. Osada claims even greater mutual intelligibility for Chaibasa Ho and Mundari (Osada 2008:161). Ho speakers consider themselves ethnically different from Mundari speakers and similarly consider their language separate from Mundari.

Ho can be written in a Hindi-based Devanagari and Ho speakers in Orissa can also use the Oriya (Indo-Aryan) script to write Ho. There is also considerable support, especially among Ho speakers in Mayurbhanj, Orissa, for the Warang Chiti script that was devised by pandit Lako Bodra in the 1950s (Anderson et al. 2008:196). Warang Chiti is particular to the Ho language and was devised to be maximally different from Roman and Devanagari scripts. There is a small amount of publishing that is done Warang Chiti. Figure 1.3 shows an example of the Warang Chiti script

from a newsletter distributed in Chaibasa. There is currently a proposal with the Unicode consortium to codify Warang Chiti for internet and computer purposes.[3] Although most Hos I met were proud that their language has a separate script, there is an opposing view that it is not necessary. For example, Fr. Deeney wrote that the Ho people's aspirations for their own script are "romantic and unrealistic" and that widespread use of Devanagari for Ho, Mundari and Santali would better aid the survival of all three (Deeney 2002:xi).

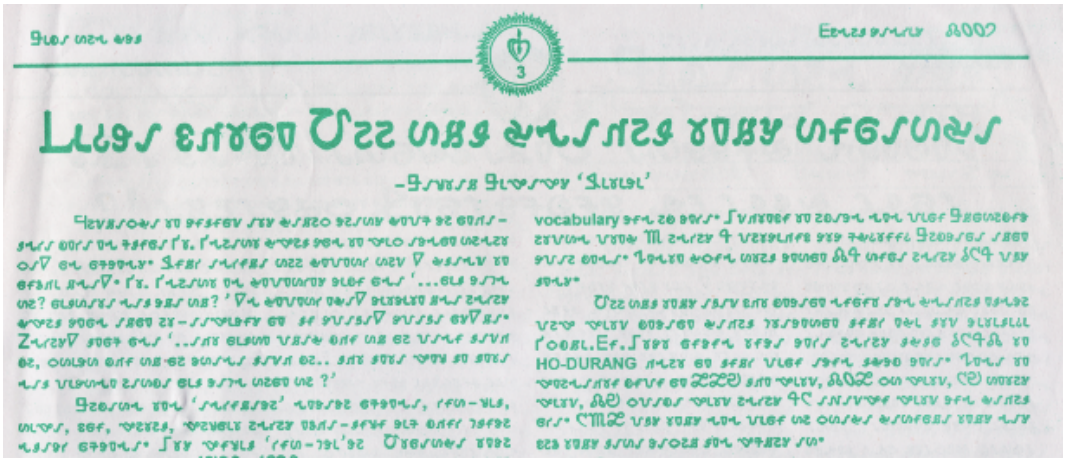

FIGURE 1.3. Example of Warang Chiti script from a newsletter

All educated Ho speakers, as well as many less well educated speakers, are at least bilingual with Hindi, and in Orissa with Oriya. Schooling is generally conducted in Hindi in Jharkhand. As the most widely spoken national language, Hindi carries a lot of prestige and there is pressure on children to learn Hindi from a young age. Additionally, English is taught at all educational levels in many places.

The result of this multilingualism is a lot of borrowing and code-switching between Ho and other regional languages, but especially Hindi. As we might expect, borrowed words tend to appear in semantic fields that denote modern concepts and

[3] http://std.dkuug.dk/jtc1/sc2/wg2/docs/n4259.pdf

ideas, such as science vocabulary, but they can also appear as alternatives for concepts where there are existing Ho words, such as *tik hai* 'good, alright'. Borrowing extends to many grammatical words and structures, as we will see. For example, the use of *okon-iʔ* for the relative pronoun 'who' is a kind of calque from Hindi (see chapter VI).

1.2. Previous Research on Ho

Although Ho research is still comparatively more abundant than research on many of the lesser known Khewarian languages, there has been much less research on Ho than on Mundari and Santali. For example Santali has two dictionaries (Bodding 1929-36; Campbell 1953, 1954), several grammars (including Bodding 1922, 1929; Neukom 2001), as well as one book dedicated to its morphology (Ghosh 1994). There are similarly several grammars of Mundari e.g., Cook (1965) and Osada (1992), in addition to the formidable 16 volume *Encyclopedia Mundarica* (Hoffman 1930-78).

Much of the previous work on Ho has been pedagogical, rather than theoretical. The first grammar of Ho (1915) was intended for government officials and other outsiders wishing to learn Ho. Previously, those trying to learn Ho had to make do with Mundari grammars (Burrows 1915:ii). Indeed, Burrows refers frequently to one of Hoffman's first grammars of Mundari (Hoffman 1909). The differences between Ho and Mundari that Burrows points out were probably the main advantage of his own work when it came out. He includes some 65 pages of vocabulary at the back of his grammar, both Ho-English and English-Ho, as well as many lists of e.g., 'divisions of time, coins, weights and measures' (Burrowes chapter XX) and 'adverbs' (Burrowes chapter XXII). However this is not a linguistic work, e.g., he does not separate words into constituent morphemes to analyze complex forms. There is furthermore curious

advice to the would-be learner in some places, such as not to worry about the "checked vowels" (words ending in glottal stop) since they are "applied arbitrarily" and not important (1915:10). (However, he does go on to point out some minimal pairs where the difference does matter after all.)

Interestingly, there was no major work on Ho between Burrows (1915) and the first editions of Deeney's pedagogical grammar (2002 [1975]) and dictionary (2005 [1978]). These works are probably the most thorough works to date on Ho. Fr. Deeney spent more than fifty years (1952-2009) living in Lupungutu, near Chaibasa, and, as a result of this immersion in a Ho community, both of his books are very detailed in their examination of the Ho language. The dictionary in particular presents many of the subtleties of the Ho lexicon and includes a lot of information on Ho culture. The grammar, like Burrows', is aimed at English-speaking learners of Ho and is quite brief (146pp). It presents many constructed sentences to illustrate grammatical points and lacks some linguistic analysis.

In more recent years, we have also seen a chapter in *The Munda Languages* (2008) primarily about Ho, but also covering the smaller Khewarian languages (Anderson et al. 2008:195-255). This is the first modern linguistic analysis of Ho but is necessarily short. Anderson (2007) considers both North and South Munda languages and analyzes features of the Munda verb from a comparative-historical perspective. Anderson (2007) provides many more insights into the complexity of the Munda verb, at least from a historical perspective, than was previously available.

A short monograph on Ho grammar from the Central Institute of Indian Languages also appeared in recent years (Ramswami 2010). Ramswami has a section comparing Ho with Mundari and Bhumij (a dialect of Mundari), using Osada (1992) and Hoffman (1903) for Mundari and his own (1992) work on Bhumij. Although

this work tries to explain most of the morphology of Ho, it omits some rather large categories, e.g., there is no discussion or even examples of pronominal object marking in the verb (cf. chapter V). There is also now a Ho-Hindi dictionary (Sinku 2007).

Perhaps because Munda morphology, especially verbal morphology, is so complex, it has previously been considered sufficient to simply provide glosses for morphemes, without much justification or explanation. The present work is an attempt to discuss those complexities as they occur in Ho in more detail. Although I present some new analyses for morphemes (e.g., a middle analysis for *-o?*, previously 'passive'), the aim of this work is to consider some of the more challenging aspects of Ho grammar in more depth than before. For example, although Munda researchers often note that word classes are a difficult, and perhaps impossible, concept to apply to Munda languages, they usually still reference 'nouns' and 'verbs' in their work. In chapter II, I explore the question of whether we can in fact talk about the lexical categories of 'noun', 'verb' and 'adjective' in Ho. Similarly, in the discussion of the notion of transitivity and how it applies to Ho (chapter V), we see that there is an interaction of aspect, transitivity and object marking. The details of this interaction have not been noted to date.

The second major advantage of this work compared with most previous ones is that the example sentences come primarily from spoken texts. The findings and conclusions thus represent Ho as it is spoken today rather than an idealized or prescriptive form of the language. The next section describes the text collection and database in more detail.

1.3. Methodology and Background

The data used for the dissertation comes primarily from texts collected between 2008-2012. I spent a total of eleven months in Jharkhand, over three fieldtrips. The aim of the first trip (3 months) was to collect data for the Ho Talking dictionary[4] and was sponsored by Living Tongues Institute for Endangered Languages and the National Geographic Enduring Voices Project.[5] Two subsequent trips (5 months and 3 months), which were funded by NSF doctoral dissertation improvement grant BCS-1022940, focused on text collection as well as some grammar elicitation.

As mentioned above, Ho is spoken in both Jharkhand and Orissa so that there are two varieties of Ho; Chaibasa Ho (Jharkhand) and Mayurbhanj Ho (Orissa). Most of the speakers I worked with come from the town of Chaibasa or one of the Ho-speaking villages around it. For that reason, the analysis presented here is of Chaibasa Ho. It is possible that there are some differences in the Mayurbhanj variety. Where differences have already been noted in the literature (e.g., Anderson et al. 2008), I mention them.

About forty Ho people contributed in some way to the project. Many of them told stories or explained Ho customs and traditions. Several students at Ranchi University and Mahila Girls' College in Chaibasa worked regularly to help transcribe and translate the texts. With their help, around three and a half hours of texts have been completely parsed, glossed and translated. A further two and a half hours have been transcribed. The transcriptions were done with ELAN Linguistic Annotator[6] and we used FLEx software[7] for parsing, glossing and translating the texts.

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[4] `http://ho.swarthmore.edu/`

[5] `http://www.livingtongues.org/enduringvoices.html`

[6] Max Planck Institute for Psycholinguistics, The Language Archive, Nijmegen, The Netherlands `http://tla.mpi.nl/tools/tla-tools/elan/`

[7] SIL International `http://fieldworks.sil.org/flex/`

All the recordings were made with an Olympus LS-10 recorder. The 2011-12 recordings were made with either a lapel microphone or omnidirectional stand microphone (depending on the number of speakers) in combination with the Olympus recorder. Some video recordings were made with a Kodak Zi8 recorder and external microphone.

Many of the texts in the corpus are traditional Ho tales. In many others, the speaker explains various details of Ho life and culture. For example, two texts explain how *Mage Porob*, the big harvest festival held around February, is observed. In another, a speaker explains how to make the special bread eaten for the *Hero?* festival, held in July (see appendix C). There are also some more personal narratives. One particularly interesting example of a personal narrative is by Mr. Danur Singh Purty, who is well-known locally for seven books he wrote in Ho about different aspects of traditional Ho life. Mr. Purty worked very closely with Fr. John Deeney on the Ho grammar and dictionary and in the recording he talks about how they met and the work they did together over many years.

At the beginning of the project, I collected some data from Ho-English bilingual students through traditional translation elicitation techniques. However, I avoided elicitation by translation once we had texts to work from. Instead, we worked from the texts, using those clauses to analyze different features of the grammar. As well as the narrative texts where speakers talked freely on topics of their choosing, I also collected some more directed texts, using a variety of stimuli, e.g., the children's picture book *Frog, where are you?* (Mayer 1967, see appendix D), pictures showing topological relations (Bowerman and Pederson 1992) and props illustrating topological paths (Bowerman 1992).

In terms of linguistic theory, the approach taken in this dissertation is broadly speaking typological: I sought to understand the categories of Ho from a cross-linguistic perspective. This means, for example, that I examine transitivity in terms of Hopper and Thompson's (1980) parameters and hypothesis, and relative clauses using Keenan and Comrie's (1977) noun phrase accessibility hierarchy.

1.4. Overview of the Dissertation

The present work focuses on the morphology and syntax of the Ho verb but in the process introduces some basic information on the language. We will explore the morphemes of Ho in both basic and complex clauses. By way of background, chapter II begins with the phonetics and phonology of Ho, and looks at patterns of stress and vowel harmony in Ho.

There has been a long-standing debate in the linguistic literature over whether and how the notion of word classes is relevant to North Munda languages. Chapter 3 enters the debate and we look at the distribution of object, property and action concepts in Ho. We will see that Ho does indeed have word classes, including a small class of adjectives.

An overview of the Ho verb and its component morphemes is given in chapter IV. There we see several reanalyses of various Ho morphemes, including a middle analysis for *-o?*, which has previously been called 'passive'; and an imperfective analysis for *-tan*, which has elsewhere been called 'progressive'.

One of the most fascinating features of Ho involves the interaction of transitivity suffixes with aspect and object marking in the verb and the temporal interpretations that arise from those combinations. Using the approach to transitivity proposed by Hopper and Thompson (1980), chapter V examines patterns of object-marking and

we see that in one respect the Ho data seem to challenge Hopper and Thompson's hypothesis that high transitivity features co-vary with other high transitivity features (and low with low). In Ho, imperfective aspect (low transitivity) correlates with the indexing of a highly individuated object (high transitivity). However, when we compare pronominal object marking in the verb in Ho with other languages that have differential object marking, we see that Ho does follow predictions by Comrie (1979) and Croft (1988) about when differential object marking happens. In that chapter, we also consider the function of the explicit transitive suffix -*ɖ*; given that it only occurs when the interpretation is past time, I will suggest that it is re-grammaticalizing to a past tense suffix.

Chapter VI analyzes verbs in three types of complex clauses: complementation, relative clauses and serial verbs. We see that Ho fits Givón's (2001b) prediction that the syntax of complement clauses reflects the semantic closeness of the events in the matrix verb and the complement verb. Like most South Asian languages, Ho has productive serial verb constructions, several of which are grammaticalizing to auxiliary verbs.

In the remainder of this chapter, we overview some basic features of the grammar of Ho.

1.5. Some Essentials of Ho Grammar

For reference for the remainder of the dissertation, this section gives a couple of examples of simple clauses and the basics of subject and object marking. Other features of the basic clause will be explored in more depth in chapters III and IV.

Ho is an agglutinating language. The predominant word order is SOV, like most South Asian languages. Example (1.1) shows a basic transitive clause with SOV order in Ho.

(1.1) *Matu=do* *aya?* *seta-ke=?* *hebe-ki?-ye*
Matu=FOC 3SG:GEN dog-ACC=3SG carry.on.hip-PFV:TR:3SG-FIN
'Matu carried his dog on his hip' (20120121RPPb:151)

Ho has nominative/accusative alignment. Both the subject and object NP are traditionally unmarked for grammatical relation. However, there is a type of accusative marker *-ke*, which younger speakers are using to a certain degree. In example (1.1) we see *-ke* attached to the NP *aya? seta* 'his dog'. The distribution of the object suffix *-ke*, as well as object indices in the verb, are discussed at more length in chapter V.

Subject NPs are not case-marked for grammatical relation and they can be omitted from the clause if they are recoverable from the discourse. However, there are subject clitics which index the person and number of the subject. These attach to either the word directly in front of the verb, as in (1.1), or the end of the verb itself, as with both verbs in (1.2).

(1.2) *na?=m* *kaji-ke-ɖ-a=m* *jom-me-ya=ɲ*
now=2SG say-PFV-TR-FIN=2SG eat-2SG-FIN=1SG
'now you said it, I going to eat you' (20110210BCc:23)

As we see in the first verb of example (1.2), the subject clitic (here *am* '2SG') can also be in both positions simultaneously. Both patterns of pronominal subject marking are attested and acceptable to speakers; however the preverbal patten as in example (1.1) is more frequent (cf. Anderson et al. 2008:217).

Both the subject clitics and object suffixes take the same form, except for second and third person singular. They are short or bound forms of the fuller free personal

pronouns, shown in table 1.1. The short forms appear as both object and subject markers, and for certain types of possession.

	Full Form			Short or Bound Form		
	Singular	Dual	Plural	Singular	Dual	Plural
1 (inclusive)	*aŋ*	*alaŋ*	*abu*	*-ŋ/-eŋ/-iŋ*	*-laŋ*	*-bu*
(exclusive)		*aliŋ*	*ale*		*-liŋ*	*-le*
2	*am*	*aben*	*ape*	*-m/-em/-me*	*-ben*	*-pe*
3	*ae?*	*akiŋ*	*ako*	*-e?/-i*	*-kiŋ*	*-ko*

TABLE 1.1. Pronouns in Ho

The third person singular subject clitic has the form *=e?* while the third person singular object suffix is *-i*. For second person singular, *=m* or *=em* is the subject clitic (depending on the preceding sound) and *-me* is the object suffix.

Object suffixes are obligatory under certain conditions (see chapter V) and subject clitics mostly appear. However, the third person singular subject suffix is frequently reduced to just *=?* and often omitted altogether.

The grammar of basic clauses will be taken up in more detail in chapter III. In the following chapter, we will look at the phonetics and phonology of Ho, including morphophonology.

CHAPTER II

PHONETICS, PHONOLOGY AND MORPHOPHONOLOGY

Before we can begin to look at Ho morphosyntax, it is helpful to understand its phonetics and phonology, including the morphophonology. Sections 2.1.1. and 2.1.2. first present the Ho phoneme inventory. Section 2.1.3. discusses what kind of syllables are possible, and then section 2.1.4. describes the basis on which stress is assigned in Ho. Section 2.2. covers major morphophonological patterns of Ho, primarily vowel harmony. We see that Ho has a vowel harmony system based on height, but harmony does not always spread through the entire word. For the most part harmony is restricted to the phonological word which consists of two syllables.

There has been little attention given to the phonetics and phonology of Ho by previous researchers. Deeney (2002) discusses the phonetics of Ho to some extent in the introduction to his grammar. The present work as well as Pucilowski (2011) are the first attempts to systematically describe Ho's phonetic inventory. For the most part, the data presented here agree with the analysis given in Anderson et al (2008). The present study is however more thorough than any previous work, e.g., Anderson et al. do not discuss stress in any detail.

2.1. Phonetics and Phonology of Ho

2.1.1. Consonants

The consonant inventory of Ho is shown in table 2.1. There are maybe 21 phonemic consonants, depending on the analysis of the nasals. In section 2.1.1.3.,

we see that [ɳ] only appears before a homorganic consonant and that [ɲ] and [ŋ] are in complementary distribution word finally.

	Labial	Alveolar	Retroflex	Palatal	Velar	Glottal
Stops	p, b	t, d	ʈ, ɖ	c, ɟ	k, g	ʔ
Fricatives		s				h
Nasals	m	n	(ɳ)	(ɲ)	ŋ	
Flaps		r	ɽ			
Lateral		l				
Glides	w			y		

TABLE 2.1. Consonant inventory of Ho

For convenience and following other linguists of South Asian languages, I will write the voiced palatal stop (IPA symbol ɟ) as *j* and the palatal glide (IPA symbol j) as *y* throughout the dissertation. I also write the alveolar flap (IPA symbol ɾ) as *r*. In the rest of this section, I will point out some features of consonants, nasals and glides.

2.1.1.1. Stops

As we see in table 2.1, Ho has six stop points of articulation, including a glottal stop. Table 2.2 shows average voice onset time (VOT) for the voiced and voiceless variants of three stops in Ho. I restricted measurements to instances in a word initial environment and preceding /a/. This meant that there were not enough tokens of /ʈ/ and /ɖ/ to measure (retroflex stops only appear in borrowed words). Additionally, I omitted tokens of /c/ and /j/ because they are phonetically too fricative-like to measure VOT.

We can see from the table that VOT for unaspirated voiceless stops is not long, with the velar stop having the longest average duration at 49ms. We may treat Ho voiceless stops as short-lag stops (stops with VOT of 0-35ms), with the VOT of /k/

stop (no. of tokens)	average VOT time (ms)	range
k (10)	49	38 – 64
p (6)	30	17 – 43
t (8)	25	14 – 23
g (10)	-68	-46 – -48
b (10)	-89	-54 – -119
d (10)	-78	-47 – -112

TABLE 2.2. Average VOT for Ho stops

somewhat longer. The short-lag voiceless stops may be one of the factors in the prenasalization of voiced stops word initially, as we see below.

Word initially and medially, there is always a phonemic contrast between voiced and voiceless stops. First, the bilabial stops always show a voiced/voiceless contrast:

p : b

/puraʔ/	'much, many'	/buraʔ/	'to draw or ladle out'
/borca/	'lance, spear'	/porja/	'poor'
/capa/	'draw picture'	/caba/	'finish'
/dubi/	'garbage dump'	/dupil/	'to carry on head'
/abu/	'1PL.INCL'	/apu/	'father'

There is also contrast between the dental stops, [t, d]:

t : d

/tai/	'stay, remain'	/dai/	'can, be able to'
/tal/	'surface'	/dal/	'dhal, lentils'
/tul/	'carry, in arms'	/dul/	'pour'
/ata/	'roast'	/ada/	'know'
/nitir/	'spread, diffuse'	/nidir/	'white ant'

The retroflex stops, [ʈ, ɖ], also show contrast:

ʈː ɖ

/ʈongaʔ/	‘hollow piece of jungle bamboo’	/ɖonga/	‘a boat’
/ʈuː/	‘squirrel’	/ɖur/	‘quail’
/guʈi marci/	‘black pepper’	/guɖi/	‘kite’
/moʈa/	‘thick’	/mõɖa/	‘mask’
/kuʈa/	‘straw’	/kuɖa/	‘roseapple’

The palatal stops, which might also be considered affricates, are contrastive:

c : j

/ci/	‘or’	/jiː/	‘heart, soul’
/coke/	‘frog’	/joka/	‘some’
/cakaɖ/	‘false’	/jakeɖ/	‘even, up to’
/raca/	‘courtyard’	/reja/	‘coolie’
/bacara/	‘intestinal worm’	/bajar/	‘town, city’

We also see contrast in the velar stops:

k : g

/kaʈi/	‘loan or borrow’	/gaʈi/	‘cart’
/kunʈi/	‘terraced, upland field’	/gunʈi/	‘cow’
/ako/	‘3PL’	/agu/	‘bring’
/hake/	‘axe’	/haga/	‘brother’
/bakai/	‘boundary, compound’	/baːga/	‘part’

We can also see contrast between the palatal and velar stops, as the following words show:

c : k

/caba/	‘finish’	/kaba/	‘coffee’
/cuʈu/	‘mouse’	/kuʈu/	‘miser’
/cimin/	‘how much, many’	/kimin/	‘the wife of one’s son’
/cacaʔ/	‘tear’	/cakaɖ/	‘false’
/-ici/	‘CAUS suffix’	/ikir/	‘deep’

j : g

/jaw/	‘barley’	/gaw/	‘wound’
/jom/	‘eat’	/gom/	‘wheat’
/joʔ/	‘sweep’	/goʔ/	‘carry on back’
/sajaw/	‘decorate’	/sagaʔ/	‘type of grass seed’

The following examples demonstrate initial and medial contrast between the dental and retroflex stops, both voiced and voiceless:

t : ʈ

/tẽya/	‘an older sister’s husband’	/ʈẽyo/	‘wolf’
/mata/	‘ripe’	/maʈa/	‘whey’
/tupu/	‘dip’	/ʈupi/	‘hat’
/tuːʔ/	‘mulberry’	/ʈuː/	‘squirrel’
/ata/	‘roast’	/aʈa/	‘birdlime’

d : ɖ

/dal/	'to place tiles or thatch on a roof'	/ɖal/	'a shield used with swords on the occasion of the *or-topa* dance'
/duku/	'sorrow'	/ɖuki/	'urine'
/didi/	'a vulture'	/ɖiɖi/	'to stand on tiptoes'
/gaːdi/	'heap'	/guɖi/	'kite'

The minimal and near-minimal pairs above establish a phonemic difference between /t/ and /ʈ/ and /d/ and /ɖ/; however, in some words there is free variation between these phonemes, as in the following examples.

(2.1) [tai] ~ [ʈai] 'stay, remain'
[data] ~ [ɖata] 'tooth'
[danɖi] ~ [ɖanɖi] 'a small handle, connecting device'

There are minimal pairs establishing the contrastive status of /ʈ/ and /ɽ/.

ʈː ɽ

/buʈi/	'naval'	/buɽi/	'old woman'
/buʈa/	'tree trunk'	/buɽa/	'old man'
/juʈi/	'defile'	/juɽi/	'friend, companion'
/moʈa/	'thick'	/moɽa/	'corpse'
/goʈa/	'whole'	/goɽa/	'ground, land'

Anderson et al. (2008:202) note that it is also possible to get some free variation between /ʈ/ and /ɽ/, and give the following examples from Deeney (2005).

(2.2) [peɽe] ~ [peʈe] 'pluck twig or small branch with one or both hands'
[kaːɽob] ~ [kaːʈob] 'crab'
[poɽa] ~ [poʈa] 'intestines' (Deeney 2005)

The fact that /t̪/ can vary freely with both /t/ and /ɽ̪/ in some instances leads Anderson et al. (2008) to question the phonemic status of /t̪/. Given that there are minimal pairs, we must posit it as a phoneme at this stage. It seems that there are more instances of free variation intervocalically than initially. In fact, there is only one instance of variation initially ([tai] ∼ [t̪ai] 'stay, live').

As we have seen, all of the stops, both voiced and voiceless, can appear in word initial position. There is a tendency for the voiced stops to be pre-nasalized when they appear word initially e.g., /bandor/ → [ᵐbanˈdor] 'monkey'. The nasal that appears before the stop is homorganic and not normally equal to other nasals in intensity or length. Figures 2.1 and 2.2 show spectrograms of two prenasalized voiced stops where we can observe the nasal band that precedes the stop. We can furthermore see in figure 2.1, [ᵐbanda] 'pond, tank', that the prenasalized stop is comparable in intensity to the second nasal portion ([n]) of this word. Not all pre-nasal portions are as intense as in this instance. As might be expected, voiceless stops are not prenasalized (Ohala 1997:95).

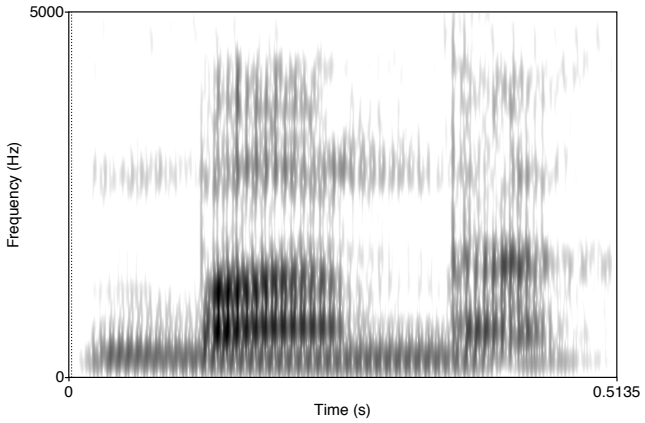

FIGURE 2.1. Spectrogram of [ᵐbanda] 'tank, pond'

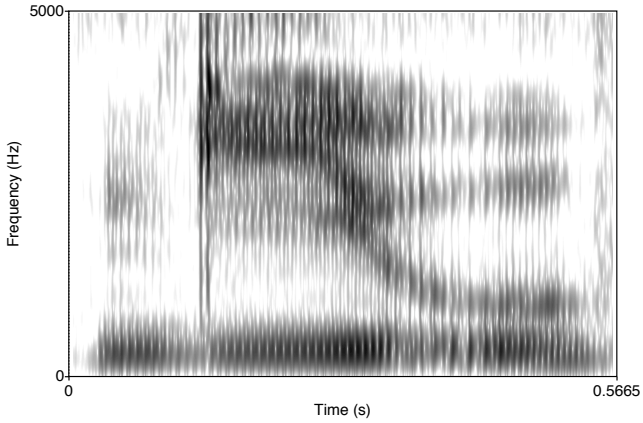

FIGURE 2.2. Spectrogram of [ᵑgiyuʔu] ‘shyness, disgrace’

Prenasalization does not happen in every instance of a voiced stop. However, it can be observed in all of the speakers in my database to some extent. Table 2.3 shows the proportion of words containing an initial voiced stop that were prenasalized.

	b	d	g	j	ɖ
prenasalized	91% (247)	78% (134)	90% (165)	58% (107)	77% (20)
not prenasalized	9% (23)	22% (38)	10% (19)	42% (78)	23% (6)
total no. of tokens	279	172	184	185	26

TABLE 2.3. Percentage of prenasalized initial voiced stops in Ho words

I coded all of the word initial voiced stops in my data as either prenasalized or not prenasalized based on auditory impression. The tokens come from five speakers, three males and two females, all under the age of 30. We can see from the table that voiced stops in initial position are prenasalized more often than not. The instances of /j/ being prenasalized are much fewer. This is most likely due to its more fricative-like nature. Cross-linguistically fricatives can also be pre-nasalized; however, it is less common.

Two of the speakers (one male, one female) had fewer instances of prenasalization than the other three. However, they still produced prenasalized stops in some instances. It is possible that the prenasalization of initial voiced stops varies depending on social factors such as region and education. Given that all my speakers were under 30, it might be possible that the prenasalization is more common among younger speakers and therefore an indication of language change in progress.

The prenasalization of voiced stops occurs widely across the world's languages and is not always an indication of phonological change in progress. For speakers of a language with just a two-way distinction in stops, prenasalizing the voiced stops is one way to further distinguish between voiced and voiceless stops. From an articulatory point of view, a prenasalized stop is just one maneuver which speakers can use to facilitate voicing during the stop closure. Opening the velopharyngeal port allows oral air pressure to vent, thereby extending the amount of time that the stop can be voiced and so serving to highlight the voicing in the stop (Johnson 2005:139; see also Ohala 1997).

It is difficult to see from the data whether the voiced stops are pre-nasalized when they occur medially. Ohala predicts that inter-vocalic voiced stops may spirantize (1997:95) and there is a limited amount of spirantization with some speakers in Ho, at least with the bilabial stop.

(2.3) [jibon] ∼ [jiβon] 'life'

[babata] ∼ [baβata] 'scabies, itch'

Now we turn to consider stops in word final position. The voiceless stops do not appear in word final position, except in some borrowed words, e.g., /kek/ 'cake', /sut/ 'suit, salwar kameez', /biskut/ 'biscuit', /kop/ 'cup' (from English) and /camac/ 'spoon' (from Hindi). I have no examples of word final /ʈ/.

Voiced stops /b/ and /ɖ/ appear phonemically word finally but there appears to be some phonetic variation in how they are pronounced. They are frequently unreleased or they are preglottalized and accompanied by a nasal release.

(2.4) /laɖ/ → [laɖ̚] or [laˀɖⁿ] 'bread'

/porob/ → [porob̚] or [poˈroˀbᵐ] 'feast, festival'

Osada (2008) also notes a preglottalized stop with a nasal release in Mundari. However, he observes that for Mundari, the presence of a nasal release is restricted to monosyllabic words. It does not occur in polysyllabic words (Osada 2008:102). In Ho, both monosyllabic and polysyllabic words can have an audible nasal release, at least in citation form. However, in connected speech, the nasal release can only be detected when it occurs at the end of an intonational phrase; elsewhere the stop is merely unreleased.

When the voiced stops /ɖ/ and /b/ appear in syllable-final position and before a consonant, they are devoiced. For example, what is written phonemically as *caɖlom* 'tail' is pronounced [caʈlom].

The voiced stops /d/, /g/ and /j/ (IPA ɟ) do not appear word finally except in borrowed words, e.g., /neːg/ 'a ritual, rite' (from Hindi). However, there is also a glottal stop phoneme that appears word finally. Historically, this is thought to be an allophone of /g/ (Anderson et al. 2008:200) but this is not clear synchronically.[1] The glottal stop is always followed by an echo vowel which has the same quality as the preceding vowel.

(2.5) /daʔ/ → [daʔa] 'water'

/setaʔ/ → [seˈtaʔa] 'morning'

[1]In Mundari, Osada regards the glottal stop as an allophone of both the stop /g/ and of the glide /y/ (Osada 2008:102). According to him, /g/ appears after /a/ and /y/ after the other vowels.

I represent these words phonemically with the glottal stop, e.g., /daʔ/ 'water', not /dag/. Words with a final glottal stop are contrastive with words that end in a simple vowel, either long or short, as in the following examples.

(2.6) /iyu/ 'shout, call out' /iyuʔ/ 'fall from a height'
/joː/ 'fruit' /joʔ/ 'sweep'

For Mundari, Osada finds that there is no echo vowel in polysyllabic words (Osada 2008:102). Once again this does not seem to be the case in Ho in the citation forms: the echo vowel can be heard in the citation form of polysyllabic words, such as [setaʔa] 'morning'. Given that the echo vowel is entirely predictable, it is not normally written in phonemic transcriptions.

2.1.1.2. Fricatives

There are only two fricatives in Ho: /s/ and /h/. /s/ can appear in onset and coda position, although most of the instances of syllable-final /s/ seem to be in borrowed words (/jinis/ 'thing' being an exception).

(2.7) /sarkam/ 'leaf'
/suku/ 'squash'
/rasi/ 'juice'
/kismis/ 'raisin, currant' (from Hindi)
/bogsiːs/ 'reward, gift' (from Hindi)
/jinis/ 'thing'

/h/ can only appear in onset position.

(2.8) /hisi/ 'twenty'
/hende/ 'black'

In some words, it seems that [s] is in free variation with [ʃ], e.g., [sandi] or [ʃandi] 'rooster', [hõʔoso] or [hõʔoʃo] 'goose'. This could be particular to certain speakers however.

The bilabial fricative allophone of /b/ was mentioned in section 2.1.1.1..

2.1.1.3. Nasals

Five nasal consonant sounds are attested in Ho but they do not all have phonemic status. The bilabial and dental nasals are the only nasals that can appear in all positions, as shown in table 2.4.

m		n	
/mana/	'forbid'	/nama/	'new'
/meːr	'salty'	/nel/	'see, look'
/somay/	'time'	/tanar/	'shoulder'
/nimin/	'contents'	/guni/	'wise'
/hambal/	'heavy'	/hende/	'black'
/ikuːm/	'kneel'	/isin/	'cook'
/racam/	'cut with scissors'	/cetan/	'top'

TABLE 2.4. /m/ and /n/ in Ho

There are three other nasals that probably represent two phonemic consonants. First, the retroflex nasal [ɳ] has a very restricted distribution and is best analyzed simply as derived from /n/. It appears intervocalically in very few instances, mainly loan words, e.g., [duɳa] 'resin of a sal tree used to make incense' (Anderson et al. 2008:202). Otherwise, [ɳ] only appears before /ɖ/ and /ʈ/.

(2.9) ['ɖoɳɖa] 'tree lizard'

['miɳɖi] 'sheep'

['gaɳʈi] 'small bell'

Similarly, the velar nasal appears before the velar consonants /k/ and /g/:

(2.10) [ˈsiŋgi] ‘sun’

[ˈjeŋga] ‘red’

[ˈtaŋku] ‘pit (of fruit)’

Given that this is entirely predictable, we can treat this [ŋ] as well as [ŋ̩] as allophones of /n/. Speakers normally represent both [ŋ] and [ŋ̩] as “n” in both Devanagari and romanized writing when they appear before homorganic consonants. This is further evidence of their allophonic status.

However, there is also an [ŋ] which appears word finally and thus seems to contrast with /m/ and /n/ and be in complementary distribution with the palatal nasal [ɲ], as we see in table 2.5.

n		ɲ		ŋ	
[isin]	‘cook’	[tisiɲ]	‘today’		
[heben]	‘bitter’	[seteɲ]	‘spring’		
[cetan]	‘above’	[aɲ]	‘I’	[eraŋ]	‘scold’
[jibon]	‘life’			[holoŋ]	‘flour’
[susun]	‘dance’			[sasaŋ]	‘tumeric’

TABLE 2.5. Alveolar, palatal and velar nasals in word final position

The palatal nasal normally appears after front vowels {i, e} and the velar nasal after the back vowels {u, o} as well as [a].

ɲ		ŋ	
[beteɲ]	‘wait’	[unuŋ]	‘play’
[seteɲ]	‘spring, fountain’	[roŋ]	‘color’
[biɲ]	‘snake’	[sasaŋ]	‘yellow’
[tisiɲ]	‘today’	[gonoŋ]	‘orphan’

TABLE 2.6. Palatal and velar nasals in Ho

There are some exceptions to this tendency. The palatal nasal can rarely appear after [u], e.g., compare the minimal pair *ruŋ* 'to husk' with *ruɲ* 'sensation of having a limb asleep'. There is also one minimal pair after [a]: *aŋ* 'dawn' and *aɲ* 'I'.

Anderson et al. record [germoɲ] 'a fleeting smile' as another exception, because it has a palatal nasal following the back vowel [o]. They also note a tendency for speakers of Mayurbhanj Ho to have [iŋ] generally rather than the [iɲ] of Chaibasa Ho, e.g., [tisiŋ] 'today' rather than [tisiɲ] (2008:202).

According to Osada, for Mundari speakers there is no palatal nasal, except in the first person pronoun [aɲ] (Osada 2008:101). This leads to the question of whether a phoneme [ɲ] can be reconstructed for North Munda. If we reconstruct *ɲfor North Munda, then it has all but disappeared in Mundari and Mayurbhanj Ho. Alternatively, if the palatal nasal cannot be reconstructed, then it must be an innovation in Chaibasa Ho. Given that it appears in some words in both Mundari and Mayurbhanj Ho, then reconstructing it for North Munda is the better explanation. The influence of Hindi, where the palatal nasal is rare and only found before palatal stops may also be a contributing factor to its disappearance in Mundari and Mayurbhanj Ho (Kachru 2006:17, 21).

Despite the exceptions noted above, I will posit three robust nasal phonemes in Ho: /n/, /m/ and /ŋ/. /n/ has three derived forms: [n], [ɳ] which appears before retroflex stops, and [ŋ] which appears before velar stops. I also posit /ŋ/ as a phoneme with two forms, [ŋ] and [ɲ] that appear word finally. [ŋ] occurs after the back vowels {u, o, a} and [ɲ] after the front vowels {i, e}. The form of the phoneme could equally be /ɲ/.

2.1.1.4. Liquids

There are three liquid consonants in Ho: /l, r, ɽ/. The /l/ is clear in all positions and the /r/ phoneme is a flap. Both /l/ and /r/ can appear in all positions and they are contrastive.

(2.11) /kamal/ 'lotus' /kamar/ 'blacksmith'
/loː/ 'burn' /roː/ 'dry'
/jalom/ 'net' /jarom/ 'egg'

The retroflex flap /ɽ/ primarily appears intervocalically and very rarely finally, e.g., /sugaɽ/ 'handsome'. It contrasts phonemically with /r/.

(2.12) /gaɽi/ 'cart' /gari/ 'rake together' 'small shed'
/haɽa/ 'bullock, steer' /hara/ 'grow'
/gaɽa/ 'river' /gara/ 'cement, mud paste'

Although /ɽ/ is contrastive with /r/, it is sometimes in free variation with /ʈ/, as noted above in section 2.1.1.1. It is not clear whether this variation is intra-speaker or attributable to a particular regional dialect.

2.1.1.5. Glides

There are just two glides in Ho: /w, y/ (IPA /j/ for the latter). Neither occurs word initially (although note that the Ho script is sometimes called *Warang Chiti*), and only very rarely in final position, mostly in loan words. The labial glide /w/ has a more restricted distribution than /y/. It only seems to occur after the back vowels {u, o} and before /a/, as in (2.13):

(2.13) /towa/ 'milk'

/owaʔ/ ‘house’

/guwa/ ‘betel nut’

/kũwa/ ‘well’

The palatal glide /y/ seems to appear between all combinations of vowels, although I only have one example of it appearing between a back vowel and /a/, /hõyar/ ‘father-in-law’.

(2.14) /tuyu/ ‘jackal’

/tayom/ ‘after’

/peyaji/ ‘onion’

/ayub/ ‘evening’

/hoyo/ ‘air’

/diyaŋ/ ‘rice beer’

Both glides are also inserted to ease pronunciation in certain contexts. These epenthetic glides are typically written in both Devanagari and romanized script (Deeney 2002:xix)

(2.15) /bage/ ‘leave’ + /a/ ‘finite marker’ → [bageya]

/ako/ ‘3PL’ + /aʔ/ ‘POSS’ → [akowaʔ]

Deeney sometimes writes the symbols “w” and “y” in his dictionary in places where it represents the second part of a diphthong, e.g., *“ajaw”* ([ajaʊ]) ‘to have a burning sensation’ and *“ajay”* ([ajei]) ‘to cause a burning sensation’ (Deeney 2005:5).

2.1.2. Vowels

Ho has five contrastive vowel phonemes, but with two additional contrastive features: length and nasalization. Vowels can be short or long and nasalized or oral.

2.1.2.1. Short Vowels

As mentioned, Ho has a five vowel system; /i, e, a, o u/. Table 2.7 shows example words to demonstrate that all five oral vowels are contrastive in Ho.

/miʈai/	'sweetmeats'	/ciʈi/	'a letter'	/bita/	'length between the tip of the thumb and the tip of one finger'
/meta/	'to say to'	/cetan/	'above'	/beʈa/	'to arrive, reach'
/mata/	'to ripen'	/caʈaʔ/	'to split, crack open'	/bage/	'leave, abandon'
/moʈa/	'thick, fat'	/coka/	'frog'	/boka/	'a stupid person'
/muʈa/	'nose'	/cuʈu/	'mouse'	/buʈa/	'tree trunk'

TABLE 2.7. Contrastive short vowels in Ho

The vowel plot in Figure 2.3 shows measurements of F1 and F2 for 10 tokens of each vowel. The measured vowels all occurred in the first syllable of words of the type CV.CV (stress normally falls on the first syllable of this type of word, see section 2.1.4.). They all appeared between obstruents, mostly stops, but also some fricatives. Formant measurements were taken at the mid-point of the vowel. All tokens were from the same male speaker.

We can see from the vowel plot that the vowels in Ho have a similar distribution to what we might expect from a language with a 5-vowel system. Table 2.8 shows the mean formant values for the short vowels from Figure 2.3.

	F1 (Hz)	F2 (Hz)
i	311.3	2042.92
e	426.79	1856.29
a	592.29	1286.73
o	455.2	1021.58
u	325.33	1034.22

TABLE 2.8. Mean formant values for F1 and F2 in short vowels in Ho

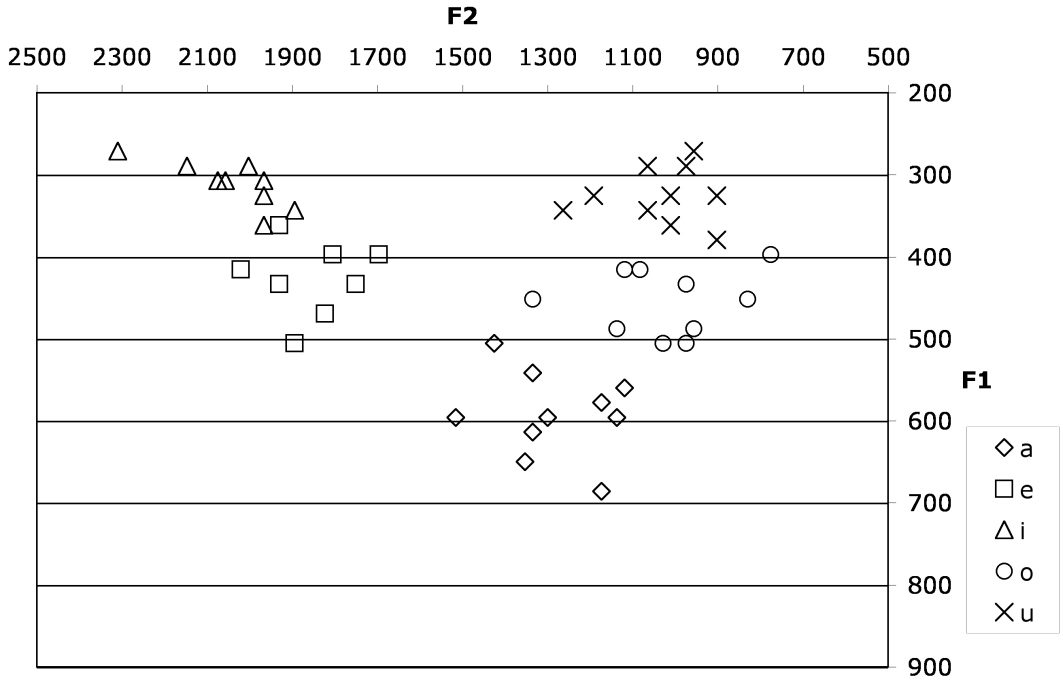

FIGURE 2.3. Short vowels in Ho

There are two salient instances where vowels in Ho change quality depending on the environment, as well as some instances of vowel neutralization. First, [e] appears as a raised variant of /a/, as shown in (2.16). This [e] occurs only word finally in unstressed position after the high vowels {i, u}, as a type of harmony (cf. section 2.2.1.). Anderson et al. notice this for Mayurbhanj Ho (2008:202) and it is also a feature of Chaibasa Ho.

(2.16) /kula/ → ['kule] 'tiger'

/luga/ → ['luge] 'nest'

/misa/ → ['mise] 'once'

but,

/gaɽa/ → [ˈgaɽa] ‘river’

/boja/ → [ˈboja] ‘load, bundle’

/seta/ → [ˈseta] ‘dog’

Second, vowels are nasalized when they precede a nasal consonant, as in the following examples.

(2.17) /enga minḍi/ → [ẽŋga mĩn̪ḍi] ‘ewe’

(2.18) /hilaŋ/ → [hilẽŋ] ‘disgust’

(2.19) /kanḍi/ → [kãn̪ḍi] ‘blunt’

As we will see in section 2.1.2.4., nasalization is also a phonemic feature of Ho vowels.

There are also examples of vowel neutralization. A schwa vowel [ə] can occur in unstressed position, mostly word internally.

(2.20) /kakala/ → [ˈkakəla] ‘to shout’

/tisiɲ/ → [təˈsiɲ] ‘today’

/dudulum/ → [dudəˈlum] ‘pigeon’

It seems that Ho has three types of vowels: stressed, unstressed and reduced, and unstressed and unreduced (as in the first syllable of [dudəˈlum] ‘pigeon’).

2.1.2.2. Long Vowels

All five Ho vowels can be either short or long. Table 2.9 demonstrates the short/long contrast for all phonemic vowels. There is some debate about whether vowel length is phonemic in Ho. Deeney (2002) claims that it is indeed phonemic and, as we see in table 2.9, several minimal pairs suggest this is true in the Chaibasa dialect.

[kani]	'a pointed edge'	[kaːni]	'story'
[medˌ]	'eye'	[meːdˌ]	'iron'
[agu]	'bring'	[aːgu]	'lower
[cera]	'diarrhea'	[ceːra]	'beautiful'
[gom]	'wheat'	[goːm]	'to accompany someone'

TABLE 2.9. Long vs. short vowel minimal pairs in Ho

Zide (1991:537) and Anderson et al. (2008) state that vowel length is not phonemic in Ho. Zide claims that "vowel length" is in fact geminate. There is no synchronic morpheme boundary in the words with long vowels so there does not seem any advantage to positing that they are "geminate" rather than "long".

Figure 2.4 shows a vowel plot for 10 tokens of each long vowel. There are many fewer long vowels in my data than short vowels, so these tokens come from a variety of phonetic environments, including both open and closed syllables. There are also some tokens from another speaker, although still male.

Table 2.10 shows the average length of long vowels versus short vowels in Ho, measured in milliseconds. I measured 10 tokens each of both long and short vowels. We can see from the table that, on average, long vowels are more than twice as long as short ones in Ho.

	Short		Long	
	range	mean	range	mean
i	51-101 ms	71 ms	102-316 ms	203 ms
e	55-102 ms	71 ms	152-323 ms	212 ms
a	54-106 ms	80 ms	140-280 ms	202 ms
o	64-98 ms	83 ms	145-274 ms	217 ms
u	44-91 ms	75 ms	131-352 ms	203 ms

TABLE 2.10. Comparison of length of short and long vowels in Ho

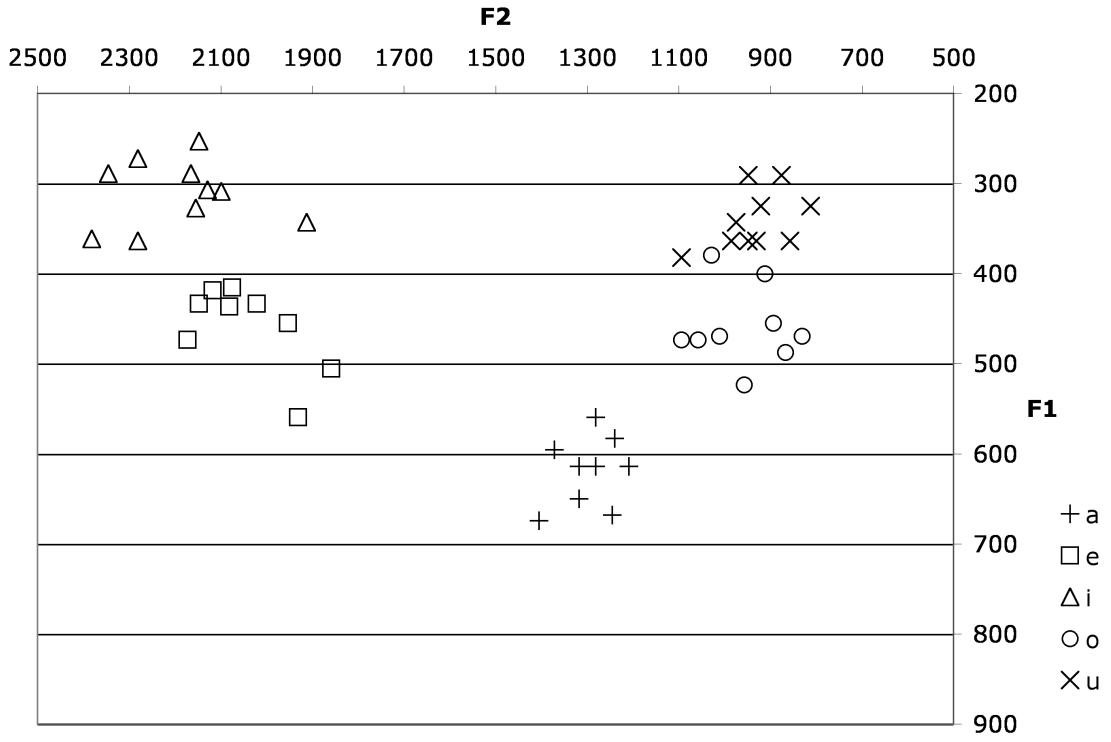

FIGURE 2.4. Formant plot of long vowels in Ho

Historically, at least some of the long vowels in Ho might result from the loss of an [ɽ]. If we compare Mundari and Ho vocabulary (table 2.11), we can see that in some words where Mundari has an /ɽ/, Ho has just a long vowel.

Mundari	Ho	Gloss
[hoɽo]	[hoː]	'man'
[duɽum]	[duːm]	'sleep'
[sepeɽed]	[sepeːḍ]	'young man'
[rẽɽẽʔ]	[rẽːʔ]	'joy in the company of others'

TABLE 2.11. A comparison of Ho and Mundari vocabulary, taken from Deeney (2002:132-133)

Given that long vowels are distinguished in production, and the fact that we have minimal pairs for every vowel position, we must conclude that vowel length is

now a phonemic feature of Ho. The relatively low frequency of long vowels cannot bear on their phonemic status.

2.1.2.3. Diphthongs

There are two defining features of diphthongs that distinguish them from other vowel-vowel sequences. First, a diphthong involves a smooth movement from one vowel to another, with the first vowel usually more prominent that the second (Ladefoged 1993:82). Second, the two vowel sounds occur within a single syllable (Catford 2001:110). A diphthong thus contrasts with other vowel-vowel sequences in which there is a hiatus and the two vowels occur in separate syllables.

Deeney claims that there are no diphthongs in Ho; however, the vowel combinations in (2.21) maintain a smooth transition between the targets, and are longer than short vowels.

(2.21) /bai/ 'work, build'
/hau/ 'red ant'
/jumbui/ 'glutton'

Measures of diphthong length and the results are presented in table 2.12. We can see from the table that the average length of these two-vowel sequences is about the same as the long vowels in Ho (see table 2.10), although, like the long vowels, there is a lot of variation, depending on whether the vowels occur in a closed or open syllable.

According to Deeney, Ho does not have diphthongs because two juxtaposed vowels normally retain their independent sounds. He argues that these must be treated as independent vowel sounds because each can be lengthened independently of the other, e.g., /bai/ 'make' plus the inanimate suffix, *-i*, gives us [baiː], while

Diphthong	Mean length (ms)	Range	No. of tokens
/ai/	223ms	126-292	11
/au/	216ms	150-330	6
/ui/	206ms	154-305	11

TABLE 2.12. Mean length of three diphthongs in Ho

adding the habitual marker lengthens the first vowel and gives us [baːi] (Deeney 2002:xvii).

The vowel sequences in (2.21), where there is a smooth transition between the vowels, do contrast with instances where we see a hiatus and sometimes a glottal stop between them. The following words demonstrate this:

(2.22) /toroe/ 'ashes' → [toroʔe]
/moroe/ 'acid, sour' → [moroʔe]
/aeʔ/ '3SG' → [aʔeʔ^{e}]

The vowels in examples such as (2.21) are phonetically different from the examples in (2.22) and I suggest that the vowels in (2.21) be called diphthongs. The main difference is the transition between the two vowels. In (2.22), the vowels are separated, sometimes with a glottal stop, into two separate syllables. In (2.21) we see the smooth transition and the vowels are in a single syllable, which is typical of a diphthong.

2.1.2.4. Vowel Nasalization

In section 2.1.2.1. we saw that vowels are normally nasalized when they precede a nasal consonant. Nasalization is also a phonemic feature of vowels in Ho. Some examples of nasalized vowels contrasting with oral vowels are shown in table 2.13.

/jiya/	'grandmother'	/jĩyaː/	'humid, moisture'
/-reyo/	'even if, although'	/rẽyo/	'creak, squeak'
/bal/	'to burn a hole into'	/bãl/	'flood'
/hoyo/	'air, wind'	/hõyar/	'father-in-law'
/utu/	'cooked vegetable'	/ũt/	'camel'

TABLE 2.13. Nasal and oral vowels in Ho

Long vowels can also be nasalized; however, there are fewer examples of these. Some are shown in (2.23).

(2.23) /sĩːʔ/ 'foul smell, stench'

/ẽːʔ/ 'to erase, extinguish'

/rãːsa/ 'joy, delight'

/dõːsi/ 'thirty'

/ũːr/ 'leather, hide'

To summarize thus far, vowels in Ho can contrast in both length and nasalization so that both long and short vowels can be nasal or oral. Glottalization is considered a non-contrastive feature of Ho vowels. This was discussed in section 2.1.1.1. as it is a result of word final stops.

2.1.3. Syllable Structure

The patterns for Ho syllables and words are shown in table 2.14 (a dot represents a syllable break). VV represents both long vowels and diphthongs in this table. I have only included examples of monosyllabic words with VV sequences. However, long vowels and diphthongs also appear in all positions in multi-syllabic words.

Table 2.15 is a summary of the syllable position restrictions on the consonants in Ho. Note that the table only contains information about whether a consonant can

Monosyllabic		
VC	/ũr/	‘hide, leather, animal skin’
VVC	/aːʔ/	‘herb’
CV	/nu/	‘drink’
CVV	/ʈuː/	‘squirrel’
CVV	/bai/	‘work’
CVC	/cur/	‘surround, gush’
CVVC	/juːr/	‘smooth’
Disyllabic		
V.CV	/u.ku/	‘hide’
V.CVC	/a.buŋ/	‘wash hands and feet’
CV.V	/go.e/	‘wilt, die’
CV.CV	/ca.pi/	‘wash’
CV.CVC	/de.raŋ/	‘maybe’
VC.CV	/en.ka/	‘like that’
VC.CVC	/aɽ.kar/	‘sense’
CVC.CV	/kun.ʈu/	‘wooden post’
CVC.CVC	/ban.dor/	‘monkey’
Trisyllabic		
V.CV.CV	/a.do.wa/	‘husked without boiling’
V.CV.CVC	/e.pa.raŋ/	‘quarrel’
CV.CV.CV	/sa.sa.ti/	‘torment’
CV.CV.V	/ku.la.e/	‘rabbit, hare’
CV.CV.CVC	/ko.lo.waɖ/	‘to give a loan’
CV.CVC.CV	/go.pon.de/	‘quarrel, recip.’
CV.CVC.CVC	/ka.ram.caʔ/	‘fox’
VC.CV.CV	/an.gu.ɽi/	‘finger’
CVC.CV.CV	/sin.du.ri/	‘vermillion’

TABLE 2.14. Syllable structure of Ho words

occur as a syllable onset or coda or not. The phonemic status of various sounds has already been discussed.

The check marks for the obstruents refer to their ability to appear in syllable onset and coda position, regardless of the position in the word. The glide consonants, /y/ and /w/, can appear in syllable initial position; however they do not occur in word initial position, e.g., /tuyu/ ‘jackal’, /guwa/ ‘betel nut’. The only other sonorants

	Onset	Coda		Onset	Coda
p	✓	only borrowings	s	✓	only borrowings
b	✓	✓	h	✓	✗
t	✓	only borrowings	m	✓	✓
d	✓	only borrowings	n	✓	✓
ʈ	✓	✓	ŋ	✗	✓
ɖ	✓	✓	ɲ	✗	✓
c	✓	only borrowings	ɳ	✗	✓
j	✓	only borrowings	r	✓	✓
k	✓	only borrowings	ɽ	✗	✓
g	✓	only borrowings	l	✓	✓
ʔ	✗	✓	w	✓	only borrowings
			y	✓	only borrowings

TABLE 2.15. Phonotactic restrictions on Ho syllables

that can appear in word and syllable initial position are the nasals /m/, /n/ and /ŋ/, as well as /r/ and /l/.

We should also note that sonorants seem to be preferred in coda position. There are some exceptions to this, and we see a few words with either /ɖ/, /ʈ/ or /b/ in syllable final position, as in (2.24).

(2.24) /eɖka/ 'wicked, bad'

/ʈuʈka/ 'witchcraft'

2.1.4. Stress and Intonation

As is the case with most Munda languages, Ho is not a tone language. Korku (North Munda) is the only Munda language known to have tonal contrast (Zide 1966). Ho does, however, have predictable stress assignment, which is the topic of this section.

In section 2.1.3. we saw possible syllables in Ho. These can be divided into extra-light, light and heavy. First, light syllables are those that have CV or VC pattern. Heavy syllables include CVV (long vowels and diphthongs) and CVC. Superheavy syllables (CVVC) do not behave differently from heavy syllables for stress assignment. There are also extra-light syllables in Ho, consisting of just V. These are relevant to stress assignment because they are extra-metrical, that is, they are not factored into the rhythm pattern.

Stress in Ho is organized in a trochaic pattern; a prominent syllable is followed by a weaker one. The domain of stress is the metrical foot, which Donegan and Stampe claim is the standard pattern for Munda languages (1983, 2004). For example, in simple CV.CV words, the first syllable is always more prominent.[2]

(2.25) [ˈmu.ni] 'hermit'
[ˈsa.du] 'holy man'
[ˈra.ca] 'courtyard'

Exceptions to the basic rule occur when the second syllable is heavier than the first and it attracts greater relative prominence.

(2.26) [no.ˈgoɖ̚] 'sweet, tasty'
[me.ˈtai.ˌte.na] 'say.to-3SG-IPFV-FIN'
[ca.ˈbaː.ˌka.na] 'finish-PFV-ITR-FIN'

In longer words of, e.g., four syllables as in (2.26), it seems that a second stress occurs in the second foot of the grammatical word. However, it is relatively less prominent than the first stressed syllable and I treat it as secondary stress.

[2]For each word, I made a subjective judgement about which syllable is relatively more prominent. Prominence seems to correlate with greater intensity, but future work will investigate this more precisely.

Ho has extra-light syllables consisting of just V, which are 'extra-metrical'; that is, they are outside of the trochaic stress pattern. They are never stressed themselves, and they are not counted as part of the domain of stress. Stress is assigned following the above rules, ignoring the extra-light syllable:

(2.27) [u.du.ˈbei.ye] 'show-APPL-3SG-FIN'

[u.ˈɽuʔ.te.ne] 'think-IPFV-FIN'

[a.ˈyu.mi.la.ˌgiɖ̥] 'hear-3SG-IN.ORDER.TO'

[e.ˈmaɖ̥.me.ya] 'give-APPL-TR-2SG-FIN'

Although we can confirm that Ho has trochaic stress patterns like other Munda languages, research on stress in Ho is clearly in its infancy.

2.2. Morphophonology

2.2.1. Vowel Harmony

Ho has a vowel harmony system that is based on vowel height. The high vowels /i/ and /u/ do not occur with the mid vowels /e/ and /o/ in a single word, with some exceptions. When vowel harmony occurs across morpheme boundaries, the two mid vowels /e/ and /o/ raise to /i/ and /u/ respectively. The high vowels do not lower. Vowel harmony in Ho is for the most part progressive but we will see one example of regressive harmony. In this section we will see that certain suffixes harmonize, while clitics and compound constructions do not.

First, within a single word, high vowels and mid vowels do not co-occur. This extends to borrowed words.

(2.28) *pothi* 'book' (Hindi) becomes [puti] in Ho

police becomes [pulis] in Ho

The low vowel /a/ is a neutral vowel. It can occur with both low and high vowels in a single word. However, when it appears after a high vowel, it raises to [e] or [ə] (cf. section 2.1.2.1.).

(2.29) *bitar* 'inside' is pronounced [biter]

muṭa 'nose' is pronounced [muṭe]

Harmony with the neutral vowel /a/ is only progressive, i.e., a high vowel later in the word does not cause previous /a/ to raise:

(2.30) *agu* 'bring' is not pronounced *[egu]

hambuḍ 'embrace' is not pronounced *[hembuḍ]

In the next two sections, we will look at vowel harmony across morpheme boundaries.

2.2.1.1. Harmonizing Suffixes

Some suffixes harmonize when added to the root. Those that harmonize after a high vowel in the root include the perfect marker *-aka* (2.31), the punctual perfective suffix *-ta* (2.32), imperfective *-tan* (2.33), the past intransitive *-eya* (2.34), the applicative suffix *-a* (2.35), and the inanimate object suffix *-e* (2.36).

(2.31) *arsi-teʔ-re=ʔ* *tingu-eke-n-e*
mirror-PLACE-LOC=3SG stand-PRF-ITR-FIN
'he was stood in front of the mirror' (20120121RPPb:8)

(2.32) *ayaʔ* *hake=ma* *mayan-re* *surbuḍ-te-ḍ-e* *canab-paː-re*
3SG:GEN axe=FOC waist-LOC tuck.in-PNCT-TR-FIN behind-place-LOC
'he'd tucked his axe in behind his waist' (20110210BCc:10)

(2.33) *sangi=ge=le* *ir-ten-e*
numerous=EMPH=1PL.EXCL harvest-IPFV-FIN
'many of us were doing the harvest' (201105PSc:2)

(2.34) *naʔ=do* *siŋ kule* *hujuʔ-ye-n-e*
now=FOC lion come-PST-ITR-FIN
'now the lion came' (20110524RPP:75)

(2.35) *jom-e-teyaʔ* *karca-oː=ŋ* *udub-e-ben-a*
eat-INAN.OBJ-NMLZ provisions-also=1SG show-APPL-2DL-FIN
'I will show you what edible provisions too' (20081029RCBa:33)

(2.36) *eneːte* *sunum=ko* *dul-i-ya*
after.that oil=3PL pour-INAN.OBJ-FIN
'after that they pour oil' (20110429JBb:14)

With these suffixes, harmonization normally happens but not always. When a suffix does not harmonize, there are a variety of reasons including interspeaker variation. However, it is possible to make some observations about the exceptions.

First, the domain of harmony in Ho seems to be a two syllable (or two morae) unit. That is, harmony does not usually extend beyond two syllables, i.e., the same domain we saw above for predicting stress placement. This observation explains why the finite suffix *-a*, which normally participates in harmony, does not harmonize in sentences such as (2.35) and (2.36). However, this is not always the case. As we see in sentences (2.33) and (2.34), the harmony can extend into the third and fourth syllables/moras of the grammatical word.

The middle suffix *-oʔ* generally harmonizes to *-uʔ* based on the two-syllable rule. If the middle suffix is part of the second syllable, and follows a high vowel in the first syllable, then it will harmonize:

(2.37) *cauli-te* *manɖi* *bai-yuʔ-wa*
rice-ALL cooked.rice/food make-MID-FIN
'food can be made from rice' (20081029RCB:14)

(2.38) *jom-suku-u?-ten-e*
eat-like-MID-IPFV-FIN
'[they] like to eat' (201105NTPSc:69)

(2.39) *ka=e?* *asul-u?-wa*
NEG=3SG support-MID-FIN
'he doesn't support himself' (20110210BCb:61)

After a superheavy syllable the middle suffix does not harmonize, as we see in (2.40) and (2.41).

(2.40) *ka=e?* *riːŋ-o?-wa*
NEG=3SG forget-MID-FIN
'he won't be forgotten' (20110413DSP:170)

(2.41) *duːm-o?-tan-leka=?* *ayum-ten-ge-ya*
sleep-MID-IPFV-LIKE=3SG listen-IPFV-EMPH-FIN
'he looks like he's sleeping, he's listening' (20110210BCc:59)

We can conclude from this that a superheavy syllable counts as a foot by itself.

Notably absent from the list of harmonizing suffixes are *-ke*, a general perfective, and *-le*, the anterior perfective. Neither of these harmonize after a high vowel in the root, as we see in (2.42) and (2.43).

(2.42) *balʈi* *en* *miyaɖ=ko* *iɖi-ke-ɖ-a*
bucket that one=3PL take-PFV-TR-FIN
'they took a bucket' (20120121RPPa:10)

(2.43) *en-paː=liŋ* *nuː-leː-ya=liŋ*
that-place=1DU.EXCL drink-PFV.FUT-FIN=1DU.EXCL
'we drink there' (201105GTb:15)

However, they do harmonize when they precede the first person singular object suffix *-iŋ* in the verb. That is, *-ke* and *-le* participate in regressive harmony.

(2.44) *hola* *Soba* *aŋ=eʔ* *nel-ki-ɖ-iŋ-e*
yesterday Soba 1SG=3SG see-PFV-TR-1SG-FIN
'yesterday Soba saw me' (1.67.24)

(2.45) *nen-taʔ-re* *eseɖ-li–ɖ-iŋ-e*
this-place-LOC prevent-ANT-TR-1SG-FIN
'[he] had stopped me here' (20110429JoBb:127)

Notice that the harmony caused by *-iŋ* in (2.44) and (2.45) spreads in both directions and the finite suffix also harmonizes to *-e*.

The third person dual suffix *-kiŋ* also contains a high vowel, but *-ke* and *-le* do not harmonize when they appear before it.

(2.46) *ka=eʔ* *nam-ke-ɖ-kiŋ-e* *baː* *bagan-re*
NEG=3SG find-PFV-TR-3DU-FIN flower garden-LOC
'he didn't find them in the garden' (20081029RCBa:22)

The first person suffix *-iŋ* is more likely to cause regressive harmony because it does not have its own onset and the transitive suffix *-ɖ* in (2.45) and (2.46) becomes its onset. When *-ɖ* functions as the coda of the syllable with *-ke* or *-le* (as it does before *kiŋ*) then the harmony is not possible.

Lastly, there are two groups of morphemes which act as some type of modifier to the verb root, which some speakers harmonize some of the time. For the most part these morphemes have an adverb-like function, e.g., *-baː* 'here and there' as in example (2.47), or they are erstwhile verbs in the process of grammaticalizing to a more grammatical function, e.g., *caba* 'finish' (6.81).

(2.47) *ente* *lel-kiŋ-ten-a=kiŋ* *uku-beː-n-tan-a*
then see-3DU-IPFV-FIN=3DU hide-here&there-REFL-IPFV-FIN
'then he saw them, they were trying to hide themselves' (20081029RCBa:24)

(2.48) *singi=do ɖubui?-cebe-ye-n-a.*
sun=FOC sink-finish-PST-ITR-FIN
'the sun set' (20110429JoBa:70)

It should be noted that not all instances of these two types of verbal modifiers harmonize. There are two possible reasons for this. First, some of them are considered more like compounds rather than dependent suffixes. This issue will be discussed further in section 2.2.1.2.. Second, in my corpus of spoken texts, speakers divide into those who are more likely to harmonize such verb-verb or verb-modifier combinations and those who never do. Older speakers who were less bilingual tended to regularly harmonize morphemes like *-baː* to *-beː* after a root containing a high vowel.

2.2.1.2. Non-Harmonizing Suffixes

In the previous section we saw that the two perfective aspect suffixes *-ke* and *-le* do not harmonize after a high vowel in the verb root. In this section we will see suffixes and clitics that never harmonize.

First, serial verbs and other types of verb-verb and verb-modifier combinations do not typically harmonize (see section 2.2.1.1. above for some exceptions). In the following examples, we see multi-verb combinations where roots following the initial root with a high vowel do not harmonize.

(2.49) *ente seta=do nir-beʈa-tab-ki?-ye*
then dog=FOC run-reach-quickly-PFV:TR:3SG-FIN
'then the dog ran quickly to him' (20120121RPPa:43)

(2.50) *rul-o?l-keː-te*
pull.from.fire-take.out-PFV.FUT-ALL
'after [we] take it out of the fire' (201105SL:26)

(2.51) *okoe isin-sanaŋ-i-ye*
who cook-want-3SG-FIN
'who wants to cook' (20110413DP:57)

In languages which have vowel harmony, compounds are less likely to undergo harmony because they are treated more like two phonological words (van der Hulst & van de Weijer 1995:501).

There are two types of clitics in Ho that do not undergo harmony. First, the clitics *=do* 'FOCUS' and *=ge* 'EMPHATIC' never harmonize after a root containing a high vowel.

(2.52) *birsiŋ=ge suku-we-ɖ-e=ʔ*
Birsing=EMPH like-APPL-TR-FIN=3SG
'he liked Birsing' (20081213MSc:76)

(2.53) *ka꞉ni-reyaʔ nutum=do...*
story-GEN name=FOC
'the story's name...' (20120121RPPa:2)

Second, subject clitics, which attach either to the word directly preceding the verb or to the end of the verb itself, do not harmonize after a high vowel. There are five subject clitics that contain either a mid vowel or /a/ and therefore might be expected to be susceptible to vowel harmony: *=laŋ* '1DU.INCL', *=ben* '2DU', *=le* '1PL.EXCL', *=ko* '3PL' and *=eʔ* '3SG'. Although there are a couple of examples of these clitics harmonizing in the corpus, they do not, in general, harmonize.

The object suffixes in Ho do not harmonize. These take the same form as the subject clitics but occur either after the root or after a perfect(ive) aspect suffix. As we see in (2.54), the third person plural suffix *-ko* does not raise to [-ku] after the causative suffix *-iri*.

(2.54) *jom-iri-ko-teya?*
eat-CAUS-3PL-NMLZ
'eating' (201105GTa:23)

As we saw above in section 2.2.1.1., the first person singular object suffix *-iɲ* causes harmony in a preceding perfective suffix *-ke* or *-le*.

Finally, the reflexive suffix *-(e)n* does not raise to *-in* after a root containing a high vowel:

(2.55) *sutui-ko* *tuɖ-en-tan-a*
shirt-PL take.off-REFL-IPFV-FIN
'[he]'s taking off his shirt' (20120121RPPa:93)

In this section we have seen that the domain of vowel harmony in Ho is most often the foot, i.e., two syllables or a super-heavy syllable. Vowel harmony is moreover dependent on morphological closeness: suffixes are likely to harmonize, but clitics and roots of compounds do not.

2.2.2. Other Morphophonological Changes

In this section, I will review some other morphophonological changes that affect Ho. The first is a devoicing process that arises when morpheme final stops /ɖ/ and /b/ precede a voiceless consonant. The devoicing of the stops is shown in the following example.

(2.56) *bãsi-ko=ko* *sap-ke-ɖ-eʈ=ko* *seno?-ya-n-a*
fishing.pole-PL=3PL catch-PFV-TR-AFTER=3PL go-PST-ITR-FIN
'after they got the fishing pole, they went off' (20120121RPPa:10)

In example (2.56), the root verb *sab* 'hold, catch' becomes [sap] due to the voiceless stop of the perfective suffix *-ke* which follows. In sentence (2.57), we see the unchanged form *sab* preceding a vowel.

(2.57) *caɖlom-re* *cikeni?* *sab-iɲ-ten-e*
tail-LOC what.kind.ANIM catch-1SG-IPFV-FIN
'what is holding on to my tail?' (20120121RPPs:84)

In (2.56), we see more devoicing. The non-final suffix *-eɖ* (discussed in chapter IV) becomes *-eʈ* before the voiceless stop in *-ko*. This particular morphophonological change applies equally to suffixes and clitics. The devoicing of the voiced stop *-ɖ* is especially frequent with the transitive suffix *-ɖ*. It always becomes *-ʈ* when it precedes a morpheme beginning with a voiceless stop, as we see in (2.58).

(2.58) *em-ta-ʈ-ko-wa*
give-PNCT-TR-3PL-FIN
'[he] gave it to them' (20081107RCBc:74)

When the transitive suffix *-ɖ* follows *-ke* or *-le* and it is followed in turn by the third person singular object suffix *-i*, (i.e., *ke-ɖ-i*), the result is [-ki?] and [-li?].

(2.59) *jom-ki?-ye*
eat-PFV:TR:3SG-FIN
'[he] ate him' (20110210BCb:60)

In the dissertation, I write example sentences reflecting the results of vowel harmony; however I do not write voicing changes that occur due to following sounds, except for the complex forms *-ki?* and *-li?*.

2.3. Conclusion

This chapter outlined the phonetics and phonology of Ho. Ho has many interesting phonetic features, including pre-nasalized stops. Section 2.1.2.2. argues that Ho has phonemic vowel length, based on the presence of minimal pairs. After looking at syllable types in Ho, we saw that stress has a trochaic pattern, i.e., a stressed syllable is normally followed by an unstressed one.

Ho's vowel harmony system was described in section 2.2.1. Like other Munda languages, Ho's vowel harmony is based on height: mid vowels raise to high vowels if they follow a syllable containing a high vowel. Vowel harmony is Ho is interesting because it does not spread through the entire grammatical word, rather it seems restricted to a foot (normally two syllables). The phonological foot in Ho (the domain of stress and harmony) is not equal to the grammatical word. Moreover, there is quite a bit of inter-speaker variation with harmony; not all speakers harmonize to the same extent.

The following chapter looks at basic clauses in Ho and then investigates the issue of word classes.

CHAPTER III

WORD CLASSES AND BASIC CLAUSES

There has been some debate over whether Mundari, also a North Munda language of India, has distinct word classes (Hoffman 1903; Pinnow 1966; and more recently Bhat 1997; Evans & Osada 2005; Croft 2005; Peterson 2005; Hengeveld & Rijkhoff 2005). This chapter presents data from Ho, a sister language to Mundari, and we see evidence that Ho does indeed have definable word classes. By following Croft's (1991, 2001) approach to word classes, which is in essence the distributional method (cf. Bloomfield 1933; Hockett 1958), we see that Ho bears out Croft's typological predictions. For each of the propositional act functions of referring, predication and modifying, there is a group of lexemes which fulfill that role with no further modification. We may call these nouns, verbs and adjectives.

Before we can look at predication strategies for different word classes, it will be useful to look at basic clause types in Ho. This is the topic of section 3.1.1. Croft's approach to word classes is used in the remainder of the chapter and it is outlined in section 3.1.2. Section 3.1.3. discusses some of the previous research on word classes in Mundari. The rest of the chapter looks at various constructions and the evidence they give for word classes in Ho. Section 3.2. covers predication strategies in Ho, section 3.3. referring strategies, and section 3.4. modification strategies.

3.1. Introduction

3.1.1. Basic Clause Types

Chapter I (section 1.5) gave some typological facts about Ho and presented subject and object marking. We saw that subject clitics typically appear before the verb, and pronominal object suffixes are in the verb, as in (3.1).

(3.1) *Soba aɲ=e? nel-iɲ-ten-e*
Soba 1SG=3SG look-1SG-IPFV-FIN
'Soba is looking at me' (1.66.22)

As we will see in section 3.2.1., some property concepts are predicated verbally, i.e., with the same construction that is used if the predicate is an intransitive action. Accordingly, let us consider how intransitive actions are morphosyntactically treated. Two aspect markers used frequently with present tense intransitive predicates are *-aka* for perfect aspect, and *-tan* for imperfective aspect. Sentences (3.2) and (3.3) exemplify non-past intransitive constructions.

(3.2) *nendor ho=do cucungu:r-aka-n-a=e?*
that man=FOC squat-PRF-ITR-FIN=3SG
'that man is squatting' (2010.89.65)

(3.3) *Dobro ku?-ten-e*
Dobro cough-IPFV-FIN
'Dobro is coughing' (1.72.1)

I will call roots like *chuchungu:r* 'squat' and *ku?* 'cough' verbs.

Perhaps the most striking feature of Ho is that nearly any type of lexeme may fit into the position in the verb typically occupied by an action concept. In some cases, the resulting word means something like 'to become the concept expressed by the lexeme in the verb root slot', as in (3.4) or (3.5). In other cases, the word means 'to

use or locate the concept expressed by the lexeme in the verb for some (understood) purpose', as in (3.6), (3.7) and (3.8).

(3.4) *enka-te* *ayub-eya-n-a*
like.that-ALL evening-PST-ITR-FIN
'like that it became evening' (20110525RPPa:13)

(3.5) *nipireŋ* *nipireŋ* *daka-oʔ-wa*
this.big/tall this.big/tall tuber-MID-FIN
'this big, this big, [it] becomes as big as a tuber' (201105GTa:40)

(3.6) *ka=ge* *aɲ=do* *sinduri-ta-ɲ-pe*
NEG=EMPH 1SG=FOC vermilion-PNCT-1SG-3PL.IMP
'ok, put vermillion on me' (2008110RCBb:32)

(3.7) *aɲ* *botol=eɲ* *ʈipi-i-ten-e*
1SG bottle=1SG bottle.cap-INAN.OBJ-IPFV-FIN
'I'm putting the bottle cap on the bottle' (3.148.21)

(3.8) *ente* *buʈi-taʔ-re* *sunum-noʔ-ta-i-ye*
then naval-PLACE-LOC oil-little-PNCT-3SG-FIN
'then [you] put a little oil on the naval' (20081208MSa:177)

The flexibility of the lexemes used in the verb slot even extends to borrowed words, as we see in (3.9).

(3.9) *imite* *school=le* *sen-re,* *mise-mise=le*
at.the.time school=1PL.EXCL walk-LOC, once-once=1PL.EXCL
late-oʔ-wa
late-MID-FIN
'at that time, when we walked to school, we were sometimes late'
(20110413DSP:12)

When a lexeme is co-opted into the verb slot, the resulting verb can be either transitive or intransitive, as required by the context. Even for prototypical action concepts, such as *oːʔl* 'take/get out', the transitivity of the clause does not come

from the verb root itself, but rather from the whole clause. In sentence (3.10) *oːʔl* 'take/get out' has the intransitive past tense suffix *-eya* and in (3.11) we see the perfective and transitive suffixes.

(3.10) *coke=do* *hapa-te* *botol-eːte* *oːʔl-eya-n-a*
frog=FOC quiet-ALL bottle-ABL get.out-PST-ITR-FIN
'the frog quietly got out of the bottle' (20110525RPPa:17)

(3.11) *canab* *en* *dumur-ko* *oːʔl-ke-ɖ-ko-eːte,* *rasi*
after that bee-PL take.out-PFV-TR-3PL-AFTER, juice
nuː-ke-ɖ-a
drink-PFV-TR-FIN
'after he took out the bees, he drank the juice' (20110301FG:21)

In both examples, the tense/aspect and transitivity morphology tells us whether the verb should be understood as transitive or intransitive. Verb roots themselves are therefore not inherently transitive or intransitive. Chapter V investigates the notion of transitivity in Ho – especially its interaction with tense and aspect – in more detail.

Negative constructions for most verbs are formed with the negative particle *ka*, which appears directly before the verb, as in (3.12).

(3.12) *mendo* *huɽiŋ-ko=do* *ka=ko* *manetiŋ-ten-e*
but small-PL=FOC NEG=3PL obey-IPFV-FIN
'but the little ones weren't obeying' (20081107AB:15)

As we will see in section 3.2.4.2., Ho has a distinct negative copula for the locative construction. Such clauses do not use the negative particle *ka*.

3.1.2. Croft's (2001) Approach to Word Classes

Croft's approach to word classes (and indeed all grammar) emphasizes constructions as the basic units of syntactic representation; categories are derived

from the construction(s) in which they appear (Croft 2001:4). Croft criticizes both the "lumping" and the "splitting" trends in approaches to word classes. A "lumping" approach results in many languages in which major parts of speech are analyzed as lacking, i.e., certain word classes are conflated into one or two broad categories (e.g., Hengeveld 1992). Croft points out that under this approach, semantic differences that occur when a word is used in more than one function are not taken into consideration, i.e., the difference between 'big' as a property and 'the big one' is not considered relevant (Croft 2001:67). The splitter's approach does take distributional evidence into account. However, under most splitting analyses, there is no end to the number of categories that are revealed and, furthermore, no means to distinguish between major parts of speech and minor syntactic categories (Croft 2001:83). The splitting method is therefore less meaningful for cross-linguistic comparison and can only say something about the particular language under investigation. Croft furthermore claims that most linguists who use a distributional method only use the distributional facts that suit their conclusions (Croft 2001:84). Croft's own approach is a splitting strategy, but for a particular language he (theoretically) takes all the distributional facts into account.

Given that Croft seeks to provide a cross-linguistically valid method for revealing parts of speech, he stresses the importance of distinguishing between language particular facts and language universals (Croft 2001:84). Croft argues that "noun", "verb" and "adjective" are not universal morphosyntactic categories, but rather language specific morphosyntactic categories. It is the pragmatic functions of referring, predicating and attribution that are universal. If we look cross-linguistically, these functions are prototypically fulfilled by "typologically unmarked" nouns, verbs, and adjectives from one language to another, even though the morphosyntax is

different from language to language (see table 3.1, cf. Hopper and Thompson 1984; Dixon 1977, 2004). In this way, we may talk about typological or cross-linguistic semantic-pragmatic prototypes of "noun", "verb" and "adjective" (Croft 2001:63).

	Reference	Modification	Predication
Objects	UNMARKED NOUNS	genitive, PPs deadjectivalizations	predicate nominals copulas
Properties	deadjectival nouns	UNMARKED ADJECTIVES	predicate adjectives copulas
Actions	action nominals, gerunds complements, infinitives	participles	UNMARKED VERBS

TABLE 3.1. Overtly marked structural coding constructions for parts of speech (Croft 2001:88)

Croft's notion of typological markedness differs from the Prague School theory of markedness. Typological markedness is a property of the *combination* of propositional act and semantic class, it is not a language-particular property. For example, Croft hypothesizes that cross-linguistically, it is the combination of predication and action lexemes that is "unmarked". Structurally speaking, in the Prague school theory of markedness, an unmarked category is expressed by zero and the marked category by an overt morpheme. For Croft, a marked member of a category is predicted to simply be encoded by at least as many morphemes as the "typologically unmarked" member (Croft 2001:90; cf. Croft 1996; Greenberg 1966). Croft only predicts that "marked" members of a category will have at least as many morphemes as the unmarked members. His notion of markedness in structural coding only refers to derivational morphology. However, Croft also uses typological markedness to predict the distribution of inflectional criteria. According to what he calls the "behavioral potential criterion", a marked member of a category cannot have more inflectional possibilities than unmarked members (Croft 2001:91).

In this chapter, we will examine the various strategies that are used for reference, modification and predication in Ho and we will see that, for each propositional act, there is a group of lexemes that are unmarked (in the sense of Croft 2001) and I will argue that Ho has word classes noun, verb and adjective.

3.1.3. Previous Work on Word Classes in Ho/Mundari

In examples (3.4)-(3.9) above, we saw examples of Ho words for object concepts and property concepts[1] carrying inflectional morphology that is more characteristic of what I call verbs. In this section we will consider some of the research on the flexibility of word classes in Mundari by way of background. Mundari is Ho's closest sister language and there has been much more linguistic research on Mundari than Ho.

The problem of whether Mundari has distinct word classes was first noted by linguists as early as Hoffman (1903):

> "Thus the same unchanged form is at the same time a Conjunction, an Adjective, a Pronoun, an Adverb, a Verb and a Noun, or, to speak more precisely, it may become a Conjunction, an Adjective etc., etc.; but by itself alone it is none of them. It is simply a vague elastic word, capable of signifying, in a vague manner, several distinct concepts, i.e., of assuming a variety of functions." (Hoffman 1903:xxi)

Hoffman suggests that Mundari roots are not lexically categorized into word classes in and of themselves, but instead only become conjunctions, adjectives, etc., in particular sentences. By using the labels *conjunction*, *adjective*, *pronoun*, etc.,

[1] I use the terms "object concept" and "property concept" to refer to semantically noun-like and adjective-like terms in a given language (cf. Croft 2001). I use "object" to refer to the second argument of a transitive clause.

he does seem to assume that these word classes exist, at least at the level of the sentence.[2]

A later quotation from Pinnow (1966) supports the general view of Munda word classes:

> "Theoretically any word for any concept, i.e., all words, can function as a verb base. Thus we may not speak of a verb in the Indo-European sense. This fact was recognized at an early date and is now generally known." (Pinnow 1966:101)

Pinnow only mentions the idea that any root can act as a verbal base. He does not claim that any word can act as a nominal, for example.

The most recent discussion of word classes in Mundari is a 2005 volume of *Linguistic Typology* (Evans & Osada 2005; Peterson 2005; Hengeveld & Rijkhoff 2005; Croft 2005). Evans and Osada argue that Mundari does indeed have definable word classes. They present three criteria that must be met before a language can be claimed to lack word class distinctions. These are: (i) equivalent combinatorics: if there is a single class, then all members of that class should have the same distributions; (ii) any semantic differences between lexemes must be attributable to their function in a particular construction; (iii) the notion of bidirectionality, e.g., it is not enough to say that object concepts can be used in predicating positions, the reverse must also be possible. They demonstrate that Mundari does not meet their three criteria; therefore they conclude it has separate word classes.

Evans and Osada find that in Mundari, although there is a certain amount of fluidity with some lexemes, that fluidity is by no means a regular feature of the lexicon.

[2]Note, however, that in his sixteen-volume *Encyclopedia Mundarica* (1930-1979), Hoffman appears to retreat from the more extreme position of 1903, and lists word classes with entries.

They emphasize that although it is very common for object concepts to appear in a predicate slot, the reverse – action concepts appearing in referring position – is possible much less frequently (their criterion of bidirectionality).

Peterson (2005) and Hengeveld & Rijkhoff (2005), in the same volume, both claim that the issue of Mundari word classes is not resolved. Peterson argues that Mundari (like Kharia, the Munda language he is more familiar with) perhaps does not have lexical categories at all. He treats the semantic heads of predicates and complements as phrasal categories (i.e., NPs and VPs) rather than lexical categories in Mundari. Given that these phrases are not marked at the lexical level, it is not meaningful to ask what kind of lexeme can function in predicate or complement position (Peterson 2005:403).

Hengeveld and Rijkhoff fit Mundari into their typology of parts of speech systems (see Hengeveld 1992; Hengeveld et al. 2004) and conclude that Mundari is a flexible language, i.e., it does not distinguish classes of nouns and verbs. They do not accept Evans and Osada's criterion of bidirectional flexibility, i.e., if one claims that a language truly has flexible word classes, that flexibility should work all ways. The fact that some lexemes occur more often as nouns and others more often as verbs is a fact about the world, and does not affect the flexibility of lexemes (Hengeveld & Rijkhoff 2005:412).

In his contribution to the 2005 debate, Croft accepts Evans and Osada's claim that Mundari has distinctive word classes. However, he criticizes the selective criteria they use to arrive at that conclusion. He objects to their using a "canonical set of distributional facts" (Evans & Osada 2005:fn17; Croft 2005:434). Croft's own theory of word classes, which in theory requires all the distributional facts, was outlined in section 3.1.2..

In this chapter, I use a Croft-style analysis and conclude that Ho does indeed have definable word classes. These word classes become apparent when we categorize the various constructions that are used for the pragmatic functions of referring, predicating and modifying.

3.2. Predication

A non-verbal predicate is a predicate that does not contain a lexical verb as morphosyntactically determined (Hengeveld 1992:27). Given that the main function of a lexical verb – prototypically an action word or 'event concept' – is to predicate, cross-linguistically non-verbal predicates result when other word classes – typically expressing property concepts or object concepts – are used for a predicate function. In some languages, it is of course possible for a non-verbal lexical predicate to use a verbal strategy, e.g., with a verbal copula, as in English:

(3.13) *She is old* vs. *they are old*

(3.14) *She is a teacher* vs. *she was a teacher*

In this section, I will present the different types of non-verbal predicates in Ho and the strategies that speakers use to form them. I largely follow Stassen's (1997) approach to intransitive predication, which is similar to Croft in spirit. Constructions are explored with a view to understanding the particular strategy used for a given class of lexemes. We will see that, in the present tense, Ho speakers use different constructions depending on the semantics of the predicate. Some non-verbal predications in Ho are formed with a copula construction (locative and existential predicates). We also see a verbal strategy for some property concept predicates and a zero copula for identification and class membership predicates.

3.2.1. Construction I: The Verbal Strategy

First we will consider the verbal strategy. Some property concepts and class membership predicates are predicated in the same way as intransitive action lexemes. In section 3.1.1. we saw how non-states are predicated in Ho. Here, we see that certain states (property concepts and class membership) are predicated with the same morphosyntax as action lexemes. I will therefore call this construction the "verbal strategy".

First, non-past property concept predicates can appear regularly with both the imperfective suffix *-tan*, as in (3.15) and (3.16), and the perfect suffix *-aka*, as in (3.17) and (3.18).[3]

(3.15) *ni=do* *renge?-tan-a*
3SG.ANIM.PROX=FOC impoverished-IPFV-FIN
'he's poor' (3.123.1)

(3.16) *Soba* *giyu?-tan-a*
Soba shy-IPFV-FIN
'Soba is shy' (1.192.18)

(3.17) *ni=do* *sepeːɖ-aka-n-a*
3SG.ANIM.PROX=FOC young-PRF-ITR-FIN
'he is young' (2010.82.27)

(3.18) *lije?* *moyla-aka-n-a*
clothes dirty-PRF-ITR-FIN
'the clothes are dirty' (1.107.45)

Considering Dixon's (1977, 2004) semantic sub-categories of property concepts allows us to see some pattern to the lexemes that are predicated with the verbal strategy. Dixon divides lexemes that are most frequently associated with the class 'adjective'

[3]The semantics of all the aspect markers including *-tan* and *-aka* are discussed in chapter IV.

across the world's languages into semantic categories, such as DIMENSION, AGE, HUMAN PROPENSITY. He argues that the core semantic categories (DIMENSION, AGE, COLOR and VALUE) are typically associated with all adjective classes, while other categories such as PHYSICAL PROPERTIES and HUMAN PROPENSITY are members of the adjective class in some languages but can also be expressed in the same way as nouns or verbs in other languages.

Ho property concept lexemes that are predicated with the verbal construction belong overwhelmingly to either the HUMAN PROPENSITY or the PHYSICAL PROPERTY class of properties. These include lexemes such as *boro* 'afraid', *rãsa* 'happy', *kurkur* 'angry', *renge?* 'hungry' or 'poor', *erel* 'jealous', *hapa* 'quiet' and *sepeːɖ* 'young'.

Stassen notes that both HUMAN PROPENSITY and PHYSICAL PROPERTY concepts are more likely to be encoded with verbal strategies in languages where property concepts have more than one encoding strategy available (Stassen 1997:169; cf. Dixon 2004:4). HUMAN PROPENSITY properties are normally non-permanent or they typically imply a state that an entity enters into. They thus semantically resemble verbs like English *sit* or *sleep*. If a language treats any properties verbally, it treats HUMAN PROPENSITY properties verbally (Stassen 1997:169). Stassen's implicational universal is supported by the Ho data.

We also see certain class membership predications appearing in the verbal strategy, with *-aka* (3.19) and *-tan* (3.20):

(3.19) *apu-ɲ=do* *munda-ka-n-a*
father-1SG=FOC chief-PRF-ITR-FIN
'my father is chief' (2010.76.13)

(3.20) *alaŋ=do=laŋ* *manmi-hon-tan-a*
1DU.INCL=FOC=1DU.INCL mankind-child-IPFV-FIN
'we are human beings (lit. 'we are mankind-children') (20081029RCBa:11)

It is difficult to argue that class membership predications like sentences (3.19) and (3.20) above are transient or somehow temporary as we see with the property concepts that appear with the verbal strategy. Another explanation is that the use of the imperfective morpheme *-tan* with class membership predications is a relic of an older copula verb.

Synchronic copula *-tan* appears with certain equational predications, as in (3.22) and (3.23).

(3.21) *neya* *rupa-reya?* *hisir* *ten-e*
this.INAN silver-GEN necklace COP-FIN
'this is a silver necklace' (1.117.21)

(3.22) *neya* *rupa-reya?* *hisir* *ka* *tan-a*
this.INAN silver-GEN necklace NEG COP-FIN
'this is not a silver necklace (1.117.24)

(3.23) *endo* *aya?* *ahar=do* *ena=ge* *tan-a*
then 3SG:GEN food(Hi)=FOC that.INAN=EMPH COP-FIN
'then his food is that' (20110429JoBb:30)

In the affirmative sentence (3.21), it seems that *hisir* 'necklace' could be part of the verb and *-tana* is actually an imperfective marker (and the fact that *-tana* harmonizes supports this analysis). However, in the negative version (3.22), *tana* is more obviously an independent word (copula). As we saw in section 3.1.1., the negative word *ka* must go immediately before the verb, in this case separating *hisir* 'necklace' from *tana*. Sentence (3.23) is another example of *tana* as a copular verb. There are very few sentences like (3.22) and (3.23) in my data, which is more evidence

for the idea that *tana* is an older copula that has grammaticalized to an imperfective marker. Its use as a copula in Ho is waning but *tan* as a copula is still present in Mundari (Osada 1992:119).

3.2.2. Construction II: The *ge* Strategy

In section 3.2.1. we saw that some property concept words belonging to Dixon's HUMAN PROPENSITY and PHYSICAL PROPERTY categories use the verbal strategy for predications. In this section we will see that another class of property concepts uses a different strategy. Certain property concepts appear with a copular suffix, *ge*, plus the finite marker *-a*, as in (3.24) and (3.25).

(3.24) *gaɽa ikir-ge-ya*
river deep-COP-FIN
'the river is deep' (1.104.25)

(3.25) *katu leser-ge-ya*
knife sharp-COP-FIN
'the knife is sharp' (1.121.31)

In section 3.2.1. we noted that some property concepts that are predicated verbally tend to have a more transient or temporary quality. If we turn to look at the semantics of property concepts that are predicated with *ge*, we see that they encompass Dixon's four core categories of property concepts: DIMENSION, AGE, VALUE and COLOR. These semantic types are typically associated with the class "adjective" across the world's languages, even by languages with very small adjective classes (2004:3). In Ho, property concepts such as *jenga* 'red', *ḍipe* 'shallow', *tik/bugin* 'good' and *papari/nama* 'old/new' are predicated with *ge*.

It is also possible for such property concepts to appear in predication constructions without *ge*, as in (3.26) and (3.27):

(3.26) *doreya* *ikir-e*
sea deep-FIN
'the sea is deep' (1.105.29

(3.27) *disum* *ka* *cepeḍ-a*
world NEG flat-FIN
'the world is not flat' (1.106.36)

According to my consultants, such sentences are like universal truths, things everybody knows.

As well as predicating the core property concepts of DIMENSION, AGE, COLOR and VALUE, *ge* also appears in predications of some HUMAN PROPENSITY and PHYSICAL PROPERTY property concepts. In cases where a given property concept can be predicated with either *ge* or the verbal strategy, the predication with *ge* gives a more permanent reading. Sentence (3.28) with *ge* has the meaning of 'Dobro is a dirty man', while the verbal clause (3.29) suggests that his 'being dirty' is more of a temporary state.

(3.28) *Dobro* *humuː-ge-ya*
Dobro dirty-COP-FIN
'Dobro is dirty (always)' (1.106.40)

(3.29) *Dobro* *humuː-aka-n-a*
Dobro dirty-PRF-ITR-FIN
'Dobro is dirty (now)' (1.106.39)

There is another form of *ge* which functions as an emphatic clitic and attaches to various constituents in the sentence. In sentence (3.30), it attaches to the constituent "their sister" and thereby gives that NP more prominence in the sentence.

(3.30) *ente* *canab=do* *en* *mai* *hon* *ako-wa?* *misi-te*
then after=FOC that young.girl child 3PL-GEN sister-ALL
era=ge *kaji-ya-ko-tan-a...*
woman=EMPH say-APPL-3PL-IPFV-FIN ...
'then the young girl, their sister, was saying to them...' (20081107RCBb:31)

It is clear that copular *ge* and emphatic *ge* are related. Perhaps *ge* grammaticalized from its function as a copula to an emphatic or focus marker, or perhaps the grammaticalization was in the other direction. Both directions of change are reported for various languages (Heine & Reh 1984:181-82; Stassen 1997:76; Harris 2002).

Ge attaches to a variety of lexeme types and native speakers always translate it as something like 'definitely'. It can also attach to non-stative verbs, as we see in (3.31) and (3.32).

(3.31) *ente* *Matu=do* *sutui-ko* *tuq-en-tan-ge-ya* *na?=do*
then Matu=FOC shirt-PL take.off-RFLX-IPFV-COP-FIN now=FOC
'then Matu is taking off his shirt' (20120121RPPa:102)

(3.32) *hapa-te=ge=ko* *dub-eke-n-ge-ya*
quiet-ALL=EMPH=3PL sit-PRF-ITR-COP-FIN
'they sat quietly' (20120121RPPb:158)

In examples (3.31) and (3.32), we see evidence that *ge* is not restricted to property concept predications. It seems that *ge* has grammaticalized from a copular verb and in examples such as (3.31) and (3.32), it suggests some kind of emphasis to an on-going action or state.

The negative of *ge*-predicates is formed in the same way as the negative of verbal clauses: *ka*, the negative particle, appears directly before the property concept word, as in (3.33).

(3.33) *puti=do* *ka* *rãsa-ge-ya*
book=FOC NEG interesting-COP-FIN
'this book is not interesting' (2010.86.38)

We might thus conclude that the *ge* strategy is partially verbal; it is negated in the same way as a verbal clause and it is followed by the finite marker. Yet predications with the *ge* strategy do not normally have any tense or aspect markers, so it is not as verbal as the verbal strategy. The *ge* strategy furthermore gives a more permanent reading when contrasted with the verbal strategy.

The *ge*-construction distinguishes a subcategory of property concepts as grammatically distinct from those that do not participate in the construction. This subcategory of property concepts belongs to Dixon's core "adjective" categories and it therefore establishes the relevance of the category 'adjective' in the grammar of Ho.

3.2.3. Construction III: The Zero Construction

The zero construction is straightforward: the argument and the predicate are simply juxtaposed. There is no copular particle, copula verb or other verb in the zero construction. As predicted by Stassen for all languages which use zero copulas (1997:64), the zero construction is used with "nominal" predicates, i.e., for identificational or equative predications as well as with certain clauses predicating class membership.

In identificational constructions, as in (3.34)-(3.36), the predicate refers to the same entity as the argument of the predicate, i.e., the two expressions refer to the same object, as a unique entity.

(3.34) *ni=do* *aɲ-a?* *coke*
3SG.ANIM.PROX=FOC 1SG-GEN frog
'this is my frog' (20120121RPPb:139)

(3.35) *munda=do* *apu-ɲ*
chief=FOC father-1SG
'the chief is my father' (2010.77.13)

(3.36) *en* *ho=ge* *gomke*
that man=EMPH boss
'that man is the boss' (1.17.10)

In his typological study of intransitive predication, Stassen notices that identity statements such as (3.34)-(3.36) are frequently zero-coded. He furthermore claims that zero-coding of nominal elements for other predicative functions, such as class membership predications, originates in the zero-coding of identity statements (1997:111). The zero construction in Ho fits his predictions; it is used with class membership predications as well as identification constructions.

Semantically, a class membership predication is one in which a specific entity is asserted to be a member of the class of items which is specified in the predicate (Payne 1997:114). In Ho, we have already seen that class membership can be expressed with the verbal construction (see section 3.2.1.). There is also a subset of class membership predications, particularly those that denote professions, that are predicated with the zero construction.

(3.37) *hani?=do* *ol-ni?*
3SG.ANIM.DIST=FOC write-AGT
'he's a writer' (2010.78.6)

(3.38) *hani?=do* *merom-ko* *gupi-tan-i?*
3SG.ANIM.DIST=FOC sheep-PL look.after-IPFV-AGT
'he is a sheep herder' (2010.78.5)

In examples (3.37) and (3.38), the active verb stems 'write' and 'look after' (including tense or aspect markers) are suffixed with an agent nominalizer (cf. Deeney 2002:93).

As we see in these examples, the nominalizer *-ni?* or *-i?* can attach to the root itself (3.37), or to the tense/aspect marker (3.38) creating a nominal predicate. Note also that the derivational suffix *-(n)i?*, which creates agent nouns, is further evidence against the claim that Ho does not have distinct lexical classes. Clearly action roots cannot simply fulfill a referring function (in the sense of Croft 2001) without some extra morphology. Section 3.3.2.2. takes up this point and *-ni?* is shown to be nominalizing suffix.

3.2.4. Construction IV: Locative Construction

3.2.4.1. Predicating Location

The fourth and final construction that Ho speakers use for intransitive predication is the only construction with a dedicated copular verb: *mena?*. *Mena?* is used to predicate location, existence and possession. There is also an extended use of *mena?* for property concepts that I will discuss briefly.

The copula *mena?* appears in the same position as other verb roots. However, its morphology is different from the intransitive verbs we saw in section 3.1.1. The only morphemes that are suffixed to it are a person marker, which agrees with the animate theme argument, and the finite marker *-a*. The person marker is formally the same as the object suffix of a transitive verb and takes the same position in the verb (cf. chapter IV). The examples below show a 3rd singular (3.39) as well as a 1st person plural exclusive theme (3.40).

(3.39) *aji-ɲ* *dili-re* *mena?-i-ya*
older.sister-1SG Delhi-LOC COP-3SG-FIN
'my older sister is in Delhi' (2010.79.71)

(3.40) *ondoʔ* *ale* *pardsa* *hatu-re* *menaʔ-le-ya*
and 1PL.EXCL Pardsa village-LOC COP-1PL.EXCL-FIN
and we are in Pardsa village (20110429JBb:2)

For inanimate arguments, *menaʔ* is unsuffixed for both singular (3.41) and plural (3.42).

(3.41) *puti* *tebul* *cetan-re* *menaʔ*
book table top-LOC COP
'the book is on the table' (2010.79.70)

(3.42) *taːre* *lijeʔ-ko* *menaʔ*
string-LOC cloth-PL COP
'the clothes are on the line' (2.125.37)

We will see that the same basic locative construction is also used in existential and possessive clauses.

3.2.4.2. Existential Predication

In Ho, one type of existential predication can be formed with the locative construction, as we see in (3.43)-(3.45).

(3.43) *buru-re* *reːɖ* *menaʔ*
forest-LOC medicine COP
'there is medicine in the forest' (201105GTa:11)

(3.44) *gaɽa-re* *esu* *puraʔ* *haku-ko* *menaʔ-ko-wa*
river-LOC very very fish-PL COP-3PL-FIN
'there are many fish in the river' (2010.79.72)

(3.45) *daru* *sube-re* *esu* *sange* *coke-ko* *menaʔ-ko-wa*
tree beneath-LOC very numerous frog-PL COP-3PL-FIN
there were very many frogs under the tree (20110222MB:54)

Notice that in existential clauses where there is both a theme and a location argument, the location precedes the theme; whereas the reverse order appears in locational predications (as we saw in section 3.2.4.1. above). The order "location-theme" is cross-linguistically preferred for existential clauses, especially when a language lacks definiteness markers, as Ho does (Clark 1978:81-92).

Mena? is only used in affirmative, present tense clauses. Negative locative or existential clauses are formed with a suppletive form *ban* (inanimate subjects) or *baŋ* (animate subjects) suffixed with the appropriate person marker (the same as with *mena?*), as we see in (3.46) and (3.47).

(3.46) *aŋ-a?* *cai-re* *cini* *ban-o-wa*
1SG-GEN tea-LOC sugar COP.NEG-MID-FIN
'there's no sugar in my tea' (2010.80.77)

(3.47) *are,* *mai* *owa?=do* *sim-ko=do* *baŋ-ko-wa*
hey young.girl house=FOC rooster-PL=FOC COP.NEG-3PL-FIN
'hey, at the girl's house, there aren't any roosters' (20081107RCBb:23)

In the following section we will see that the predicate locative construction is also used for possessive predications.

3.2.4.3. Possession with the Locative Construction

The possessive locative construction is formed slightly differently from the regular predicate locative we saw in section 3.2.4.1. but it uses the same copular verb *mena?*. The possessor or "location" of the theme is suffixed with a locative suffix *-ta?*, meaning 'exact place' (Deeney 2005:361). The locative postposition *-re* is also optionally suffixed. The possessum appears directly before the copula.

(3.48) *Dobro-taʔ-re* *kar* *menaʔ*
Dobro-exact.place-LOC car COP
'Dobro has a car' (2010.81.84)

(3.49) *aeʔ-taʔ-re* *jokoeʔ-leka* *ɖiyeŋ* *menaʔ*
3SG-exact.place-LOC very.small-like rice.beer COP
's/he has some rice beer' (2010.81.87)

Rather than a locative suffix, the possessor can also take a genitive suffix (3.50). If the possessum is animate, the locative copula *menaʔ* is suffixed with an animate number marker.

(3.50) *Dobro-aʔ* *apiya* *kui* *hon-ko* *menaʔ-ko-wa*
Dobro-GEN three girl child-PL COP-3PL-FIN
'Dobro has three daughters' (2010.81.83)

According to Deeney, when the possessor is marked with the locative suffix, the meaning is that the possessum is at hand. When the possessor is marked with a genitive suffix, as in (3.50), it is more like an ownership type of possession (2002:62).[4]

3.2.4.4. Extended Uses of *menaʔ*

The locative copula *menaʔ* is occasionally used to predicate property concepts, as in (3.51).

(3.51) *...esu* *muruku* *menaʔ-bu-we,* *esu* *sicet-oː*
...very foolish LOC.COP-1PL.INCL-FIN, very literate-also
menaʔ-bu-we
COP-1PL.INCL-FIN
'we are very foolish, we are also very literate (20110429JoBa:93)

Such examples are not frequent, but may be understood as predicating a theme at a location, in the pattern of the locational construction. In this case the subject is

[4]The genitive marked possessor was rare in my data, perhaps because sentences such as (3.50) are ambiguous between an existential reading and a possessive reading.

the theme argument and there is a pronominal suffix referencing it in the verb. The property concept is the metaphorical location and, as we see in a similar example (3.52), it can be marked with the locative postposition:

(3.52) *...ondoʔ kaːni ayum-teyaʔ esu rãsa-re menaʔ-ko-wa*
...and story listen-NMLZ very joy-LOC COP-3PL-FIN
'..and they are very happy to listen to the story (20110429JoBb:4)

3.2.5. Predications in Past Time

In sections 3.2.1.-3.2.4. we saw how non-past tense intransitive predication constructions are formed in Ho. For past time these strategies give way to two constructions (with one exception) which both use the verb *taikena*. For property concepts that use the verbal strategy and the *ge* construction in present tense, *taikena* replaces the finite marker and is a suffix. For identificational and locative constructions, *taikena* is a free standing past tense copula. Historically *taikena* comes from a lexical verb *tai* meaning 'stay', plus the perfective past tense suffix *-ke*, the intransitive suffix *-n*, and the finite suffix *-a*. Example (3.53) shows *tai* used in its etymological sense. (In chapter IV we will see that *taikena* is grammaticalizing to a general past tense suffix.)

(3.53) *buɽi era=do owaʔ-re=ge tai-n-a*
old woman=FOC house-LOC=EMPH stay-REFL-FIN
'the old woman stays at home' (20110524RPP:7)

First, for property-concept predicates that appear with the *ge* strategy in present tense, in the past tense, *taikena* follows *ge* and replaces the finite marker, as in (3.54):

(3.54) *ka=ge, owaʔ punɖi-ge-taikena*
NEG=EMPH house white-COP-PST
'no, the house was white' (2.158.70)

In identificational and equational sentences, *taikena* is used as a free-standing copula, as in the following examples:

(3.55) *nendor* *ho=do* *an-aʔ* *gomke=kiɲ* *taikena*
that.yonder man=FOC 1SG-GEN boss=3DU COP.PST
'that man used to be my boss' (2010.75.6)

(3.56) *Soma* *munda=eʔ* *taikena*
Soma chief=3SG COP.PST
'Soma was chief' (1.19.17)

(3.57) *Soba* *joː∼joʔ-niʔ* *taikena*
Dobro REP∼sweep-AGT COP.PST
'Soba was a sweeper' (1.1112.27)

(3.58) *Dobro* *mastor=eʔ* *taikena*
Dobro teacher=3SG COP.PST
'Dobro was a teacher' (2010.75.1)

In past tense existentials and predicate locative predications, *taikena* replaces *menaʔ* and there is no number agreement marker, as in (3.59)-(3.61).

(3.59) *aji-ɲ* *dili-re* *taikena*
older.sister-1SG Delhi-LOC COP.PST
'my older sister was in Delhi' (2010.79.71)

(3.60) *gaɽa-re* *esu* *puraʔ* *haku-ko* *taikena*
river-LOC very very fish-PL COP.PST
'there were many fish in the river' (2010.81.83)

(3.61) *ai* *ho* *kowa* *hon-ko* *taikena,* *miyaɖ* *hon-te* *era*
seven person male child-PL COP.PST, one child-POSS female
taikena
COP.PST
'there were seven sons, there was one daughter' (20081107RCBb:3)

Lexemes that use the verbal strategy in non-past tenses can also appear with the suffix *taikena* for past tense, as in (3.62).

(3.62) *esu pure?* *renge?-tan-taikena*
very much poor-IPFV-PST
'[he] was very poor' (20081122GPa:2)

Here *taikena* simply follows the imperfective aspect marker.

Property concepts that use the verbal strategy in non-past clauses can also use a different verbal construction in past tense instead of *taikena*. The default past tense intransitive suffix *-eya* ((3.63), see chapter IV) can also appear with property concepts in intransitive predications, as in (3.64).

(3.63) *endo botul* *rapuɖ-eye-n-a*
then bottle break-PST-ITR-FIN
'then the bottle broke' (20110222MB:14)

(3.64) *hola* *rabaŋ-eya-n-a*
yesterday cold-PST-ITR-FIN
'yesterday [it] was cold' (1.94.15)

In sum, although intransitive predication strategies differ according to the predicate type in the present, these can be replaced by a single strategy, with *taikena*, in the past. However, property concepts that use a verbal strategy in the present can appear in either a verbal construction or with *taikena* in the past.

3.2.6. Summary of Predication Constructions

Table 3.2 summarizes the four different strategies that Ho speakers use for intransitive predication in non-past tense. We can see firstly that the different strategies correlate with different subsets of semantic predication types, which in turn

suggests the existence of distinct word classes. The verbal strategy is used with all semantic word types: actions, and some property and object concepts. The fact that both properties and objects can be predicated like intransitive actions is the salient feature of Ho (and Mundari) that led previous researchers to conclude that word classes either do not exist, or are at least extremely "fluid" (Hoffman 1903; Pinnow 1966). However, a more conservative conclusion is simply to note that (some) word classes other than 'action concepts' are sometimes treated like verbs, i.e., can appear with verbal morphosyntax, when they suggest a more temporary state of affairs. This does not imply that there are no word class distinctions in Ho, nor does it suggest that actions, properties and objects can freely fit into any syntactic "slot" without regard to the semantics of the clause.

Present tense strategy	Corresponding past tense strategy	Semantic predication types	Semantic word class of lexical predicate
verbal strategy	*taikena* *-eyana*	non-states, non-"core" property concepts (HUMAN PROPENSITY PHYSICAL PROPERTY) some class membership predications	actions properties$_1$ objects
ge strategy	*ge taikena*	"core" property concepts (DIMENSION, AGE, VALUE, COLOR)	properties$_2$
zero strategy	*taikena*	identificational, class membership	objects
locative strategy with *mena*?	*taikena*	locatives, existentials, possession	objects

TABLE 3.2. Ho strategies for intransitive predication

In table 3.2, property concepts are divided into two groups based on which predication construction they appear with. The first group, which is predicated like action verbs, can simply be termed "stative verbs". As discussed in section 3.2.1., property concept lexemes that appear in the verbal construction usually belong to Dixon's human propensity and physical property semantic types. These predications

have a more temporary reading and include concepts such as *boro* 'afraid', *rãsa* 'happy' and *kurkur* 'angry'. Properties that are predicated with the *ge* strategy are more stable or permanent property concepts, belonging to Dixon's "core adjective" category of semantic property types: DIMENSION, AGE, VALUE and COLOR. This second group of property concepts can be called "adjectives" in Ho. For property concepts that can be predicated with both the verbal strategy and *ge*, predication with *ge* expresses a more permanent state of affairs.

Stassen notes that if a language has a zero strategy for copulas, it is always used with nominal predicates, which correspond to the semantically most time-stable or permanent concepts (Stassen 1997:64). This is indeed what we see in Ho, where class membership and identificational predicates (involving object concepts) normally appear with a zero copula. Stassen further notes that the present tense is the minimal domain of the zero strategy, i.e., if a language has a zero copula, it is at least used in the present tense (Stassen 1997:65). And, as we see in Ho, the zero strategy only appears with present tense predication constructions, giving way to an overt tensed strategy with *taikena* in the past tense. In fact, it is interesting to note that all of the intransitive predication strategies can use *taikena* in past tense.

The final intransitive predication strategy that was discussed, the locative strategy, is the only one to have a dedicated copular verb *mena?*. As in many languages, Ho speakers use the locative construction for existentials and possessives, as well as semantically locative sentences. Although there is a suppletive verb *ban* for present tense negative locatives, like the other strategies, the past tense of negative locative constructions is still formed with *taikena*.

The current exploration of intransitive predication has revealed four strategies in Ho. The particular strategy to be used is determined by the semantics of the

predicate. The correspondence between different semantic groups of lexemes and the four predication strategies in turn supports the idea that Ho does have distinct word classes. In the following sections we will examine referring constructions and then modifying constructions. We will see that these also support the claim that Ho has distinct word classes.

3.3. Reference

The second propositional act function that we will look at is the function of making reference to a discourse participant. In Ho there is a large group of lexemes that can refer to an object without any kind of modification. Ho also has nominalization constructions, which are used when action and property concepts fulfill a referring function.

3.3.1. Referring Strategy I: Unmarked Nouns

Many lexemes that denote object concepts can appear in a referring function with no extra morphology. These lexemes correspond to the third and fourth rows of table 3.2 and I will call them nouns. If we look in the first couple of lines of a narrative text (3.65), we see five examples of object concepts with no derivational morphology. Semantically, all the underlined words refer to object concepts. Morphological evidence that these words are nouns includes the fact that they can take the locative postposition *-re*, as in *hatu* 'village' and *daru* 'tree'. Nouns can also be plural, with *-ko*, as in *dudulum* 'pigeon' or follow the indefinite article *miyaḍ*, as in *hatu* 'village', *daru* 'tree' and *gomke* 'boss'. Further, nouns can take the genitive suffix *-a?*, as *gomke* 'boss' does, in addition to functioning as the possessed object, as with *baba* 'paddy'.

(3.65) *miyaḍ* *hatu-re* *esu* *pure?* *dudulum-ko* *miyaḍ* *daru-re=ko*
one.INAN village-LOC very many pigeon-PL one.INAN tree-LOC=3PL
taikena
COP.PST
'in a village, very many pigeons lived in a tree'

ente *miyaḍ* *gomke-ya?* *baba* *her-ta-teya?* *jawge=ko*
then one.INAN boss-GEN paddy sow-PNCT-NMLZ always=3PL
jom-caba-ya
eat-finish-FIN
'they always ate up all the paddy that the boss sowed' (20081107AB:1-2)

Previous researchers have pointed out that in Mundari, some action concepts can appear in referring function with no derivational morphology (e.g., Hengeveld & Rijkhoff 2005:420). Evans and Osada give the following example from Mundari.

(3.66) *jom=ko* *nam–ke-d-a*
"eat"=3PL get-COMPL-TR-INDIC
'they got the food' (Evans & Osada 2009:355)

In sentence (3.66) *jom* 'eat', an action concept, appears in argument position and in this context means 'food', i.e., some object that is eaten. Hengeveld and Rijkhoff (2005:420) claim that this type of flexibility shows that Mundari lexemes do not divide into distinct word class categories, but rather can fit in wherever the speaker needs them to.

In Ho, the cognate *jom* 'eat' can only appear in referring position if it has what looks like the genitive suffix *-a?* (3.67).[5]

(3.67) *endo* *en* *jom-a?* *biter-re* *uku-ye-n-e=?*
then that eat-GEN inside-LOC hide-PST-ITR-FIN=3SG
'then he hid inside that food' (20120121RPPb:89)

[5]Although *-a?* is the genitive suffix, the use of it here could also be a shortening of the full nominalizing suffix *-teya?* (see section 3.3.2.2.).

However, the lexeme *manḍi* 'food' (also 'cooked rice') appears more frequently in referring position to express the concept of 'food'.

A Ho lexeme that has comparable flexibility to Mundari *jom* 'eat' is *paiṭi* 'work', which is unmarked in both referring and predicate position. Sentence (3.68) shows *paiṭi* 'work' in referring function. It is modified by a possessive pronoun and it functions as subject of the sentence. In sentence (3.69), we see *paiṭi* functioning in predicate position.

(3.68) *aliɲ-e?* *paiṭi=do* *seta?-ete* *tikin-joka-reya?=ge*
1DU.EXCL-GEN work=FOC morning-ABL noon-until-GEN=EMPH
tai-n-e
stay-ITR-FIN
'our work is from morning until noon' (3.77.22)

(3.69) *enka=ge=ɲ* *paiṭi-ye*
like.that=EMPH=1SG work-FIN
'I will work like that' (20110429KuB:6)

Paiṭi is the only lexeme of this type in Ho in the corpus collected for this study. It should, therefore, not be taken as evidence of a general ability of action concepts to appear in referring position without further morphology. Such flexibility must be treated as simply a feature of this one lexeme.

Hengeveld and Rijkhoff give other examples of action concepts in Mundari that they claim can appear as the argument of a verb and are therefore referring expressions, such as (3.70).

(3.70) *her=ko* *caba-ja-n-a*
sow=3PL finish-INCEP-ITR-PRED
'they have finished sowing' (Evans & Osada in Hengeveld & Rijkhoff 2005:420)

However, the action concepts in such constructions are not unambiguously referring expressions. They are better described as complementation constructions, i.e., the action concept is the complement of a main verb.

It seems that although object concepts can occur in predicate position with no modification relatively easily in Ho (as we saw in section 3.1.1.), the reverse is not true. That is, action concepts cannot function as unmarked referring expressions. As we will see in the following sections, action concepts require some kind of nominalization construction to appear in a referring expression.

3.3.2. Referring Strategy II: Nominalization

In Ho there are two nominalization constructions which allow a non-object concept to function in referring position. The first applies to action concepts and the second to both action concepts and property concepts.

3.3.2.1. *-nV-* Nominalizations

The first nominalization construction is the infix *-nV-*, which is added after the first syllable to an action concept. For example:

(3.71) *dub* 'sit' *dunub* 'meeting'
goe? 'kill' *gonoe?* 'killing'
her 'sow' *hener* 'sown things'
asul 'support' *anasul* 'means of sustenance'
jo? 'sweep' *jono?* 'broom'

As we see in the examples above, the meaning of the nominalized action concept with *-nV-* is not consistent or predictable across lexemes. For example, we cannot predict

that the nominalizaton of *joʔ* 'sweep' will mean the instrument used for the action, i.e., 'broom', rather than a nominalization of the event, e.g., 'the sweeping'.

(3.72) *miyaɖ̥ joʔ<no>ʔ agu-i-pe*
one sweep<NMLZ> bring-INAN.OBJ-2SG.IMP
'bring a broom' (20081107RCBb:36)

Interestingly, at least one nominalized action, *dunub*, seems to have the same flexibility that all nouns have and can also appear with verbal morphology, as we see in (3.73) (cf. section 3.1.1.).

(3.73) *ente musiŋ=ko dunub-ke-n-a*
then one.day=3PL meeting-PFV-ITR-FIN
'then one day, they met' (20081122GPb:8)

The *-nV-* infix only creates nominalizations from action concept lexemes. In the next section, we see more productive nominalizing suffixes that apply to both action and property concept lexemes.

3.3.2.2. *-teyaʔ* and *-(n)iʔ* Nominalizations

A further nominalizing affix in Ho is the suffix *-teyaʔ*. Historically, *-teyaʔ* is most likely a combination of the allative suffix *-te* plus the genitive suffix *-aʔ*. The suffix *-(n)iʔ* has the same function as *-teyaʔ* but applies to animate entities.

-Teyaʔ can form an inanimate noun from a property concept (3.74), an action concept (3.75), and even action concepts with incorporated objects (3.76).

(3.74) *...roː-teyaʔ=do ka=ge berel ruːm sakam-re roː-teyaʔ=do*
...dry-NMLZ=FOC NEG=EMPH unripe rum leaf-LOC dry-NMLZ=FOC
ka=ge bai-uʔ-wa
NEG=EMPH make-MID-FIN
'...not the dry ones, [put it] on an unripe rum leaf, the dry ones don't work' (lit: 'aren't made') (20081107NB:20)

(3.75) *ente* *kiteb* *bai-ye-n-re=do* *ondo?* *eto-ko-teya?* *ondo?*
then book make-PST-ITR-LOC=FOC and teach-3PL-NMLZ and
suvide *bai-ye-n-e,* *ayer=do* *kiteb* *ka* *taiken-re=do*
easy make-PST-ITR-FIN, before=FOC book NEG PST.COP-LOC=FOC
joke *muskil* *taikena*
little difficult PST.COP
'after the book was made, teaching them was made easier, before, when there was no book, it was a little difficult' (20110413DSP:139y)

(3.76) *ginil-re* *lije?-ko-haka-teya?* *kilum-eke-n-a*
wall-LOC cloth-PL-hang-NMLZ nail-PRF-ITR-FIN
'the clothes hooks are nailed on the wall' (2.121.50)

As we will see in chapter VI, subordinate clauses are often nominalized with *-teya?*, as in example (3.75).

In section 3.3.1. we saw an example of *jom* 'eat' appearing with just the genitive suffix *-a?*, and then used in referring position. In texts, the full *-teya?* suffix is much more frequent with action concepts than just *-a?*. However, *-a?* can appear without *-te* when the speaker is referring to a vague or abstract concept, or perhaps he/she does not know the exact word. It follows *-leka* which is usually translated as 'be like' and the intransitive suffix *-n* in this case. For example, one speaker used (3.77) to describe a picture of a trumpet, something she was not familiar with.

(3.77) *conga-leka-n-a?*
funnel-like-ITR-GEN
'funnel-like thing'

Animate nominalizations are formed with *-(n)i?*. As with *-teya?*, *-(n)i?* attaches to both actions (3.78) and property concepts (3.79).

(3.78) *Soba* *joː∼jo?-ni?* *taikena*
Soba sweep∼REP-NMLZ PST.COP
'Soba was a sweeper' (1.112.27)

(3.79) *huɽiɲ-ni?* *huju?-ye-n-a*
small-NMLZ come-PST-ITR-FIN
'the small one came' (3.183.56)

The *-(n)i?* suffix attaches to the verb or adjective stem, which can include aspect suffixes, as we see in (3.80). It can also attach to locative phrases, as in (3.81).

(3.80) *kowa-tan-i?* *eɬa?-eɬa?-pa:* *seno?-ya-n-a*
male-IPFV-NMLZ other-other-place go-PST-ITR-FIN
'the boy went to the other place' (20110210BCc:7)

(3.81) *gui-re-tan-i?*
Gui-LOC-IPFV-NMLZ
'someone from Gui' (20110413DSP:53)

As we saw above with *-a?*, *-(n)i?* can also attach to a lexeme with *-leka* to refer to some unspecific or abstract concept. It can attach to an object concept with this suffix as well as to property or action concepts.

(3.82) *ako-wa?* *guru-leka-ni?* *taikena*
3PL-GEN teacher-like-NMLZ PST.COP
'he was like their teacher' (20081107AB:13)

Leka is usually translated as something like 'like' or 'approximately' (as a verb, it can also mean 'try' and 'count'). It seems to function to derive the non-nominal when it appears in nominalizations before the nominalizing suffix as in (3.82) and (3.77) above. That is, the nominalizers cannot attach directly to certain lexemes without *-leka*.

In this section, we have seen that action and property concepts generally take a nominalizing suffix before they occur in referring position. To derive an inanimate entity *-teya?* is suffixed while animate entities take *-ni?*.

3.3.3. Infinitives and Bare Verb Complements

As well as nominalizing via an overt suffix, there are two further ways that an action concept can be morphologically "modified" to function as a complement or subordinate clause of another predicate. The first way is to create an infinitive construction with *-te*. The *-te* suffix attaches to the verb root and any object suffixes and directly precedes the matrix predicate verb. In Ho, this construction is primarily used with one matrix verb *hoba* 'happen, must', as in (3.83).

(3.83) *ka, ka=e? jom-iɲ-te hoba-o?-wa*
NEG NEG=3SG eat-1SG-ALL must-MID-FIN
'no, he mustn't eat me' (20110210BCc:34)

The second way is to use a bare verb strategy, as with *jom* in (3.84).

(3.84) *baba-ko jom=ko ete?-ke-ɖ-a*
paddy-PL eat=PL begin-PFV-TR-FIN
'they began to eat the paddy' (1.186.7)

Hengeveld and Rijkhoff (2005:420) treat Mundari examples similar to (3.84) as action concepts functioning in a referring expression with no further morphology and therefore proof of the flexibility of Mundari lexemes (cf. section 3.3.2.). However, the meaning of *jom* in (3.84) has not become object-like, or referential: it does not mean something concrete or objectified like 'food'. It still has action semantics and means 'eat'. Furthermore, *jom* has its own object complement, i.e., *baba* 'paddy'. Complement constructions will be taken up in more detail in chapter VI.

3.3.4. Nominalization Strategies: Summary

Table 3.3 shows the different referring strategies in Ho. We have seen that many object concepts in Ho can appear unmarked in referring position. These may be

called "nouns". Ho nouns can take the plural morpheme *-ko*, as well as the genitive and locative suffixes. Ho nouns can also follow the indefinite article *miyaḍ*.

Word class	Referring strategy
Objects	zero
Properties: "core"	*-teya?/-ni?*
Properties: non-"core"	
Actions	*-teya?/-ni?/ -nV-*

TABLE 3.3. Referring strategies in Ho

In addition to unmarked nouns, Ho has three nominalization affixes which allow an action or property concept to function as a referring construction. Contrary to some claims for Mundari, in Ho it is not generally possible for an action concept to appear in a referring function with no further morphology. The one known exception in Ho is *paiṭi* 'work' which appears in both predicate and referring positions with no additional modification. An action concept can sometimes function as complement to one of a few complement-taking verbs in either an infinitive or bare verb construction. Complement strategies do not, however, create referring expressions out of action concepts. The fact that only object concept lexemes can appear in referring function with no extra morphology supports the claim that Ho does have a class of lexemes that we may call "Ho nouns". Other word classes must take extra morphology before they can appear in referring positions.

3.4. Modification

Last, we turn to modifying constructions in Ho. Croft predicts that property concepts are prototypically unmarked when in modification function (Croft 2001:88). There is a small class of property concepts in Ho that are unmarked when they

function to modify nouns. In Ho, these fall into Dixon's "core" adjective categories: DIMENSION, AGE, VALUE, COLOR. Non-core property concept lexemes, as well as action concept lexemes, must take a participle form before they can modify an object. In cases where an object concept word modifies another object concept word, it must take a genitive suffix.

3.4.1. Modification Strategy I: The Zero Strategy

There are several lexemes in Ho that may modify an object concept with no further derivational morphology. They are property concepts belonging to Dixon's core adjective class and I will call them "adjectives" in Ho. They include concepts of DIMENSION such as *maraŋ* 'big' (3.85), *jiliɲ* 'long' (3.86), *ikir* 'deep' (3.87), AGE *nama* 'new' (3.88), COLOR *punḍi* 'white' (3.89), and VALUE *bugin* 'good' (3.90).

(3.85) *miyaḍ buru-re esu maraŋ bindiːram=eʔ taikena*
one forest-LOC very big spider=3SG PST.COP
'there was a very big spider in a forest' (20110210BCb:2)

(3.86) *jiliɲ hoɽa-te=liɲ seʔno-tan-a*
long road-ALL=1DU.EXCL go-IPFV-FIN
'we are going along the long road' (3.174.4)

(3.87) *aɲ nen ikir gaɽa=ɲ oyar-parom-eya-n-a*
1SG this deep river=1SG swim-across-PST-ITR-FIN
'I swam across this deep river' (3.174.6)

(3.88) *nama haɽaʔ-re=bu suiḍ-e-ya*
new winnowing.basket-LOC=1PL.INCL mix-INAN.OBJ-FIN
'we mix it in a new winnowing basket' (20081107NB:13)

(3.89) *am nen punḍi kursi-re=m dub-tan-a*
2SG this white chair-LOC=2SG sit-IPFV-FIN
'you are sitting in this white chair' (3.177.25)

(3.90) *ako-taʔ-re* *bugin* *kiteb* *menaʔ*
3PL-PLACE-LOC good book LOC.COP
'they have a good book' (2.11.18)

It should be noted that examples of properties modifying object concepts, though acceptable to native speakers, are rare in texts. Sentences (3.85)-(3.90) are mostly elicited.

Lexemes denoting gender such as *kowa* 'male' and *kui* 'female', as in (3.91), can also modify an object with no further modification.

(3.91) *miyaɖ* *kowa* *hon* *ondoʔ* *miyaɖ* *kui* *hon*
one male child and one female child
em-a-liŋ-me
give-APPL-1DU.EXCL-2SG.IMP
'give us one boy child and one girl child' (20081107RCB:60)

We also see a few examples of more compound-like constructions, i.e., an object-concept lexeme modifying another object-concept lexeme, such as (3.92).

(3.92) *seta=do* *dumur* *daka* *sangil-eke-te* *nel-e-tan-a*
dog=FOC bee hive look.up-PRF-ALL see-INAN.OBJ-IPFV-FIN
'the dog was looking up, looking at the bee hive'

If we turn to Dixon's non-core adjective property concept terms, we see that some members of Dixon's PHYSICAL PROPERTY class of terms can modify an object-concept lexeme with no extra morphology. These include: *hambal* 'heavy' (3.93), *lebeʔ* 'soft' (3.94), and *keɽeʔ* 'hard' (3.95).

(3.93) *nen* *hambal* *karkom* *tul-denga-ta-ŋ-me*
this heavy bed move-help-PNCT-2SG.IMP
'help me move this heavy bed' (3.179.32)

(3.94) *aŋ* *miyaɖ* *lebeʔ* *kombol-te=ŋ* *uyu-n-ten-e*
1SG one soft blanket-ALL=1SG cover-RFLX-IPFV-FIN
'I'm covering myself with a soft blanket' (3.178.31)

(3.95) *aŋ* *nen* *keɽeʔ* *kursi-re=ŋ* *dub-ten-e*
1SG this hard chair-LOC=1SG sit-IPFV-FIN
'I'm sitting in this hard chair' (3.178.30)

There is also a group of PHYSICAL PROPERTY lexemes that have two grammatical constructions for modification. They can either modify an object concept without extra morphology, as we saw for the core group of property concepts (3.96), or use the participle strategy (3.97) that is used primarily with action concepts (cf. section 3.4.2. below).

(3.96) *aŋ* *nen* *lum* *lijeʔ=ŋ* *roː-e-tan-a*
1SG this wet clothes=1SG dry-INAN.OBJ-IPFV-FIN
'I'm drying these wet clothes' (3.179.34)

(3.97) *aŋ* *nen* *lum-eke-n* *lijeʔ=ŋ* *roː-e-tan-a*
1SG this wet-PRF-ITR clothes=1SG dry-INAN.OBJ-IPFV-FIN
'I'm drying these wet clothes' (3.179.34)

Both (3.96) and (3.97) are grammatical and acceptable; however my consultant preferred the participle form over the unmodified form for *lum* 'wet' and *lolo* 'hot'. Another physical property *sapa* 'clean' was better without extra morphology. PHYSICAL PROPERTY lexemes can thus modify an object either in the same way as the class of "Ho adjectives" – with no extra morphology; or in the same way as action concepts – with a participle, see section 3.4.2..

3.4.2. Modification Strategy II: The Participle Construction

The participle construction is used when action concepts modify objects as in the underlined words in (3.98) and (3.99). The form of the participle construction is the verb root with aspect and transitivity suffixes but without the finite suffix *-a*

or any other mood suffix. (Note that this is also the relative clause construction; see chapter VI.)

(3.98) *miyaɖ buru biter en miyaɖ tapaseya-tan risi muni*
one forest inside that one meditate.fast-IPFV hermit hermit
huju?-ye-n-a ae?-ta?
come-PST-ITR-FIN 3SG-PLACE
'then in that jungle one meditating and fasting hermit came to him'

(3.99) *tebul-re em-aka-n gles-re coke kanju-eke-n-a*
table-LOC put-PRF-ITR glass-LOC frog throw.into-PRF-ITR-FIN
'the frog threw himself into the glass which was put onto the table' (3.125.9)

It is also possible for the subject of the modifying action concept to be marked before the participle, as we see in (3.100) for the enclitic subject *=bu*.

(3.100) *baba=bu her-tan musiɲ=do hero? porob*
paddy=1PL.INCL sow-IPFV day=FOC hero festival
'Hero festival is our 'paddy-sowing' day' (201105GTb:42)

The subject of the participle verb is interpreted as the possessor of the object concept which is being modified; in (3.100) *=bu* is grammatically the possessor of *musiɲ*.

We have already seen that lexemes belonging to Dixon's core adjective categories can modify objects with no extra modification and that PHYSICAL PROPERTY lexemes are acceptable as modifiers either underived or in the participle form. The rest of Dixon's adjective categories, including HUMAN PROPENSITY and SPEED, can only modify an object using the participle strategy, as in (3.101) and (3.102).

(3.101) *hasu-eke-n bilae seno?-tan-a*
sick-PRF-ITR cat go-IPFV-FIN
'the sick cat is going' (1.16.5)

(3.102) *ne erel-aka-n ho: huju?-ye-n-a*
this jealous-PRF-ITR man come-PST-ITR-FIN
'this jealous man came' (3.180.43)

The participle construction is the normal modification strategy for action concepts as well as most non-core property concepts.

3.4.3. Modification Strategy III: Genitive Construction

The last modification construction is the genitive construction. When an object concept modifies another object concept, the first must be suffixed with a genitive suffix. When modifying an inanimate object, the genitive suffix on the modifier is *-reya?* as in (3.103) and (3.104), and when modifying an animate object *-ren* (3.105).

(3.103) *kanc-reya?* *boyam-re* *haku* *mena?-i-ya*
glass-GEN jar-LOC fish COP-3SG-FIN
'the fish is in the glass jar' (2.118.31)

(3.104) *ka:ni-reya?* *nutum=do* *ka:ɽob* *ondo?* *raja*
story-GEN name=FOC crab and king
'the story's name is the crab and the king' (20110521SD:3)

(3.105) *ente* *hatu-ren* *munda=ko* *keya-li?-ye*
then village-GEN chief=3PL call-ANT:TR:3SG-FIN
'then they called the village chief' (20081122GPb:17)

The suffix *-reya?* comes from the locative postposition *-re* with the genitive suffix *-a?*. In section 3.3.2.2. we saw that the nominalizing suffix *-teya?* can sometimes reduce to just *-a?*. Similarly, *-reya?* sometimes reduces to *-a?*. In example (3.106) *-a?* attaches directly to *din* 'day', without *-re*.

(3.106) *ayer* *din-e?* *ho:-ko=do* *salpeʈ-ko* *ci* *diku*
before day-GEN person-PL=FOC fertilizer-PL or non-tribal
bodar-leka-n-a?-ko=do *ka=ko* *em-ke-n-a*
fertilizer-like-ITR-GEN-PL=FOC NEG=3PL put-3PFV-ITR-FIN
'previous times' people didn't put fertilizer or non-tribal fertilizer things' (2201105NTPSc:81)

3.4.4. Modification Strategies: Summary

Ho has three strategies for modifying an object concept, as shown in table 3.4. First, a small group of lexemes can modify an object with no extra morphology. These lexemes belong to Dixon's core adjective categories of DIMENSION, AGE, COLOR and VALUE. Non-core property concepts, such as HUMAN PROPENSITY properties, are treated like action concepts and appear in a participle construction in order to modify an object concept. Lexemes denoting PHYSICAL PROPERTY can modify object concepts either in the unmarked construction or the participle construction. Finally, objects that modify other objects use a genitive strategy.

Lexical class	Modification strategy
Objects	*-reya?/-ren* GEN
Properties: "core"	unmarked adjectives
Properties: non-"core"	participle construction
Actions	

TABLE 3.4. Modification constructions in Ho

Modification strategies, like predication and referring strategies, reveal different word classes in Ho. Croft claims that, cross-linguistically, property concepts have the prototypical function of modifying and they are therefore "less marked" in this function. This is indeed what we see in Ho where a small class of property concepts, belonging to Dixon's core class of adjectives, can modify an object with no further modification. We will call these "adjectives" and make the claim Ho has a small adjective class.

3.5. Conclusion

Table 3.5 is a summary of the different coding constructions that are used in Ho to encode the various propositional act functions.

	Reference	Modification	Predication
Objects	unmarked nouns	GEN *-reya?/-ren*	zero strategy
Properties: "core"	*-teya?/-ni?*	unmarked adjectives	*=ge* strategy
Properties: non-"core"		participle forms	unmarked verbs
Actions	*-teya?/-ni?/-nV-*		

TABLE 3.5. Structural coding constructions in Ho

The various coding constructions that we have seen show a pattern predicted by Croft (2001). For each of the propositional act functions of reference, modification and predication, there is a class of lexemes that fulfills each role without any further derivational morphology, demonstrating that Ho does, in fact, have separate and definable classes of nouns, verbs, and adjectives.

Previous researchers have claimed that Mundari (and Ho) does not have definable word classes. In this chapter we have seen that although almost any kind of lexeme can be in the predicate "slot" in Ho, such flexibility is not evident for other functions, e.g., an action cannot appear in referring position without the nominalization suffix.

We have seen that for intransitive predication, action concepts are able to appear with verbal morphology. However, both objects and "core" adjective properties require different coding constructions when they appear in an intransitive predication construction. Non-core properties are treated like actions. Similarly, for reference, objects are unmarked while all properties and actions must take a nominalization suffix *-teya?* or *-ni?*. Action concepts can also be nominalized with the *-nV-* infix.

This chapter presents evidence of a small adjective class in Ho. Certain property concepts, namely those belonging to Dixon's core class of properties (those denoting DIMENSION, AGE, VALUE and COLOR), have different behavioral properties from other property concepts. Most importantly, they can modify an object without any further morphology. In an intransitive predication, they appear with the copular particle *ge*. Non-core property concepts are better treated, based on their behavior, as a subset of the class "verbs".

In the following chapter, we will investigate the various morphemes of the verb in more detail.

CHAPTER IV

THE VERB

Ho verbs are very complex and their component morphemes do not easily fit into a single position class chart. The previous chapter argued that Ho does in fact have a lexical class of verbs. This chapter provides an overview of the morphemes that attach to verb roots when they function as predicates. We will see that the templates for verb structures split into two major construction types; non-past and perfective/perfect. The non-past template (section 4.3.1.) is defined by the ability of various voice and valence suffixes to appear with the imperfective suffix *-tan*. The interpretation of this template can only refer to present or future time, although neither "tense" is explicitly marked in the verb by any one morpheme or paradigm of morphemes. The second template (section 4.3.2.) is defined by several perfective and perfect aspect markers, which frequently have a default past tense interpretation. Munda languages are often described as "aspect-oriented" languages; however, it seems that two morphemes are in the process of grammaticalizing to express past and future tense.

In section 4.1. I briefly overview previous research on the Ho verb. Section 4.2. introduces the verb stem and derivational processes.

4.1. Previous Research (Anderson 2007, 2008)

Although Deeney (2002) reviews and explains the functions of the various morphemes that attach to the Ho verb, the only linguistic work that analyzes the verbal template as a whole is by Anderson (2007, 2008). Anderson divides the tense/aspect markers for all Khewarian languages, including Ho, into two groups: series A (table 4.1) and series B (table 4.2).

	Indef/future	Progressive	Imperfect
Transitive	∅	*-tan*	*-tan taiken*
Intransitive	*-oʔ*/∅	*-tan*	*-tan taiken*

TABLE 4.1. Series A (Anderson 2007:114)

	Past	Anterior	Perfect	Aorist
Transitive	∅	*-le-ɖ*	*-aka-ɖ*	*-ke-ɖ*
Intransitive	*-eya-n*	*-le-n*	*-aka-n*	*-ke-n*

TABLE 4.2. Series B (Anderson 2007:120)

The aspect suffixes in series A mark non-past and imperfective meanings. According to Anderson (2008:113), the resultant constructions related to series A have a "low degree of transitivity and a higher degree of morphologically encodable 'intransitivity' distinctions" than series B constructions. He points out that reflexive, passive and middle can only be marked in series A constructions.

Series B suffixes chiefly express a variety of perfect, perfective and aorist meanings (Anderson 2007:113). Anderson does not give his definitions of 'perfective' or 'aorist'; however we might understand that by perfective he means a view of a situation 'in its entirety' and by aorist he means 'perfective in the past' (Comrie 1976:9). In contrast to series A, Anderson's series B constructions cannot appear with detransitivizing suffixes such as reflexive and middle. Intransitive concepts and reflexives and middles are all covered by the intransitive suffix *-n* in Series B constructions (Anderson 2007:113).

Although Anderson provides a single verb template (table 4.3), he doesn't account (in the template) for the fact that the progressive suffix does not fit. (He does mention this fact in prose however (Anderson 2007:112fn; 2008:223)). The morphemes in parentheses are optional. The verb stem is made up of one or more verb roots plus

an intensifier and a derivational affix, both of which are optional (Anderson 2008:217).

verb stem	+ (Aspect)	+ (trans/intrans)	+ (OBJ)	+ (IND/FIN)	= (Subject)

TABLE 4.3. Anderson's verb template (2008:217)

In this chapter I follow Anderson's split of the tense/aspect markers into non-past and perfective/perfect sets. However, I will include voice/valence and object suffixes as part of the fundamental difference between two verb templates. We now see the grammaticalization of the middle suffix to a future marker and with that, its emerging appearance in the perfective template (section 4.3.3.4.). A past tense copula is grammaticalizing to a more general past tense auxiliary and can appear with both non-past and perfective/perfect templates (section 4.3.3.4.). Given the fact that grammaticalized elements originating in one or the other template can now appear in both templates, it is appropriate to include everything that follows the lexical verb root, including auxiliaries and copulas, in the discussion of the Ho verb.

Before moving on to the Ho verbal templates, we will look at possible verb stems in the following section.

4.2. The Verb Stem

There are three types of complex verb stems. A single verb root can be followed by another verb root in a case of nuclear serialization. There is also a class of adverbial modifiers that can follow a verb root. Finally, two derivational affixes affect the phonological form of the root.

4.2.1. Serial Verbs

First, it is possible to have two or three verb roots serialized together in the stem:

(4.1) *daru-re=ʔ* *nir-deʔ-eya-n-a*
tree-LOC=3SG run-climb-PST-ITR-FIN
'he ran up a tree' (20110210BCa:34)

(4.2) *ente* *samuɖdor=re=ʔ* *iɖ-beʈa-rengaː-kiʔ-ye*
then sea-LOC=3SG take-arrive-absolutely-PFV:3SG-FIN
'then he took him and arrived at the sea' (20110521SD:65)

(4.3) *ako-waʔ* *jaga-ko-te=ko* *nir-ruwe-ya-n-a*
3PL-GEN place-PL-ALL=3PL run-return-PST-ITR-FIN
'they ran back to their places in the jungle' (20081107RCBc:43)

When two verbs are together in this way, neither verb harmonizes with the other, e.g., after the high vowel in *nir* 'run', the mid vowel in *deʔ* 'climb' does not raise. Serial verbs in Ho are discussed in more detail in chapter VI.

4.2.2. Adverbial Modifiers on the Root

In the second type of complex stem, suffixes modify a main verb. I will call these morphemes "adverbial modifiers". Adverbial modifiers include morphemes such as *baː* 'here and there/now and then' (4.4), *tab* 'quickly' (4.5), *noʔ* 'a little', *pure* 'fully', *rengaː* 'absolutely' (4.2) and *sekaː* 'completely'. These adverbial modifiers cannot appear independently as main verbs and their vowels are more prone to harmonization by some speakers (cf. chapter 2).

(4.4) *... senoʔ-wa=liŋ* *ɖiyeŋ-ko* *nuː-beː-keː-te*
... go-FIN=1DU.EXCL rice.beer-PL drink-here&there-PFV.FUT-ALL
'... we go to drink rice beer and stuff' (201105GTb:26-27)

(4.5) *ente* *kaɽa-ko=e?* *sowan-baː-tab-i-ten-e*
then leg-PL=3SG smell-here&there-quickly-3SG-IPFV-FIN
'then he was sniffing quickly around Matu's legs' (20120121RPPa:111)

The causative morpheme *-ici* (and its variant *-iri*) is also a type of modifying suffix. It always follows the main verb root, as we see in (4.6), and cannot occur independently.

(4.6) *aliŋ* *ne-ko* *mai-te-ko* *miyaɽ* *kaːni=liŋ*
1DU.EXCL this-PL girl-ALL-PL one story=1DU.EXCL
ayum-iri-ko-tan-a
hear-CAUS-3PL-IPFV-FIN
'I'm going to let these girls hear a story' (20110521SD:2)

Serial verbs and adverbial modifiers can combine so that up to four semantic morphemes make up a verb stem, as in (4.7), which contains three independent verbs in a case of serialization, plus the modifier *baː*.

(4.7) *en* *hon=do* *en-ta?-re* *dub-ke-n-ete,* *unɽu* *biter-re*
that child=FOC that-place-LOC sit-PFV-ITR-AFTER, hole inside-LOC
koyo?-iyu-nam-baː-i-ten-e
stretch.neck.to.look-shout-get-here&there-3SG-IPFV-FIN
'after that boy sat there, he was stretching his neck and shouting into the hole searching for him' (20081210JT:26)

I have not found any verb stems containing more than four morphemes in my corpus.

4.2.3. Other Derivational Processes on the Root

As well as serialization and adverbial modifiers, there are two derivational processes that affect the phonological form of the verb root itself: the reciprocal infix and reduplication.

First, the reciprocal infix is *-pV-*; the quality of the vowel in the infix is the same as the first vowel in the root. For example,

(4.8) *nel* 'see' *ne<pe>l* 'see<RECP>'

ruː 'beat' *ru<puː>* 'beat<RECP>'

denga 'help' *de<pe>nga* 'help<RECP>'

em 'give' *e<pe>m* 'give<RECP>'

The reciprocal infix is a productive affix and can be added to any verb, as we see in examples (4.9) as well as (4.10) where it is added to every verb root in the sentence.

(4.9) *en-ko=ko* *go<po>nde-tan-a*
that-PL=3PL scold<RECP>-IPFV-FIN
'they're scolding each other' (20120121RPPb:115)

(4.10) *naʔ=kiŋ* *sa<pa>ngar-na<pa>m-tan-a,* *sa<pa>ki-lagiɖ*
now=3DU hunt<RECP>-find<RECP>-IPFV-FIN, name<RECP>-in.order
'they are hunting, looking for each other, in order to name each other' (20081213MSc:74)

The second process is reduplication. A reduplicated verb root is used to indicate a repeated action. In some cases, the entire root is reduplicated, as in (4.11).

(4.11) *soben* *esu* *uɭuʔ-uɭuʔ* *uɭuʔ-uɭuʔ-te=ko* *senoʔ-ye-n-a*
all very think-think think-think-ALL=3PL go-PST-ITR-FIN
'everyone went thinking about it' (20120121RPPb:153)

In most cases of whole-root reduplication in my corpus, the reduplicated root is in an adverbial clause (marked with *-te*) as we see in (4.11).

However, in other cases, only the onset and nucleus vowel of the root are reduplicated, e.g., [sesen], from *sen* 'walk', as in (4.12).

(4.12) *horo=do* *se∼sen-tan-a*
tortoise=FOC REP∼walk-IPFV-FIN
'the tortoise was walking' (20120121RPPa:164)

(4.13) *abu=bu* *seno?-wa* *abu* *jo∼jom-te=ko*
1PL.INCL=1PL.INCL go-FIN 1PL.INCL REP∼eat-ALL=3PL
men-e-tan-a
say-INAN.OBJ-IPFV-FIN
‘“we are going to eat”, they say’

According to Deeney, when a verb root is reduplicated, the first vowel is usually lengthened (2002:69). However, this does not happen regularly. It is not clear what factors lead to the lengthening of some vowels but not others.

In this section we have seen that verb stems can be composed of serialized verb roots and verb roots with modifying adverbs. Additionally, the verb root itself can carry a reciprocal infix or be reduplicated. In section 4.3., we will look at the suffixes that attach to the stem.

4.3. Verbal Morphology

Similarly to Anderson (2007, 2008), I make a broad division of the Ho suffixes into two groups: non-past (Anderson’s Series A) and perfect/perfective (Anderson’s Series B). Table 4.4 shows the suffixes that indicate various imperfective and non-past constructions, while in table 4.5 the suffixes indicate perfect and perfective aspects and tend to refer to past time.

Sub-template 1	stem	*-a* APPL	ANIM.OBJ (PERS/NUM)	*-tan* IPFV	MOOD
		-∅	*-e* INAN.OBJ		
Sub-template 2	stem	*-o?* MID	–		
		-(e)n REFL	–		

TABLE 4.4. Non-past verbal template

I divide the constructions into ‘sub-templates’, which I will discuss in turn in the following sections. Each sub-template is a set of potentially co-occurring suffixes.

Sub-template 3	stem	*-(e)ya* PST.ITR	*-n* ITR		MOOD
Sub-template 4	stem	*-(a)ka* PRF *-le* ANT	*-ɖ* TR	ANIM.OBJ (PERS+NUM) *-∅* INAN.OBJ	
		-ke PFV *-a* APPL	*-n* ITR		
Sub-template 5	stem	*-ta* PNCT	*-ɖ* TR	ANIM.OBJ (PERS+NUM) *-∅* INAN.OBJ	
Sub-template 6	stem	*-leː* FUT.ANT *-keː* FUT.PFV			

TABLE 4.5. Perfect and perfective verbal template

The only set of suffixes that occurs with every verb is the 'mood' suffix at the end. The particular mood suffix will depend on whether the clause is finite, subjunctive, imperative, etc. The mood suffixes are listed and discussed in section 4.3.3..

4.3.1. Non-Past Template: Subtemplates 1 & 2

The non-past template in table 4.4 is divided into two sub-templates. The defining feature of the constructions in table 4.4 is that the imperfective aspect suffix *-tan* can be used in both.

Previous works have labeled *-tan* 'progressive' (Anderson 2007, 2008) or 'present continuous' (Deeney 2002). Here I will label *-tan* 'imperfective'. Following Comrie, I understand imperfective as the view of 'a situation from within' (Comrie 1976:24). Under the umbrella of 'imperfective', Comrie notes that some languages further distinguish habitual, continuous, and progressive aspects. Although *-tan* in Ho can appear with a dynamic verb to suggest progressive aspect (4.14), it also occurs with stative verbs (4.15), as well as habitual events (4.16).

(4.14) *neka-te* *udur-uʈe-ko-tan-a*
like.this-ALL push-get-up-3PL-IPFV-FIN
'[he] is pushing them to get up like this' (20081029RCBb:20)

(4.15) *aliɲ* *juɽi-n-ten=do,* *ape* *cine?* *lolo-pe-tan-a?*
1DU.EXCL friend-REFL-IPFV=FOC, 2PL what hot-2PL-IPFV-FIN
'we are friends, why are you jealous?' (hot=jealous) (20081122GPb:13)

(4.16) *ente* *na?=do* *ale* *paɽaw-tan-a* *imite* *skul=le*
then now=FOC 1PL.EXCL study-IPFV-FIN at.time school=1PL.EXCL
sen-re *mise-mise=le* *late-o?-wa*
walk-LOC once-once=1PL.EXCL late-MID-FIN
'then, now we were studying, at that time when we walked to school, sometimes we were late' (20110413DSP:12)

Example (4.16) is taken from a narrative of a man talking about getting to know and work with Father John Deeney, who was headmaster of St. Xavier's School in Lupungutu for some years. In sentence (4.16), *paɽaw* 'study' is a habitual imperfective, referring to the time that he and his friends were studying in school. Since *-tan* can appear with dynamic events, as well as stative and habitual ones, the wider, more general term 'imperfective' is the most appropriate.

For events in the non-past template, if *-tan* does not appear, the verbs have the sense of immediate time, generic aspect or habitual present time.

4.3.1.1. Subtemplate 1: Transitive and Ditransitive Verbs

The first pattern is for transitive verbs and ditransitives with animate recipients or benefactives.

Transitive verbs. A transitive verb with an animate object can appear both with (4.17), and without (4.18), the imperfective suffix *-tan*.

(4.17) *seta* *dumur-ko=ʔ* *ruku-ko-tan-a*
dog bee-PL=3SG shake-3PL-IPFV-FIN
'the dog is shaking the bees' (20110222MB:24)

(4.18) *canab=do=le* *hanɖor-ko-wa*
after=FOC=1PL.EXCL farewell-3PL-FIN
'after, we farewell them' (20110429JBb:24)

The object suffixes are presented in table 4.6. Except for second and third person singular, the object suffixes have the same form as the subject clitics. Second person singular subjects are marked with *=(e)m*, while objects are marked with *-me*. For third person singular, *-i* is the animate object suffix, while *-e* is the inanimate object suffix (and *=eʔ* marks animate third person subjects).

	Singular	Dual	Plural
1 (inclusive)	*-ɲ/-eɲ/-iɲ*	*-laŋ*	*-bu*
(exclusive)		*-liɲ*	*-le*
2	*-me*	*-ben*	*-pe*
3	*-i/-e*	*-kiŋ*	*-ko*

TABLE 4.6. Object pronouns in Ho

The inanimate object suffix *-e* only appears in the verb when the inanimate object is referential or definite, as shown in (4.19).

(4.19) *daʔ-eːte* *cauli=ɲ* *oʔl-e-tan-a*
water-ABL rice=1SG take.out-INAN.OBJ-IPFV-FIN
'I am taking the rice out of the water' (3.85.7)

If the object in a sentence is non-referential or indefinite, *-e* will not appear in the verb, and the interpretation is more like that of a one argument event verb, as in (4.20).

(4.20) *naʔ* *aeʔ* *ciʈi-ko=eʔ* *ol-tan-a* *toraŋ*
now 3SG letter-PL=3SG write-IPFV-FIN perhaps
'now he is maybe writing letters' (2.148.16)

Sentence (4.20) would be an appropriate response to the question 'what is he doing?', when there is an emphasis on the activity and perhaps 'letter-writing' is seen as a unitary event.

The inanimate object marker *-e* also appears with a small group of verbs which semantically only have one argument, including *nir* 'run', *ra?* 'cry' *iyu* 'shout', *gama* 'rain' and *paiʈi* 'work'.

(4.21) *cẽɽa=ma esu pure? ra?-e-tan-a*
bird=FOC very much cry-INAN.OBJ-IPFV-FIN
'the bird cries very much' (20110210BCb:16)

Definite and referential inanimate objects are only indexed in the verb in non-past constructions. With perfective aspect markers, *-e* does not appear. The relationship between the inanimate object suffix, perfective aspect, past tense and transitivity is explored in more depth in chapter V.

Ditransitive Verbs and the Applicative Suffix. If the verb is ditransitive and the semantic recipient/benefactive is animate, the applicative suffix *-a* follows the verb root and there is also an object suffix which indexes that recipient/benefactive. As we saw with the transitive verbs with an animate object, the applicative suffix can appear both with (4.22), and without (4.23), *-tan*:

(4.22) *jaːn benagaː=ge=?* *em-no?-a-ko-tan-a*
any eggplant=EMPH=3SG give-little-APPL-3PL-IPFV-FIN
'he is giving them a little eggplant' (20081107RCBc:28)

(4.23) *ne-ko=do cikna? em-a-ko-wa mendo?*
this-PL=FOC what give-APPL-3PL-FIN but
'but what do I give them?' (20081029RCBb:25)

The applicative suffix can appear with a variety of roots when an action is done for the benefit of some animate entity, as we see in sentences (4.24)-(4.26).

(4.24) *diyeŋ-ko=le* *go:e?-a-ko-wa*
rice.beer-PL=1PL.EXCL ladle.out-APPL-3PL-FIN
'we ladle out the rice beer for them' (20110429JBb:26)

(4.25) *anthropology=do* *angrezi-te* *explain-a-i-tan-taikena*
anthropologist=FOC English-ALL explain-APPL-3SG-IPFV-PST
'[he] was explaining to the anthropologist in English' (20110413DSP:64)

(4.26) *aʈ* *nau* *baje=do* *basiyem=ko* *iɖi-ye-liŋ-e*
eight nine hour=FOC breakfast=3PL take-APPL-1DU.EXCL-FIN
'at eight or nine o'clock they bring us breakfast' (201105GTb:14)

As we see in example (4.26), the applicative suffix harmonizes to *-(y)e* after a root containing a high vowel.

The applicative suffix can also be used with some experience verbs, e.g., *boro* 'fear', *hila* 'hate', *suku* 'like' if the stimulus argument is animate. In this instance, an object suffix referencing the feared (or hated, or loved) animate object follows the applicative *-a* (cf. chapter V; although many experience verbs insert the stimulus with *-a*, they can also use *-te* for the same purpose).

(4.27) *aŋ* *biŋ=eŋ* *boro-a-i-ye*
1SG snake=1SG fear-APPL-3SG-FIN
'I'm afraid of the snake' (1.189.3)

The applicative suffix must also appear after *dai* 'be able to' if there is an object of the main verb. When the object is animate, the person/number suffix follows, as in (4.28). When the object is inanimate, only the applicative marker appears, and there is no overt inanimate object suffix, as in (4.29).

(4.28) *ka=e?* *hardu?-dai-ye-kiŋ-ten-e*
NEG=3SG save-be.able.to-APPL-3DU-IPFV-FIN
'he isn't able to save them two' (20120121RPPa:57)

(4.29) *ka=e?* *ta:ui?-dai-ye-ten-e*
NEG=3SG pull-be.able.to-APPL-IPFV-FIN
'he wasn't able to pull it' (20120121RPPa:23)

With an intransitive main verb, the applicative *-a* does not appear:

(4.30) *minḍo* *hon* *esu* *saniŋ=e?* *ui?-dai-ye*
one boy very far=3SG jump-able.to-FIN
'a boy can jump very far' (3.41.3)

The applicative suffix *-a* is thus used with ditransitive verbs when an animate benefactive or recipient appears in the object slot; with some experience verbs when the stimulus is animate; and with *dai* 'be able to' when it modifies a transitive verb. In section 4.3.2.2., we will see a fourth use of the applicative suffix: to talk about past experiences.

4.3.1.2. Subtemplate 2: Middles and Reflexives

The second subconstruction of the non-past template includes verbs with the middle suffix as well as reflexives. As with sub-template one, all of these suffixes can appear with the imperfective suffix *-tan*. In this template, with or without *-tan*, they refer to generic time, present or future. Neither middles nor reflexives can appear with an object suffix.

Middles. Perhaps because of sentences such as (4.31) – where the theme argument of a transitive verb appears as subject and the agent is absent – *-o?* has previously been treated as a passive suffix in Ho and the other North Munda languages (e.g., Deeney 2002:15; Osada 2008:130[1]).

[1]Ghosh, in his analysis of Santali, does label the Santali cognate *ok'* middle and passive. However, *ok'* is one of several middle suffixes he claims Santali has (Ghosh 2008:58). It seems that Ghosh uses a different definition for the term "middle" from that used here.

(4.31) *ka=eʔ* *riːɲ-oʔ-wa*
NEG=3SG forget-MID-FIN
'he won't be forgotten' (20110413DSP:170)

In this section we will look at examples of the *-oʔ* suffix and see that, although some uses can be described as passive-like, the label "middle" encompasses more functions of this suffix and is thus more appropriate.

First, let us consider what kind of events might be treated as 'middle', cross-linguistically. Here I follow Kemmer (1993)'s analysis of middle voice. Kemmer builds on a previous definition that the middle voice "indicates that the 'action' is being carried out by the subject for his own benefit or in his own interests" (Lyons 1968:373). Middle events are semantically intermediate between one and two participant events. For Kemmer, the various functions of the middle are united under the parameter of "low degree of elaboration of events" (1993:238). One type of event with a low degree of elaboration is one in which the initiator of the event is also the affected entity (the endpoint). It is this feature of middle that makes the event less transitive than an event with two completely distinct entities. The middle suffix *-oʔ* in Ho attaches to spontaneous events, some bodily functions and two translational motion verbs, all of which are event types which Kemmer includes as middle situations. In chapter V we will see that it is also used with experience verbs.

In sentence (4.32), we see *-oʔ* used with an spontaneous event. The speaker is talking about the process after birth when the umbilical cord falls offs.

(4.32) *oɽa-oɽa-te=ge* *ena* *suwae-te* *gasar-oʔ-wa*
bathe-bathe-ALL=EMPH that slow-ALL fall.out-MID-FIN
'with bathing, that will slowly fall out' (20081208MSa:183)

Spontaneous events constitute the most common use of the middle suffix in Ho. In Kemmer's terms, spontaneous events are often treated as middle because "they are

low in elaboration of events" (Kemmer 1993:145). In this case, only one potential participant in the situation is realized in the sentence, the affected entity or patient. The event is perceived as occurring without initiation from a human agent (Kemmer 1993:142). In sentence (4.33) *ser* 'melt' is used transitively, with a human agent, and the inanimate object is indexed in the verb. In sentence (4.34) *ser* appears with the middle marker and the event is perceived as spontaneous and without a human agent.

(4.33) *Dobro aril=e? ser-e-tan-a*
Dobro ice=3SG melt-INAN.OBJ-IMPFV-FIN
'Dobro is melting the ice' (1.59.28)

(4.34) *gotom ser-o?-tan-a*
ghee melt-MID-IPFV-FIN
'the ghee is melting' (1.101.4)

As well as transitive roots, stative verb roots, which normally have intransitive semantics, can appear with middle marking.[2]

(4.35) *hora muli-ya*
road straight-FIN
'the road is straight' (1.20.27)

(4.36) *hora muli-u?-wa*
road straight-MID-FIN
'the road will be straight' (1.21.29)

In examples such as (4.36), the middle suffix gives an inchoative or 'becoming' sense.

Related to the semantic domain of spontaneous events are those that occur without a specific patient at all, such as those with *hoba* 'happen' (Kemmer 1993:146).

[2]It is of course, possible to give most intransitive verbs a transitive reading with the right morphology, as discussed in chapter III. If a verb has 'intransitive semantics', it simply means that the most frequent or default interpretation for that verb is with a single argument.

In Ho, *hoba* 'happen' always appears with the middle marker when it refers to non-past times.

(4.37) *en-leka ale disum-re aːndi a<pa>ːndi hoba-oʔ-wa*
that-like 1PL.EXCL world-LOC marry marry<RECP> happen-MID-FIN
'weddings happen like that in our society' (20110429JBb:63)

(4.38) *en=do haːto=do okon-taʔ-re hoba-oʔ-wa*
that=FOC market=FOC what-PLACE-LOC happen-MID-FIN
'then where does the market happen?' (20110429JoBa:44)

The middle suffix is used with some natural body processes, as we see in sentence (4.39).

(4.39) *naʔ Damu caːb-oʔ-tan-a*
now Damu yawn-MID-IPFV-FIN
'now Damu is yawning' (2.189.22)

Other bodily functions that always take the middle when referring to non-past time include *kaːe* 'expectorate', *balbal* 'sweat', *ɖakar* 'burp', *ule* 'vomit' and *moː* 'swell'.

The last group of Ho verbs that take the middle suffix are two that denote translational motion. Translational motion denotes "motion of an animate entity under its own power through space" (Kemmer 1993:56; cf. Talmy 1985). Translational motion verbs in Ho that take the middle suffix include just *beʈa-oʔ* 'arrive' and *sen-oʔ* 'go, go away'.

(4.40) *bar siŋ enaŋ canab=eʔ beʈa-oʔ-tan-a*
two day precisely after=3SG reach-MID-IPFV-FIN
'after exactly two days, he arrived' (200110429JoBb:81)

As we will see in section 4.3.1.2. below, several other motion verbs in Ho take the reflexive suffix.

Kemmer suggests that all middle-marking languages have a class of verbs that do not have unmarked counterparts (Kemmer 1993:22). Such 'deponent' verbs only occur with the middle suffix and do not have an unmarked equivalent. In Ho, since middle marking only occurs with verbs in non-past tense, *-o?* never occurs with perfective aspects and past tense. Therefore, in general, deponent verbs are impossible. There are two exceptions however. First, the verb *sen-o?* 'go away' from *sen* 'walk' always appears in the middle marked form, even with a past tense suffix, as in (4.41).

(4.41) *haku* *bãsi=ko* *sen-o?-ye-n-a*
fish to.fish=3PL walk-MID-PST-ITR-FIN
'they went fishing' (20120121RPPa:9)

Second, *huju?* 'come' is likely a deponent middle whose original root form is no longer found in Ho (but see Santali *hɛc* 'come'). We might conclude that Ho has a class containing only two deponent verbs at this time.

In this section, we have seen that the domain of *-o?* in Ho covers spontaneous events, as well as some bodily processes, a change of state without a specific patient (*hoba* 'happen') and some motion verbs.

Reflexives. Closely related to the middle is the reflexive construction. In a reflexive clause, the subject and object of the event are co-referent, in other words, the subject acts upon itself (Givón 2001b:95). In Ho, the reflexive suffix appears as expected when a subject acts on him/herself. However, as we will see, it also occurs with a group of motion verbs as well as other verbs which have middle semantics.

The reflexive suffix in Ho is *-(e)n*. (The *e* appears when the verb root ends in a consonant.) Like the middle suffix *o?*, it only occurs with non-past tenses. Neither the middle nor the reflexive can co-occur with any of the aspect markers except for

the imperfective *-tan*. *-(E)n* always appears directly following the verb root, as in sentence (4.42) and (4.43).

(4.42) *ae?* *goe?-en-tan-a*
3SG kill/die-REFL-IPFV-FIN
's/he is killing her/himself' (3.69.3)

(4.43) *ini?* *arsi-re=?* *nel-en-tan-a*
3SG.ANIM mirror-LOC=3SG see-REFL-IPFV-FIN
's/he is looking at her/himself in the mirror' (3.132.3)

As we see in examples (4.42) and (4.43), the reflexive suffix can be used productively with verbs that normally have transitive semantics when a subject is doing an action to her/himself. Additionally, as in many languages, the reflexive in Ho is used with some verbs of grooming:

(4.44) *Damu* *oɽa-n-tan-a=e?*
Damu bathe-REFL-IPFV-FIN=3SG
'Damu is bathing' (2.207.32)

(4.45) *Jema* *bo?* *bale* *naki?-n-ten-e*
Jema head hair comb-REFL-IPFV-FIN
'Jema is combing her hair' (2.208.50)

The reflexive use extends to situations where the semantic object is in fact a body part of the subject. Even when the body part occurs in the sentence and is the semantic object, we still see the reflexive, as in (4.45) above and (4.46).

(4.46) *Damu* *rumel-te* *muɽe* *joɖ-en-tan-a*
Damu handkerchief-ALL nose wipe-REFL-IPFV-FIN
'Damu is wiping his nose with his handkerchief' (2.193.54)

As well as grooming verbs, there is also a group of body action verbs in Ho which must take the reflexive suffix. These can be divided into verbs which denote a change in body posture, including *unguḍ* 'bend down', *tenḍer* 'lean', *iku:m* 'kneel' and *uṭe* 'get up' and *tingu* 'stand'; those which denote nontranslational motions, e.g., *dir* 'stretch' and *biyur* 'turn around' and translational motions, e.g., *uiʔ* 'jump', *ombaʔ* 'crawl', *apir* 'fly', and *oyar* 'swim'.

(4.47) *aliɲ* *jawge* *daʔ-re=liɲ* *uiʔ-n-e*
1DU.EXCL always water-LOC=1DU.EXCL jump-REFL-FIN
'we two always jump into the water' (3.141.5)

(4.48) *naʔ* *Dobro* *oyar-en-tan-a*
now Dobro swim-REFL-IPFV-FIN
'now Dobro is swimming' (1.39.1)

In chapter III we saw that the predicate in Ho is extremely flexible, in the sense that nearly any kind of root can function as a verb. This flexibility is also evident with the reflexive construction. The reflexive suffix can be used with many items of clothing to give the sense of 'putting something on':

(4.49) *aɲ* *casoma-n-tan-a=ɲ*
1SG glasses-REFL-IPFV-FIN=1SG
'I'm putting on my glasses' (3.115.1)

(4.50) *aɲ* *hisir-en-tan-e=ɲ*
1SG necklace-REFL-IPFV-FIN=1SG
'I'm putting on the necklace' (3.116.9)

Note that counterparts to sentences like (4.49) and (4.50) are also grammatical with *tusiɲ* 'wear, put on' and the reflexive suffix:

(4.51) *aɲ* *casoma=ɲ* *tusiɲ-en-tan-a*
1SG glasses=1SG put.on-REFL-IPFV-FIN
'I'm putting on the glasses' (3.116.7)

The reflexive in Ho is formally different from the middle suffix *-oʔ* (cf. section 4.3.1.2.). Ho has a "two-form non-cognate system" in Kemmer's terms (1993:25). However, there is some overlap in function. In my corpus, there are several examples of spontaneous events which take the reflexive suffix.

(4.52) *en* *sakam=do* *aeʔ-te=ge* *uri-en-a,* *ocoʔ-n-a*
that leaf=FOC 3SG-ALL=EMPH peel.skin-REFL-FIN husk-REFL-FIN
'the leaves lift up by themselves, they detach' (20081107:NB:36-37)

(4.53) *en* *buʈi=do* *canab=do* *aeʔ-te=ge* *gasar-en-a*
that navel=FOC after=FOC 3SG-ALL=EMPH fall.out-REFL-FIN
'that navel, after it falls out automatically' (20081208MSa:179)

All of these verbs appear with the middle suffix *-oʔ* as well as the reflexive suffix. Sentence (4.53) is spoken by the same speaker who later produced sentence (4.32) above (section 4.3.1.2.). It seems that while the middle suffix is more common for spontaneous events, the reflexive is also possible.

In many languages, reflexive suffixes are often used with reciprocal events. In section 4.2.3., we saw that Ho has a productive reciprocal infix *-pV-*. It is also sometimes possible to use the reflexive *-(e)n* for a reciprocal event, as we see in (4.54).

(4.54) *Dobro* *ondoʔ* *Soba=kiɲ* *aːndi-n-e=kiɲ*
Dobro and Soba=3DU marry-REFL-FIN=3DU
'Dobro and Soba will marry each other' (1.197.13)

Note that the reciprocal form *apaːndi* is more frequent in my corpus for the reciprocal sense of 'marry'. The use of reflexives for reciprocal events, although possible, must be seen as a marginal construction in Ho.

As mentioned in chapter II on morphophonology, the reflexive morpheme *-en* stops harmony, i.e., it doesn't harmonize itself (to **-in*) after a high vowel, and

whatever follows *-(e)n* doesn't harmonize because of any high vowel in the root. This is evident in (4.55) and (4.56) where we see a verb root containing two high vowels *biyur* 'turn' and the reflexive *-en* does not harmonize.

(4.55) *Jema biyur-en-tan-a*
Jema turn-REFL-IPFV-FIN
'Jema is turning around' (3.140.2)

(4.56) *Jema biyur-en-a*
Jema turn-REFL-FIN
'Jema turns around'

The reflexive suffix only appears in non-past time. When a reflexive situation is in past time, the intransitive and perfective *-ke-n-a* or *-le-n-a* appears (4.57).

(4.57) *Jema biyur-ke-n-a*
Jema turn-PFV-ITR-FIN
'Jema turned around'

Despite the fact that the intransitive suffix *-n* (see section 4.3.2.2.) and the reflexive *-(e)n* have nearly the same form, they are different morphemes. The intransitive suffix *-n* follows an aspect suffix and appears with many types of intransitive verbs, not just those with reflexive semantics.

Kemmer (1993) shows that in many languages the middle and the reflexive are often closely related formally. Due to the fact that both mark morphosyntactic intransitivity, they also appear in functionally similar constructions. We have seen in this section that Ho, with its so-called "two-form non-cognate system", has distinct reflexive and middle suffixes with mostly distinct uses.

4.3.2. Perfective and Perfect Template: Subtemplates 3-6

We now turn to constructions used to express perfective and perfect aspect. The perfective and perfect aspect suffixes are often used when referring to past time and they have a default past tense interpretation. There is only one explicit tense marker -*eya*, which marks past tense on intransitive verbs only (section 4.3.2.1.). The perfective/perfect aspect suffixes cannot co-occur with the voice/valence-changing suffixes in table 4.4, i.e., none of the voice/valence-changing categories occur when referring to past time. However, the applicative suffix -*a* and the animate object suffixes (but not the inanimate object suffix -*e*) can appear in these construction types, and are the only suffixes that appear in both paradigms.

One of the most interesting features of the perfective and perfect templates is the transitivity suffixes which register whether the clause is transitive or intransitive. Transitivity is only registered in these templates, not with non-past tenses. In chapter V we look more closely at the relationship between transitivity, tense and aspect and I suggest that the transitive suffix may be re-grammaticalizing to a past tense suffix.

4.3.2.1. Subtemplate 3: Past Intransitive

-*Eya* is the suffix for the past tense of intransitive verbs. It always appears with the intransitive suffix -*n* and does not combine with any other voice/valence markers or aspects. I will simply label it 'past'.

(4.58) *hola* *ce* *baje* *uʈe-ye-n-a=ɲ*
yesterday six hour get.up-PST-ITR-FIN=1SG
'yesterday I got up at six o'clock' (20110221MB:1)

(4.59) *aliŋ-e?* *paiʈi=do* *cansath* *bad-re* *ete?-ya-n-a*
1DU.EXCL-GEN work=FOC sixty.four after-LOC begin-PST-ITR-FIN
'our work started after (19)64' (20110413DSP:40)

(4.60) *canab=do nen dudelum-ko misite=ko apir-eya-n-a*
after=FOC this pigeon-PL together=3PL fly-PST-ITR-FIN
'then these pigeons flew together' (20081107AB:24)

Note that neither *uṭe* 'get up' (4.58) nor *apir* 'fly' (4.60) has the reflexive suffix that they must have in non-past tenses (cf. section 4.3.1.2.).

There is no transitive counterpart **-eya-ḍ* of *-eya-n* in Ho; *-eya* only appears with the intransitive suffix *-n*. Mundari does have a transitive/intransitive cognate pair for *-eya*. Osada labels the Mundari suffix *-ja* (cognate with Ho *-eya*) 'ingressive' (2008:126-7).

-Eya seems to be used with past intransitive events that might be charaterized as "achievements" in the sense of Vendler (1967). In my corpus, it is used with verbs that tend to have an inherent endpoint, such as *goeʔ* 'die', *hujuʔ* 'come', *rapuḍ* 'break', *beṭa* 'arrive' *bolo* 'enter', *pase* 'become trapped' and *hoba* 'happen'.

There are other ways to imply past time with an intransitive verb, i.e., with the perfectives *-ke-n-a* and *-le-n-a* and perfect *-aka-n-a* (see section 4.3.2.2. below). The perfective and perfect suffixes tend to be used with events that are more durative "activities" in the sense of Vendler. For example, *sangar* 'hunt' (4.61) has no inherent beginning or endpoint.

(4.61) *ente sangar-oː=ko sangar-ke-n-a*
then hunt-also=3PL hunt-PFV-ITR-FIN
'then they also went hunting' (201105NTPSc:11)

(4.62) *hoː hude-re munu somay-re cilke=ko jom-ke-n-aʔ*
Ho society-LOC original time-LOC how=3PL eat-PFV-ITR-FIN
'in Ho society, in the old days, how did they eat?' (201105SL:2)

In both examples (4.61) and (4.62), two different speakers are talking about previous times and how the Hos lived then. The activities they refer to of eating and hunting

occurred over a longer period of time and the start and finish time to either activity is not relevant. Other verbs that appeared with *ke-n-a* in my corpus include: *susun* 'dance', *kõe* 'beg', *giti?* 'sleep', *jagar* 'talk', *inuŋ* 'play', and *oyar* 'swim'.

4.3.2.2. Subtemplate 4: Perfect and Perfective

The fourth subtemplate of table 4.5 includes two perfective suffixes *-ke* and *-le*, as well as the perfect suffix *-aka* and the applicative suffix *-a*. All three suffixes can appear with either the transitive suffix *-ḍ* or the intransitive suffix *-n*. An animate object suffix follows the transitive marker *-ḍ* where applicable. Inanimate objects are not indexed in the perfect/perfective domain by any morpheme. The perfective/perfect template has a default past tense interpretation.

The Transitivity Suffixes. Ho has two suffixes that register the transitivity of a given clause; *-ḍ* for transitive clauses and *-n* for intransitive clauses. Transitivity is only registered with the aspect suffixes, i.e., we do not see either suffix in the non-past constructions of sections 4.3.1. and 4.3.1.2. In the following sections, we will see examples of both intransitive with *-n* and transitive clauses with *-ḍ*.

***-ke* and *-le*.** The perfective suffix *-ke* is used to indicate that an event is complete or that it should be viewed in its entirety. The anterior *-le* indicates that an action occurred previous to another. With both *-ke* and *-le*, there is a default past tense interpretation.

In the sentences below we see *-ke* in an intransitive clause (4.63), and in a transitive clause with an animate object (4.64).[3]

[3]In chapter V we will see that inanimate objects are not marked in the verb when they are indefinite or non-referential, making sentences like (4.63) seem more like intransitive clauses.

(4.63) *hola* *ini?* *ba:-ko=e?* *akariɲ-ke-n-a*
yesterday 3SG flower-PL=3SG sell-PFV-ITR-FIN
'yesterday she sold flowers' (1.12.25)

(4.64) *hola* *Dobro* *hati-ko=e?* *toɽe-ke-ɖ-ko-wa*
yesterday Dobro elephant-PL=3SG shoot-PFV-TR-3PL-FIN
'yesterday Dobro shot the elephants' (1.58.23)

As we see in sentence (4.65), the anterior suffix *-le* is used to indicate that an event occurred before another event or at some point previous to the main action.

(4.65) *en* *canab=do* *kolej-pa:-e:te=liɲ* *huju?-**le**-n-e:te*
that after=FOC college-place-ABL=1DU.EXCL come-ANT-ITR-ABL
ae?-lo?=ge *ando?=liɲ* *be<pe>ʈa-ure-ye-n-a*
3SG-WITH=EMPH again=1DU.EXCL meet<RECIP>-again-PST-ITR-FIN
'after I came from college, I met up with him again' (20110413DSP:109)[4]

In sentence (4.66) we see *-le* with an inanimate object. The inanimate object is not indexed in the verb; there is only the transitive suffix *-ɖ*.

(4.66) *esu* *pure?* *en* *gaɽa* *parom-re* *tayer-ko=e?*
very much that river across-LOC cucumber-PL=3SG
rowa-le-ɖ-a
transplant-ANT-TR-FIN
'he had transplanted the cucumbers across the river' (20081108AB:5)

-aka. The next suffix we will look at is the perfect suffix *-aka*, which is used for a situation that started previously but still holds. Example (4.67) shows a transitive verb with an inanimate object with *-aka*.

(4.67) *ni* *horo=do* *en* *bãsi=do* *sab-aka-ɖ-a* *a:-re*
this tortoise=FOC that fishing.pole=FOC hold-PRF-TR-FIN mouth-LOC
'this tortoise has been holding that fishing pole in his mouth'
(20120121RPPa:170)

[4]Note that *-liɲ* '1DU.EXCL' is often used to refer to first person singular as an expression of politeness.

Example (4.68) shows *-aka* with an animate object suffix after the transitivity suffix.

(4.68) *hoɽoʔ-re=ko* *limbuɖ-aka-ɖ-iɲ-e*
neck-LOC=3PL strangle-PRF-TR-1SG-FIN
'they have strangled me in the neck' (20110521SD:42)

The perfect aspect suffix also appears with the intransitive suffix *-n*, as in (4.69).

(4.69) *cẽɽe=ma* *pase-aka-n-a*
bird=FOC trap-PRF-ITR-FIN
'the bird has been trapped' (20110210BCb:26)

The combination of *-aka-n-a* is very common with stative roots when referring to present tense states:

(4.70) *uli* *soya-aka-n-a*
mango rotten-PRF-ITR-FIN
'the mango is rotten' (1.101.2)

(4.71) *lijeʔ* *moyla-aka-n-a*
clothes dirty-PRF-ITR-FIN
'the clothes are dirty' (1.107.45)

Verbs with the perfect suffix can therefore refer to past or present time; the key point is that such a verb references a situation which started or happened earlier and which still holds at a certain moment, either the present or a reference point in the past in which the story takes place. It therefore does not have the default past tense reading that the two perfective suffixes have.

-a. The applicative suffix *-a* might seem like an odd member of subtemplate four, which otherwise contains just aspect suffixes. However, it belongs in subtemplate four because of its position in the verb; it does not co-occur with any of the perfective or perfect suffixes. In section 4.3.1.1., we saw that *-a* 'applicative' appears in the non-past template when an animate recipient or benefactive argument is indexed in the

verb. In this section, we will see that when *-a* occurs with the transitive suffix *-ɖ* and a recipient or benefactive object suffix, there is a default past tense interpretation. In addition, there are other, extended senses of the applicative, also with the intransitive suffix *-n*.

First, as we saw in section 4.3.1.1., the basic use of the applicative with the transitive suffix is to index an animate recipient or beneficiary argument. The applicative suffix *-a* follows the verb and precedes an object suffix indexing the beneficiary or recipient. The resulting form is given a past tense sense with the transitive suffix *-ɖ*, as in (4.72) and (4.73): none of the perfect/perfective suffixes can co-occur with the applicative, but the combination of applicative and transitive suffix gives a default past tense interpretation.

(4.72) *jokoe?* *jokoe?* *coːe?-a-ɖ-ko-eːte=?*
very.small very.small break.off.piece-APPL-TR-3PL-ABL=3SG
em-a-ɖ-ko-re=do=ko *jom-baː-ke-ɖ-a*
give-APPL-TR-3PL-LOC=FOC=3PL eat-here&there-PFV-TR-FIN
'after he broke off a very small piece for them, when he gave it to them, they ate it' (20081107RCBc:36)

(4.73) *Dobro* *nama* *owa?* *aya?* *kowa hon-ko-ke* *kiriŋ-e-ɖ-ko-wa*
Dobro new house 3SG:GEN boy child-PL-ACC buy-APPL-TR-3PL-FIN
'Dobro bought a new house for his sons' (1.203.2)

In sentences such as (4.72) and (4.73), the function of *-a* is the same as it is in non-past constructions; that is, to bring an animate recipient or benefactor into the object position in the verb.

In section 4.3.1.1. above, we saw that in the non-past template, the applicative suffix is also used with *dai* 'be able to', as well as some experience verbs. *Dai* 'be able to' can occur with the transitive suffix *ɖ* to give a past tense interpretation, as in (4.74).

(4.74) *ente musiŋ din raja ako-waʔ rengeʔ-ko lel-ke-ɖ-te*
then one.day day king 3PL-GEN hunger-PL see-PFV-TR-ALL
ka=eʔ saːtiŋ-dai-ye-ɖ-e
NEG=3SG endure-be.able.to-APPL-TR-FIN
'then one day, when the king saw their hunger, he couldn't endure it'
(20110521SD:9)

The applicative-plus-transitive construction also appears with experience verbs as it did in the non-past template:

(4.75) *Birsiŋ=ge suku-we-ɖ-e=ʔ*
Birsing=EMPH like-APPL-TR-FIN=3SG
'he liked [the name] Birsing' (20081213MSc:76)

In the perfective/past template, with the transitivity suffixes *-a* has three extended functions. First, the applicative-plus-transitive construction is used to talk about past experiences, as in examples (4.76) and (4.77).

(4.76) *aŋ Taj Mahal nel-a-ɖ-a*
1SG Taj Mahal see-APPL-TR-FIN
'I've seen the Taj Mahal' (2.13.29)

(4.77) *aŋ nen kiteb=eŋ paɽaw-a-ɖ-a*
1SG this book=1SG read-APPL-TR-FIN
'I've read this book' (1.20.6)

Examples (4.76) and (4.77) are both elicited sentences. The applicative-plus-transitive construction was most natural for speakers when they were talking about what they had and had not done in their lives. However, in texts, there are examples such as (4.78) and (4.79) which are not as obviously experiential.

(4.78) *niː=do naʔ=do sakam=eʔ nel-a-ɖ-re=do,*
this.ANIM=FOC now=FOC leaf=3SG see-APPL-TR-LOC=FOC,
Jompa=do heʔ-tab-e-tan=geda
Jompa=FOC pluck-quickly-INAN.OBJ-IPFV=EMPH
'when she saw leaves, Jompa quickly plucked them' (201105PSa:91)

(4.79) *en-ko-waʔ* *jagar=ben* *ayum-e-ɖ-eʔ*
that-PL-GEN speak=2DU hear-APPL-TR-FIN
'did you hear their speaking?' (201105PSa:79)

The applicative-plus-transitive construction seems common with *nel* 'see'. According to Deeney it is especially used with *nel* and also *ayum* 'hear' (Deeney 2002:52).

In all of the applicative-plus-transitive constructions thus far, the main verb is transitive with an inanimate object only. The applicative suffix can also occur with intransitive verbs and the intransitive suffix *-n*, most commonly with *ada* 'know', as in (4.80).

(4.80) *Dobro* *ada-a-n-a* *ci* *am* *gapa=m* *hujuʔ-we*
Dobro know-APPL-ITR-FIN COMP 2SG tomorrow=2SG come-FIN
'Dobro knows that you are coming tomorrow' (2.179.18)

Note that sentences such as (4.80) do not have a past time sense.

The applicative-plus-intransitive construction is used for some inalienable possession:

(4.81) *Dobro* *areya=ge* *ganɖa-a-n-a*
Dobro nine=EMPH finger-APPL-ITR-FIN
'Dobro has nine fingers/is nine-fingered' (1.206.27)

(4.82) *aeʔ* *maraŋ=ge* *meɖ-a-n-a*
3SG big=EMPH eye-APPL-ITR-FIN
'he has big eyes' (2.9.5)

In elicitation, it is possible to make a sentence using the applicative-plus-intransitive construction for inalienable type possession as in (4.83); however speakers judge it not very natural.

(4.83) *ʔako* *nama* *jota-a-n-a=ko*
3PL new shoe-APPL-ITR-FIN=3PL
'they have new shoes' (2.12.23)

It is difficult to see a connection between the various functions of the applicative construction. If the primary function of an applicative is transitivizing, its use with the intransitive suffix *-n* is puzzling. It is possible that, rather than the intransitive suffix, *-n* could be the reflexive suffix *-(e)n*. In either case, the applicative-plus-reflexive/intransitive is possibly an old, now-lexicalized construction that does not lend itself to synchronic analysis.

4.3.2.3. Subtemplate 5: Punctual

The fifth subtemplate consists of a single aspect marker *-ta*, which only appears with the transitive suffix *-ɖ*, and not with the intransitive suffix *-n*.[5]

(4.84) *seta=do en kãc botol-re bo:ʔ=do=eʔ ader-ta-ɖ-a*
dog=FOC that glass bottle-LOC head=FOC=3SG bring.in-PNCT-TR-FIN
'the dog put his head in that glass bottle' (20110525RPP:21)

(4.85) *ente en ako nutum-ta-ɖ-iɲ-e Mucia=ge*
then that 3PL name-PNCT-TR-1SG-FIN Mucia=EMPH
'then they named me Mucia' (20081208MSa:4)[6]

As we see in examples (4.84) and (4.85), *-ta* suggests a perfective aspect for actions done all at once, i.e., punctually. Deeney calls it the 'effective aspect marker' (2002:48). I will call it 'punctual'.

[5]Note, however, that *-ta* plus the intransitive suffix *-n* is the probable source for the imperfective aspect marker *-tan*.

[6]In this example, the *-ta* does not harmonize to [-te], which normally happens after a high vowel in the root.

4.3.2.4. Subtemplate 6: Future

Subtemplate 6 in the verbal template includes two long versions of aspect markers we saw in section 4.3.2.2., *-keː* and *-leː*. They are treated in a separate template here because they do not appear with either of the transitivity suffixes.

Deeney claims that these long suffixes mark future tense (2002:40). However, they are also used to indicate transitive actions done habitually.

Both *-keː* and *-leː* occurr most frequently in the procedural texts about how to make things or how various festivals happen (i.e., for non-past, generic events). They do not tend to appear in the folk tales and other narratives. Most frequently, *-keː* is in a dependent clause, usually followed by *-te*, the allative marker (see section 4.3.3.). Sentences such as (4.86) and (4.87) are typical.

(4.86) *aːʔ=ko* *roː-keː-te=ko,* *lupuʔ-i-ye*
leaf.vegetable=3PL dry-PFV.FUT-ALL=3PL powder-INAN.OBJ-FIN
'after they dry out the vegetables, they powder them' (201105NTPSc:25)

(4.87) *sasaŋ=ko* *buluŋ=ko* *em-keː-te,* *daʔ-te=ge=ko*
turmeric=3PL salt=3PL put-PFV.FUT-ALL, water-ALL=EMPH=3PL
tiki-i-ye
boil-INAN.OBJ-FIN
'after they put in salt and turmeric, they boil it in water' (201105NTPSb:24)

The speaker in sentence (4.86) is describing a preserving process done by people who lived in the jungle. The text is about about how Ho people traditionally cooked and ate. In sentence (4.87), the speaker is giving instructions on making *leʈo*, a special chicken and rice dish.

In my data, *-keː* only appears with transitive verbs and inanimate objects. There are no examples of *-keː* with an animate object. All of the examples are like (4.86) and (4.87), with an inanimate object that is not indexed in the verb.

In this regard, *-leː* is somewhat more flexible. *-Leː* does occur with an animate object, as in the first verb in example (4.88).

(4.88) *en-ko=ɲ* *jom-leː-ko-wa,* *joka=ɲ*
that-PL=1SG eat-ANT.FUT-3PL-FIN, little=1SG
jom-peːʔ-leː-n-oʔ-wa
eat-strong-ANT.FUT-ITR-MID-FIN
'after I eat them, I will become a little stronger' (20110524RPP:37)

Although both *-keː* and *-leː* appear with transitive roots, neither appears with the transitive suffix *-ɖ*, lending support to the notion that the transitive suffix only appears in past tense clauses.

-Leː (but not *-keː*) sometimes occurs with intransitive roots, as we see in the second verb in sentence (4.88) above and in (4.89).

(4.89) *aɲ=do* *gaɽa-re* *joka=ɲ* *oɽa-leː-n-oʔ-wa*
1SG=FOC river-LOC little=1SG bathe-ANT.FUT-ITR-MID-FIN
'I will bathe a little in the river' (20081108AB:38)

In these cases, the construction is always as in example (4.89). The future anterior *-leː* is followed by the intransitive suffix *-n*, the middle suffix *-oʔ* and the finite suffix *-a*. In section 4.3.3., we will see that the combination of *-oʔ-wa* is grammaticalizing to a kind of future.

4.3.3. Mood Suffixes

In this final section, we will look at the suffixes that go into the final slot of the verb. As sketched in table 4.7, the mood markers indicate whether a clause is finite or dependent or subjunctive. It is also the slot for imperative suffixes as well as two

tense suffixes. Table 4.7 lists the possible mood suffixes in Ho.[7] I will go through each group of mood suffixes and give examples.

mood	*-a*	finite
	-ge-ya	emphatic-finite
	-ka	subjunctive
	-enaŋaʔ	obligation
imperatives	*-me*	2SG
	-ben	2DU
	-pe	2PL
subordinate	*-re*	'simultaneous action'
clauses	*-te/-eɖ*	'prior action'
	-eːte	'prior action'
	-imite	'while'
	-canab	'after'
	-ayer-te	'before'
	-lagiɖ	'in order to'
	-reyoː/roː	'if'
	-leka	'like'
tense	*-taikena*	past
	-oʔ-wa	future

TABLE 4.7. Mood suffixes in Ho

4.3.3.1. Finite, Subjunctive and Obligation

The most frequent mood marker in Ho is *-a*, which marks a clause as finite and indicative. We have seen many examples of *-a* thus far. In clauses that refer to generic or non-past time, and that are intransitive or have an indefinite or non-referential inanimate object (cf. chapter V), it can be the only suffix required on the verb, as we see in (4.90).

[7]In addition to the subordinate clause suffixes listed in table 4.7, Deeney lists: *ci* for prior action, *-loʔ-te* and *dipli* 'while', *torsa* 'immediately after', *jakeɖ/joka/sante/sumaɖ* 'until' and *enaŋ* 'only after' (Deeney 2002:100-102). I do not include these in this discussion of mood suffixes because they are not attested in my data functioning as subordinating morphemes.

(4.90) *aŋ* *owaʔ* *nel-a*
1SG house see-FIN
'I will watch the house' (3.99.2)

In example (4.91) we see the combination of the copula/emphatic particle *ge* with the finite marker *-a*. In sentences like (4.91), *-ge* is not functionally a copula but emphasizes the verb. Speakers most often translate this use of *-geya* as 'definitely'.

(4.91) *ena* *bugi-te* *isin-oʔ-ka* *mente=bu*
that good-ALL cook-MID-SBJV CAUSE=1PL.INCL
buʔ-i-ge-ya
make.holes-INAN.OBJ-COP/EMPH-FIN
'so that it cooks well, we make holes in it' (20081107NB:17)

The subjunctive suffix in Ho is *-ka*. In example (4.91) we see *-ka* on the verb *isin* 'cook' to indicate a possible event.

Another irrealis-type suffix that goes into the mood slot is *-enaŋaʔ*, which suggests an obligation, like 'must':

(4.92) *jalom=eʔ* *ãɽaw-ta-ɖ-a,* *nen* *dudəlum-ko=ɲ* *pase-le-ko-enaŋaʔ*
net=3SG set-PNCT-TR-FIN this pigeon-PL=1SG trap-ANT-3PL-MUST
'he set the net traps, "I must trap these pigeons' (20081107AB:7)

4.3.3.2. Imperatives

The three imperative suffixes have the same form as the second person object suffixes (see table 4.6 above); *-me* '2SG', *-ben* '2DU' and *-pe* '2PL'. However, the imperative suffixes occupy a different position in the verb from either subject or object suffixes. They fit into the mood slot at the end of the verb.

(4.93) *miyaɖ* *kowa hon* *ondoʔ* *miyaɖ* *kui hon* *em-a-liɲ-me*
one boy child and one girl child give-APPL-1DU.EXCL-2SG.IMP
'You give us one boy child and one girl child' (20081107RCB:60)

(4.94) *en-paː-re* *dub-ben*
that-place-LOC sit-2DU.IMP
'You two sit there!' (20120121RPPb:41)

(4.95) *bacaw-iɲ-pe*
save-1SG-2PL.IMP
'You all save me!' (20110210BCb:23)

4.3.3.3. Subordinate Clauses

There are a wide variety of suffixes which mark subordinate clauses. The three most common are the postpositions *-re* 'LOCATIVE', *-te* 'ALLATIVE' and *-eːte* 'ABLATIVE'. Their meanings have been extended from their basic spatial senses so that they also indicate temporal relationships. The locative *-re* marks simultaneous action and conditional clauses (4.96), while both the allative (4.97) and the ablative (4.98) signal prior action.

(4.96) *nel-i-ten-**re**=do* *horo=do* *ka=eʔ*
see-3SG-IPFV-LOC=FOC tortoise=FOC NEG=3SG
sayeɖ-e-tan-a
breathe-INAN.OBJ-IPFV-FIN
'when he was watching him, the tortoise wasn't breathing'
(20120121RPPa:129-130)

(4.97) *aːʔ=ko* *roː-keː-**te**=ko* *lupuʔ-i-ye*
vegetable=3PL dry-PFV.FUT-ALL=3PL powder-INAN.OBJ-FIN
'after they dry the vegetables, they powder them' (201105NTPS:25)

(4.98) *kolej-paː-ete=liɲ* *huju ʔ-le-n-**eːte**,* *aeʔ-loʔ=ge*
college-place-ABL=1DU.EXCL come-ANT-ITR-ABL, 3SG-WITH=EMPH
andoʔ=liɲ *be<pe>ʈa-ure-ye-n-a*
and=1DU.EXCL meet<RECP>-AGAIN-PST-ITR-FIN
'after I came back from college, I met with him again' (20110413DSP:109)

In addition to the postpositional suffixes marking a subordinate clause, there are other, less frequent suffixes that speakers sometimes use for similar functions. These suffixes also fit into the mood slot.

First, *-eɖ* is an alternative to *-te* for a prior action.

(4.99) *en* *saga?=kiɲ* *cauli-ke-ɖ-**eɖ*** *ena=kiɲ*
that saga.grass=3DU uncooked.rice-PFV-TR-AFTER that=3DU
*manɖi-ke-ɖ-**eɖ**=kiɲ* *jom-ke-ɖ-a*
food-PFV-TR-AFTER=3DU eat-PFV-TR-FIN
'after they made rice from the saga grass, then they made food [from it], they ate it' (20081029RCBa:16)

In sentence (4.99), we see *-eɖ* used with two events, to indicate that they are both prior to the main event of eating.

As well as *-re* to indicate simultaneous action, the less frequent *-imite* can also be used:

(4.100) *kiɽiki-re=kiɲ* *koyo?-aka-ɖ-imite,* *seta=do* *ondo?*
window-LOC=3DU stretch.neck.to.look-PRF-TR-WHILE, dog=FOC and
kiɽiki-ite=? *iyu?-ye-n-a*
window-ABL=3SG fall-PST-ITR-FIN
'while they had stretched their necks to look at the window, the dog fell from the window' (20110525RPPa:33)

Canab 'before' and *ayer* 'after' occur as independent words but can also sometimes appear in the final position of the verb to indicate a subordinate sentence:

(4.101) *enka* *ale* *jom-nuː* *hoba-o?-wa* *hoː-ko*
like.that 1PL.EXCL eat-drink happen-MID-FIN person-PL
*goe?-ya-n-**canab***
die-PST-ITR-AFTER
'we have to feast like that, after people die' (20110429JBb:23)

(4.102) *endo* *baba=bu* *her-e-**ayer**-te=do,*
then paddy=1PL.INCL sow-INAN.OBJ-BEFORE-ALL=FOC,
ja:na?=bu *bonga-ba:-le:-ya* *ci* *cikene??*
anything=1PL.INCL worship-HERE&THERE-ANT.FUT-FIN or what
then, before we sow the paddy, do we worship or anything?'
(201105GTbJT:40)

As we see in sentence (4.102), *-ayer* 'before' is followed by the allative *-te*.

The next subordinating morpheme *-lagiɖ* 'in order to' signals purpose.

(4.103) *ayum-e-lagiɖ* *lutur-o:=ɲ* *em-a-ɖ-me-ya*
hear-INAN.OBJ-IN.ORDER.TO ear-also=1SG give-APPL-TR-2SG-FIN
'in order to hear, I gave you ears too' (20110210BCb:50)

The last two subordinating morphemes we will discuss are listed by Deeney but need more research as they do not behave exactly like the other non-finite suffixes which attach to the stem. Deeney gives *-reyo:* (or its short form *-ro:*) as a conditional morpheme, meaning something like 'if' (Deeney 2002:101).

(4.104) *nen* *kisẽɽ* *ho:-ko* *abu=ko* *bale-reyo:=ko,* *bale-bu-a*
this rich man-PL 1PL.INCL=3PL trap-IF=3PL, trap-3PL.INCL-FIN
'if these rich men trap us, they trap us' (20081107AB:14)

As we can see in example (4.104), the animate object of *bale* 'trap' is not indexed in the dependent verb with *-reyo:* as it would be with other subordinating morphemes.

The last subordinating suffix is *-leka*. Deeney describes *-leka* as meaning 'like'. (Note that *leka* is also a verb root meaning 'try', and can mean 'approximately' when it attaches to a noun.)

(4.105) *aɲ=do* *am-a?* *era=ɲ* *keya-tan-leka* *kumu-ten-e=ɲ*
1SG=FOC 2SG-GEN wife=1SG call-IPFV-LIKE dream-IPFV-FIN=1SG
'I am dreaming I am calling your wife' (20110210BCc:66)

Similarly to example (4.104) above, the animate object of *keya* 'call' is not indexed in the verb in sentence (4.105). It seems that the subordinate verbs to which both *-leka* and *-reyoː* attach are less finite than those with the other subordinating morphemes. This topic requires further research.

4.3.3.4. Tense

Two tense suffixes have grammaticalized to occupy the mood slot of the verb. The only explicit tense morpheme discussed thus far is *-eya* for intransitive verbs (see section 4.3.2.1.). For transitive verbs, tense is generally inferred from the whole verb construction, through the combination of perfective aspect suffixes as well as the transitivity suffixes. In this section we will see another option for indicating tense in the verb complex. The past tense copula, *-taikena*, has grammaticalized to a general past tense suffix, while *-oʔ*, the middle suffix, is becoming a future marker.

-taikena. First, we will look at the past tense suffix *-taikena*. *Tai* means 'stay, live', *-ke* is 'perfective', *-n* is intransitive, and *-a* is the finite suffix. It is used as a past tense copula with all types of predicates, including property concepts, identificational and equational constructions, and locative and existential constructions (see chapter III). In example (4.106), we see *taikena* with an existential construction.

(4.106) *miyaɖ buru-re=ʔ esu maraŋ bindiːram=eʔ taikena*
one jungle-LOC=3SG very big spider=3SG PST.COP
'there was a very big spider in a jungle' (20110210BCb:2)

-Taikena has grammaticalized to a more general past tense morpheme from this copula use. It occupies the final slot of the verb, and follows aspect and transitivity suffixes, most commonly *-tan*, as in (4.107), but it also occurs regularly with *-ke* (4.108) and *-le* (4.109).

(4.107) *ene:te* *lije?-ko* *tinul-tan-taikena=?*
then cloth-PL carry.village.to.village-IPFV-PST=3SG
'then he carried his clothes from village to village' (201100301FG:6)

(4.108) *ena-ko=ɲ* *ol-ke-ɖ-taikena*
that.INAN-PL=1SG write-PFV-TR-PST
'I wrote those things' (20110413DSP:82)

(4.109) *ol-te* *research-no?-leka-te* *huju?-le-n-taikena*
write-ALL research-little-like-ALL come-ANT-ITR-PAST
'he had come to write, to do a little research' (20110429DSP:49)

As we see in (4.108) and (4.109), *-taikena* can follow either the transitive or the intransitive suffix.

-o?wa. The second morpheme complex that I will argue is grammaticalizing to a tense morpheme in final position is *-o?wa*. In section 4.3.1.2., we saw that *-o?* marks a verb as middle, it suffixes directly to the verb root, and it only occurs in the non-past template. In this section, we will see that, with the finite suffix *-a*, it is grammaticalizing from the middle/inchoative meaning to a more general future suffix. In the mood slot, it attaches to verbs in the perfective and perfect template and signals a type of future in the past.

As noted above, when the perfect and perfective suffixes occur with the transitivity suffixes, there is a default past tense interpretation. However, when they are followed by the intransitive suffix *-n* and *-o?-wa* 'middle-finite', a future tense reading is possible, as we see in examples (4.110)–(4.112).

(4.110) *en-ko=ɲ* *jom-le:-ko-wa,* *joka=ɲ*
that-PL=1SG eat-ANT-3PL-FIN, little=1SG
jom-pe:?-le:-n-o?-wa
eat-strong-ANT.FUT-ITR-MID-FIN
'after I eat them, I will become a little stronger' (20110524RPP:37)

(4.111) *aŋ* *giti?-eke-n-o?-re=ko* *huju?-we*
1SG sleep-PRF-ITR-MID-LOC=3PL come-FIN
'when I have gone to sleep, they will come' (20081107RCBc:15)

(4.112) *ente* *cimin* *gaːɽi* *ondo?* *en=e?* *jumeŋ-eke-n-o?-wa*
then how.long delay and that=3SG cling-PRF-ITR-MID-FIN
kaʈa-re=do?
leg-LOC=FOC
'then how long did he cling to his leg for?' (20120121RPPa:67)

(As we see in sentence (4.111), *-o?* need not be followed by the finite *-a*.)

All of the examples above are taken from folk tale type narratives and *-o?wa* gives the sense of future in the past. They are future in the context of the story which is mostly told with perfect and perfective aspect markers. For example, in the lines previous to sentence (4.112), the speaker is describing how the tortoise had grabbed onto the dog's leg as they are going into the water. Sentence (4.112) is the speaker talking to the audience, 'how long would he cling to his leg?'

The grammaticalization of the middle suffix to a future tense suffix might have been enabled in Ho through the inchoative/change of state use of the middle, illustrated in (4.113) and (4.114).

(4.113) *gapa* *uli* *lebe-o?-wa*
tomorrow mango soft-MID-FIN
'tomorrow the mango will be soft' (1.111.12)

(4.114) *endo* *cilka-te=le* *sangi-o?-wa?*
then how-ALL=1PL.EXCL numerous-MID-FIN
'then how can we be multiplied?' (20081029RCBa:50)

The middle suffix *-o?* in sentences (4.113) and (4.114) is used for a change of state where an agent is not specified. Example (4.113) is clearly understood as future because of *gapa* 'tomorrow'. Despite this, because the middle suffix only appears

in the non-past template, the (change of) state it refers to is always non-past, i.e., it has not yet occurred. The sense of an event that has not yet happened carries over when *-o?-wa* is used with the perfect and perfective suffixes in sentences such as (4.110)–(4.112).

The grammaticalization of a tense morpheme in the final position has thus occurred twice in Ho; once with *-taikena* for past tense and a second time with *-o?wa* for future tense. A third instance of grammaticalization must be mentioned in this context. The imperfective morpheme *-tan* was grammaticalized from *-ta*, which was likely an old auxiliary, perhaps a copula (also perhaps the origin of the punctual suffix), and the intransitive marker *-n* (Anderson 2007:117; see also Osada 1992:119 on Mundari). It grammaticalized to imperfective aspect and now appears next to the finite morpheme *-a*, in a different position from the other aspect suffixes. The grammaticalization of imperfective *-tan* in Ho is in this way a precedent for morphemes grammaticalizing into tense or aspect suffixes and taking a position near the end of the verb.

4.4. Conclusion

In this chapter we have seen that the suffixes that attach to the Ho verb root are divided into two major templates. The non-past template (section 4.3.1.), which is defined by the imperfective suffix *-tan*, is the only one that allows reflexives and middles to be expressed. The reflexive and middle suffixes do not appear in the perfect/perfective template. On the other hand, the transitivity suffixes *-ḷ* and *-n* can only appear in the perfective/perfect template, i.e., transitivity is not registered in the non-past template.

Intransitive verbs have a dedicated past tense morpheme, *-eya*, but there is no equivalent morpheme for transitive verbs. However, in section 4.3.2.2. we saw that the combination of the perfective/perfect suffixes with the transitivity suffixes has a default past tense interpretation. Past tense arises from the entire construction in these cases.

Section 4.3.3. covered the mood morphemes that slot into the final position of the verb. We saw that Ho is developing two tense morphemes in the final slot of the verb. The past tense copula *-taikena* is also used to indicate past tense while the middle suffix *-o?wa*, which was only used with the non-past template, now functions as a future suffix that can combine with the aspect suffixes in the perfective/perfect template.

The interaction of perfective aspect, the object suffixes, transitivity and past tense will be taken up in the next chapter.

CHAPTER V

TRANSITIVITY IN HO

The issue of transitivity is one of the most interesting features of Ho. This chapter explores various elements of transitivity and we will see how they are manifested in the clause by Ho speakers. We will see that the grammar of Ho in part supports predictions from Hopper and Thompson's (1980) transitivity hypothesis, but also challenges it in some respects.

First, we look at object marking in Ho and see that Ho has a type of primary/secondary object system. Ho indexes primary objects in the verb, but only if they are animate or definite/referential inanimate. There is also an emergent object case marker on NPs, which is only used with animate primary objects and only by certain speakers.

Section 5.3. discusses the interaction between aspect marking and transitivity suffixes on verbs. Ho has two suffixes, -*ɖ* and -*n*, which mark transitive and intransitive clauses respectively. However, they only appear with perfect(ive) clauses. Imperfective clauses are not marked for transitivity. I will argue that the co-occurrence of the transitive suffix -*ɖ* with the perfect(ive) suffixes has become so expected when speakers refer to past time that -*ɖ* is in fact an incipient tense marker.

Next, section 5.4. treats experience verbs. The experiencer of such verbs can be marked as an object or subject in Ho. When the experiencer is perceived as less volitional, it is indexed as the object of the clause, much like in the locative construction which we saw in chapter III.

The next section discusses the notion of transitivity as it is used here.

5.1. Definition of Transitivity

This work treats transitivity as a multi-faceted feature of language that is best considered on a continuum, following Hopper and Thompson (1980). In their paper, they define transitivity as "a global property of an entire clause such that an activity is 'carried-over' or 'transferred' from an agent to a patient" (1980:250). They isolate ten components that make the action of a clause "more effectively transferred" and therefore more transitive (table 5.1).

		HIGH	LOW
A.	PARTICIPANTS	2 or more participants	1 participant
B.	KINESIS	action	non-action
C.	ASPECT	telic	atelic
D.	PUNCTUALITY	punctual	non-punctual
E.	VOLITIONALITY	volitional	non-volitional
F.	AFFIRMATION	affirmative	negative
G.	MODE	realis	irrealis
H.	AGENCY	A high in potency	A low in potency
I.	AFFECTEDNESS OF O	O totally affected	O not affected
J.	INDIVIDUATION OF O	O highly individuated	O non-individuated

TABLE 5.1. Hopper and Thompson's transitivity parameters (1980:252)

For Hopper and Thompson, the more high transitivity properties a clause has, the more transitive it is. The prototypical transitive clause is a two-argument clause in which a volitional agent acts kinetically on an individuated patient that is fully affected by the action. Hopper and Thompson further argue that if any of the various transitivity features co-vary, then it will always be in the direction that the co-varying elements or values will be "on the same side of the high-low transitivity scale" (Hopper and Thompson 1980:254). This universal fact is the central claim of their 'transitivity hypothesis':

> If two clauses (a) and (b) in a language differ in that (a) is higher in Transitivity according to any of the features 1A-J, then, if a concomitant grammatical or semantic difference appears elsewhere in the clause, that difference will also show (a) to be higher in Transitivity (Hopper and Thompson 1980:255).

The transitivity features that are relevant to Ho morphosyntax and which will be discussed in this chapter are the individuation of O; the participants and aspect of the verb; and the volitionality of A.

First, Hopper and Thompson note that clauses with two participants regularly correlate with other high transitivity features: an activity is more effectively transferred if there are two participants. Second, they argue that "an action viewed from its endpoint ... is more effectively transferred than one not provided with such an endpoint" (Hopper and Thompson 1980:252). That is, perfective clauses correlate with higher transitivity because the activity of the verb has been effectively carried over. Hopper and Thompson use the terms 'telic' and 'perfective' more or less interchangeably, noting that information on perfectivity is often hard to come by in descriptive grammars. In this chapter, I will use the term (im)perfectivity exclusively, as telicity is more a property of the entire predication while perfective and imperfective clauses are identifiable by the grammar of the verb in Ho. Semantically, I define a perfective clause as one that views the situation as a single whole, and an imperfective one as one which "pays essential attention to the internal [temporal] structure of the situation" (Comrie 1976:16). PARTICIPANTS, ASPECT and INDIVIDUATION OF O and how they relate to the overall transitivity of a clause are treated in sections 5.2. and 5.3.

Hopper and Thompson claim that clauses which have Os that are inanimate, non-referential or indefinite are more likely to be marked like intransitive clauses or at least with some signal of reduced transitivity. The extreme version of this is noun-incorporation, in which the O has been incorporated into the verb. In section 5.2.1. we will look at how work since Hopper and Thompson has treated the observation that highly individuated Os are marked differently from indefinite or inanimate Os.

Volitionality is about control in a clause. Control can only be exerted by an agentive participant. Hopper and Thompson restrict agency to human or animate actors (Hopper and Thompson 1980:286). In a clause where an agentive argument is not acting volitionally, e.g., one with an experiential verb, that argument is often marked differently from a volitional actor in a prototypical transitive clause. The "dative-subject" construction, common throughout South Asia, is an example of how non-volitional experiencers are often marked with oblique case-marking. As we see in example (5.1) from Hindi, the experiencer argument is marked with dative case.

(5.1) *Sitaː-ko* *Raːm* *pasand* *hai*
Sita-DAT Ram:NOM liking be.3SG
'Sita likes Ram' (Verma & Mohanan 1990:2)

Whether the dative-marked argument is still the syntactic subject in Hindi is a matter for discussion and depends on language internal subject properties. The properties of VOLITIONALITY and AGENCY are taken up in section 5.4.

5.2. Object-Marking

Ho speakers have two ways to mark objects in the clause: pronominal object markers in the verb as well as a relatively new case-marker *-ke* which attaches to animate patient NPs. The use of *-ke* is illustrated in (5.2). Pronominal object suffixes

appear in the verb either after the perfect/perfective and transitivity suffixes (5.3), or before the imperfective suffix (5.4).

(5.2) *Matu=do aya? seta-ke=? hebe-ki?-ye*
Matu=FOC 3SG:GEN dog-ACC=3SG carry.on.hip-PFV:TR:3SG-FIN
'Matu carried his dog on his hip' (20120121RPPb:151)

(5.3) *neka=ko ruː-ki-ɖ-iɲ-e*
like.this=3PL beat-PFV-TR-1SG-FIN
'they beat me up like this' (20081108AB:24)

(5.4) *seta dumur-ko=? ruku-ko-tan-a*
dog bee-PL=3SG shake-3PL-IPFV-FIN
'the dog is shaking the bees' (20110222MB:24)

In the following sections, we will look more closely at the Ho data and see that Ho follows cross-linguistic predictions about which arguments are most likely to be both case-marked when expressed as NPs and indexed in the verb. When we consider ditransitive verbs, we see that object marking in Ho follows a primary/secondary system: ditransitive goals are treated in the same way as the patients of monotransitive verbs. In the next section, we will review some of the typological literature on object marking.

5.2.1. Selected Literature on Objects and Object Marking

Hopper and Thompson (1980) claim that clauses containing highly affected and highly individuated objects are semantically more transitive than those with unaffected or unindividuated objects. They further note that an animate, referential or definite object NP is often "singled out" in some way (Hopper and Thompson 1980:257). Such clauses are also more likely to contain other features of high transitivity.

The following sub-sections discuss and define three phenomena related to the issue of object marking in Ho. These are: differential object marking (5.2.1.1.), pronominal marking in the verb (5.2.1.2.), and what is a primary/secondary object system (5.2.1.3.).

5.2.1.1. Differential Object Marking

Aissen characterizes the general typological understanding of differential object marking as, "the higher in prominence a direct object, the more likely it is to be overtly case-marked" (2003:436). According to Aissen, "prominence" is most commonly determined by animacy and definiteness. That is, objects higher in animacy and/or higher in definiteness are more likely to be overtly case-marked precisely because they are not expected to be in the object role (see also Bossong 1985, 1991).

Differential object marking occurs in many languages across the world and is a prominent feature of South Asian languages, including Hindi. In Hindi, the postposition *ko* follows human, animate NPs, which "may be in an accusative or a dative relationship" (Kachru 2006:174). It also follows specific (Montaut 2004) or definite (Masica 1982) inanimate objects. In example (5.5) we see the basic Hindi transitive clause with an unmarked object. In example (5.6) *ko* is used to mark a definite, singular, though still inanimate object.

(5.5) *laṛkaː* *sabziː* *khaː* *rahaː* *hai*
boy.MSG vegetable.F.SG eat IPFV.M.SG PRES.3SG
'the boy is eating vegetables' (Montaut 2004:169)

(5.6) *is* *film-ko* *dekhnaː* *caːtaː* *hũː*
this film-ACC see.INF want PRES.1SG
'I want to see this (particular) film' (Montaut 2004:170)

Hopper and Thompson do not discuss differential object marking, nor do they discuss why highly individuated objects should be specially 'singled out'. They only explore objects in relation to other features of high transitivity; they do not mention frequency nor what constitutes a prototypical object. Others have looked at cross-linguistic data and argued that the typical object is low in animacy and in definiteness (Comrie 1979:14; Croft 1988:169). Further, when a non-prototypical object (i.e., an animate or definite one) appears in a clause, that NP is more likely to carry case-marking as a way to show its less typical role in the clause. To rephrase: animate, referential or definite objects frequently carry special marking (or are 'singled out') precisely because they are unusual or less frequent objects (e.g., Comrie 1979:19; Croft 1988:169).

5.2.1.2. Pronominal Marking of Objects in the Verb

In many languages, including Ho, objects can be indexed in the verb. According to Croft (1988:173), subject and object indices in the verb are used for referent tracking across the discourse. Entities which are cross-referenced in the verb tend to be the more 'salient' ones, because they are central to the discourse. By 'salient' Croft means arguments that are higher on the animacy and definiteness hierarchies.

(5.7) Animacy: 1/2 > 3 > proper name > human > animate > inanimate
(Silverstein 1976)

(5.8) Definiteness: definite > specific/referential indefinite > non-specific/generic
(Greenberg 1978)

Croft illustrates verb agreement or pronominal object marking in the verb that is sensitive to the animacy hierarchy with the following examples (5.9) and (5.10) from

Kun-parlang (Australia). In Kun-parlang there is always verb marking if the direct object is first or second person (5.9), sometimes if it is third person, and almost never with an inanimate third person object (5.10) (Croft 1988:162).

(5.9) *nga-* *ngum-* *kinyang*
1SG.REAL- 2SG- cook.PAST
'I burned you'

(5.10) *nga-* *kinyang*
1SG.REAL- cook.PAST
'I burned it/him' (Croft 1988:162)

In section 5.2.3. we will see that pronominal indexing in Ho is also sensitive to the animacy and definiteness hierarchies. In Ho, the object suffixes in the verb are bound pronominal object suffixes, rather than agreement suffixes because they can occur independently of their referents. Agreement suffixes usually "agree with" another element in the clause (Nida 1946:142; cf. Jelinek 1984, 1994).

5.2.1.3. Primary/Secondary Object Marking

Thus far, we have only reviewed research on monotransitive verbs. Dryer (1986) observes that many languages treat the goal, benefactive and recipient arguments of ditransitive verbs in the same way as the themes or patients of monotransitive verbs and unlike the theme of a ditransitive. For example, the sentences below from Khasi (Mon-Khmer, India) show how a monotransitive theme 'the tiger' is marked with *ya* (5.11), in the same way as the goal argument 'me' in sentence (5.12) and unlike the theme 'the English language' in (5.12).

(5.11) *ka* *la* *yo??ii* *ya* *?uu* *khlaa*
she PAST see OBJ the tiger
'she saw the tiger'

(5.12) *ʔuu* *hiikay* *ya* *ŋa* *ka* *ktien* *phareŋ*
he teach OBJ 1SG the language English
'he teaches me English' (Rabel 1961:77 in Dryer 1986:816)

Figure 5.1 shows how core semantic roles are mapped onto grammatical relations in a direct/indirect object alignment system (1) compared with a primary/secondary object system (2). In the direct/indirect system, 1, themes (T) of monotransitive and ditransitive verbs are treated similarly, and differently from goals (G). In the primary/secondary object system, 2, monotransitive themes and ditransitive goals are treated similarly and differently from ditransitive themes.

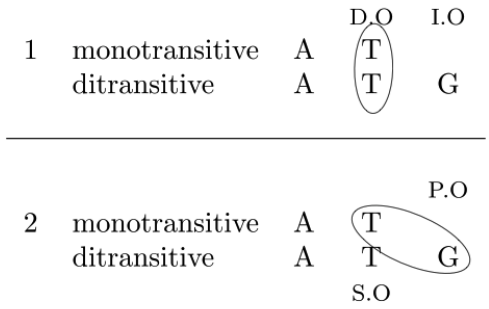

FIGURE 5.1. Direct/indirect vs. primary/secondary object alignment

By way of explanation for the primary/secondary object alignment phenomenon, Dryer notes that in sentences with two objects, goals/recipients/benefactives are generally human, definite and usually 1st or 2nd person. They are thus typically "more topical" than the theme argument of a ditransitive. Languages which mark ditransitive goals/recipients/benefactives in the same way as the theme of monotransitive verbs have grammaticalized a "more topical" vs. "less topical" distinction according to Dryer (1986:841).

With this general typological background, we now turn to look at how Ho objects. In section 5.2.2. we look at object case-marking in Ho. Section 5.2.3. covers

pronominal object marking and section 5.2.4. looks at ditransitive verbs primary object marking.

5.2.2. Case-Marking of Objects in Ho

Object case-marking in Ho functions almost exactly parallel to Hindi, most likely due to the fact that the object suffix in Ho, *-ke*, was borrowed from the nearby Indo-Aryan language Sadri/Sadani, which is related to Hindi (Osada 1999:53). The use of *-ke* is not widespread in Ho; it is more common among younger speakers, but some generalizations about its emerging use can be made.

In modern Ho, *-ke* only attaches to animate themes, as illustrated in sentences (5.13) and (5.14). It does not attach to inanimate themes (5.15).

(5.13) *horo-ke=ʔ* *hoʈaʔ-japaʔ-kiʔ-ye*
tortoise-ACC=3SG push.with.stick-near-PFV:3SG-FIN
'he pushed the tortoise near with a stick' (20120121RPPa:126)

(5.14) *era-tan-iʔ* *ayaʔ* *budi-te* *ayaʔ* *hoːr-ke=ʔ*
wife-IPFV-AGT 3SG.GEN idea-ALL 3SG.GEN man-ACC=3SG
bacaw-kiʔ-ge-ya
save-PFV:TR:3SG-COP-FIN
'the woman saved her husband with her idea' (20110524RPP:116)

(5.15) *manɖi=le* *jom-e-ya*
food=1PL.EXCL eat-INAN.OBJ-FIN
'we eat the meal' (20110221MB:31)

Ho case-marks objects in a primary/secondary object system. Like in Hindi, the object marker *-ke* also attaches to animate goals, as in (5.16) and (5.17). In sentence (5.17), we see that the goal *Soba* is marked with *-ke* and the inanimate theme argument is unmarked.

(5.16) *seta-ke* *meta-i-ten-e* *"auri!* *hapa-n-me"*
dog-ACC say.to-3SG-IMPFV-FIN wait quiet-REFL-IMP.2SG
'[he] says to the dog, "wait! be quiet"' (20110525RPPa:121)

(5.17) *Dobro* *Soba-ke* *ciţi* *kul-e-i-ten-e*
Dobro Soba-ACC letter send-APPL-3SG-IPFV-FIN
'Dobro is sending a letter to Soba' (2.170.18)

All of the sentences above would also be grammatical without *-ke*. However, there are no instances of *-ke* with any kind of inanimate object in the corpus, whether definite or not.

The case-marking of objects is not sensitive to the aspect of the clause. The object suffix *-ke* appears whether the sentence is perfective (5.13) or imperfective (5.16). In the next section, we will see that pronominal marking of objects in the verb is sensitive to the aspect of the clause.

5.2.3. Pronominal Object Marking in the Verb

The use of *-ke* on NPs to mark animate objects is a recent phenomenon. However, obligatory pronominal object marking in the verb, which applies depending on the features of animacy, definiteness and referentiality, has long been present in Ho. Under Hopper and Thomspon's hypothesis, highly individuated objects, i.e., singular, animate, definite, referential objects, are indicators of a more highly transitive clause and are likely to co-occur with other features of high transitivity. In Ho we will see that highly individuated objects interact with another of their high transitivity features, namely perfective aspect; however, they do not co-vary in the way Hopper and Thompson predict.

Table 5.2 shows the interaction of pronominal object marking and perfectivity in Ho. Animate objects are always indexed in the verb with a person/number suffix,

	animate O	individuated inanimate O	nonindividuated inanimate O
imperfective	PERS/NUM	*-e*	*
perfective	PERS/NUM	*	*

TABLE 5.2. The interaction of pronominal object marking and (im)perfectivity in Ho transitive verbs

regardless of aspect. At the other end, nonindividuated inanimate objects, i.e., indefinite or non-referential objects, are never indexed in the verb, regardless of aspect. However, inanimate objects that are definite or referential, i.e., more individuated, are indexed in the verb with *-e* in imperfective clauses, but not in perfective ones. This finding would appear to run counter to Hopper and Thompson's claim that if features of transitivity co-vary in a language, high always co-varies with high and low with low. In Ho we see that one feature of high transitivity, namely marking an individuated (inanimate) O, correlates with another feature of low transitivity, namely imperfectivity. I return to this point in the summary in section 5.2.5.

We look first at object marking in imperfective clauses in section 5.2.3.1. and then at object marking in perfective clauses in section 5.2.3.2.

5.2.3.1. Pronominal Object Marking in Imperfective Clauses

A pronominal object suffix indexing the number and person of an animate object occurs after the verb root in imperfective clauses. (See table 1.1 for the full list of object suffixes). Ho has a primary/secondary system of marking objects in the verb with one formal difference between themes and goals. All animate primary objects are marked in the verb, as seen in (5.18) and (5.19); however, the object suffix for a goal argument always follows the applicative suffix *-a*.

(5.18) *seta* *dumur-ko=ʔ* *ruku-ko-tan-a*
dog bee-PL=3SG shake-3PL-IPFV-FIN
'the dog is shaking the bees' (20110222MB:24)

(5.19) *jaːn* *bengaː=ge=ʔ* *em-noʔ-a-ko-tan-a*
any eggplant=EMPH=3SG give-little-APPL-3PL-IPFV-FIN
'he is giving them a little eggplant' (20081107RCBc:28)

Inanimate definite objects, whether singular, dual or plural, are indexed in the verb with *-e* when the clause is imperfective, as in examples (5.20) and (5.21).

(5.20) *nen* *baː=do* *nen-taʔ-re=bu* *biɖ-e-ya*
this flower=FOC this-place-LOC=1PL.INCL plant-INAN.OBJ-FIN
'we will plant this flower here' (20120121RPPa:156)

(5.21) *cilke* *sasaŋ* *andoʔ* *buluŋ=ben* *miɖ-e-ya?*
how turmeric and salt=2DU mix-INAN.OBJ-FIN
'and how do you mix the turmeric and salt?' (201105SL:28)

However, when the object is indefinite or non-referential, we do not see the inanimate object marker *-e*, as demonstrated in (5.22) and (5.23).

(5.22) *goɽa* *baba=bu* *her-a*
upland.field paddy=1PL.INCL sow-FIN
'we sow upland field paddy' (201105GTb:36)

(5.23) *naʔ* *aeʔ* *ciʈi-ko=eʔ* *ol-tan-a* *toraŋ*
now 3SG letter-PL=3SG write-IPFV-FIN perhaps
'now he is maybe writing letters' (2.148.16)

Neither 'upland field paddy' nor 'letters' is indexed in the verb with *-e* in the above sentences. In (5.22), the speaker is talking about the time of year when the sowing of paddy habitually happens, and the activity is important. Sentence (5.23) is an elicited sentence, and is in response to Q16 of Dahl's Tense Mood Aspect questionnaire (1985).

> "[Q: What your brother DO when we arrive, do you think? (=What activity will he be engaged in?)] He WRITE letters"

For the questionnaire, consultants are asked to translate the sentence; the main verb is in capitals and unconjugated to avoid translation of tense/aspect from English. Like sentence (5.22), the emphasis in (5.23) is on the activity and the theme is non-referential. Deeney calls sentences such as (5.22) and (5.23), without the inanimate object suffix, "action-stressing" (Deeney 2002:86).

Hopper and Thompson suggest that sentences such as (5.22) and (5.23) with indefinite or non-referential objects are - in some languages - more like intransitive clauses with noun incorporation:

> "languages . . . have a tendency to associate indefinite (i.e., characteristically unmarked) Os with intransitive clauses. An extreme restatement of this – which is, as we have seen, valid for some languages – is that an indefinite O is not really an O at all, but is a subordinate part of a compound of which the verb stem is the head (i.e., it is incorporated into the verb)." (Hopper and Thompson 1980:259)

The suggestion that the indefinite or non-referential object is more like a "subordinate part of a compound" fits with Deeney's observation for Ho that sentences in which the object is not indexed in the verb are "action-stressing" rather than "object-stressing" (Deeney 2002:86).

If a two-participant verb can have "zero" registration of an object, thereby signifying lower semantic transitivity, as in (5.22) and (5.23), it should not be a surprise that the converse could also be true. In Ho, some one-participant verbs take the inanimate object marker *-e* in imperfective aspect, despite the absence of an overt

object argument. These verbs include; *sen* 'walk', *raʔ* 'cry', *iyu* 'shout', *gama* 'rain', *paiʈi* 'work', *nir* 'run' and *uʈuʔ* 'think, worry'.

(5.24) *cẽʈe=ma esu pureʔ raʔ-e-tan-a*
bird=FOC very much cry-INAN.OBJ-IPFV-FIN
'the bird cried out very much' (20110210BCb:16)

(5.25) *endo canab=do sadom uʈuʔ-i-ten-e=ʔ*
then after=FOC horse think-INAN.OBJ-IPFV-FIN=3SG
'then after that the horse is thinking' (20081108AB:25)

In both examples (5.24) and (5.25) we see a one-participant verb with no clear conceptual patient, but which has the "inanimate object" suffix in the verb. A one-participant clause with such transitive encoding resembles a cognate object construction. Cognate objects are a kind of 'metaphorically created object' which most often appears with one-participant events (Givón 2001a:132). Sentences such as *she sang a song* illustrate a cognate object construction in English. The Ho cognate object construction is different from English however, because the cognate object is not expressed as an NP, rather as an invariable suffix in the verb.

In languages which mark some one-participant clauses as more transitive than others, i.e., active/stative languages, the split is usually related to greater semantic agency or volitionality of the agent (see e.g., Dixon 1979, 1994; Hopper and Thompson 1980:265; Mithun 1991). That does not seem to be the case in Ho. The subjects of the verbs which require *-e* do not seem to be more agentive or volitional than many other one-participant verbs that do not require it.

The marking of a one-participant verb with *-e* seems to challenge Hopper and Thompson's hypothesis that features of transitivity co-vary such that both co-varying features are high or both are low. One signal of high transitivity, an individuated object suffix in the verb, co-occurs in Ho with two low transitivity

features: imperfective aspect, as well as with a set of verbs with only one semantic participant.

5.2.3.2. Pronominal Object Marking in Perfective Clauses

In the previous section we saw how pronominal marking in the verb works in Ho imperfective clauses. In this section we see that in perfect and perfective clauses, only animate objects are marked in the verb.

In a perfect(ive) clause with an animate object, the pronominal object suffix follows the perfect/perfective aspect marker and transitivity suffix *-ɖ*, as in (5.26) and (5.27).

(5.26) *esu* *pure?* *sim-ko,* *merom-ko,* *kõʈo-ko=ɲ*
very many chicken-PL, goat-PL, duck-PL=1SG
asul-eke-ɖ-ko-wa
support-PRF-TR-3PL-FIN
'I have kept very many chickens, goats and ducks' (20110524RPP:36)

(5.27) *am=iɲ* *nam-ke-ɖ-me-ya*
2SG=1SG find-PFV-TR-2SG-FIN
'I found you' (20110413DSP:163)

In perfect(ive) aspect, inanimate objects are never indexed in the verb, even if the object is "highly individuated":

(5.28) *en* *aliɲ-e?* *saʈ* *kiteb-ko-re* *sabena?*
that 1DU.EXCL-GEN seven book-PL-LOC everything
ena=liɲ *em-ke-ɖ-a*
that.thing=1DU.EXCL put-PFV-TR-FIN
'we put that, everything, in our seven books' (20110413DSP:103)

(5.29) *ho:* *grammar* *ena=liɲ* *bai-ke-ɖ-a*
Ho grammar that.thing=1DU.EXCL make-PFV-TR-FIN
'we made that, the Ho grammar' (20110413DSP:140)

(5.30) *balʈi* *en* *miyaɖ=ko* *idi-ke-ɖ-a,* *belca-ko=ko*
bucket that one=3PL take-PFV-TR-FIN, pickaxe-PL=3PL
sab-ke-ɖ-a
carry-PFV-TR-FIN
'they took that one bucket, they carried pickaxes' (20120121RPPa:10)

There is also no inanimate object pronominal suffix in the perfective form of cognate object constructions. Compare example (5.31) with the imperfective version above (5.24).

(5.31) *am-oː* *neka=m* *raʔ-ke-ɖ-a*
2SG-also like.this=2SG cry-PFV-TR-FIN
'you also cry like this' (20081108AB:24)

One could argue that the transitive suffix *-ɖ* "stands in" for the object suffix in some way or replaces it. However, given the fact that *-ɖ* co-occurs with the animate object suffixes, it cannot be also signaling an inanimate object. (In section 5.3. below, I will argue that *-ɖ* is grammaticalizing to a tense suffix.)

A perfective clause ranks as highly transitive according to Hopper and Thompson's ASPECT feature, all other things being equal. In Ho, perfective clauses co-occur with marked individuated objects at the high end of the animacy scale and all animate Os are indexed in the perfective verb. What is interesting in Ho is that certain definite and referential inanimate objects are coded in imperfective clauses (section 5.2.3.1.), but not in perfective ones. Thus we have a feature of low transitivity, namely imperfectivity, co-occurring with a feature of high transitivity, coded inanimate individuated Os. Note that the individuated object NPs themselves can occur with both perfective and imperfective clauses, but the object indices in the verb do not.

5.2.4. Ditransitive Verbs and Primary Object Alignment in Ho

Ho has a primary/secondary system of object alignment: it treats goals, recipients and benefactives of ditransitive verbs in the same way as the themes of monotransitive verbs. Primary/secondary object marking is not sensitive to aspect in Ho because perfect(ive) aspect cannot be marked in a ditransitive clause.

In ditransitive clauses with theme and goal/recipient arguments such as (5.32), the animate goal argument is indexed in the verb in the same position and with the same form as the theme of a monotransitive verb (see (5.33)), but following the applicative suffix *-a*.

(5.32) *jaːn benagaː=ge=ʔ* *em-noʔ-a-ko-tan-a*
any eggplant=EMPH=3SG give-little-APPL-3PL-IPFV-FIN
'he is giving them a little eggplant' (20081107RCBc:28)

(5.33) *ka=eʔ* *tam-ko-tan-a*
NEG=3SG hit-3PL-IPFV-FIN
'he isn't hitting them' (20081107RCBc)

An inanimate theme cannot be indexed in the verb in a ditransitive sentence. Even when the theme argument is definite and referential, the goal is still marked in the verb, as with *em* 'give' in (5.34).

(5.34) *aben okona=ben* *asi-ɲ-e* *ena=ge=ɲ*
2DU which.thing=2DU ask.for-1SG-FIN that.INAN=EMPH=1SG
em-a-ben-a
give-APPL-2DU-FIN
'I will give you two that thing you asked me for' (20081107RCB:61)

When both objects in a ditransitive sentence are animate, the goal argument is still indexed in the verb over the theme, whether it is singular (5.35) or plural (5.36).

(5.35) *Dobro Soba-ke hon-ko=e? udub-e-i-ten-e*
Dobro Soba-ACC baby-PL=3SG show-APPL-3SG-IPFV-FIN
'Dobro is showing the babies to Soba' (1.178.9)

(5.36) *Soba akiɲ-ke hon=e? udub-e-kiɲ-ten-e*
Soba 3DU-ACC baby=3SG show-APPL-3DU-IPFV-FIN
'Soba is showing the baby to them' (1.173.34)

Also note that in examples (5.35) and (5.36) the object case suffix *-ke* has attached to the goal, rather than to the theme or patient (as it does in a monotransitive clause).

Primary objects are indexed in the verb regardless of aspect in Ho. Recall that the applicative suffix *-a* cannot co-occur with the perfect(ive) aspect markers because they appear in the same slot in the verb as *-a* (see chapter IV). However, when *-a* appears with the transitive suffix *-ɖ*, there is an interpretation of past tense (in section 5.3.2. I argue that *-ɖ* is becoming a tense suffix). In ditransitive clauses with a past tense interpretation, the goal argument is marked whether the theme is inanimate (5.37) or animate (5.38).

(5.37) *saben=e? em-a-ɖ-liɲ-e*
everything=3SG give-APPL-TR-1DU.EXCL-FIN
'he gave us everything' (20081029RCBa:46)

(5.38) *hola Dobro ako merom=e? udub-a-ɖ-ko-wa*
yesterday Dobro 3PL goat=3SG show-APPL-TR-3PL-FIN
'yesterday Dobro showed the goat to them' (1.177.7)

We can see that object indices in the verb follow a primary/secondary object system (Dryer 1986). Only animate primary objects (benefactive/goal/recipient of a ditransitive verb and themes of a monotransitive verb) are indexed in the verb. Secondary objects – the themes of a ditransitive verbs – are not indexed in the verb. Primary objects are not all indexed in exactly the same way, however, because the

applicative marker *-a* signals that the argument indexed in the verb is the goal, recipient or benefactive of a ditransitive verb root and there is no applicative suffix in a monotransitive root.

Within their 1980s framework, Hopper and Thompson pointed out that what they call "indirect objects" are like "transitive objects" in the sense that they tend to be definite and animate (1980:259; cf. Givón 2001a:221). Croft puts it another way when he notes that recipients require mental capacity and therefore are best fulfilled by humans, which are high in animacy and typically definite. These animate arguments are therefore more commonly "agreed with" than themes which are often lower in animacy and definiteness (Croft 1988:168). Here, the Ho data support both Hopper and Thompson and Croft's observations: Ho speakers index the animate goal argument in the verb in the object "slot", over any kind of theme.

5.2.5. Summary of Object-Marking in Ho

Throughout section 5.2. we looked at two types of object marking in Ho: case-marking on the object NP and pronominal indexing in the verb. We saw that Ho has differential object case marking: only animate primary object NPs are suffixed with *-ke* (a new suffix which is used more frequently by younger speakers). Animate primary object arguments are moreover always indexed in the verb. We also saw that referential or definite inanimate objects are indexed in the verb only in imperfective clauses, but non-referential or indefinite objects are not. When we look at ditransitive and monotransitive verbs together, we see that Ho has a primary/secondary object alignment system: the goal/benefactive/recipient of a ditransitive verbs is indexed in the verb like the monotransitive patient. The single difference is that the goal/benefactive/recipient follows *-a*, the applicative suffix, in the verb. Ho thus

follows cross-linguistic predictions (e.g., Comrie 1979; Croft 1988) that if a language only case-marks and indexes some objects, then it will be those that are higher in animacy, definiteness and referentiality.

In section 5.2.3., which deals with the interaction of object marking in the verb and perfectivity, we saw that there is a kind of mismatch between the Ho data and what Hopper and Thompson's transitivity hypothesis predicts. Inanimate objects can only be indexed in the verb in imperfective clauses and more individuated inanimate objects must be marked with *-e*. With perfect(ive) clauses, the inanimate suffix *-e* does not occur. This observation runs counter to the hypothesis that any co-varying transitivity features agree in high/low value. In Ho, a clause that is high in transitivity relative to aspect – i.e., it is perfective, and with two participants – does not co-occur with the object suffix *-e*. However, if, according to Hopper and Thompson's hypothesis, imperfectivity is *more likely* to co-occur with less individuated Os, and if, according to Comrie (1979) and Croft (1988) it is unexpected Os that are privileged for getting marked, then the indexing of more individuated, inanimate Os in imperfective aspect in Ho should not be surprising. It is just a type of differential object marking. Just as more "prominent" Os (goals/recipients/benefactives) are marked because they are higher in animacy, so definite or individuated inanimate objects are marked because presumably they are also "less likely" objects.

The interaction of aspect, object marking and transitivity is the topic of the next section.

5.3. Perfectivity and the Transitivity Suffixes

5.3.1. Background

Ho has a somewhat complex aspectual system (see chapter IV). As we will see, most of that complexity comes from the interaction of aspect suffixes with the transitivity suffixes. In this section I will discuss the transitivity suffixes *-ḍ* and *-n*, their interaction with the three perfective suffixes and one perfect suffix *-aka*, and how past "tense" interpretation arises from these combinations.

For Hopper and Thompson, a perfective clause is viewed as semantically more transitive than an imperfective one, other things being equal (1980:271). We should therefore not be surprised to see an overt transitive suffix co-occur with a perfective clause.

In Ho, there are three perfective suffixes *-ke*, *-le* and *-ta*. *-Ke* is the most common general perfective, *-le* is an anterior perfective, and *-ta* is a kind of punctual perfective (see chapter IV). When *-ke*, *-le* and *-ta* appear with a two-participant verb, and the interpretation is past, the transitive suffix *-ḍ* occurs in the verb. In this section I will explore the question of whether the transitive suffix *-ḍ* and the intransitive suffix *-n* have become so closely linked to temporal interpretations that they are in fact (re-)grammaticalizing to tense suffixes. I will suggest that *-ḍ* is grammaticalizing to past tense, but not *-n*.

5.3.2. Are the Transitivity Suffixes Becoming Tense Markers?

Table 5.3 presents the various interpretations of perfect(ive) suffix combinations with transitive suffixes in Ho. In this section we will look at evidence for the

time interpretations in the right-most column that arise through the combinations of perfective and transitive suffixes.

Morphology		Interpretation	
Aspect suffix	Transitivity suffix	Transitivity	Time
-ke, -le, -ta, -aka	*-ɖ*	transitive	past
-ke, -le	*-n*	intransitive	past
-keː, -leː	*ø*	transitive/intransitive	future
-aka	*-n*	intransitive	present

TABLE 5.3. Temporal interpretation of perfect(ive) aspect suffixes with transitivity suffixes

Comparing sentences (5.39) and (5.40), we can see that the transitive suffix only appears with the perfect(ive) suffixes. In sentence (5.39), which is not perfective, there is no transitive suffix, even when there is an animate object. The fact that the transitive suffix does not appear in all two-participant clauses suggests that the meaning of *-ɖ* is not simply 'transitive'.

(5.39) *buɽi* *era,* *merom-ko=laŋ* *jom-ko-wa*
old.woman female, goat-PL=1DU.INCL eat-3PL-FIN
'old woman, we'll eat the goats' (20110524RPP:50)

(5.40) *merom-ko* *jom-ke-ɖ-ko-wa=kiŋ*
goat-PL eat-PFV-TR-3PL-FIN=3DU
'they two ate the goats' (20110524RPP:50)

There is no explicit tense marker in sentence (5.40). We translate it as past tense because the perfective signals that the activity is viewed as completed. In elicitation the combination *-ke-ɖ* is always paired with adverbs such as 'yesterday', 'last year' and 'last week' which refer unambiguously to times in the past, e.g., (5.41).

(5.41) *hola* *Soba* *aŋ=eʔ* *nel-ki-ɖ-iŋ-e*
yesterday Soba 1SG=3SG see-PFV-TR-1SG-FIN
'yesterday Soba saw/looked at me' (1.67.23)

As we have already seen, when a transitive verb in perfect(ive) aspect has an inanimate object, the inanimate object marker *-e* does not appear. In that case we only see a perfect(ive) suffix (*-ke, -le, -ta* and *-aka*) and the transitive suffix *-ḍ*, as in (5.42). The semantically one-participant verbs that are treated as formally transitive in Ho, such as *raʔ* 'cry' (5.43) behave similarly i.e., they can only appear with the inanimate object marker *-e* in imperfective aspect (see section 5.2.3.).

(5.42) *balṭi* *en* *miyaḍ=ko* *idi-ke-ḍ-a*
bucket that one.INAN=3PL take-PFV-TR-FIN
'they took a bucket' (20120121RPPa:10)

(5.43) *am-oː* *neka=m* *raʔ-ke-ḍ-a*
2SG-also like.that=2SG cry-PFV-TR-FIN
'you also cried like that' (20081108AB:24)

For intransitive clauses, both *-ke* and *-le* can co-occur with *-n*, a marker of intransitivity.[1]

(5.44) *jagar-ada-n* *ham-hoː-ko-loʔ=liṇ* *jagar-ke-n-a*
speak-know-ITR old.man-man-PL-WITH=1DU.EXCL speak-PFV-ITR-FIN
'I spoke with the knowledgable old men' (20110413DSP:74)

(5.45) *father* *Deeney-loʔ* *cilke-te=kiṇ* *na<pa>m-le-n-a*
father Deeney-WITH how-ALL=3DU meet<RECP>-ANT-ITR-FIN
'how he and Father Deeney found each other' (20110413DSP:4)

Like sentences with *-ke-ḍ* and *-le-ḍ*, sentences such as (5.44) and (5.45) with *-ke-n* and *-le-n* are interpreted as past time. Both sentences (5.44) and (5.45) were spoken by a man remembering his collaborations with Fr. John Deeney on the Ho dictionary and grammar. All the events he talks about in this text happened while he was at

[1]Synchronically, the third perfective marker *-ta* does not productively combine with the intransitive suffix *-n*; however *-ta* + *-n* is the probable origin of the imperfective suffix *-tan*.

school and college, many years previous to the recording in 2011. Although there is no explicit past tense marker, the past time interpretation comes from the context, but is additionally implied by the combination of the perfective aspect suffix with the intransitive suffix *-n*.

Perfective aspect and past tense are closely related, particularly in languages that lack explicit tense markers (Comrie 1976:83). Viewing a situation in its entirety often means that the situation is completed, and therefore in the past. Because the transitivity suffixes, *-ɖ* and *-n*, only occur with the perfect(ive) suffixes in Ho, their reanalysis as past tense suffixes by speakers seems plausible.

Note that it is possible to have imperfective aspect with past time interpretation; in this case the more periphrastic past tense construction with *-taikena* appears, as in (5.46) (see section 4.3.3.4.).

(5.46) *jawge* *ae?* *ciɽi* *ol-e-tan-taikena*
every.day 3SG letter write-INAN.OBJ-IPFV-PAST.COP
'he wrote a letter every day' (2.149.21)

Nevertheless, in support of the hypothesis that *-ɖ* is grammaticalizing to a past tense, when the perfective suffixes appear without *-ɖ*, the clause necessarily has a non-past or future perfective interpretation. The vowel in the perfective suffix is also lengthened.

(5.47) *ene꞉te* *ena=m* *akariŋ-ke꞉-te* *huju?-re-me*
after that.INAN=2SG sell-PFV.FUT-ALL come-LOC-2SG
'after you sell that, come back' (20110429JoBa:52)

(5.48) *ru꞉m* *sakam* *bu?-le꞉-te...*
rum leaf make.hole-ANT.FUT-ALL
'after [we] make holes in the rum leaves...' (20081107NB:16)

An additional piece of evidence in favor of *-ɖ* regrammaticalizing as a tense marker is the fact that the applicative suffix *-a* does not co-occur with the perfective suffixes. However, *-a* can co-occur with the transitive *-ɖ* and the interpretation is past tense.

(5.49) *ĩyel* *aparob-ko=ɲ* *em-a-ɖ-me-ya*
feather wing-PL=1SG give-APPL-TR-2SG-FIN
'I gave you feathers and wings' (20110210BCb:52)

In ditransitive sentences such as (5.49), the interpretation is always past, despite the absence of any aspect marker.

Only *-ɖ* can signal past time: the intransitive suffix *-n* does appear in non-past time clauses. The non-past reading comes when *-n* follows the perfect suffix *-aka*. In this case *-aka-n* describes a state the subject previously entered into and which continues to the present time, as in (5.50).

(5.50) *haku=ge* *ʈoʔ-aka-n-a*
fish=EMPH catch.fish-PRF-ITR-FIN
'the fish is caught' (201220121RPPa:19)

At this point, we can summarize and draw some conclusions about transitivity, perfectivity and past time interpretation in Ho. The transitivity suffixes *-n* and *-ɖ* only occur if the verb has a perfect or perfective suffix, or following the applicative suffix *-a*. The transitive suffix *-ɖ* does not appear in a sentence with a non-past interpretation; we might say that the combination of a perfect or perfective suffix plus *-ɖ* gives rise to a "past tense" interpretation. Clauses with the intransitive suffix *-n* have a past time interpretation when they also occur with one of the two perfective suffixes *-ke* and *-le*. When *-n* occurs with the perfect suffix *-aka*, the clause is interpreted as a continued state, i.e., non-past.

If the perfective suffixes *-ke* and *-le* do appear without either of the transitivity suffixes, the clause is interpreted as non-past time or 'future perfective'. Their vowel is also lengthened.

Following Hopper and Thompson, perfective clauses are more semantically transitive than those that are imperfective because the action has been effectively transferred. We have seen that high transitivity in Ho is only marked explicitly (with the transitive suffix *-ɖ*) when the clause is perfect(ive) and has a past time interpretation. Furthermore, when a clause has a perfect(ive) suffix and the explicit transitive suffix, only animate objects are indexed in the verb. The use of transitivity marking in the verb in Ho is therefore, in this particular point, consistent with Hopper and Thompson's transitivity hypothesis that if two clauses differ in any of their transitivity features (such as perfectivity), a concomitant grammatical or semantic difference will show the same difference in transitivity (Hopper and Thompson 1980:255): we find two-participant clauses, individuated (animate) Os and perfective clauses all co-occurring with the explicit transitive suffix *-ɖ*.

However, I have also argued in this section that the transitive suffix *-ɖ* is currently being reanalyzed as a tense suffix. It only occurs with perfect(ive) clauses which have past time interpretation. Its past "tense" meaning is especially clear if we compare future perfective, where *-ɖ* does not occur, as well as ditransitive clauses where *-ɖ* is the only indication of tense. It is possible that rather than re-grammaticalizing to a past tense suffix, *-ɖ* was originally a past tense suffix, and its use as a transitive marker is the newer interpretation. The historical issue warrants further research.

It is interesting that intransitivity is only marked (with *-n*) when the clause is perfective or perfect. In other words, intransitivity (like transitivity) is not explicitly marked in an imperfective clause, whatever the number of participants.

The intransitive suffix sometimes combines with *-ke* and *-le* to suggest past tense; but the combination with *-aka* 'perfect' has a non-past interpretation. Therefore we can conclude that the intransitive suffix only signals intransitivity and has no special combinatorial consequences with regard to "tense".

5.4. Experience Verbs in Ho

The final feature of transitivity that we will explore in this chapter concerns the experiencer of an experience verb. Hopper and Thompson predict that clauses in which the "subject" argument is perceived to have less agency often correlate with other features of low transitivity, compared with clauses in which the subject is more "agent-like" (Hopper and Thompson 1980:252). The relevant transitivity parameters here are VOLITIONALITY and AGENCY of the participants, specifically the A or S argument. I understand a volitional agent as one that acts purposefully so that the effect on the patient is more effective, hence more highly transitive. Hopper and Thompson contrast *I wrote your name* (volitional) and *I forgot your name* (non-volitional) (1980:252). Relatedly, agents that are "high in potency" (agency) can "effect a transfer of action" more easily than those that are low in potency (1980:252). For Hopper and Thompson, highly potent (or agentive) agents are human, or at least animate (1980:286).

In this section, we look at experience verbs, which typically have a human participant – an experiencer – which is non-volitional. Despite the fact that experiencers are typically human, and therefore potentially agentive, they do not act volitionally or with control in regard to the experience verb. An experiencer can be defined as "a sentient participant having a sensory experience of a perceptual, cognitive, emotional or bodily event or state" (Foley 2007:372). Foley suggests that,

although experiencers are often treated like subjects of transitive and intransitive verbs, they are not "prototypical subjects" because they are not "responsible causers of an event".

Given that experiencers are not semantically "prototypical" subjects, they are often marked with some kind of oblique case-marking in many languages. Croft (1993) gives examples from Spanish where the experiencer of the verb *olvidar* 'forget' can be treated as either subject (5.51) or a dative marked object (5.52).

(5.51) *olvidé* *hacer-lo*
forget.1SG.PST do.INF-3SG
'I forgot to do it [experiencer = subject]'

(5.52) *se* *me* *olvidó* *hacer-lo*
3.REFL 1SG.DAT forget.3SG.PST do.INF-3SG
'I forgot to do it' [experiencer = object] (Croft 1993:65-66)

Croft notes that the subject-experiencer form (5.51) is used when the speaker intentionally forgets something, while the impersonal reflexive form (5.52) is used when the forgetting is unintentional, the speaker is not responsible.

Croft (1993:64) argues that if argument realization is variable within the same language, then the experiencer-subject construction is associated with more control on the part of the experiencer. In other words, in languages such as Spanish in which the experiencer can be treated in more than one way, when it is treated in the same way as an agentive transitive subject of a kinetic verb, then that experiencer is conceptualized as having more control over the event, and is thus more "agent-like".

In this section we will look at experience verbs and see that some Ho verbs have object-experiencers, others have subject-experiencers. For another type of verb, the experiencer can be coded as either subject or object. Finally we will see that

experience verbs of any type can appear in a middle construction – another way speakers show reduced transitivity.

To decide whether a given experiencer is treated as subject or object, we must look at subject and object properties. We have already seen in this chapter that Ho does not have consistent case-marking on all object NPs; the only reliable object properties are the bound pronominal markers in the verb. The subject clitics attach to the word directly in front of the verb, or to the end of the verb itself; while object suffixes follow the verb root or aspect suffix. Object suffixes are obligatory under certain aspectual and animacy conditions, as we have seen, but subject clitics are frequently omitted, especially when the subject is third person singular.

5.4.1. Object-Experiencer Constructions

First, we look at verbs with which the experiencer is marked as object, i.e., the experiencer is indexed with an object suffix in the verb. Verbs that code the experiencer as object include: *tetaŋ* 'thirsty', *lolo* 'hot' (also 'jealous'), *rabaŋ* 'cold', *elaŋ* 'feel heat of fire', *turtuŋ* 'feel glare of light/sun', *reːreː* 'have a painful tingling in the legs', and *babata* 'itchy'.

(5.53) *nimin* *tetaŋ-aka-ɖ-iɲ-e*
so.much thirsty-PRF-TR-1SG-FIN
'I'm so thirsty' (20110524RPP:20)

(5.54) *aɲ* *tetaŋ-iɲ-ten-e*
1SG thirsty-1SG-IPFV-FIN
'I'm thirsty' (1.152.5)

(5.55) *ape* *cine?* *lolo-pe-tan-a?*
2PL what hot-2PL-IPFV-FIN
'why are you jealous?' (20081122GPb:13)

(5.56) *ako* *jawge* *rabaŋ-ko-tan-a*
3PL always cold-3PL-IPFV-FIN
'they're always cold' (1.95.22)

In sentences (5.53)–(5.56), there is no NP filling the stimulus role. The only NP (a free pronoun) in the clause refers to the experiencer. There is no subject clitic. The experiencer is the only argument in the clause and it is coded as object with an object suffix in the verb. This is akin to the Ho locative construction where only the theme argument is indexed in the verb, also as an object (see chapter III).

If we consider the semantics of the verbs which take object-experiencers, we notice that all of the verbs refer to an experience which involves a non-volitional experiencer. Hopper and Thompson claim such clauses are "less transitive" and therefore likely to correlate with other features of low transitivity. The other low transitivity features we see in these object-experiencer constructions are a single participant and the absence of an agentive A. It is interesting that for object-experiencer constructions in Ho, "low transitivity" means the absence of a subject rather than a typical intransitive clause which lacks an object.

Object-experiencer constructions in Ho are not the same as what are called dative-subject constructions for experience verbs, an areal feature of South Asia, but also found in unrelated languages (Masica 1976; Verma and Mohanan 1990; cf. Osada 1999). In the dative-subject construction in Hindi, for example, the experiencer has some syntactic subject properties, e.g., reflexive control, equi NP deletion (but not verb agreement) despite the fact that the experiencer NP carries dative case-marking. In Ho, the experiencer is quite clearly marked as an object and there is no evidence for it having any subject properties.

5.4.2. Subject-Experiencer Constructions

In the second type of experience verb construction, the experiencer is treated as a subject, evidenced by the presence of a subject clitic. Subject-experiencer verbs include: *boro* 'fear', *kurkur* 'angry', *giyuʔ* 'ashamed', *duku* 'suffer', *urgum* 'be warm' *hile* 'hate', *akadanda* 'amazed', and *harob* 'satisfied'.

(5.57) *guɽu* *nel-kiʔ-torsa=ʔ* *boro-tab-ke-ɖ-a*
field.rat see-PFV:TR:3SG-immediately.upon=3SG fear-quickly-PFV-TR-FIN
'immediately when he saw the field rat, he was scared' (20110525RPPa:59)

(5.58) *ente* *esu=iʔ* *duku-iye-n-e*
then very=3SG suffer-PST-ITR-FIN
'then he was very sad' (20110521SD:16)

The subject experiencer verbs include both one- and two-participant constructions. Some of the subject-experiencer verbs allow a stimulus as second argument, e.g., *boro* 'fear', *kurkur* 'angry', *giyuʔ* 'ashamed', *hile* 'hate', and *akadanda* 'amazed'. *Boro* 'fear' is a little different because it is always syntactically transitive, even when there is no direct object in the clause, e.g., (5.57) carries the transitive suffix *-ɖ* (see section 5.2.3. for other one-argument verbs that are treated as transitive).

If an animate stimulus argument is present, it is indexed in the verb in the object slot along with either the applicative suffix *-a* (or its allomorph *-e*) (5.59), or the allative suffix *-te* (5.60), which is used as a type of applicative.

(5.59) *Soba* *biŋ-ko* *hile-e-ko-tan-a*
Soba snake-PL hate-APPL-3PL-IPFV-FIN
'Soba hates snakes' (1.191.16)

(5.60) *Soba* *ayaʔ* *hon-ko=eʔ* *giyuʔ-te-ko-tan-a*
Soba 3SG:GEN child-PL=3SG ashamed-ALL-3PL-IPFV-FIN
'Soba is ashamed of her chidren' (1.192.20)

When the stimulus is inanimate, the *-te* appears though the inanimate object suffix does not, as in (5.61).

(5.61) *Soba aya? owa?=e? giyu?-te-tan-a*
Soba 3SG.GEN house=3SG ashamed-ALL-IPFV-FIN
'Soba is ashamed of her house' (1.192.21)

The use of the allative *-te* in experiential constructions is restricted to non-past contexts, i.e., it occurs in generic and imperfective aspects, but not with the perfect(ive) suffixes. It can occur with the past tense copula *taikena*.

If we look at the semantics of the verbs that take the subject-experiencer construction, we see that, like the object-experiencer construction, they can also involve a human experiencer. They seem similarly low in volitionality or control. Some of the subject-experiencer verbs can be two-participant clauses (e.g., *boro* 'fear' and *hile* 'hate'). However, the main difference between these and the object-experiencer verbs is that the subject-experiencer constructions involve more verbs of *human propensity*. They also tend to be experiences of the mind. Compare these with the object-experiencer verbs which are more bodily experiences.[2] Not every Ho subject-experiencer verb is a human propensity lexeme, e.g., *urgum* 'warm'. However the generalization stands: most of the subject-experiencer verbs involve human propensity lexemes. We might simply conclude that human propensity situations, perhaps because they are of the mind rather than the body, are perceived as somewhat controllable and more volitional, in contrast to the object-experiencer constructions in which the event is perceived as "happening to" the experiencer.

[2] *Lolo* 'jealous' refers to a human propensity but occurs in an object-experiencer construction. Note though that *lolo* also means 'hot' (a bodily experience) and its use for 'jealous' is a metaphorical extension of that.

5.4.3. Verbs that Allow Experiencer as Either Subject or Object

The third type of experience verb can occur in either the subject or object-experiencer construction. Verbs of this type include: *suku* 'like', *rabaŋ* 'cold', *sanaŋ* 'want', *renge?* 'hungry', *hasu* 'sick', *laga* 'tire' and *rãsa* 'happy'.

Examples (5.62)–(5.64) illustrate a subject-experiencer construction with verbs that can take either a subject or an object experiencer. The presence of the subject clitic immediately before the verb shows us that the experiencer is being treated as a subject. Both (5.62) and (5.63) have just one argument while example (5.64) has an animate stimulus which is coded as object, with a pronominal object suffix in the verb.

(5.62) *coke=do* *esu=i?* *rãsa-ya-n-a*
frog=FOC very=3SG happy-PST-ITR-FIN
'the frog was very happy' (20120121RPPb:81)

(5.63) *ne-ko* *paiʈi-ke-n-ko* *joka=ko* *laga-aka-n-a*
this-PL work-PFV-ITR-PL little=3PL tire-PRF-ITR-FIN
'these workers are a little tired' (20081208MSa:48)

(5.64) *ako* *ini?=ko* *suku-e-i-ten-e*
3PL 3SG.ANIM=3PL like-APPL-3SG-IPFV-FIN
'they like him/her' (3.75.3)

These same verbs can also code the experiencer as an object in the verb. When the experiencer is coded as object, the object suffix appears in the verb after the root, or after the perfect(ive) aspect suffix (see section 5.4.1.).

(5.65) *aɲ* *rãsa-ɲ-tan-a*
1SG happy-1SG-IPFV-FIN
'I'm happy' (1.154.20)

(5.66) *aɲ* *laga-ɲ-tan-a*
1SG tire-1SG-IPFV-FIN
'I'm tired' (1.175.49)

Suku 'like, want' can also be in an object-experiencer construction; however, this mostly seems to occur when there is another main verb present, as in (5.67) and (5.68).

(5.67) *aɲ* *chocolate* *jom-suku-ɲ-ten-e*
1SG chocolate eat-want-1SG-IPFV-FIN
'I want to eat chocolate' (1.154.22)

(5.68) *hola* *aɲ* *ciʈi* *ol-suku-li-ɖ-iɲ-e*
yesterday 1SG letter write-want-ANT-TR-1SG-FIN
'yesterday I wanted to write a letter' (1.156.38)

(5.69) **aɲ* *chocolate* *ka=ɲ* *jom-suku-ɲ-ten-e*
1SG chocolate NEG=1SG eat-want-1SG-IPFV-FIN
'I don't want to eat chocolate' (1.154.23)

In the ungrammatical example (5.69), we see that the experiencer argument *aɲ* '1SG' cannot be marked as both subject and object in the sentence and the subject clitic is not grammatical.

For verbs that can appear with both the object-experiencer and subject-experiencer construction, we might suppose that when a given verb occurs with an object experiencer, the event is perceived as "happening to" the experiencer and conversely, that experiencers coded as subject are seen as having more control over the event. More data are required to test this hypothesis thoroughly.

5.4.4. Middle and Reflexive Constructions for Experience Verbs

There is a final construction-type that signals reduced transitivity for experience verbs. It seems that all experience verbs can appear in a middle construction,

regardless of whether they otherwise allow subject-experiencers (5.70), object-experiencers (5.71) or both possibilities (5.72).

(5.70) *Soba harob-oʔ-tan-a*
Soba satisfied-MID-IPFV-FIN
'Soba is satisfied' (1.197.6)

(5.71) *jawge aŋ elaŋ-oʔ-wa=ŋ*
always 1SG feel.heat.of.fire-MID-FIN=1SG
'I always feel the fire's heat' (1.212.7)

(5.72) *tisiŋ kaːni=liŋ ayum-sanaŋ-oʔ-tan-a*
today story=1DU.EXCL hear-want-MID-IPFV-FIN
'today I want to hear a story' (20120121RPPb:2)

In section 4.3.1.2., we looked at the middle construction and saw that it is used with events that are semantically between transitive and intransitive. Cross-linguistically middle events have a "low degree of elaboration of events", i.e., A and P are not well differentiated (Kemmer 1993:238) and they often have only one participant realized in the clause. We should therefore not be surprised to see that the Ho middle construction is used with experience verbs, which are often perceived as "happening to" an experiencer.

According to Deeney, the use of the middle (his passive) with experience verbs suggests 'inchoative' or 'becoming' semantics (Deeney 2002:75). However, the notion of becoming is not always evident in the examples in my corpus, e.g., (5.71) or (5.72). The use of middle for an event with a "low degree of elaboration of events", in which the theme argument is not in control, is a better explanation.

Deeney also points out that it is sometimes possible for experience verbs to occur in a reflexive construction (Deeney 2002:76).

(5.73) *seta* *ene:te* *horo=do=kiɲ* *duku-n-ten-e*
dog then tortoise=FOC=3DU suffer-REFL-IPFV-FIN
'the dog and the tortoise are suffering' (20120121RPPb:14)

Examples such as (5.73) are not common in my data, but it should not surprise us that another construction that signals reduced transitivity could be used with experience verbs where the experiencer is perceived to have less control over the event.

As we saw in chapter IV, the middle construction does not appear with perfect(ive) clauses. In other words, experience verbs can only appear in the middle construction in imperfective clauses. Once again, we see low transitivity features converging – in this case a single participant, imperfective aspect and a non-volitional verb – as predicted by Hopper and Thompson's transitivity hypothesis.

5.4.5. Summary of Experience Verbs and Transitivity

In this section we looked at experience verbs and saw that while some experiencers in Ho are treated in the same way as an A or S of a kinetic verb, others are treated as objects. Another group of experience verbs can treat the experiencer as either subject or object.

In clauses where the experiencer is coded as an object, it is indexed in the verb in the object slot. No other argument in the clause (such as the stimulus) is marked as subject. Similar to locatives, object-experiencers are in an impersonal construction. Verbs that appear in the object-experiencer construction all encode a kind of bodily event that "happens to" an experiencer, such as *tetaŋ* 'thirsty' or *babata* 'itchy'.

We further saw that the verbs which appear in a subject-experiencer construction tend to have 'human propensity' semantics. Rather than an experience that affects the body (as with object-experience constructions), human propensity verbs tend to be experiences of the mind. Some of the subject-experience verbs have two arguments,

or at least the possibility of two arguments. When a second argument appears in the subject-experiencer construction, it is coded as an object.

An additional group of experience verbs can have either subject or object experiencers. It is not clear what factors lead a speaker to code the experiencer of these verbs as either subject or object in a given one-participant sentence. We might speculate that when experiencers are coded as objects, they are somehow perceived as having less control over the situation compared with subject-experiencer constructions.

Ho speakers can also signal the reduced transitivity of an experience clause with the middle construction. In these clauses, the experiencer is the single argument and the middle suffix *-o?* appears after the verb root. As we saw in chapter IV, the middle construction in Ho is used for clauses with a 'low degree of elaboration of events', such as experience verbs (Kemmer 1993). Finally, in this chapter we have seen that the middle also correlates with imperfectivity, a single participant and a non-volitional verb, in keeping with the transitivity hypothesis.

5.5. Conclusion

Croft (1990:130-134) cites Hopper and Thompson's approach to transitivity as an example of a prototype analysis. "No single property is a *necessary* characteristic of transitivity, but every property *contributes* to the transitivity of the clause" (Croft 1990:134). In this chapter, we have looked at how several properties of transitivity are manifested in Ho, including participants, aspect, volitionality, agency, and the individuation of O. We have seen some correlations between transitivity parameters, as predicted by Hopper and Thompson's transitivity hypothesis, but also one way

in which Ho does not seem to meet their predictions: the correlation between the morphosyntax of an individuated inanimate O and imperfective aspect.

There are two ways to mark an object in Ho. First, there is a developing object case marker *-ke*, which only attaches to animate primary object NPs. (Ho has primary/secondary object marking.) Inanimate object NPs are never case marked with *-ke*.

Secondly, Ho indexes objects in the verb with bound pronominals. In imperfective clauses we saw that all animate and referential/definite inanimate objects are indexed in the verb, as well as animate goal/recipient/benefactive arguments (primary/secondary alignment). Non-referential or indefinite objects are not indexed in an imperfective clause, which means that those sentences containing a non-referential or indefinite object look like intransitive clauses. Conversely, we saw that certain one-participant verbs carry the inanimate object marker, similar to a cognate object construction. The presence of an object argument is thus not the only factor contributing to the use of *-e*.

In contrast to imperfective clauses, only animate objects are indexed in perfect(ive) clauses. Referential or individuated inanimate objects are not marked in perfect(ive) clauses. In Ho, we see imperfective aspect (low transitivity) correlating with an individuated O suffix (high transitivity). This finding seems to run counter to Hopper and Thompson's prediction that high transitivity features co-occur. However, the fact that more individuated Os are marked in imperfective clauses - precisely where we do not expect them - is in keeping with other typological predictions (e.g., Comrie 1979; Croft 1988) that less expected Os are more likely to be marked.

In section 5.3. on the perfect(ive) aspect markers and their interaction with the two transitivity suffixes *-ḍ* and *-n*, we saw that the transitivity suffixes only appear in

the verb with the perfect(ive) suffixes or the applicative suffix -*a*. I argued that the combination of perfective aspect and the transitive suffix -*ḍ* is becoming so associated with a past time interpretation that we might call -*ḍ* an incipient past tense suffix.

Finally, in section 5.4., we saw that Ho has three types of experience verbs. For two groups of verbs, the experiencer argument is treated only as a subject or as an object, but not both. For a third type, the experiencer can be encoded as either subject and object. Object-experiencer constructions, in which the experiencer is indexed as an object in the verb, are a type of impersonal construction. Like the locative construction, where the theme is marked in the verb as an object, there is no sentential subject in an object-experiencer construction. The verbs that appear in the subject-experiencer construction tend to be human propensity verbs, while the object-experiencer verbs were more bodily experiences, which an experiencer is less able to control. For verbs whose experiencer can be marked as both subject and object, it is not clear what factors lead a speaker to choose a given construction, although we may speculate that the amount of control the experiencer is perceived to have over the situation is likely relevant.

In the next chapter, we move to complex clause constructions.

CHAPTER VI

COMPLEX CLAUSES

So far we have looked at aspects of the basic clause in Ho and seen how grammatical relations, tense/aspect and transitivity are figured in the verb. In this chapter, we will consider complex clauses, i.e., clauses with two or more verbal roots. First, in section 6.1. we see how Ho treats a clause that is the complement of another clause. We will see that complement clauses can be more or less finite depending on the semantics of the main verb. One type of non-finite or reduced clause is a nominalization. The nominalized clause appears again in section 6.2. as one of three possible ways to form a relative clause. It is not however, the most common relative clause construction, which is the participle construction. In section 6.3. we will see that Ho has nuclear serial verb constructions and that many common V2s from within serial constructions are grammaticalizing to more auxiliary functions.

6.1. Complementation

In this section, we will look at various constructions involving a complement-taking matrix verb plus a complement clause in Ho.

Givón hypothesizes that the greater the semantic bond between the two events expressed in a matrix and complement verb, then the more syntactically integrated the two clauses should be (2001b:39-40; also Haiman 1985; Noonan 2007:101). A tight semantic bond means that the two events are co-temporal and have co-referential agents. If the two events share agents and time-reference, a fully finite complement verb with tense marking would be redundant (Noonan 2007:111). Instead we expect

to see some kind of reduced complement verb, e.g., nominalization or infinitive, where tense, aspect and grammatical relations are primarily marked on the matrix verb.

Matrix perception-cognition-utterance verbs often reference a time that is independent of the time reference of their complements. These complements are therefore the most likely to be finite. In Ho, we will see that two verbs of saying, *men* 'say' and *meta* 'say to', have fully finite complements.

In contrast, the time reference of matrix modality verbs such as English *try* or *want* is normally the same as that of their complements. They are furthermore more likely to have the same subject. In section 6.1.2. we will look at the complements of modality verbs in Ho and we will see nominalizations, bare verbs and infinitives.

6.1.1. Finite Complements and Complementizers

Perception-cognition-utterance (PCU) matrix verbs tend to have the most finite complement clauses because of the relative semantic independence of the matrix event from the complement event or situation (Givón 2001b:41). In addition to *meta* 'say to' and *men* 'say', two other PCU verbs, *nel* 'see' and *ada* 'know', take finite complements in Ho. However we will see that the complements of *nel* 'see' and *ada* 'know' are sometimes introduced with a complementizer.

6.1.1.1. *meta* and *men*

The two most frequent verbs of saying in Ho, *meta* 'say to' and *men* 'say', are syntactically transitive matrix verbs, taking the transitivity marker in perfective aspects, and an inanimate object marker with *-tan* 'imperfective'.

With *meta*, the grammatical primary object is the person who is being talked to. In example (6.1), we see *meta* with the third person animate object marker *-i*.

(6.1) *“aŋ=do ga˞a-re joka=ŋ oɽa-le:-n-o?-wa”*
1SG=FOC river-LOC little=1SG bathe-ANT-ITR-MID-FIN
meta-i-ten-e
say.to-3SG-IPFV-FIN
‘“I will bathe a little in the river”, he says to him’ (20081108AB:38)

Men ‘say’ always appears with an inanimate object marker in non-past or imperfective clauses (6.2) and the transitive suffix *-ɖ* in perfective aspect (6.3).

(6.2) *“am bacaw-eŋ-te=ge=m hoba-o?-wa” men-e-tan-a*
2SG save-1SG-ALL=EMPH=2SG must-MID-FIN say-INAN.OBJ-IPFV-FIN
‘“you must save me,” he says’ (20110210BCb:33)

(6.3) *ente miɖ-te? “daru=ŋ ma?-ya nen bugi-leka-n*
then one-place tree=1SG chop.w.swinging.motion-FIN this good-like-ITR
daru” men-ke-ɖ-a
tree say-PFV-TR-FIN
‘then in one place, “I’ll cut down the tree, this is a good tree”, he said’ (20110210BCc:12)

The complements of both *meta* and *men* are fully finite as we might expect of the complements of utterance verbs. In the complement clauses we see that the complement verb can appear with an aspect marker, and the finite suffix *-a*, as well as a subject clitic.

6.1.1.2. The Complementizer *ci*

Two cognition/perception verbs that express epistemic certainty are *nel* ‘see’ and *ada* ‘know’. As with the verbs of speaking, the complements of *nel* ‘see’ and *ada* ‘know’ are finite. However their complements differ from the complements of *meta* ‘say to’ and *men* ‘say’ because they are most commonly introduced by the complementizer *ci*.

First, we will look at three examples of *nel* with no complementizer. The first thing to notice is that the word order can vary; the matrix verb with *nel* 'see' may precede or follow the complement clause. Although both orders are possible, the order shown in (6.5) and (6.6), with the matrix verb preceding the complement, is preferred.

(6.4) *ente biɲ ondo? ka:?=kiɲ goe?-ka-n-a nel-ke-ɖ-**kiɲ**-e=?*
then snake and crow=3DU die-PRF-ITR-FIN see-PFV-TR-3DU-FIN=3SG
'then he saw that the snake and the crow were dead' (20110521SD:59)

(6.5) *ene:te=kiɲ nel-**ko**-tan-a daru sube-re esu sange coke-ko*
then=3DU see-3PL-IPFV-FIN tree under-LOC very many frog-PL
mena?-ko-wa
COP-3PL-FIN
'then they saw that there were many frogs under the tree' (20110222MB:54)

(6.6) *Dobro nel-**ko**-tan-a=? hon-ko unuŋ-ten-e=ko*
Dobro see-3PL-IPFV-FIN=3SG child-PL play-IPFV-FIN=3PL
'Dobro is watching the boys playing' (2.178.10)

The second interesting point about sentences (6.4)-(6.6) is that the subject of the complement clause is copied and marked on the matrix verb *nel* 'see' as the object. For example, in sentence (6.4), the object that is marked on *nel* is dual, referring to the snake and the crow, who are the subject of the complement clause. Example (6.5) has a locative copula construction in the complement clause. The single argument of a locative copula is always marked on the copula verb, close to the root, in the same way that objects are marked. And in sentence (6.5), it is that single argument of the copula that is copied and marked as object on the matrix verb. Example (6.6) is similar.

Complements of *nel* are commonly introduced with the complementizer *ci*. In this case, *nel* always precedes the *ci* complement clause.

(6.7) *ente* *canab=do* *nel-**e**-tan-a* *ci* *en* *daru=do*
then after=FOC see-INAN.OBJ-IPFV-FIN COMP that tree=FOC
diriŋ-ten-e
horn-IPFV-FIN
'then, after, he sees that that tree has horns' (20081219JT:51)

(6.8) *nel-**e**-tan-a=kiŋ* *ci* *boyam-re=do* *coke* *ban-gaya?*
see-INAN.OBJ-IPFV-FIN=3DU COMP jar-LOC=FOC frog NEG.COP-3SG:FIN
'they see that the frog isn't in the jar' (20081219JT:9)

Note that in both (6.7) and (6.8), *nel* has an inanimate object marker, as in the pattern of *men* 'say' above. This fact distinguishes these clauses with *ci* from those without *ci* above (e.g., (6.5)) where the complement subject was marked as object of matrix *nel* 'see'. The inanimate object marker in sentences like (6.7) and (6.8) encodes the complement clause itself. In example (6.8) the complement subject is third person animate; however, the object marker of *nel* 'see' is inanimate. Note, though, that a sentence constructed with a copied object suffix (corresponding to the subject of the complement clause) and a *ci* complement was acceptable to my consultant (6.9).

(6.9) *Dobro* *nel-ke-ɖ-**ko**-wa* *ci* *hon-ko* *unuŋ-ten-e*
Dobro see-PFV-TR-3PL-FIN COMP child-PL play-IPFV-FIN
'Dobro sees that the children are playing' (2.178.15)

Despite the acceptability of a sentence like (6.9), there are no examples of copied objects with *ci* in the narrative texts in my corpus. Complements of *nel* with *ci* are normally different from those without *ci*.

Another verb which expresses epistemic certainty and can take complement clauses introduced by *ci* is *ada* 'know'. *Ada* can also mean 'experience, feel' but when it carries the applicative marker *-a* and intransitive *-n*, then it means 'know', as we see in example (6.10).

(6.10) *Dobro* *ada-a-n-a* *ci* *am* *gapa=m* *huju?-we*
Dobro know-APPL-ITR-FIN COMP 2SG tomorrow=2SG come-FIN
'Dobro knows that you're coming tomorrow' (2.179.18)

The complement of *ada* does not always appear with *ci*, as we see in (6.11) and (6.12).

(6.11) *ka=kiɲ* *ada-a-n-a* *cauli-te* *manɖi*
NEG=3DU know-APPL-ITR-FIN uncooked.rice-ALL cooked.rice
bai-u?-wa
make-MID-FIN
'they didn't know that food could be make from uncooked rice'
(20081029RCBa:14)

(6.12) *Dobro* *ada-a-n-a* *am* *gapa=m* *huju?-we*
Dobro know-APPL-ITR-FIN 2SG tomorrow=2SG come-FIN
'Dobro knows that you're coming tomorrow' (2.179.19)

We do not see any evidence of the complement clause subject being copied with *ada*, either with or without *ci*.

In this section we have seen that *nel* 'see' and *ada* 'know' can take finite complements both with and without the complementizer *ci*. The verb in the complement clause is fully inflected: we see aspect suffixes, the transitivity suffix, object markers and the finite suffix *-a*. *Nel* is a transitive verb; the subject of the complement verb is copied as object of *nel* 'see' when there is no complementizer. With the complementizer *ci*, *nel* 'see' takes an inanimate object marker and the complement subject is not copied. *Ada* appears with the applicative and intransitive suffixes and therefore the complement subject cannot be copied into the object slot, with or without *ci*.

Both with and without *ci*, the complement clause tends to follow *nel* 'see' and *ada* 'know'. (But see example (6.4) for an exception to this tendency.) In the following

section, we will see the opposite word order with another type of complementizer, *mente*.

6.1.1.3. *mente*

The complementizer or quotative *mente* comes from *men* 'say' plus the allative/infinitive marker *-te*.[1] In this construction type, a finite complement clause is followed by *mente* and then the matrix verb, the opposite order from what we saw in section 6.1.1.2. with *ci*. Matrix verbs that take *mente* include *riːɲ* 'forget' and *uɽu?* 'think'.

(6.13) *"cilika=ɲ budi-re ne-ko nen dudelum-ko=ɲ har-nir-ko-wa*
how=1SG idea-LOC this-PL this pigeon-PL=1SG drive-run-3PL-FIN
mente" uɽu-ke-ɖ-a
COMP think-PFV-TR-FIN
' " how can I run these pigeons away?" he thought' (20081107AB:3)

(6.14) *aɲ kiteb em-a-me-ya=ɲ mente=ɲ riːɲ-ke-ɖ-a*
1SG book give-APPL-2SG-FIN=1SG COMP=1SG forget-PFV-TR-FIN
'I forgot to give you the book' (2.15.49)

(6.15) *aɲ lije?=eɲ haka-ya=ɲ mente=ɲ riːɲ-ke-ɖ-a*
1SG clothing=1SG hang-FIN=1SG COMP=1SG forget-PFV-TR-FIN
'I forgot to hang clothes' (2.15.53)[2]

Both *riːɲ* 'forget' and *uɽu?* 'think' are syntactically transitive matrix verbs, evidenced by the transitivity marker *-ɖ* after the perfective aspect marker. Although these verbs could be so-called cognate object verbs (one-argument verbs that are syntactically transitive, see chapter V), the object in these cases could refer to the complement

[1] In section 6.1.2.3. below I will argue that the allative suffix *-te* is becoming an infinitive marker in Ho.

[2] *Riːɲ* 'forget' can also take a bare verb construction; see section 6.1.2.2.

clause itself. As in section 6.1.1.2. with the *ci* complements, the complement subject is not copied as object of the matrix clause.

It is also possible for *mente* to appear on its own, without an overt matrix verb:

(6.16) *okon-re-m-a* *coke?* *okon-re-m-a* *coke?* *mente*
where-LOC-2SG-FIN frog? where-LOC-2SG-FIN frog? COMP
'Where are you frog? where are you frog? (20081219JT:22)

In examples like (6.16), *mente* seems to be acting as the matrix verb itself, as there is no finite verb in these clauses. We might call it a quotative in these examples.

The most striking difference between *mente* and *ci* is in word order. *Ci* precedes the complement clause while *mente* follows it. Throughout India and other parts of South Asia, many languages, particularly Indo-Aryan languages, have two complementizers that follow these same two patterns.

Complementizers (like *mente*) that follow the complement usually come from a word meaning 'say', e.g., *bole* in Bengali or *ani* in Telugu (Bayer 2001). Bayer notes that these are traditionally called quotatives because they set the preceding discourse in quotes (2001:13).

The second type of complementizer always precedes the complement clause, and follows the matrix verb. Bayer calls these "initial complementizers". Ho *ci* and its Hindi equivalent *ki* are of this type. Bayer notes that across the Indo-European family, the initial complementizers are often lexically identical with a demonstrative pronoun such as 'what' or a relativizer such as 'which' (2001:13). The lexical origins of the initial complementizer in South Asian languages are less clear but Bayer suggests that they come from what he calls "operators". Both Hindi *ki* and Bengali *je* are relativizers. The Ho complementizer *ci* is likely a loan from the Hindi *ki* and it is also used as a question particle in Ho. (Deeney reports some use of *ci* as a relativizer among bilingual speakers (2002:92.))

Bayer finds that for Bengali, there is some functional overlap in the initial and final complementizers. However, the final complementizer (*bole* in Bengali) has more uses than the initial complementizer. In Ho, the final complementizer *mente* can also be used with purpose adverbials, as we see in example (6.17). Here *mente* follows the purpose phrase, in this case *enko buginteko taiu?kako* "that they stay well".

(6.17) *gõwa-bonga* *bonga-i-ye=bu,* *gõwa-re* *uri?*
cow.shed-spirit worship-3SG-FIN=1PL.INCL cow.shed-LOC cow
merom-ko *ciken-ko=bu* *em-ko-wa* *enko*
goat-PL what-PL=1PL.INCL put-3PL-FIN that.ANIM:3PL
bugin-te=ko *tai-u?-ka=ko* *mente*
good-ALL=3PL stay-MID-OPT=3PL COMP
'we worship to the cattle shed god, so that the cows and goats and whatever we put in the cow shed will be healthy' (20110301KB:38)

(6.18) *aliɲ* *da?=liɲ* *agu-le-ɖ-a* *aben=liɲ*
1DU.EXCL water=1DU.EXCL bring-PFV-TR-FIN 2DU=1DU.EXCL
em-a-ben-a *mente* *mendo* *ka=liɲ*
give-APPL-2DU-FIN COMP but NEG=2DU.EXCL
em-a-ɖ-ben-a
give-APPL-TR-2DU-FIN
'we brought the water to give to you but we haven't given it yet' (2.7.32)

In examples (6.17) and (6.18) *mente* functions to link an adverbial clause to the main clause as a kind of purpose marker.

The grammaticalization of quotative verbs into both complementizers and purpose markers has been noted in many languages across the world (e.g., Lord 1976; Saxena 1988; Hopper and Traugott 2003:13-15; Klamer 2000). In a cross-linguistic study of the grammatical functions of quotative verbs, Saxena (1995) argues for a four stage process wherein a quotative verb first grammaticalizes to a complementizer, then to a reason/purpose marker, then to a conditional, and finally to a comparative

marker. Ho seems to be at stage two of this process; *mente* is only used as a complementizer and a purpose marker.

6.1.2. Non-Finite Complement Clauses

We saw in section 6.1.1. that the finite complement clauses of perception-cognition-utterance verbs take the same form as regular finite main clauses in Ho. The aspect marking, transitivity and object marking and finite marker all appear as they would in a basic clause without a matrix verb. In this section we look at the structure of reduced complements i.e., non-finite complement clauses.

In Ho, the matrix verbs which take some type of non-finite complements are for the most part (so-called) modality verbs. As predicted by Givón's scale of event integration (2001b:55), "modality" verbs code the aspect or mode of the event or state encoded in the complement clause; hence they typically have a close semantic bond with the complement predication. The matrix and complement verbs together refer to a single event, i.e., they refer to the same place and temporal or aspectual situation. In addition, the subject of the complement verb is normally co-referential with the subject of the modality verb. Givón predicts that this semantic closeness will be reflected in the syntax and that the matrix verbs of this type will be more likely to have non-finite or nominalized complements. In Ho, non-finite complements of modality verbs can be nominalizations, infinitives or bare verbs.

6.1.2.1. Nominalization

Five matrix verbs in Ho take a nominalized complement: these are *ete?* 'begin', *nam* 'try' (also 'get'), *dorkar* 'need', *ayum* 'hear' and *paisela* 'decide'. As both *ayum* 'hear' and *paisela* 'decide' are PCU verbs, we might expect them to take more

finite complements. Givón notes that verbs of preference such as *decide* occupy a transition point between modality and PCU verbs. For example, in English *decide* can sometimes have a co-referent subject with its complement (as in 6.19a) but not always. Further, the complement is sometimes finite (as in 6.19c) and sometimes reduced (Givón 2001:58).

(6.19) (a) She decided to do it.

(b) She decided that Joe/she should do it.

(c) She decided that Joe did it.

In Ho, *ayum* 'hear' and *paisela* 'decide' both take reduced complements. We might conclude that their complements occupy the transition point in Ho between finite and non-finite complements, and that they are between PCU and modality verbs.

In the nominalized complement construction, the nominalizing suffix *-teya?* is simply suffixed to the complement verb. No aspect or transitivity suffixes appear in the nominalized complement; but an object suffix can follow a transitive complement verb, and precede *-teya?*. Nominalizations are therefore partially finite because they allow object-marking.

As we saw in chapter III, *-teya?* is a nominalizing suffix that can attach to a variety of lexemes. In the following examples, we see *-teya?* suffixed to a property concept (6.20), to an action (6.21), and to a kind of incorporated action-object compound (6.22).

(6.20) *...roː-teya?=do* *ka=ge* *berel* *ruːm* *sakam-re* *roː-teya?=do*
...dry-NMLZ=FOC NEG=EMPH unripe rum leaf-LOC dry-NMLZ=FOC
ka=ge *bai-u?-wa*
NEG=EMPH make-MID-FIN
'...not the dry ones, [put it] on an unripe rum leaf, the dry ones don't work' (lit: 'aren't made') (20081107NB:20)

(6.21) *ente kiteb bai-ye-n-re=do ondo? eto-ko-teya? ondo?*
then book make-PST.ITR-LOC=FOC and teach-3PL-NMLZ and
suvide bai-ye-n-e, ayer=do kiteb ka taiken-re=do
easy make-PST-ITR-FIN, before=FOC book NEG PST.COP-LOC=FOC
joke muskil taikena
little difficult PST.COP
'after the book was made, teaching them was made easier, before, when there was no book, it was a little difficult' (20110413DSP:139)

(6.22) *ginil-re lije?-ko-haka-teya? kilum-eke-n-a*
wall-LOC cloth-PL-hang-NMLZ nail-PRF-ITR-FIN
'the clothes hooks are nailed on the wall' (2.121.50)

In all cases, the *-teya?* word has the pragmatic function of referring to some entity, which is the prototypical function of a noun.

As we will see in the following examples, a verb nominalized with *-teya?* can function as a complement to certain modality verbs, chiefly *nam* 'try' and *dorkar* 'need, necessary'. In examples (6.23) and (6.24) the subjects of both the matrix and the complement verbs are the same and the complement verbs are intransitive.

(6.23) *Soba paɽaw-teya? nam-tan-a*
Soba study-NMLZ try-IPFV-FIN
'Soba is trying to study' (1.214.21)

(6.24) *aŋ owa?-te huju?-teya? dorkar-a*
1SG house-ALL come-NMLZ need-FIN
'I need to come home' (1.223.29)

If the complement verb has an object (and the subjects of both verbs are the same), the object suffix appears between the complement verb root and the nominalizing suffix. This is true for both animate (6.25) and inanimate (6.26) objects.

(6.25) *ente kule=do jom-iŋ-teya? nam-tan-a*
then tiger=FOC eat-1SG-NMLZ try-IPFV-FIN
'then the tiger is trying to eat me' (20110210BCc:52)

(6.26) *Dobro kiteb=e? paɽaw-e-teya?=e? nam-tan-a*
Dobro book=3SG read-INAN.OBJ-NMLZ=3SG try-IPFV-FIN
'He is trying to read a book' (1.226.6)

If the subject of the complement verb is different from the subject of the matrix verb, there are two possible constructions. The first is the same as we saw above. The subject of the complement verb is simply inserted before the complement verb:

(6.27) *aɲ akiɲ=kiɲ huju?-teya?=ɲ dorkar-o?-tan-a=ɲ*
1SG 3DU=3DU come-NMLZ=1SG need-MID-IPFV-FIN=1SG
'I need them two to come' (1.225.35)

Note that the subject clitics are more likely to appear in clauses where the complement and the matrix verb have different subjects, as in (6.27). In example (6.25) above, with the same subject in matrix and complement clauses, the subject clitic was omitted.

The second option is to mark the subject of the complement verb as a kind of possessor, with the place suffix *-ta?*.[3]

(6.28) *aɲ am-ta?=ɲ huju?-teya?=ɲ dorkar-o?-tan-a=ɲ*
1SG 2SG-PLACE=1SG come-NMLZ=1SG need-MID-IPFV-FIN=1SG
'I need you to come' (1.225.40)

Both alternatives are considered grammatical by native speakers.

With different subjects and a transitive complement verb, the causative suffix *-ici* must be introduced into the nominalized verbal complement:

(6.29) *ako [am-ke manɖi isin-ici-m-teya?]=ko dorkar-o?-tan-a*
3PL 2SG-ACC food cook-CAUS-2SG-NMLZ=3PL need-MID-IPFV-FIN
'they need you to cook dinner' (1.229.9)
lit. 'they need [cause you to cook dinner]'

[3]To predicate possession, the *-ta?* suffix is affixed to a possessor with the locative *-re* as in:
Dobro-ta?-re miyaɖ kiteb mena?
Dobro-PLACE-LOC one book LOC.COP
'Dobro has a book' (3.49.68) (see also chapter III)

(6.30) *ako* *[am-ke* *Dobro* *joton-ici-m-teya?-ko]=ko*
3PL 2SG-ACC Dobro look.after-CAUS-2SG-NMLZ-PL=3PL
dorkar-o?-tan-a
need-MID-IPFV-FIN
'they need you to look after Dobro (more than once)' (1.229.7)

In sentences (6.29) and (6.30) we see that *am* '2SG' is marked as the causee inside the nominalization with a suffix in the object slot of the complement verb. It is not clear whether the full pronoun *am* '2SG' is the object of the main verb *dorkar* 'need' or of the complement verb. Given that the matrix verb *dorkar* 'need' is in the middle construction, it seems more likely that *am* is marked as object of the complement clause. In chapter IV, we saw a wide range of verbs that take middle because they have a "low elaboration of events" (Kemmer 1993).

In sum, in this section we have seen that a nominalized complement clause can take an object suffix, but aspect is only marked on the matrix verb. We also saw that when the complement subject is different from the matrix subject, the causative suffix *-ici* follows the complement verb root.

6.1.2.2. Bare Verb Complements

The next type of non-finite complement is the bare verb strategy. In these clauses, the complement verb is simply bare, i.e., there is no infinitive or nominalization marker. The verb is also not inflected for aspect and the transitive verbs have no transitive suffix or object suffixes. The following examples show the bare verb complements with matrix *ada* 'know' (6.31), *riŋ* 'forget' (6.32) and *ete?* 'begin' (6.33).

(6.31) *aŋ* *[oyar]=eŋ* *ada-a-n-a*
1SG swim=1SG know-APPL-ITR-FIN
'I know how to swim' (1.15.60)

(6.32) *aŋ* *[sim-ko* *goe?]=ŋ* *riːŋ-te-ɖ-a*
1SG chicken-PL kill=1SG forget-PFV-TR-FIN
'I forgot to kill the chickens' (2.21.15)

(6.33) *[baba-ko* *jom]=ko* *ete?-ke-ɖ-a*
paddy-PL eat=PL begin-PFV-TR-FIN
'they began to eat the paddy' (1.186.7)

The fact that the subject marker must precede the matrix verb, as in the above examples, is evidence that the matrix verb is in fact the main verb. Note, however, that there is no object marker on the complement verb, even when there is an animate object (as in (6.32)). All of the matrix verbs that take the bare verb strategy share subjects with their complement verb. The fact that the two verbs share subjects seems to allow the reduced, non-finite complement in this case.

6.1.2.3. Infinitives with *-te*

The last type of reduced complement construction in Ho is the infinitive construction. The infinitive construction seems to be modeled on a purposive construction that is used with *huju?* 'come' and *sen* 'go' as matrix verbs (illustrated below in (6.38)). I will argue that the allative marker *-te* which is used in such purposive clauses is further developing into an infinitive marker, and is used with certain complement-taking verbs.

The *-te* infinitive construction is mainly used with one matrix verb, *hoba* 'happen, take place'. When *hoba* appears in a middle construction and with an infinitive complement, it takes on an obligation sense and is usually translated with something like 'must', as in the following examples. It seems that speakers are reanalyzing the *-te hoba-o?* construction so that synchronically it functions like a single clausal unit.

Evidence for a single clause is the subject clitic and the negative particle *ka*, which do not appear before *hoba-oʔ*, but rather before the lexical verb.

(6.34) *ka, ka=eʔ jom-iɲ-te hoba-oʔ-wa*
NEG NEG=3SG eat-1SG-ALL must-MID-FIN
'no, he mustn't eat me' (20110210BCc:34)

Note that, as we saw in nominalized complements in section 6.1.2.1., the pronominal object of the complement clause appears between the verb root and *-te* (6.34). We can also insert a recipient object if there is an applicative marker (6.35) or an inanimate object marker *-e* (6.36) (whether it refers to an actual object or not, see chapter V).

(6.35) *nama lijeʔ nama sutui=do kiriɲ-e-i-te hoba-oʔ-wa*
new clothes new shirt=FOC buy-APPL-3SG-ALL must-MID-FIN
'new clothes and shirts must be bought for him/[we] must buy new clothes and shirts for him' (20081213MSc:95)

(6.36) *aliɲ=do=ɲ raʔ-e-te=ge hoba-oʔ-wa*
1DU.EXCL=FOC=1SG cry-INAN.OBJ-ALL=EMPH must-MID-FIN
'I must cry' (20081108AB:17)[4]

Haspelmath (1989) shows that a shift from allative to purposive meaning and then to infinitive function is a common grammaticalization path. Sentence (6.37) shows the original, allative use of *-te* in Ho.

(6.37) *aɲ gaɽa-te iɖi-atuː-ɲ-pe*
1SG river-ALL take-leave-1SG-IMP.2PL
'take me to the river and leave me' (20081107RCBb:38)

The next step in the grammaticalization of an allative to an infinitive is for the purposive morpheme to be used with complement clauses. Sentence (6.38) shows how *-te* has come to be used in adverbial purposive clauses.[5]

[4]The first person dual pronoun is often used in place of the singular pronoun as an expression of politeness.

[5]Note that there are other uses of *-te* in Ho, such as a manner adverbial and instrumental marker.

(6.38) *ol-te* *research-no?-leka-te* *huju?-le-n-taikena*
write-ALL research-little-like-ALL come-ANT-ITR-PST.COP
'he had come to write, to do like a little research' (20110413DSP:49)

In Ho, only purposives with 'come' and 'go' use *-te*, as in (6.38), thus preserving a sense of direction in these sentences.

Haspelmath (1989) shows that purposive clauses are first used as irrealis complement clauses, and then as what he calls 'realis-non-factive', and finally 'realis-factive' complements.

In Ho, the purposive *-te* has only weakly grammaticalized to an infinitive. It is primarily used with *hoba* 'must', a deontic modality verb, which takes complements with irrealis and non-implicative meaning (i.e., the truth of the complement verb is not implied by the main verb).

The second interesting fact about the construction involving *hoba* plus an infinitive is that *hoba* always appears with the middle suffix *-o?*. Due to the fact that obligation is normally 'externally imposed', source constructions for obligation modals are often "passive-like" in structure (Bybee, Perkins and Pagliuca 1994:185).

In this section we have seen that Ho is developing an infinitive construction which is used for "complements" of *hoba-o?-wa* 'must'. The fact that the infinitive verb with *-te hoba-o?* is treated as a single unit in terms of argument marking suggests that it has been further reanalyzed as an auxiliary construction.

6.1.3. Summary & Conclusions

Table 6.1 summarizes the complementation constructions co-occurring with matrix complement taking verbs in Ho.

The matrix verbs at the top of the table ('say', 'know', 'see', 'think') all express semantics of perception, cognition and utterance. As might be expected, their

Matrix Verb	English	Complement type					
		Finite			Non-finite		
		finite	*ci*+	+*mente*	NMLZ	bare V	*-te* infin.
meta	'say to'	+					
men	'say'	+					
ada	'know'	+	+				
nel	'see'	+	+				
uɽuʔ	'think'			+			
riːɲ	'forget'			+ (ditr.)		+	
paisela	'decide'				+		
ayum	'hear'				+		
nam	'try'				+		
dorkar	'need'				+		
eteʔ	'start'				+		
hoba	'must'						+
ada-a	'know how'					+	

TABLE 6.1. Summary of complementation strategies in Ho

complements are fully finite, i.e., the complements take the same form as regular non-embedded clauses. Some are introduced by the complementizers *ci* and *mente*, but neither verb of saying (*meta* or *men*) needs a complementizer.

In section 6.1.1., we saw that Ho has both types of complementizers found across South Asia. *Ci* is the Indo-Aryan-type complementizer. It is homophonous with the question particle *ci* and precedes the complement clause. We saw that *ada* 'know' and *nel* 'see' can both take *ci* with a finite complement. The second complementizer is *mente*, which is from the verb *men* 'say' with the allative/infinitive marker *-te*. Complementizers that come from a word for 'say' like *mente* are also called quotatives; these are especially common in the Dravidian languages of South Asia, but they exist in many Indo-Aryan languages as well. *Mente* follows the finite complement clause and is used with the complements of *uɽuʔ* 'think' and *riːɲ* 'forget'.

There are three types of reduced, non-finite complement constructions in Ho. In section 6.1.2. we saw complements that are nominalized, those that are simply a bare verb and complements with infinitive marker *-te*. All the matrix verbs that take this type of reduced complement describe some kind of modal or aspectual notion, such as 'try' or 'need'. As Givón predicts, modality verbs, with their close semantic bond to the complement verb, are more syntactically integrated with the complement verb Givón (2001b). There is evidence that the *hoba-oʔ*, which appears with a *-te* infinitive, has been reanalyzed as an auxiliary construction.

We can conclude that complement taking verbs in Ho support Givón's claims about the isomorphism between the syntax and semantics of complement taking verbs. PCU verbs, such as *men* 'say' tend to take fully finite complements while modal, aspectual and manipulation verbs take non-finite complements.

6.2. Relative Clauses

In this section, we look at strategies for forming functional relative clauses in Ho. A relative clause functions to modify an NP, called the 'head noun'. The relative clause contains an NP that is co-referential with the 'head noun'.

In this section, we will consider how relative clauses in Ho fit typological predictions about which NPs can be relativized. Keenan and Comrie (1977) present an accessibility hierarchy for relative clauses:

SU > DO > IO > OBL > GEN > OCOMP

According to the accessibility hierarchy constraints; "any relative clause-forming strategy must apply to a continuous segment of the hierarchy" and a language must be able to relativize subjects (1977:67).

Due to lack of data I will omit consideration of how the objects of comparison are relativized in Ho. Second, as discussed in chapter V, Ho is best described as having a primary/secondary object (PO/SO) system. We will reformulate the hierarchy to reflect these two points:

$$\text{SU} > \text{PO} > \text{SO} > \text{OBL} > \text{GEN}$$

In Ho, relative clauses are mostly pre-head, as we might expect from an OV language. There are three strategies for functional relative clauses in Ho: the participle strategy, nominalization and a relative pronoun strategy. It should be noted that there were very few naturally occurring instances of relative clauses in the text data; most of the examples in this section come from elicitation with a single consultant. The analysis and conclusions on relative clauses must therefore remain somewhat tentative.

6.2.1. Participle Strategy

The Ho participle form of the verb includes aspect, object and transitivity suffixes, but no mood marker such as the finite suffix and no subject clitic.[6] The Ho participle strategy for relative clauses is the "primary relative-clause forming strategy" i.e., it is the one used for subjects (Keenan and Comrie 1977:67-68). The verb of the relative clause appears in participle form directly before the head noun. The participle strategy can be used with subjects (6.39), primary objects (6.40), secondary objects (6.41), and obliques (6.42).

(6.39) *ako* *nen-taʔ-re* *tai-n* *sim-ko=ko* *jom-ke-ḍ-ko-wa*
3PL this-place-LOC stay-ITR chicken-PL=3PL eat-PFV-TR-3PL-FIN
'they ate the chickens that live here' (3.126.13)

[6]I use the term "participle" simply to refer to a verb form that has reduced verbal properties, but is not a nominalization (Payne 1997:38; see section 6.2.2.).

(6.40) *ako* *Dobro* *jagar-i* *sim=ko* *jom-ki?-ye*
3PL Dobro talk-3SG chicken=3PL eat-PFV:TR:3SG-FIN
'they ate the chicken which Dobro talks to' (3.127.18)

(6.41) *ako* *Dobro* *em-a-ɖ-iɲ* *sim=ko* *jom-ki?-ye*
3PL Dobro give-APPL-TR-1SG chicken=3PL eat-PFV:TR:3SG-FIN
'they ate the chicken which Dobro gave me' (3.126.15)

(6.42) *era* *da?* *nuː-i-ten* *gles-re* *coke*
woman water drink-INAN.OBJ-IPFV glass-LOC frog
kanju-aka-n-a
throw.into-PRF-ITR-FIN
'the frog threw himself into the glass that the woman is drinking the water from' (3.125.10)

The participle strategy for relative clauses is a mostly a gap strategy, i.e., the noun co-referential with the head noun is not explicit in the relative clause, although note that co-referential animate objects are referenced with an object suffix in the relative clause verb, as in (6.40). As we see in the examples, the participle strategy covers most of the hierarchy, from subject to oblique NP.

6.2.2. Nominalization Strategy

Although the participle strategy is the primary strategy for relative clauses in Ho, there are two more strategies which must be considered. First, there is a nominalization strategy; the relative clause appears as a nominalization directly before the head noun. The nominalizing suffix *-teya?* attaches to the verb stem.

The nominalization strategy can be used with subjects (6.43) and primary objects (6.82).

(6.43) *pencil-re* *ho꞉b-aka-n-teya?* *ring*
pencil-LOC put.in.container-PRF-ITR-NMLZ ring
tuɖ-e-tan-a=ɲ
take.out-INAN.OBJ-IPFV-FIN=1SG
'I'm taking off the ring that's on the pencil' (3.79.14)

(6.44) *miyaɖ* *gomke-ya?* *baba* *her-teya?* *jawge=ko* *jom-caba-ya*
one master-GEN paddy sow-NMLZ always=3PL eat-finish-FIN
'they always eat the paddy that the master sows' (20081107AB:2)

As we see in example (6.44), the head noun can also be inside the relative clause in a nominalized relative clause. Sentence (6.44) is from a text and was also grammatical with *baba* outside the relative clause:

(6.45) *miyaɖ* *gomke-ya?* *her-teya?* *baba* *jawge=ko* *jom-caba-ya*
one master-GEN sow-NMLZ paddy always=3PL eat-finish-FIN
'they always eat the paddy that the master sows'

The following shows the nominalization strategy with an oblique NP, also internally headed.

(6.46) *en* *arki* *en* *gles-re=ko* *dul-te-ɖ-teya?-re* *coke=do*
that liquor that glass-LOC=3PL pour-PNCT-TR-NMLZ-LOC frog=FOC
kanju-ye-n-a
throw.into-PST-ITR-FIN
'the frog threw himself into that glass in which they'd poured that liquor' (3.113.108)

It seems that the nominalization strategy is only grammatical when the head noun is inanimate, regardless of its role in the relative clause. Sentences (6.47) and (6.48), nominalized relative clauses with *sim* 'chicken' as the head noun, were ungrammatical for my consultant.

(6.47) **ako* *Dobro* *asul-eke-ɖ-teya?* *sim=ko* *jom-ki?-ye*
3PL Dobro care.for-PRF-TR-NMLZ chicken=3PL eat-PFV:TR:3SG-FIN
'they ate the chicken that Dobro cared for' (3.126.14b)

(6.48) **ako Dobro em-a-ɖ-iɲ-teyaʔ sim=ko jom-kiʔ-ye*
3PL Dobro give-APPL-TR-1SG-NMLZ chicken=3PL eat-PFV:TR:3SG-FIN
'they ate the chicken that Dobro gave me' (3.126.15b)

We can conclude that the nominalization strategy is a possible strategy for inanimate subjects, primary objects and obliques. There is no data to confirm whether the nominalization strategy is grammatical with inanimate secondary objects or genitives. Based on predictions of the accessibility hierarchy, we might assume that the nominalization strategy is possible with secondary objects, however it is not possible to make a prediction for genitives.

6.2.3. Relative Pronoun Strategy

The last strategy that Ho speakers have for relative clauses involves a relative pronoun. The relative pronoun strategy is a more explicit strategy and as such can be used with arguments lower on the accessibility hierarchy, such as genitives. A form of *okon*, which is also used as an interrogative pronoun, stands in for the head noun in the relative clause. *Okon-iʔ/ko* is used with singular/plural animate NPs and *okona* with inanimate NPs. The relative pronoun strategy can be used with subjects (6.49) and primary objects (6.50).

(6.49) *coke en gles-re kanju-aka-n-a okon-a tebul-re*
frog that glass-LOC throw.into-PRF-ITR-FIN what-INAN table-LOC
em-aka-n-a
put-PRF-ITR-FIN
'the frog has thrown himself into the glass which is put on the table' (3.124.6)

(6.50) *en sim hoː-ko jom-kiʔ-ye okon-iʔ Dobro cauli=ʔ*
that chicken person-PL eat-PFV:TR:3SG-FIN what-3SG Dobro rice=3SG
her-aʔ-i-ye
throw-APPL:TR-3SG-FIN
'people ate the chicken to which Dobro threw the rice' (3.127.16)

Note that the relative clause with the relative pronoun appears after and separated from the noun it is modifying, in contrast to the participle and nominalization strategies where it precedes the head noun.

The relative pronoun strategy is also the strategy used with possessed head nouns.

(6.51) *aɲ* *kule=ɲ* *nel-ki?-ye* *okon-i?-ye?* *hon*
1SG tiger=1SG see-PFV:TR:3SG-FIN what-3SG-GEN baby
giti?-ke-n-e
sleep-PRF-ITR-FIN
'I saw the tiger whose baby is sleeping' (3.186.4)

(6.52) *aɲ* *kule=ɲ* *nel-ki?-ye* *okon-i?-ye?* *panja* *jalom-re*
1SG tiger=1SG see-PFV:TR:3SG-FIN what-3SG-GEN paw net
pase-aka-n-a
trap-PRF-ITR-FIN
'I saw the tiger whose paw is trapped in the net' (3.186.5)

According to Deeney, the use of *okon* as a relative pronoun is a borrowing from the Hindi pattern for relative clauses and is not standard Ho (2002:92).

6.2.4. Summary and Accessibility Hierarchy

Table 6.2 shows which arguments can be relativized with each of the three strategies; question marks indicate inconclusive or missing data.

	Strategy		
	Participle	Nominalization	Relative Pronoun
Subject	yes	yes	yes
Primary object	yes	yes	yes
Secondary object	yes	?	?
Oblique	yes	yes	?
Genitive	?	?	yes

TABLE 6.2. Summary of relative clause strategies in Ho

We can see that the participle construction strategy can be used at all points on the accessibility hierarchy, although we do not have data for the genitive argument. We do, however, have evidence of the relative pronoun strategy for a relative clause with a genitive argument. The relative pronoun strategy can also be used with points higher on the hierarchy; however, if the argument is animate, the participle strategy seems to be the more common one. The nominalization strategy was deemed ungrammatical with animate NPs.

At this point, there is not enough data to say whether secondary objects can be relativized using the nominalization or relative pronoun strategy. Keenan and Comrie would predict yes, based on the constraint that there can be no gaps in the accessibility hierarchy.

6.3. Serial Verb Constructions and Compounds

The last type of complex clause construction we will look at are serial verb constructions. Serial verb constructions are a widespread feature across the world's languages, including many of the languages of South Asia (e.g., Emeneau 1956; Masica 1976; Hook 1991). In this section we will look at serial verbs and compounds in Ho. Sentence (6.53) shows a Ho serial verb construction.

(6.53) *daru-re=ʔ* *nir-deʔ-eya-n-a*
tree-LOC=3SG run-climb-PST-ITR-FIN
'he ran up a tree' (20110210BCa:34)

Cross-linguistically, serial verb constructions always contain two or more predicates in a single clause without any marker of coordination or subordination (Foley and Olsen 1985:18; Aikhenvald 2006:1). Semantically, the two or more verbs in a SVC refer to subparts of a single event (Lord 1993:2). The verbs of an SVC share tense, aspect and polarity values (Aikhenvald 2006:1).

We will see that Ho has nuclear serialization. The verbs in a nuclear serialization form a tight bond; there is only one set of arguments, and aspect marking modifies the complex event (rather than each verb root separately).

Foley and Olsen note that one of the verbs in a nuclear serialization is usually much more selective than the other i.e., only certain verbs can fill that slot (1985:40; cf. Lord 1993:2). Aikhenvald calls this type of serial verb construction 'asymmetrical' and contrasts it with 'symmetrical' serial verbs where both verbs come from open classes (Aikhenvald 2006). Symmetrical serial verb constructions are more likely to lexicalize and form idiomatic meanings (Aikhenvald 2006:34). We will see that Ho has both asymmetrical and symmetrical serial verb constructions.

The key difference between an asymetrical serial verb construction and an auxiliary verb construction is the semantics that V2[7] contributes. Once the semantics of the V2 grammaticalizes to a more functional meaning, it is more like an auxiliary construction. Synchronically many of these grammaticalized V2s might be better described as auxiliaries but as we will see for the Ho data, it is sometimes difficult to determine whether a given V2 has grammaticalized to the point of being an auxiliary.

Munda serial verbs, including those in Ho, have attracted comparatively less attention than than those of the Indo-Aryan or Dravidian languages.[8] This section looks at different types of serial verb constructions in Ho. We see that serialization is a productive feature of Ho grammar and, additionally, that many common V2s have grammaticalized to varying degrees.

[7]In this section I refer to the component parts of the serial verb construction as V1 and V2, reflecting the linear order of the verb roots, as is customary in the literature on serial verbs.

[8]Across South Asia serial verbs are also called "compound verbs" (Hook 1974, 1991, 2001; Verma 1993) and "light verbs" (Butt and Geuder 2001, Butt 2003). The V2 of a serial verb construction, the element prone to auxiliation, has also been called an explicator verb (Masica 1976; Osada 2008).

Compounds – verb-verb combinations where the meaning of the whole does not always follow from the content semantics – are sometimes distinguished from serial verb constructions (e.g., Payne 1997:233). In Ho, compounds take the same form as other serial verb constructions and are discussed in section 6.3.2..

Complementation, as described in section 6.1. of this chapter, differs from a serial verb construction because a complement verb root is marked as subordinate in some way to the matrix verb, e.g., with a nominalizing suffix. In a serial verb construction, both verb roots form part of the same predicate i.e., there is no subordinating suffix, and they share subject clitics and object suffixes. Importantly, the negative particle and subject clitic – both of which must appear immediately before the main verb – precede the entire serial verb construction, illustrating that it is a single unit (see examples below).

In chapter IV, I discussed verb-adverb combinations where an adverb-type lexeme can appear directly after the verb root, such as *baː* 'here and there/now and then', as in (6.54).

(6.54) *nel-baː-leː-ko-wa=ɲ*
look-HERE&THERE-ANT.FUT-3PL-FIN=1SG
'I'll look around for them' (20110521SD:40)

What I call "adverbs" here are called "intensifiers" by Osada for Mundari (2008:137-138). Lexemes like *baː* with this type of adverb semantics may indeed have originated in serial verb constructions: formally, it is the same type of construction and the adverbs seem to be nuclear level operators. However, their original verbal semantics are not synchronically clear and I will omit them from the discussion here.

6.3.1. Serial Verbs in Ho

As mentioned above, Ho has nuclear serialization. We will see that both "same-subject" and "switch-subject" serial verb constructions are possible in Ho.

First we see serial verbs where both roots have the same subject, as in (6.55) and (6.56).

(6.55) *aɲ* *gaɽa-te* *iɖi-atuː-ɲ-pe*
1SG river-ALL take-leave-1SG-IMP.2PL
'take me to the river and leave me' (20081107RCBb:37)

(6.56) *musiŋ* *din* *ayub-paːŋ* *ae?* *miyaɖ* *coke*
one.day day evening-time 3SG one.INAN frog
sab-agu-li?-ye
catch-bring-ANT:TR:3SG-FIN
'one day, in the evening, he had caught a frog and brought it back' (20081219JT:4a)

In (6.55) and (6.56), the verbs share both subject and object.

Ho also has "switch-subject" type serial verb constructions; the verb roots have different agents, as in (6.57)–(6.59).

(6.57) *endo* *neka-te* *udur-uʈe-ko-tan-a*
then like.this-ALL push-get.up-3PL-IPFV-FIN
'then he was pushing them to get up' (20081029RCBb20)

(6.58) *ondo?* *kokor-oː* *ne-paː* *en* *hon=e?* *har-nir-i-ten-e*
and owl-also this-place.here that boy=3SG drive-run-3SG-IPFV-FIN
'and the owl was also chasing that boy here' (20081219JT:45)

(6.59) *abu=do* *owa?-te=bu* *keya-huju?-ko-wa*
1PL.INCL=FOC house-ALL=1PL.INCL call-come-3PL-FIN
'we call them to come to the house' (201105PSa:60)

Note that when the two verbs have different agents, the agent of V2 – now semantic causee – is indexed in the object position of the verb i.e., it is marked for its relation to V1.

The different agent construction for serial verbs is formally the same as the causative construction with *ici/iri*. The subject of the V2 of a causative construction is indexed in the verb with an object suffix, as in (6.60).

(6.60) *aliɲ* *ne-ko* *mai-te-ko* *miyaɖ* *kaːni=liɲ*
1DU.EXCL this-PL girl-ALL-PL one story=1DU.EXCL
ayum-iri-ko-tan-a
hear-CAUS-3PL-IPFV-FIN
'I'm going to let these girls hear a story' (20110521SD:2)

The causative construction is an example of an auxiliary construction that probably grammaticalized from an earlier serial verb construction. *Ici* no longer appears as a main verb so we cannot be sure of its original semantics.

In the different agent serial verb constructions we have seen so far, both verb roots have had animate agents. In sentence (6.61) we see "switch-subject" serial verbs but the subject of the V2s – also patient of V1 – is inanimate. The V2 of both, *gur* 'fall', describes what happens to the tree as a result of the action of V1.

(6.61) *naʔ=do* *miyaɖ* *baru daru* *baʈi-gur-ke-ɖ-a*
now=FOC one.INAN kusum tree overturn-fall-PFV-TR-FIN
maʔ-gur-ke-ɖ-a=eʔ
cut(swinging.motion)-fall-PFV-TR-FIN=3SG
'now he brought the kusum tree down, [he] chopped it down'
(20110524RPP:72)

Sentences such as (6.61), and the "switch-subject" examples above (6.57)–(6.59) follow the action-result pattern found in many serializing languages of West Africa (Lord 1993:2).

Example (6.62) shows a serial verb construction with three serialized verbs as well as one adverb-type modifier *baː* 'here & there'.

(6.62) *en* *hon=do* *en-taʔ-re* *dub-ke-n-ete,* *unḍu*
that child=FOC that-exact.place-LOC sit-PFV-ITR-AFTER, hole
biter-re *koyoʔ-iyu-nam-baː-i-ten-e*
inside-LOC stretch.neck.to.look-shout-get-here&there-3SG-IPFV-FIN
'after that boy sat there, he was stretching his neck and shouting into the hole searching for him' (20081210JT:26)

In my corpus, four roots seems to be the maximum possible.

6.3.2. Compound Constructions

Compound constructions have the same formal structure as serial verb constructions. The main difference is that the meaning of a compound is not always obvious from the component roots. Further, the V2 of a compound construction is not necessarily an action intransitive verb root, as we saw in the previous section (except example (6.56) with 'bring'). Examples (6.63) and (6.64) show compound constructions in Ho.

(6.63) *saben* *muta* *daʔ-te* *em-darom-ke-ḍ-ko-wa*
all brass.bowl water-ALL give-welcome-PFV-TR-3PL-FIN
'[she] welcomed them with water from the brass bowl (20081029DS:15)

(6.64) *en=do* *nide* *gitiʔ-aŋ-ke-n-eːte* *setaʔ-paːŋ*
that=FOC night sleep-dawn-PFV-ITR-ABL morning-time
that night [he] slept all night, until dawn, (20081029MB:10)

Compound constructions can also be made up of two elements that have similar meanings, as in (6.65) and (6.66).

(6.65) *sarjom* *riḍ-gunḍe-keː-te*
sal.tree grind-small.bits-PFV.FUT-ALL
'after you grind the sal into small bits' (201105GTa:70)

(6.66) *hara-maraŋ-eya-n-a=kiɲ*
grow-big-PST-ITR-FIN=3DU
'they grew up' (20081107RCB:9)

Either element of a compound construction can appear on its own as the main predicate lexeme:

(6.67) *Jema diri-re cauli gunde-e-tan-a*
Jema stone-LOC rice grind-INAN.OBJ-IPFV-FIN
'Jema grinds the rice on the stone' (2.204.20)

(6.68) *en pẽyae akir hara-ya-n-a=e? maraŋ-eya-n-a=e?*
that weaver at.last(Hi) grow-PST-ITR-FIN=3SG big-PST-ITR-FIN=3SG
'at last that weaver grew up, he got big' (20110429JoBa:19)

It should be noted that the V2 of this type of compound construction is not likely to grammaticalize like we see with other more frequent V2s. The semantics of grammaticalizing V2s is the topic of the following section.

6.3.3. The Semantics of V2

Verb serialization is productive in Ho; speakers can combine roots in novel ways. However, there are many roots that occur frequently as V2s and seem to be in the process of grammaticalization to auxiliaries. As is typical with asymmetrical serialization, these frequently-occurring V2s can be organized into semantic categories that reappear in SVCs in many languages across the world. In this section, we look at the semantics of the V2s.

Heine (1993) divides the source verbs of the most common types of auxiliaries into schemas describing notions such as location, motion, activity, desire, posture, relation and possession groups. The relevant categories for Ho, which are discussed below include: motion, activity and possession.

6.3.3.1. Motion

For the following Ho roots of motion, direction is lexicalized into the root along with the motion. These frequently appear as V2s.

ruːwa/ure	'return'	>	'back/again'
oːʔl	'go/take out'	>	'out'
ader	'bring in'	>	'in'
eɽaʔ	'throw away'	>	'away, out'
parom	'cross'	>	'across/past'
hujuʔ	'come'	>	'become, direction towards speaker'
aːdu	'lower'	>	'down'

First, one very common V2 is *hujuʔ* 'come'. It can appear as V1, as in (6.69), where we see *ruwa* 'return' as a V2.

(6.69) *ente buru-eːte=ko huju?-ruwa-tan-re=ge*
then forest-ABL=3PL come-return-IPFV-LOC=EMPH
'when they were coming back from the forest' (20081029DS:11)

Huju? 'come' is also grammaticalizing as a V2 to mean something more like inchoative 'become', as in (6.70), as well as indicating direction towards the speaker (6.71).

(6.70) *giyuʔ-hujuʔ-ten-e*
shy-come-IPFV-FIN
'[they] were becoming shy' (20081107RCB:28)

(6.71) *neʔ=laŋ beɽa-hujuʔ-ke-ɖ-a*
here!=1DU.INCL arrive-come-PFV-TR-FIN
'we arrived here!' (201105PSb:46)

Oːʔl means 'go or take out' when it appears as a main verb:

(6.72) *naʔ diku bodar-ko oːʔl-eya-n-ete*
now non-tribal fertilizer-PL come.out-PST-ITR-ABL
'now, since non-tribal fertilizers came out' (201105NTPSc:83)

When *oːʔl* is V2, as in (6.73), the direction 'out' contributes more to the meaning of the construction, while the motion comes from the main verb.

(6.73) *iniʔ-oː* *uiʔ-oːʔl-eya-n-a*
3SG.ANIM-also jump-out-PST-ITR-FIN
'he also jumped out' (201105PSb:95)

Similarly, the direction component of *eɽaʔ* 'throw away' is kept when it appears as V2:

(6.74) *ente* *oɽa-eɽaʔ-aka-n-bad* *en-re=do* *canab=do*
then bathe-away-PRF-ITR-AFTER(Hi) that-LOC=FOC after=FOC
nuː-dai-ye=ko
drink-can-FIN=3PL
'after [they$_i$] purify themselves, then they$_j$ can drink' (20081208MSa:71)

Aːdu means 'lower' as a main verb (6.75), and 'down' as a V2 (6.76):

(6.75) *Jema* *cule-te* *ɖegci* *aːdu-i-ten-e*
Jema stove-ALL pot lower-INAN.OBJ-IPFV-FIN
'Jema lowered the pot from the stove' (2.210.58)

(6.76) *ente* *kaːʔ=do* *en* *raja* *jom-te* *apir-aːdu-ye-n-a*
then crow=FOC that king eat-ALL fly-lower-PST-ITR-FIN
'then the crow flew down to eat that king' (20110521SD:38)

6.3.3.2. Activity

The next set of V2s that are grammaticalizing are action or activity verbs.

caba	'finish'	>	'finish, completely'
seka	'complete'	>	'ready, complete'
eɽeʔ	'begin'	>	'begin'
iɖ/iɖi	'take'	>	'continue'
agu	'bring'	>	'down'
dai	'win'	>	'can'

Dai 'can' (6.78) comes from a main verb meaning 'win' (6.77):

(6.77) *Dobro nir badabadi-re=ʔ dai-ye-n-e*
Dobro run competition-LOC=3SG win-PST-ITR-FIN
'Dobro won at the running competition' (2.184.47)

(6.78) *ente donɖa=ma ka=ʔ nir-dai-ten-re=do, cikeneʔ kaji-yeʔ*
then tree.lizard=FOC NEG=3SG run-can-IPFV-LOC=FOC, what say-FIN
'then when the lizard couldn't run, what did he say?' (20110210BCa:14)

Caba 'finish' has the same meaning when it is a main verb (6.79) and a V2.

(6.79) *dunub en-taʔ-re hoba-le-n-teyaʔ caba-ye-n-a*
meeting that-place-LOC take.place-PFV-ITR-NMLZ finish-PST-ITR-FIN
'the meeting that took place there finished' (20111122GPb:31)

In other languages that grammaticalize a verb meaning 'finish', it tends to shift its meaning towards something like a completive aspect marker. That is also true in Ho; however, there are many examples where *caba* is ambiguous between 'finish' and a more grammatical completive sense, as in (6.80)-(6.82).

(6.80) *...aca=ɲ akariɲ-caba-keː-te=do, okona=ɲ senoʔ-wa menteyaʔ*
...good=1SG sell-finish-PFV.FUT-ALL=FOC where=1SG go-FIN say-NMLZ
'..."good, when I'm finished selling it, where do I go?", he said' (20110429JoBa:61)

(6.81) *singi=do ɖubuiʔ-cebe-ye-n-a*
sun=FOC sink-finish-PST-ITR-FIN
'the sun set' (20110429JoBa:70)

(6.82) *miyaɖ gomke-yaʔ baba herʔ-ta-teyaʔ jawge=ko jom-caba-ya*
one boss-GEN paddy sow-PNCT-NMLZ always=3PL eat-finish-FIN
'they always ate up all the paddy that the master sowed' (20081107AB:2)

Some evidence that *caba* in example (6.81) is at a later stage of grammaticalization is the fact that the speaker has harmonized *caba* to [cebe] after the high vowel in the first root.

Other activity verbs that appear regularly as V2s are *ete?* 'begin' (6.83) and *iɖi* 'take', which is grammaticalizing to a continuous marker (6.84).

(6.83) *ena-ko* *eman=liŋ* *jagar-ete?-ko-wa*
that.INAN-PL and.so.forth=1DU.EXCL speak-begin-3PL-FIN
'I began to speak with them about these things and so on' (20110413DSP:80)

(6.84) *rambaː-ko* *reyaɽi-ko=bu*
green.gram-PL rahar.dal-PL=1PL.INCL
her-iɖi-rengaː-e-ya=bu
sow-take-absolutely-INAN.OBJ-FIN=1PL.INCL
'we continuously sow green gram and rahar dal' (201105GTb:39)

Agu 'bring' is another activity verb root that is grammaticalizing to a kind of auxiliary verb in Ho. First, it can mean 'bring' and appear as the V2 in a SVC, as in (6.85).

(6.85) *musiŋ* *din* *ayub* *paːŋ* *ae?* *miyaɖ* *coke*
one.day day evening time 3SG one.INAN frog
sab-agu-li?-ye
catch-bring-ANT:TR:3SG-FIN
'one day, in the evening, he had caught a frog and brought it back home' (20081219JT:4)

Other, more grammaticalized examples of *agu* as V2 seem to suggest a direction, perhaps towards the speaker as in (6.86), or maybe simply downwards (6.87).

(6.86) *canab=do* *na?* *somay-ko=do* *beʈa-agu-ye-n=do* *nen*
after=FOC now time-PL=FOC arrive-bring-PST-ITR-FOC this
sal-ko=do *kunɖi-ko=bu* *si:-jom-a*
lowland.field=FOC terraced.field-PL=1PL.INCL plough-eat-FIN
'then now, the time comes for us to sow the lowland fields and terraced fields for ourselves' (201105GTb:6)[9]

(6.87) *canab=do* *tumbiɖ-agu-en-a* *kirki-te* *latar* *seta=do*
after=FOC fall.forward-bring-REFL-FIN window-ALL below dog=FOC
'then the dog fell down head first out of the window' (20081219JT:18)

6.3.3.3. Possession

The only possession verb root in Ho that occurs frequently as a V2 is *nam* (also *lam*). As a main verb *nam* means 'get' (6.88) or 'find' (6.89) (also 'try', see section 6.1.2.1.).

(6.88) *aʈ* *baje* *manɖi* *nam-e-ya=le*
eight hour meal get-INAN.OBJ-FIN=1PL.EXCL
'at eight o'clock we have our meal' (20110221MB:30)

(6.89) *ka=e?* *nam-ke-ɖ-kiɲ-e* *ba:* *bagan-re*
NEG=3SG find-PFV-TR-3DU-FIN flower garden-LOC
'he didn't find them in the flower garden' (20081029RCBa:22)

As a V2, it still means something like 'find' or perhaps 'look for' (6.90) and it sometimes has a more grammaticalized resultative meaning (6.91).

(6.90) *coke* *nam-nam-te* *akiɲ* *goʈa=kiɲ*
frog look.for-look.for-ALL 3DU all.directions=3DU
iyu-nam-ba:-i-ten-e
shout-get-here&there-3SG-IPFV-FIN
'they were shouting in all directions, looking for the frog' (20081219JT:21)

[9]The use of *jom* 'eat' as a V2 is discussed below in section 6.3.4.

(6.91) *handor* *piː-re* *nimin* *pureʔ* *cidu-ko* *anjeɖ-nam-aka-n-a*
that.DIST field-LOC so.many many maggot-PL dry.up-get-PRF-ITR-FIN
'so many maggots are found dried up in that field' (20110301FG:31)

Nam occurs very frequently as the V2 with *nel/neɖ/lel* 'see' and together they mean something like 'discover', as in (6.92).

(6.92) *suːɖ=eʔ* *leɖ-lam-ta-ɖ-a*
well=3SG see-get-PNCT-TR-FIN
'he discovered a well' (20110524RPP:17)

6.3.3.4. Relation

The relation event schema involves verbs that express association or belonging, such as 'be with', 'accompany' and 'be part of' (Heine 1993:28). Deeney (2002:81-82) lists both *goːm* 'accompany' and *daːra* 'come' as having the associative sense of 'with' when they are used as V2s. However, neither is attested in my corpus.

6.3.4. Unusual V2s

The V2s in Ho that are grammaticalizing towards more auxiliary-like meanings do not represent all of Heine's event schemas. For example, none of the posture verbs such as *dub* 'sit' or *tingu* 'stand' seem to be grammaticalizing: neither appears in my corpus as a V2. However, Ho also has some frequently-occurring V2s that do not fit neatly into the categories given by Heine.

It has previously been noted that North Munda languages have some more unusual verbs that are functioning as V2s in serial verb constructions e.g., *goɖ* 'pluck' > 'quickly' and *jom* 'eat' > 'to one's advantage' (Hook 1991:189-190; Anderson 2006:340; Osada 2008:137). Both of these are cognate with Ho verb roots *goɖ* 'pluck' and *jom* 'eat'. Although there are no examples of *goɖ* functioning as a V2 in my

data, *jom* 'eat' does appear with its grammaticalized meaning of 'to one's advantage', exemplified in (6.93) as well as (6.86) above, repeated as (6.94).

(6.93) *abu* *sẽya-ko=bu* *nam-jom-a*
1PL.INCL wise-PL=1PL.INCL get-for.advantage-FIN
'we become wise to our advantage' (20110302KB:62)

(6.94) *nen* *sal-ko=do* *kunḍi-ko=bu*
this lowland.field-PL=FOC terraced.field-PL=1PL.INCL
si:-jom-a
plough-for.advantage-FIN
'we plough these lowland and terraced fields for ourselves' (201105GTb:6)

Another unusual V2 that appears in Ho is *laga* which means 'tire' as a main verb. When it appears in V2 position, it means 'to take time' or 'to tire yourself doing the activity in the main verb' (Deeney 2005:221).

(6.95) *en* *tuyu=ma* *esa=ʔ* *uiʔ-laga-ke-n-a*
that jackal=FOC repeatedly=3SG jump-tire-PFV-ITR-FIN
'that jackal jumped up and down repeatedly (20110210BCa:36)

(6.96) *Matu* *seka:-laga-n-tan-a* *esu* *kereʔ*
Matu ready-tire-REFL-IPFV-FIN very much
'Matu was taking a long time getting himself ready' (20120121RPPb:7)

Example (6.96) shows how the sense of 'tiredness' has all but gone from *laga* as it grammaticalizes to a more auxiliary-like meaning.

6.3.5. Infrequent V2s

The following Vs appeared very rarely in my corpus, but Deeney also gives them as examples of V2s in Ho (Deeney 2002:80-85).

La:ʔ 'surpass' > 'excessively':

(6.97) *Soba acu-laːʔ-oʔ-tan-a*
Soba sneeze-excessively-MID-IPFV-FIN
'Soba is sneezing continually' (1.73.7)

Coʈe 'narrowly miss':

(6.98) *horo=eʔ tega-coʈeʔ-kiʔ-re=do*
tortoise=3SG tread.on-miss.narrowly-PFV:TR:3SG-LOC=FOC
'when he narrowly missed treading on tortoise' (20110301FG:39)

pura 'fulfill' > 'fully':

(6.99) *em-pura-keː-te, sengel=bu tiŋ-i-ya*
put-fully-PFV.FUT-ALL fire=1PL.INCL start.fire-INAN.OBJ-FIN
'after we put all of it (water) [in], we start the fire' (20081107NB:30)

eto 'teach' > 'be possible':

(6.100) *ka dakan-eto-oʔ-wa*
NEG cover-possible-MID-FIN
'it's not possible to cover [it]' (20120209RPPNK:70)

leka 'approximately' > 'try':

(6.101) *Matu taːuiʔ-leka-tan-a*
Matu pull-try-IPFV-FIN
'Matu is trying to pull' (20120121RPPs:19)

6.3.6. Summary of Serial Verb Constructions

Serial verb constructions in Ho are similar to what we see in other languages of South Asia. It is very common to see two or more lexical roots in a verb. Both "same-subject" and "switch-subject" serial verb constructions are possible in Ho.

Section 6.3.2. presented compound constructions in Ho. Formally these are the same as serial verb constructions. However, given that the meaning of a compound

construction does not always arise from the semantics of the individual verbs, they do not meet a strict definition of serial verb construction.

Many frequently occurring V2s in Ho are grammaticalizing to a more auxiliary-like function. Most of these come from categories that turn up in language after language across the world, e.g., direction and motion verbs. However, we also saw two unusual V2s that are perhaps particular to the Munda group of languages. In Ho, *jom* has grammaticalized to mean 'to one's advantage', while *laga* 'tire' means 'to take time'.

6.4. Conclusion

This chapter has described three types of complex clauses in Ho: matrix plus complement clauses, relative clauses, and serial verb constructions.

Complement clauses in Ho have varying degrees of finiteness. As predicted by Givón, the most finite complements appear with utterance verbs. Ho has three types of non-finite or reduced complements which appear with matrix verbs that denote some kind of aspectual or modal notion, such as 'try' or 'need'.

The most basic type of relative clause in Ho is the participle construction. The participle relative clause is used with subjects, primary and secondary objects as well as obliques. Two other strategies, nominalizations and the relative pronoun strategy, occur with NPs lower on Keenan and Comrie's (1977) Accessibility hierarchy.

Finally we looked at serial verb constructions. Ho has both "same-subject" and "switch-subject" serial verb construction. We saw that many frequently-occurring V2s are at varying stages of grammaticalization to auxiliaries in Ho.

CHAPTER VII

CONCLUSION

The aim of this dissertation was to explore Ho morphosyntax from a typological perspective and focussing around issues of verbs. In the process, some phonetics, phonology and basic clauses were discussed. The conclusions and analyses were based as much as possible on natural data from spoken narratives collected from a range of speakers.

Chapter II focused on the phonetics and phonology of Ho. Some interesting features of Ho were highlighted, such as pre-nasalized stops, and we saw that Ho has phonemic vowel length. In the discussion of stress and vowel harmony, we saw that the domain of both is typically a phonological foot, and therefore that the phonological word is not equal to the grammatical word.

Chapter III tackled the long-standing issue of word classes in Ho. Previously some researchers have claimed that the notion of word classes is not relevant to Mundari (and by extension Ho). However, when we looked at different coding constructions for predication, reference and modification in Ho, we see a pattern predicted by Croft (2001). That is, object concepts are "unmarked" in reference function, action concepts in predicate function, and property concepts in modification function. Although Ho has enormous flexibility with regards to what kind of lexeme can go into the predicate slot, that flexibility does not work all ways, e.g., action concepts cannot simply fulfill a referring function without a nominalization suffix. Most interestingly, I presented evidence for a small class of adjectives in Ho. These lexemes, belonging to Dixon's "core" class of properties can modify an object concept and they have their own predication strategy.

Ho's complex verbal morphology was the topic of chapter IV. Here we saw that the verbal suffixes can be divided into two major templates: a non-past template and a perfect(ive) template. The non-past template, which is defined by the imperfective suffix *tan*, is the only template that allows and middle and reflexive suffixes. On the other hand, transitivity is only marked in the perfect(ive) template. We also saw in chapter IV that only intransitive verbs have a dedicated past tense morpheme: *-eya*. For transitive verbs, a past tense interpretation comes from the combination of the perfect(ive) suffixes with the transitivity suffixes. However, it is possible to mark tense explicitly on a perfect(ive) verb with one of two more recent suffixes that occupy the mood slot; *o?wa* and *taikena*. These are grammaticalizing to future and past tense respectively.

The interaction between transitivity, object marking and tense was taken up in more detail in chapter VI. We saw that Ho has both an object marker *-ke* which attaches to primary object nouns, as well as pronominal object marking in the verb. Although all animate NPs are referenced in the verb with a pronominal object suffix, inanimate objects are only indexed when they are definite or referential and when the clause is imperfective. This finding seems to run counter to predictions by Hopper and Thompson (1980) that high transitivity features co-occur with each other (and low with low). However, it is in keeping with other typological predictions that less expected Os are more likely to be marked (Comrie 1979; Croft 1988). In chapters V and VI, we saw that the transitive suffix *-ḍ* only appears with perfect(ive) clauses and the applicative suffix *-a*. I argued that the combination of perfect(ive) and transitivity is so associated with past time, that *-ḍ* is in fact an incipient past tense suffix.

Finally, chapter VI dealt with three types of complex clauses in Ho: complementation, relative clauses, and serial verb constructions. Like most languages,

utterance verbs have the most finite complement clauses in Ho, while matrix verbs that denote some sort of aspectual or modal sense take some sort of reduced or non-finite complement, such as a nominalization. Serialization is a productive feature of Ho and similar to most South Asian languages. We saw that Ho has nuclear serial verb constructions and that many V2s are in the process of grammaticalizing to more auxiliary-like functions.

7.1. Implications and Future Research

The dissertation concentrated on Ho morphosyntax, with some necessary background on phonetics and phonology as well as lexical classes. As with any study, several new research questions that were beyond the scope of this work arise for future analysis.

Future topics of study include an investigation of the emphatic enclitic *=ge* and its precise relation to the copula *ge*. Indeed all aspects of information structure require further scrutiny, e.g., what is the real function of the so-called 'focus' clitic *=do*? Discourse structure requires much more research. For example, there are many words formed from *men* 'say', that end clauses in narrative texts: *men-teyaʔ, men-e-ya, men-te, men-e-tan-a, men=do, men-leka, men-eːɖ*. Although some of these words were mentioned at various places here, a systematic study of all of them and their historical origins is necessary step to understanding more about Ho discourse structure.

APPENDIX A

ABBREVIATIONS

1	1st person	EXCL	exclusive	OBJ	object
2	2nd person	FIN	finite	OPT	optative
3	3rd person	FOC	focus	PFV	perfective
ABL	ablative	FUT	future	PL	plural
ACC	accusative	GEN	genitive	PNCT	punctual
AGT	agent	IMP	imperative	PRF	perfect
ALL	allative	IPFV	imperfective	PROX	proximate
ANIM	animate	INAN	inanimate	PST	past
ANT	anterior	INCEP	inceptive	RECP	reciprocal
APPL	applicative	INCL	inclusive	REFL	reflexive
CAUS	causative	IND	indicative	REP	repetitive
COMP	complementizer	ITR	intransitive	SBJV	subjunctive
COMPL	completive	LOC	locative	SG	singular
COP	copula	MID	middle	TR	transitive
DIST	distal	NEG	negative		
DU	dual	NMLZ	nominalizer		
EMPH	emphatic	NPST	non-past		

APPENDIX B

TEXT SAMPLE I

Title:	***The spider and the bird***
Sound filename:	20110210BCb
Speaker gender:	male
Age:	43 (February, 2011)

(B.1) *bindiːram ondoʔ cẽɽe-reyaʔ kahani*
spider and bird-GEN story
'the spider and the bird story'

(B.2) *miyaɖ buru-re esu maraŋ bindiːram=eʔ taikena*
one.INAN forest-LOC very big spider=3SG PST.COP
'there was a very big spider in a forest'

(B.3) *ente bindiːram ayaʔ asul-lagiɖ jalom=eʔ*
then spider 3SG:GEN support-in.order.to web=3SG
teɲ-teɲ-ta-ɖ-a
weave-weave-PNCT-TR-FIN
'then the spider spun webs to support himself'

(B.4) *miyaɖ daru-eːte miyaɖ daru esu maraŋ jalom*
one.INAN tree-ABL one.INAN tree very big web
'from one tree to another tree, there was a very big net'

(B.5) *en jalom-re=ge ayaʔ a<na>sul=do*
that web-LOC=EMPH 3SG:GEN support<NMLZ>=FOC
'in that web is his sustenance'

(B.6) *enka=ge siŋbonga=do om-a-i-ya side-eːte*
like.that=EMPH god=FOC give-APP-3SG-FIN original-ABL
'God gave that to him originally'

(B.7) *aeʔ jalom teɲ-keː-te enaŋ asul-en-a*
3SG web weave-PFV.FUT-ALL precisely support-REFL-FIN
'he supports himself precisely by spinning his webs'

(B.8) *jalom-re okon-ko pase-oʔ-wa en-ko=do aeʔ jom-ko-ge-ya*
web-LOC what-PL trap-MID-FIN that-PL=FOC 3SG eat-3PL-EMPH-FIN
'he eats whatever is trapped in the web'

(B.9) *ena=ge ayaʔ a<na>sul=do*
that.INAN=EMPH 3SG support<NMLZ>=FOC
'that is his sustenance'

(B.10) *aeʔ eɬaʔ-paː=do eɬaʔ jiu-jantu-ko*
3SG other.INAN-approx.place=FOC other.INAN living.being-animal-PL
kakaɽi-kakaɽi-te=ma ka=eʔ ka=eʔ nam-a
chase-chase-ALL=FOC NEG=3SG NEG=3SG find-FIN
'he didn't go to other places to chase animals'

(B.11) *aeʔ okon-iʔ ayaʔ jalom-re=ʔ pase-n-a*
3SG what-ANIM 3SG:GEN web-LOC=3SG trap-REFL-FIN
'whatever is trapped in his web,'

(B.12) *iniʔ=ge ayaʔ cara=do*
3SG=EMPH 3SG:GEN food=FOC
'that is his food'

(B.13) *enka=ge ayaʔ dostur=do*
like.that=EMPH 3SG:GEN custom=FOC
'his habit is like that'

(B.14) *ente musiŋ miyaɖ cẽɽe apir-apir-te*
then one.day one.INAN bird fly-fly-ALL
'then one day, a bird, flying'

(B.15) *ayaʔ jalom-re pase-ja-n-a*
3SG:GEN web-LOC trap-PST-ITR-FIN
'got trapped in his web'

(B.16) *pase-ja-n-te=ma cẽɽe=ma esu pureʔ raʔ-e-tan-a*
trap-PST-ITR-ALL=FOC bird=FOC very much cry-INAN.OBJ-IPFV-FIN
'when he got trapped the bird was crying out a lot'

(B.17) *sab-kiʔ-ye*
catch-PFV:TR:3SG-FIN
'he caught him'

(B.18) *poca-n-lagiɖ=eʔ* *kere-mete* *laga-n-tan-a*
escape-REFL-IN.ORDER.TO=3SG wriggling-wriggling tire-REFL-IPFV-FIN
'he was tiring from wriggling to escape'

(B.19) *enreyo* *ka=eʔ* *poca-oʔ-tan-a*
nevertheless NEG=3SG escape-MID-IPFV-FIN
'nevertheless he wasn't escaping'

(B.20) *ente* *en* *cẽɽe=ʔ* *meta-i-ten-a* *ciye* *cẽɽe* *naʔ=do*
then that bird=3SG say.to-3SG-IPFV-FIN hey bird now=FOC
'then he said to that bird, "hey bird, now"'

(B.21) *jom-me-ya* *naʔ=do* *aɲ-aʔ* *jalom-re=m* *pase-ja-n-a*
eat-2SG-FIN now=FOC 1SG-GEN web-LOC=2SG trap-PST-ITR-FIN
meta-i-ten-a
say.to.3SG-IPFV-FIN
'[I]'m going to eat you now, you got trapped in my net, he says to him'

(B.22) *ka=ge* *ala-m* *jom-iɲ-me* *aɲ=do* *hora=ɲ*
NEG=EMPH NEG.IMP-2SG eat-1SG-2SG.IMP 1SG=FOC path=1SG
sen-tan-a *men-e-tan-a*
walk-IPFV-FIN say-INAN.OBJ-IPFV-FIN
'no, don't eat me, "I was walking on the road", he says'

(B.23) *ente* *cẽɽe=ma* *esa=ʔ* *raʔ-laga-e-tan-a*
then bird=FOC repeatedly=3SG cry-tire-INAN.OBJ-IPFV-FIN
bacaw-iɲ-pe *bacaw-iɲ-pe* *mente*
saw-1SG-2PL save-1SG-2PL COMP
'then the bird is getting tired crying out, "save me! save me!"

(B.24) *ente* *miyaɖ* *buru* *biter* *en* *miyaɖ* *tapaseya-tan*
then one.INAN forest inside that one.INAN meaditate.fast-IPFV
risi *muni* *hujuʔ-je-n-a* *aeʔ-taʔ*
hermit hermit come-PST-ITR-FIN 3SG-exact.place
'then in that jungle a meditating, fasting hermit came to him'

(B.25) *cikene?=kiɲ cike-o?-tan-a=kiɲ bindi:ram ondo? en cẽɽe=do*
what=3DU do-MID-IPFV-FIN=3DU spider and that bird=FOC
men-teya? akiɲ-te? beɽa-ke-ɖ-a
say-NMLZ 3DU-exact.place arrive-PFV-TR-FIN
"'what are the spider and bird doing?" he reached them'

(B.26) *ente nel-kiɲ-ten-e ci=kiɲ cẽɽe=ma pase-aka-n-a*
then see-3DU-IPFV-FIN COMP=3DU bird=FOC trap-PRF-ITR-FIN
'then he saw them, that the bird was trapped'

(B.27) *ondo? bindi:ram oɽo? jom-i-lagiɖ=e?*
and spider and eat-3SG-in.order.to=3SG
kurumuɽu-laga-n-tan-a
do.in.excited.haste-tire-REFL-IPFV-FIN
'and the spider was in a hurry to eat him'

(B.28) *ente cẽɽe men-e-tan-a "e risi muni=e?*
then bird say-INAN.OBJ-IPFV-FIN hey hermit hermit=3SG
bacaw-eɲ-me"
save-1SG-2SG.IMP
'then the bird is saying, "hey hermit, save me!'

(B.29) *"nen jalom-re=ɲ pase-ja-n-a" men-e-tan-a*
this web-LOC=1SG trap-PST-ITR-FIN say-INAN.OBJ-IPFV-FIN
'I'm trapped in this web", he says'

(B.30) *ente risi muni meta-i-ten-a ci*
then hermit hermit say.to-3SG-IPFV-FIN COMP
'then the hermit says,'

(B.31) *"na? am aya? jalom-re=m pase-ya-n-re=do*
now 2SG 3SG:GEN web-LOC=2SG trap-PST-ITR-LOC=FOC
jom-me-geda" meta-i-ten-e
eat-2SG-EMPH say.to-3SG-IPFV-FIN
'now, if you're trapped in his web, he'll eat you' he says to him'

(B.32) *endo cẽɽe=ma ka=e? manatiɲ-e-ka*
then bird=FOC NEG=3SG obey-INAN.OBJ-SBJV
'then the bird won't obey him'

(B.33) *“am bacaw-eɲ-te=ge hoba-oʔ-wa” men-e-tan-a*
2SG save-1SG-ALL=EMPH must-MID-FIN say-INAN.OBJ-IPFV-FIN
‘“you must save me”, he says’

(B.34) *ente risi muni men-e-tan-a ci “e bindiːram”*
then hermit hermit say-INAN.OBJ-IPFV-FIN COMP hey spider
‘then the hermit says, “hey spider”’

(B.35) *“alo-m jom-i-me nen cẽɽe=do”*
NEG.IMP-2SG eat-3SG-2SG.IMP this.ANIM bird=FOC
meta-i-ten-a “galti-te pase-ja-n-a am-aʔ jalom-re”
say.to-3SG-IPFV-FIN mistake-ALL trap-PST-ITR-FIN 3SG-GEN web-LOC
meta-i-ten-e
say.to-3SG-IPFV-FIN
‘don’t eat this bird, he says to him, he was trapped in your web by mistake, he says to him’

(B.36) *ente “ka aɲ jom-i-ge-ya” men-e-tan-a*
then NEG 1SG eat-3SG-EMPH-FIN say-INAN.OBJ-IPFV-FIN
‘then no, I will eat him, he’s saying’

(B.37) *ka=kiɲ paisela-ke-ɖ-eːte*
NEG=3DU decide-PFV-TR-ABL
‘when they didn’t decide’

(B.38) *ondoʔ siŋbonga-taʔ=kiɲ seноʔ-ja-n-a*
and God-exact.place=3DU go-PST-ITR-FIN
‘they went to God’

(B.39) *ente siŋbonga-taʔ=ko seноʔ-ja-n-eːte saben=ko*
then God-exact.place=3PL go-PST-ITR-ABL all=3PL
men-e-tan-a ci
say-INAN.OBJ-IPFV-FIN COMP
‘after they went to God, everyone is saying that,’

(B.40) *nen cẽɽe=do aɲaʔ jalom-re pase-ja-n-te=do=ɲ*
this bird=FOC 1SG-GEN web-LOC trap-PST-ITR-ALL=FOC=1SG
jom-i-ye men-e-tan-ge-ya bindiːram=do
eat-3SG-FIN say-INAN.OBJ-EMPH-FIN spider=FOC

'this bird got trapped in my web, so I will eat him, the spider says again'

(B.41) *ente risi muni men-e-tan-a ci*
then hermit hermit say-INAN.OBJ-IPFV-FIN COMP
'then the hermit says,

(B.42) *iye na?=do ka=ge ka=e? jom-i-re=ge*
yes now=FOC NEG=EMPH NEG=3SG eat-3SG-LOC=EMPH
tik-ge-ya mente paisela-ure-tan-a=e?
good-EMPH-FIN COMP decide-again-IPFV-FIN=3SG
'yes, now if he doesn't eat, that's good, the hermit is changing his mind'

(B.43) *ente paisela-ke-ɖ-a=ko en-ta?-re*
then decide-PFV-TR-FIN=3PL that-exact.place-LOC
'then they decided there'

(B.44) *bindiːram ae? asul-en-lagiɖ=do nen jalom=ge mena?*
spider 3SG support-REFL-in.order.to=FOC this web=EMPH COP
siŋbonga kaji-ten-ge-ya
God say-IPFV-EMPH-FIN
"the spider has his web to support himself" God says'

(B.45) *en=do nen jalom=do ae? asul-en-lagiɖ*
that=FOC this web=FOC 3SG support-REFL-in.order.to
ae?=do=ɲ udub-a?-i-ye
3SG=FOC=3SG show-APP:TR-3SG-FIN
'I showed him how to support himself with this web'

(B.46) *ente ae? asul-en-lagiɖ cetan jiu jantu-ko*
then 3SG support-REFL-in.order.to above living.being animal-PL
pase-o?-re=do=e? jom-ko-teya?=ge mena?
trap-MID-LOC=FOC=3SG eat-3PL-NMLZ=EMPH COP
'then he has to eat animals when they are trapped on his web in order to support himself'

(B.47) *ente cẽɽe=? meta-i-ten-a "e cẽɽe"*
then bird=3SG say.to-3SG-IPFV-FIN hey bird
'then he says to the bird, "hey bird"

(B.48) *am=do* *meɖ-nel-e-lagiɖ* *eya* *lel-e-lagiɖ*
2SG=FOC eye-see-INAN.OBJ-in.order.to yes see-INAN.OBJ-in.order.to
meɖ=eɲ *em-a-ɖ-me-ya*
eye=1SG give-APP-TR-2SG-FIN
'in order to see, you, yes I gave you eyes in order to see'

(B.49) *ayum-e-lagiɖ* *lutur-oː=ɲ* *em-a-ɖ-me-ya*
hear-INAN.OBJ-in.order.to ear-also=1SG give-APP-2SG-FIN
'I gave you ears too, to hear'

(B.50) *apir-en-lagiɖ*
fly-REFL-in.order.to
'in order to fly'

(B.51) *ĩyel* *aparob-ko=ɲ* *em-a-ɖ-me-ya*
feather wing-PL=1SG give-APP-TR-2SG-FIN
'I gave you feathers and wings'

(B.52) *en-re=do* *am* *galti-re=do* *judi*
that-LOC=FOC 2SG mistake-LOC=FOC perhaps
'perhaps you made a mistake'

(B.53) *cilke-te* *am* *galti-ke-ɖ-a=m* *ka=m* *nel-ke-ɖ-a*
how-ALL 2SG mistake-PFV-TR-FIN=2SG NEG=2SG see-PFV-TR-FIN
enamente=geda=m *pase-ja-n-a*
therefore=EMPH=2SG trap-PST-ITR-FIN
'that's how you made a mistake, you didn't look, so you were trapped'

(B.54) *endo* *pase-ja-n-te=do* *am=eʔ* *jom-me-teyaʔ=ge* *dorkar-a*
then trap-PST-ITR-ALL=FOC 2SG=3SG eat-2SG-NMLZ=EMPH need-FIN
meta-i-ten-a
say.to-3SG-IPFV-FIN
'"then after you got trapped, he needs to eat you", he says to him'

(B.55) *endo* *bindiːram=eʔ* *aeʔ=do* *pase-oʔ-tan-ko=do*
then spider=3SG 3SG=FOC trap-MID-IPFV-PL=FOC
jom-ko-teyaʔ=ge *aeʔ=do=ɲ* *em-aʔ-i-ye*
eat-3PL-NMLZ=EMPH 3SG=FOC=1SG give-APP:TR-3SG-FIN

men-ke-ɖ-a
say-PFV-TR-FIN
'I gave to the spider that whoever gets trapped, he eats'

(B.56) *en-leka-te* *siŋbonga* *paisela-ɖ-kiɲ-e* *canab=do*
that-like-ALL God decide-TR-3DU-FIN after=FOC
'like that God decided for them'

(B.57) *jom-kiʔ-ye* *canab=do*
eat-PFV:TR:3SG-FIN after=FOC
'then he ate him'

(B.58) *jom-kiʔ-ge-ya* *enleka* *aeʔ*
eat-PFV:TR:3SG-EMPH-FIN that-like 3SG
'he ate him like that'

(B.59) *ayaʔ* *galti* *hoba-ya-n-a* *enamente* *aeʔ*
3SG:GEN mistake happen-PST-ITR-FIN therefore 3SG
jom-kiʔ-ye
eat-PFV:TR:3SG-FIN
'his mistake happened, therefore he ate him'

(B.60) *en-leka=ge* *bindiːram-eʔ* *eɽaʔ-re=ma* *ka=eʔ*
that-like=EMPH spider-GEN other.inan-LOC=FOC NEG=3SG
asul-oʔ-wa
support-MID-FIN
'like that, the spider doesn't support himself in other ways'

(B.61) *enka=ge* *cẽɽe-oː* *aeʔ* *galti-ke-ɖ-a=eʔ* *mente*
like.that=EMPH bird-also 3SG mistake-PFV-TR-FIN=3SG COMP
'like that the bird also made a mistake so'

(B.62) *aeʔ* *jom-kiʔ-ye* *canab=do*
3SG eat-PFV:TR:3SG after=FOC
'he ate him'

APPENDIX C

TEXT SAMPLE II

Title:	**How to make *Hero?* festival bread**
Sound filename:	20081107NB
Speaker gender:	female
Age:	∼35 (in November, 2008)

(C.1) *abu-aʔ* *heroʔ* *porob-reyaʔ* *holoŋ* *laɖ* *cilika=bu*
1PL.INCL-GEN hero festival-GEN flour bread how=1PL.INCL
bai-i-ye
make-INAN.OBJ-FIN
'how we make our Hero festival flour bread'

(C.2) *abu* *naʔ* *cilika* *owaʔ-re* *menaʔ-bu-aʔ* *hoː-ko* *naʔ*
1PL.INCL now how house-LOC COP-1PL.INCL-FIN person-PL now
ai *hoː* *menaʔ-bu-re=do*
seven person COP-1PL.INCL-LOC=FOC
'how many people are we in the house now? Now, if we are seven people'

(C.3) *mi* *ʈunki* *baba*
one basket paddy
'one basket of paddy'

(C.4) *ena* *baba* *adowa-te=ge=bu*
that paddy husked.without.boiling-ALL=EMPH=1PL.INCL
ruŋ-e-ya
husk-INAN.OBJ-FIN
'we husk that unboiled paddy'

(C.5) *adowa-te=ge=bu* *ruŋ-keː-te* *canab*
husked.without.boiling-ALL=EMPH=1PL.INCL husk-PFV.FUT-ALL after
ena
that.INAN
'first we husk the unboiled [paddy], after that'

(C.6) *gum-sapa-keː-ya=bu,* *bugi-te=bu*
winnow-clean-PFV.FUT-FIN=1PL.INCL, good-ALL=1PL.INCL
sapa-leː-te *canab=do*
clean-ANT.FUT-ALL after=FOC
'we winnow it clean, we clean it well, after that'

(C.7) *ena* *ena=do=bu* *tupu-i-ya=bu*
that.INAN that.INAN=FOC=1PL.INCL dip-INAN.OBJ-FIN=1PL.INCL
'we dip it in water'

(C.8) *jokoeʔ-leka* *daʔ=bu* *em-keː-te=bu*
very.little-like water=1PL.INCL put-PFV.FUT-ALL=1PL.INCL
tupu-i-ya
dip-INAN.OBJ-FIN
'after we put a little water [somewhere, e.g., a bucket] we dip it'

(C.9) *tupu-keː-te* *ena* *canab=do=bu*
dip-PFV.FUT-ALL that.INAN after=FOC=1PL.INCL
ruŋ-i-ya=bu *sel-re*
husk-INAN.OBJ-FIN=1PL.INCL husking.hole-LOC
'after we dip it, then we husk it in the husking hole'

(C.10) *ruŋ-keː-te=bu* *ena* *canab* *calni-oʔl-e-ya*
husk-INAN.OBJ-ALL=1PL.INCL that.INAN after seive-out-INAN.OBJ-FIN
'after we husk it, we sieve it out'

(C.11) *calni-oʔl-keː-te* *ena* *mahin=ge=bu* *calni-ya*
seive-out-PFV.FUT-ALL that.INAN fine=EMPH=1PL.INCL sieve-FIN
'after we sieve it, it's sieved fine'

(C.12) *calni-keː-te* *ena* *canab=do=bu*
seive-out-PFV.FUT-ALL that.INAN after=FOC=1PL.INCL
'after we sieve it, after that'

(C.13) *iye* *suiɖ-e-ya* *nama* *haʈaʔ-re=bu*
yes mix-INAN.OBJ-FIN new winnowing.basket-LOC=1PL.INCL
suiɖ-e-ya
mix-INAN.OBJ-FIN
'we mix it, we mix it in a new winnowing basket'

(C.14) *suiɖ-keː-te* *canab*
mix-PFV.FUT-ALL after
'after we mix it'

(C.15) *ena* *ruːm* *sakam-re* *bugi-te*
that.INAN rum.leaf leaf-LOC good-ALL
'well on that rum leaf'

(C.16) *mane* *cilika=ɲ* *men-e-ya*
meaning how=1SG say-INAN.OBJ-FIN
buʔ-keː-te=bu *ruːm* *sakam*
make.hole-PFV.FUT-ALL=1PL.INCL rum.leaf leaf
buʔ-leː-te
make.hole-ANT.FUT-ALL
'that means, how do I say? After we make holes, after we make holes in the rum leaf'

(C.17) *ena* *bugi-te* *isin-oʔ-ka* *mente=bu*
that.INAN good-ALL cook-MID-SBJV COMP=1PL.INCL
buʔ-i-ge-ya
make.holes-INAN.OBJ-EMPH-FIN
'we definitely make holes, so that it cooks well'

(C.18) *buʔ-keː-te=bu* *ena* *hisab-hisab=bu*
make.holes-PFV-ALL=1PL.INCL that.INAN medium-medium=1PL.INCL
dui-keː-te *ena* *canab=do=bu*
shape.in.balls-PFV.FUT-ALL that.INAN after=FOC=1PL.INCL
em-e-ya=bu *en-re*
put-INAN.OBJ-FIN=1PL.INCL that-LOC
'after we make the holes, we shape them into medium-sized balls, then we put [them] in it'

(C.19) *nama* *ruːm* *sakam-re=ge*
new rum.leaf leaf-LOC=EMPH
'in the new rum leaf'

(C.20) *roː-teyaʔ=do* *ka=ge* *berel* *ruːm* *sakam-re* *roː-teyaʔ=do*
dry-NMLZ=FOC NEG=EMPH unripe rum.leaf leaf-LOC dry-NMLZ=FOC
ka=ge *bai-uʔ-we*
NEG=EMPH make-MID-FIN

'not the dry ones, on unripe ones, dry ones don't work'

(C.21) *en-re=bu* *em-keː-te* *ena=bu*
that-LOC=1PL.INCL put-PFV-ALL that.INAN=1PL.INCL
hisab-joŋ=bu *carpa-ya* *en=do*
medium-until=1PL.INCL flat.thick.shape-FIN that=FOC
'after we put [them] on that, we flatten them until they're medium-sized'[1]

(C.22) *isin-oʔ-layak* *ena=bu* *carpa-ya*
cook-MID-like(Hi) that.INAN=1PL.INCL flat.thick.shape-FIN
'they're cooked like that, we shape them into flat shapes'

(C.23) *ente* *canab* *carpa-keː-te* *ena*
then after flat.thick.shape-PFV.FUT-ALL that.INAN
canab=do=bu
after=FOC=1PL.INCL
'then after we shape them into flat, thick shapes, after that we'

(C.24) *nen* *nama* *caʈu-re* *bar* *mute* *daʔ* *em-keː-te*
this new earthen.pot-LOC two brass.bowl water put-PFV.FUT-ALL
'then we put two bowls of water in this new earthen pot'

(C.25) *bar* *muta* *daʔ=bu* *em-e-ya* *en*
two brass.bowl water=1PL.INCL put-INAN.OBJ-FIN that
cetan-re=bu *konɖaiɖ-teyaʔ* *maɖ-te*
top-LOC=1PL.INCL bend.branches.to.support-NMLZ bamboo-ALL
'we put two bowls of water, then we make a rack above it with bamboo'

(C.26) *konɖaiɖ-keː-te=bu* *canab=do*
bend.branches.to.support-PFV.FUT-ALL=1PL.INCL after=FOC
ena=bu *laɖ=bu* *em-e-ya*
that.INAN=1PL.INCL bread=1PL.INCL put-INAN.OBJ-FIN
'after we put the branches in the pot, then we put the bread [in]'

[1] *Carpa* refers to the plank used in a bullock cart, its use here means to mould the bread into such a flat shape, like a plank.

(C.27) *carpa-ka-n* *laɖ* *jo* *menaʔ* *ena*
thick.flat.shape-PRF-ITR bread that(Hi) COP.INAN that.INAN
en-re=bu *em-e-ya*
that-LOC=1PL.INCL put-INAN.OBJ-FIN
'that flattened bread is there, we put it in there'

(C.28) *sunum-oː* *banoʔ* *jaːnaʔ-oː* *banoʔ* *buluŋ-oː* *ka=ge*
oil-also NEG.COP anything-also NEG.COP salt-also NEG=EMPH
'there's no oil, there's nothing, also no salt'

(C.29) *daʔ-te=ge* *sirip* *only* *daʔ-te=ge=bu*
water-ALL=EMPH only(Hi) only water-ALL=EMPH=1PL.INCL
em-e-ya=bu
put-INAN.OBJ-FIN=1PL.INCL
'only water, we only use water'

(C.30) *ente* *daʔ-te=bu* *em-keː-te* *canab* *saben*
then water-ALL=1PL.INCL put-PFV.FUT-ALL after all
em-caba-keː-te *em-pura-keː-te* *sengel=bu*
put-finish-PFV.FUT-ALL put-completely-PFV.FUT-ALL fire=1PL.INCL
tiŋ-i-ya
start.fire-INAN.OBJ-FIN
'then we put in the water, after we put all of it, then we start the fire'

(C.31) *tiŋ-keː-te* *ena* *imin=bu*
start.fire-PFV.FUT-ALL that.INAN.OBJ so.many=1PL.INCL
tiŋ-i-ya *imin=bu* *tiŋ-i-ya* *ci*
start.fire-INAN.OBJ-FIN so.many=1PL.INCL start.fire-INAN.OBJ-FIN COMP
isin-oʔ-leka=bu
cook-MID-LIKE=1PL.INCL
'we make a fire, we make a big fire, so that it cooks like that'

(C.32) *endo* *canab=do* *isin-oʔ-wa* *mente=do* *sowan-hujuʔ-a*
than after=FOC cook-MID-FIN COMP=FOC smell-come-FIN
'after when it's cooked, the smell comes

(C.33) *kariban* *abu=bu* *tiŋ-i-ya* *ena* *jokoeʔ*
approximately 1PL.INCL start.fire-INAN.OBJ-FIN that.INAN very.small
gaːʈi=do *laga-oʔ-ge-ya*
delay=FOC take.time-MID-EMPH-FIN

'we start the fire, it takes very little time'

(C.34) *gaːɽi laga-oʔ-wa ek ganʈa do ganʈa laga-oʔ-wa*
delay take.time-MID-FIN one hour two hour take.time-MID-FIN
eneːte=bu tiki-ya ena tiki-oʔ-wa
after.that=1PL.INCL boil.in.water-FIN that.INAN boil.in.water-MID-FIN
'there is some delay, it takes one hour, two hours, after that we boil it in water, it's boiled in water'

(C.35) *tiki-ya-n=do canab=do suwae-te=bu*
boil.in.water-PST-ITR=FOC after=FOC slow-ALL=1PL.INCL
ena=bu nel-e-ya=bu jab
that.INAN=1PL.INCL see-INAN.OBJ-FIN=1PL.INCL when
tiki-ye-n-re=do en sakam=do mane aeʔ-te=ge
boil.in.water-PST-ITR=FOC that leaf=FOC meaning 3SG-ALL=EMPH
uri-ye-n-a
peel.skin-PST-ITR-FIN
'after the boiling in water, we slowly watch it, when it's boiled, the leaves lift up by themselves'

(C.36) *ocoʔ-n-a*
husk-REFL-FIN
'they detach themselves'

(C.37) *agar ka tiki-eke-n=do ena punɖi punɖi*
if(Hi) NEG boil.in.water-PRF-ITR=FOC that.INAN white white
nel-oʔ-wa ka ocoʔ-wa
see-MID-FIN NEG husk-FIN
'if it's not boiled, it looks white, it doesn't detach'

(C.38) *juwaʔ-en-e*
stick-REFL-FIN
'it sticks'

(C.39) *ena=do ena isin-oʔ-teyaʔ*
that.INAN=FOC that.INAN cook-MID-NMLZ
nel-e-lagiɖ=do mane sakam=ge nel-keː-re
see-INAN.OBJ-IN.ORDER.TO=FOC meaning leaf=EMPH see-PFV.FUT-LOC
cirgel-oʔ-wa
be.aware.of-MID-FIN

'you can see whether it's cooked, if you look at the leaf you know'

(C.40) *ci* *nena* *isin-eya-n* *ci* *ka* *isin-eya-n-a*
COMP this.INAN cook-PST-ITR COMP NEG cook-PST-ITR-FIN
ena-mente
that.INAN-COMP
'whether it's cooked or not'

(C.41) *ente* *ena* *canab=do=bu* *isin-eya-n-re=do*
then that.INAN after=FOC=1PL.INCL cook-PST-ITR-LOC=FOC
'then after we cooked [them]'

(C.42) *ena* *sengel=do=bu* *tiŋ=do=bu* *bondo-ya*
that.INAN fire=FOC=1PL.INCL start.fire=FOC=1PL.INCL close-FIN
'we stop the fire that's going'

(C.43) *bondo-keː-te* *canab=do* *ena* *gapater=do=bu*
close-PFV.FUT-ALL after=FOC that.INAN day.after=FOC=1PL.INCL
'after stopping [it], the next day we'

(C.44) *mana* *ayer-te=do* *hero?* *porob-reya?* *nena=do*
suppose(Hi) before-ALL=FOC hero festival-GEN this.INAN=FOC
nutum *abu-a?* *hero?* *sanskrite-reya?* *tan-a*
name 1PL.INCL-GEN hero culture-GEN COP-FIN
'before, this Hero festival's name is from our Hero cuture'

(C.45) *ente* *haːm* *hoː-ko=bu* *bonga-leː-ya*
then old.man man-PL=1PL.INCL sacrifice-ANT.FUT-FIN
'we first make a sacrifice to the ancestors'

(C.46) *bonga-keː-te* *canab=do* *ena=do=bu*
sacrifice-PFV.FUT-ALL after=FOC that.INAN=FOC=1PL.INCL
'after we do the sacrifice'

(C.47) *saben* *owa?-re* *cimin* *hoː* *mena?-bu-we*
all house-LOC how.many person COP-1PL.INCL-FIN
'how many people are we all in the house?'

(C.48) *saben=bu* *jom-e-ya* *dasi* *citira=bu*
all=1PL.INCL eat-INAN.OBJ-FIN live.in.servant live.out.servant=1PL.INCL
em.. *ena=bu* *haʈiɲ-i-ya=bu*
give.. that.INAN=1PL.INCL divide-INAN.OBJ-FIN=1PL.INCL
em-i-ya=bu
give-INAN.OBJ-FIN=1PL.INCL
'we all eat it, we give.. divide it with a live in or live out servant, we give it to him/her'

(C.49) *en=aʔ* *enka* *abu-aʔ* *heroʔ* *porob-reyaʔ* *laʡ=do*
that=GEN like.that 1PL.INCL-GEN hero festival-GEN bread=FOC
en=aʔ *enka=bu* *bai-ye*
that=GEN like.that=1PL.INCL make-FIN
'it's like that we make our hero festival bread'

APPENDIX D

TEXT SAMPLE III

Title:	***Frog, where are you?*** from the storybook by Mercer Mayer (1967)
Sound filename:	20110525RPPa
Speaker gender:	female
Age:	24 (May, 2011)

(D.1) *aca* *aliŋ* *ka:ni=liŋ* *kaji-i-ten-e*
good 1DU.EXCL story=1DU.EXCL say-INAN.OBJ-IPFV-FIN
'good, I'm going to tell a story'

(D.2) *ka:ni-reya?* *nutum=do* *coke* *am* *okon-re-ma*
story-GEN name=FOC frog 2SG where-LOC-FOC
'the story's name is 'Frog, where are you?'

(D.3) *coke* *am* *okon-pa:-re-ma*
frog 2SG where-LOC-FOC
'Frog, where are you?'

(D.4) *ente* *mindo* *miyad* *buru* *biter-re* *miyad* *hatu-re* *matu*
then one.ANIM one.INAN forest inside-LOC one.INAN village-LOC Matu
nutum-ten *mindo* *hon* *taikena*
name-IPFV one.ANIM boy PST.COP
'then, in a forest, in a house, there was a boy named Matu'

(D.5) *ae?-lo?-te* *mindo* *seta-o:* *taikena*
3SG-WITH-ALL one.ANIM dog-also PST.COP
'there was also a dog with him'

(D.6) *ente* *akiŋ* *esu* *juɽi* *mena?-kiŋ-te*
then 3DU very friend COP-3DU-ALL
'then since they are very good friends'

(D.7) *inuŋ-te, ja:n-taʔ inuŋ-te-reyo: misete=ge=kiɲ seno?-wa*
play-ALL, any-place play-ALL-EVEN.IF together=EMPH=3DU go-FIN
'playing, they went to play everywhere together'

(D.8) *ente=ca musiɲ din=do en matu matu ente seta*
then=agree one.day day=FOC that matu matu then dog
inuŋ-inuŋ=te
play-play-ALL
'so then one day that Matu and the dog were playing'

(D.9) *minḍo coke=kiɲ nam-kiʔ-ye*
one.ANIM frog=3DU find-PFV:TR:3SG-FIN
'they found a frog'

(D.10) *nam-kiʔ-te=kiɲ agu-liʔ-ye owaʔ-te*
find-PFV:TR:3SG-ALL=3DU bring-ANT:TR:3SG-FIN house-ALL
'after they found him, they took him home'

(D.11) *ente miyaḍ kãco kãco botol-re=kiɲ em-taʔ-i-ye*
then one.INAN glass glass bottle-LOC=3DU put-PNCT:TR-3SG-FIN
'they put him in a glass bottle'

(D.12) *enka-te ayub-eya-n-a ayub-eya-n=do*
like.that evening-PST-ITR-FIN evening-PST-ITR=FOC
'like that it became evening, it became evening'

(D.13) *matu ene:te seta=do karkom-re=kiɲ gitiʔ-ye-n-e*
Matu after.that dog=FOC bed-LOC=3DU sleep-PST-ITR-FIN
'Matu and the dog slept in the bed'

(D.14) *coke=do botol-re=kiɲ ho:b-taʔ-i-ye*
frog=FOC bottle-LOC=3DU put.in.container-PFV:TR-3SG-FIN
'they put the frog in a bottle'

(D.15) *nide-ya-n-a tala-nide-noʔ-eya-n-a tala-nide-pa:ŋ*
night-PST-ITR-FIN middle-night-little-PST-ITR-FIN middle-night-time
'it became night, it was midnight, midnight'

(D.16) *coke=do* *hapa-te* *botol-eːte* *oʔl-eya-n-a*
frog=FOC quiet-ALL bottle-ABL get.out-PST-ITR-FIN
'the frog quietly got out of the bottle'

(D.17) *oʔl-eya-n-a*
get.out-PST-ITR-FIN
'he got out'

(D.18) *setaʔ-eya-n-a*
morning-PST-ITR-FIN
'it became morning'

(D.19) *setaʔ-eya-n-re=do* *matu* *ente* *seta=kiɲ*
morning-PST-ITR-LOC=FOC Matu then dog=3DU
meɖ-baː-e-tan-a
eye-here.there-INAN.OBJ-IPFV-FIN
'when it was morning, Matu and the dog were looking around'

(D.20) *meɖ-baː-e-tan-a=kiɲ*
eye-here.there-INAN.OBJ-IPFV-FIN=3DU
'they were looking around'

(D.21) *sama* *botol-a=ge=kiɲ* *neɖ-lam-ta-ɖ*
empty bottle-?=EMPH=3DU look-find-PNCT-TR
'they saw the empty bottle'

(D.22) *ente* *goʈa=kiɲ* *nam-baː-i-ten-e* *naʔ=do*
then all.directions=3DU find-here.there-3SG-IPFV-FIN now=FOC
then they were searching all over for him now'

(D.23) *matu=do* *ayaʔ* *juta-ko-re* *ci=ʔ* *bolo-ya-n* *mente*
Matu=FOC 3SG:GEN shoes-PL-LOC COMP=3SG enter-PST-ITR COMP
juta-ko=ʔ *onkoː-leka-a*
shoe-PL=3SG put.s/t.mouthed.on.side-try-FIN
'Matu tries to turn his shoes upside down in case he'd gone in his shoes'

(D.24) *seta=do* *en* *kãc* *botol-re* *boːʔ=do=eʔ* *ader-ta-ɖ-a*
dog=FOC that glass bottle-LOC head=FOC=3SG bring.in-PNCT-TR-FIN
'the dog put his head in that glass bottle'

(D.25) *nen-ko-re* *ci* *mena?-i-ge-ya* *karkom* *biter-ko=kiɲ*
this-PL-LOC COMP COP-3SG-EMPH-FIN bed inside-PL=3DU
koyo?-ba:-e-tan-a
stretch.neck.to.look-here.there-INAN.OBJ-IPFV-FIN
'they stretch their necks to look here and there in case he is under the beds'

(D.26) *enro* *ka=kiɲ* *nam-i-ten-e* *ente*
nevertheless NEG=3DU find-3SG-IPFV-FIN then
raca-pa:=laŋ *nel-i-ya* *mente* *raca=kiɲ*
courtyard-approx.place=1DU.INCL see-3SG-FIN COMP courtyard=3DU
'nevertheless they aren't finding him, so they look for him in the courtyard'

(D.27) *raca-pa:=kiɲ* *koyo?-e-tan*
courtyard-approx.place=3DU stretch.neck.to.see-INAN.OBJ-IPFV
'they were stretching their necks to see in the courtyard'

(D.28) *koyo?-e-tan-te* *kiɽiki=kiɲ* *kolau-ke-ɖ-a*
stretch.neck.to.see-INAN.OBJ-IPFV-ALL window=3DU open-PFV-TR-FIN
'they opened the window to look out'

(D.29) *kiɽiki=kiɲ* *kolau-ke-ɖ-re=do*
window=3DU open-PFV-TR-LOC=FOC
'when they'd opened the window'

(D.30) *kiɽiki-pe:-o:* *baŋ-gaiye*
window-approx.place-also NEG.COP-3SG:FIN
'he also wasn't on the window side'

(D.31) *iyu-ba:-e-tan-e=kiɲ* *'coke* *am*
shout-here.there-INAN.OBJ-IPFV-FIN=3DU frog 2SG
okon-pa:-re=ma?' *iyu-i-ten-e* *matu=do*
what-approx.place-LOC=EMPH shout-3SG-IPFV-FIN Matu=FOC
'they were shouting, "Frog, where are you?, Matu was shouting'

(D.32) *ente* *canab=do* *kiɽiki-re=kiɲ* *koyo?-aka-ɖ-imite*
then after=FOC window-LOC=3DU strech.neck.to.look-PRF-TR-WHILE
'then next they were stretching their necks to look out the window'

(D.33) *seta=do* *ondoʔ* *kiɽiki-te=ʔ* *iyuʔ-ye-n*
dog=FOC and window-ALL=3SG fall-PST-ITR
'the dog then fell out of the window'

(D.34) *iyuʔ-ye-n-re=do=eʔ* *kãc=do* *rapuɖ-rengaː-ye-n-a*
fall-PST-ITR-LOC=FOC=3SG glass=FOC break-absolutely-PST-ITR-FIN
'when he fell, the glass totally broke'

(D.35) *matu=do* *iraŋ-tab-i-ten-e=ʔ*
Matu=FOC yell-quick-3SG-IPFV-FIN=3SG
'Matu quickly yelled at him'

(D.36) *kãc* *am* *rapuɖ-ke-ɖ-a* *meta-i-ten-e* *kurkur-te*
glass 2SG break-PFV-TR-FIN say.to-3SG-IPFV-FIN angry-ALL
'"you broke the glass", he said to him angrily'

(D.37) *ente* *naʔ=do* *enroː* *ka=kiŋ* *nam-kiʔ-te=kiŋ*
then now=FOC nevertheless NEG=3DU find-PFV:TR:3SG-ALL=3DU
men-e-tan-a *do-laŋ* *naʔ* *dolaŋ* *nam-i-ye*
say-INAN.OBJ-IPFV-FIN ?-1DU.INCL now ?-1DU.INCL find-3SG-FIN
'then now, nevertheless, when they didn't find him, they say "let's find him"'

(D.38) *okon-paː=laŋ* *nam-i-ye=kiŋ* *men-ke-ɖ-a*
what-approx.place=1DU.INCL find-3SG-FIN=3DU say-PFV-TR-FIN
te-kiŋ *sekaː-ye-n-a=kiŋ=kiŋ* *oːʔl-eya-n-a=kiŋ*
POSS?-3DU ready-PST-ITR-FIN=3DU=3DU go.out-PST-ITR-FIN=3DU
'where will we find him?" they were saying to each other, they got ready, they went out'

(D.39) *oːʔl-eya-n-eːte* *hatu* *kuɽi-peː* *naʔ*
go.out-PST-ITR-ABL village side-approx.place now
buru-buru-te=kiŋ *senoʔ-tan-a=kiŋ* *ente*
jungle-jungle-ALL=3DU go-IPFV-FIN=3DU then
iyu-i-ten-a=kiŋ *buru* *kuɽi-noʔ-paː=kiŋ*
shout-INAN.OBJ-IPFV-FIN=3DU jungle side-little-approx.place=3DU
biter-ke-ɖ-re
inside-PFV-TR-LOC
'after they left the village side, they went to the jungle, then they were shouting, when they got inside the jungle side,'

(D.40) *coke* *am* *okon-paː-re=maʔ* *men-e-tan-a=eʔ*
frog 2SG what-approx.place-LOC=EMPH say-INAN.OBJ-IPFV=3SG
matu=do
Matu=FOC
'"Frog, where are you?" Matu says'

(D.41) *seta-oː* *keɽeʔ* *buʔ-i-ten-e*
dog-also strong bark-INAN.OBJ-IPFV-FIN
'the dog is also barking loudly'

(D.42) *ente* *naʔ=do=kiɲ* *sen-sen-a* *sen-sen-aka-ɖ-a=kiɲ* *buru*
then now=FOC=3DU walk-walk-FIN walk-walk-PRF-TR-FIN=3DU jungle
kuɽi-noʔ-re, *miyaɖ* *daru-re* *seta=do* *neɖ-lam-ta-ɖ-a*
side-little-LOC one.INAN.OBJ tree-LOC dog=FOC see-find-PNCT-TR-FIN
'then now they're walking, they've been walking on the jungle side, the dog discovered something in a tree'

(D.43) *miyaɖ* *daru-re* *daru-re*
one.INAN.OBJ tree-LOC tree-LOC
'in a tree, in a tree'

(D.44) *en* *iye* *luge-leka-n-aʔ* *neɖ-lam-ta-ɖ-a*
that thingy bird.nest-LIKE-ITR-GEN see-find-TR-FIN
'he saw thingy, like a bird's nest'

(D.45) *en* *daka-aka-n-teyaʔ*
that hive-PRF-ITR-NMLZ
'that hive'

(D.46) *ente* *en* *daka-re* *en* *daka-aka-n* *poɽom-re*
then that hive-LOC that hive-PRF-ITR small.bundle-LOC
'then in that hive, in a small bundle'

(D.47) *iye* *roko-ko=do* *nimin* *muru-muru-ten=ko* *bolo-tan-a*
yes fly-PL=FOC so.many buzz-buzz-IPFV=3PL enter-IPFV-FIN
'so many bees buzzed in'

(D.48) *endo* *seta* *men-e-tan-a* *nen-re* *cike-te=ko*
them dog say-INAN.OBJ-IPFV-FIN this-LOC how-ALL=3PL
bolo-tan-a
enter-IPFV-FIN
'then the dog is saying, "how did they enter in this?"'

(D.49) *ente* *en* *japaʔ-te* *senoʔ-ye-n-a* *ente*
then that near-ALL go-PST-ITR-FIN then
'then he went near it'

(D.50) *esa=eʔ* *buʔ-i-ten-e=ʔ* *ente=ʔ*
repeatedly=3SG bark-INAN.OBJ-IPFV-FIN=3SG then=3SG
sowan-e-tan-a=eʔ *nen-re=ge* *toraŋ* *coke=do*
smell-INAN.OBJ-IPFV-FIN=3SG this-LOC=EMPH perhaps frog=FOC
menaʔ-i-ye *men-e-tan-a*
COP-3SG-FIN say-INAN.OBJ-IPFV-FIN
'he repeatedly barks, then he's smelling it, "perhaps the frog is in this", he says'

(D.51) *esa=eʔ* *buʔ-i-ten-e* *daru* *ruku-i-ten-e*
repeatedly=3SG bark-INAN.OBJ-IPFV-FIN tree shake-INAN.OBJ-IPFV-FIN
'he keeps barking, he's shaking the tree'

(D.52) *ruku-i-ten-a=eʔ*
shake-INAN.OBJ-IPFV-FIN=3SG
'he's shaking it'

(D.53) *ente* *matu=do* *en* *daru* *japaʔ-re=ge* *miyaɖ*
then Matu=FOC that tree near-LOC=EMPH one.INAN
bunum-leka-n-aʔ *en* *bunum-leka-n* *unɖu=ʔ*
ant.hill-LIKE-ITR-GEN that ant.hill-LIKE-ITR hole=3SG
neɖ-lam-ta-ɖ-a
see-find-PNCT-TR-FIN
'then Matu discovered, near that tree, like an ant-hill thing, an ant-hill like hole'

(D.54) *en* *unɖu-re=ʔ* *japaʔ-taʔ* *sen-tab-eya-n-eːte=ʔ*
that hole-LOC=3SG near-exact.place walk-quick-PST-ITR-ABL
'after he walked quickly near that hole'

(D.55) *iyu-i-ten-e* *coke* *am* *okon-paː-re=ma* *mente*
shout-INAN.OBJ-IPFV-FIN frog 2SG what-place-LOC=EMPH COMP
iyu-i-ten-e
shout-INAN.OBJ-IPFV-FIN
'he was shouting, 'frog, where are you?', he shouted'

(D.56) *iyu-i-ten=do* *en* *bunum* *biter-eːte=do* *minɖo*
shout-INAN.OBJ-IPFV=FOC that ant-hill inside-ABL=FOC one.=ANIM
guɽu *oʔl-eya-n-a*
field.rat come.out-PST-ITR-FIN
'he was shouting, when a field rat came out of the ant-hill'

(D.57) *guɽu* *oʔl-eya-n-re=do*
field.rat come.out-PST-ITR-LOC=FOC
'when the field rat came out'

(D.58) *guɽu* *nel-kiʔ-torsaʔ* *boro-tab-ke-ɖ-a*
field.rat see-PFV:TR:3SG-IMMEDIATELY fear-quick-PFV-TR-FIN
'as soon as he saw the field rat, he was quickly scared'

(D.59) *boro-tab-ke-ɖ-a=eʔ,* *boro-ke-ɖ-re=do=eʔ*
fear-quick-PFV-TR-FIN=3SG, fear-quick-PFV-TR-LOC=FOC=3SG
'he was quickly scared, when he was scared'

(D.60) *boro-ke-ɖ-eːte-reyoː* *kuli-i-ten-e=ʔ*
fear-PFV-TR-ABL-EVEN.IF inquire-3SG-IPFV-FIN=3SG
'even though he was afraid, he asked him,'

(D.61) *ne-paː* *ambaɖ* *am* *coke* *nel-aʔ-i-ci*
this-APPROX.PLACE perhaps 2SG frog see-APP:TR-3SG-Q
meta-i-ten-e *en=do*
say.to-3SG-IPFV-FIN that=FOC
'perhaps you saw a frog here?'

(D.62) *guɽu=do* *ka=ge* *men-e-tan-a*
field.rat=FOC NEG=EMPH say-INAN.OBJ-IPFV-FIN
'the field rat says no'

(D.63) *seta=do* *en* *daru=ge* *esu* *keɽeʔ* *dokol-tan-re=ge*
dog=FOC that tree=EMPH very strong shake-IPFV-LOC=EMPH
menaʔ-i-ye
COP-3SG-FIN
'the dog was there shaking the tree very hard'

(D.64) *dokol-tan-re=ge* *menaʔ-i-re=do* *en* *poɽom=do*
shake-IPFV-LOC=EMPH COP-3SG-LOC=FOC that small.bundle=FOC
iyuʔ-ke-n
fall-PFV-ITR
'when he was shaking it, that small bundle fell'

(D.65) *iyuʔ-ke-ɖ-re=do=eʔ* *ondoʔ* *surpeŋ-ko=do* *ka-ci=ko*
fall-PFV-TR-LOC=FOC=3SG and wasp-PL=FOC NEG-Q=3PL
kakiː-kiʔ-e
chase-PFV:TR:3SG-FIN
'when it fell and wasps chased him, didn't they'

(D.66) *etka* *joːr* *seta* *nir-rengaː-ye-n-a* *boro-te*
a.lot fast dog run-absolutely-PST-ITR-FIN fear-ALL
'the dog ran really fast, scared'

(D.67) *nir-rengaː-ye-n-a* *etka* *saniŋ-rengaː*
run-absolutely-PST-ITR-FIN a.lot far-absolutely
'he was absolutely running very far'

(D.68) *ente=ca* *hon=do* *coke* *nam-tan-re=ge* *menaʔ-i-ye*
then=EMPH child=FOC frog find-IPFV-LOC=EMPH COP-3SG-FIN
'then the boy is there, still looking for the frog'

(D.69) *ente* *entaʔ-re=ge* *japaʔ-re=ge* *miyaɖ*
then that-APPROX.PLACE-LOC=EMPH near-LOC=EMPH one.INAN
maraŋ-leka-n *kukuru-eke-n* *daru* *taikena*
big-LIKE-ITR hole.in.tree-PRF-ITR tree COP.PST
'then, near that place was a big hollow tree'

(D.70) *ente* *en* *daru-ko-re* *ambaɖ* *menaʔ-i-ci* *men-eːte* *en* *daru*
then that tree-PL-LOC perhaps COP-3SG-Q say-ABL that tree
cetan=eʔ *deʔ-ye-n-eːte* *en* *daru-re=ʔ* *dub-eke-n-eːte*
above=3SG climb-PST-ITR-ABL that tree-LOC=3SG sit-PRF-ITR-ABL

iyu-i-ten-e
shout-INAN.OBJ-IPFV-FIN
'then, maybe he [frog] is in the tree, so after he climbed into the tree, he sat in that tree and shouts'

(D.71) *coke* *am* *okon-paː-re=ma* *men-e-tan-a*
frog 2SG what-APPROX.PLACE-LOC=EMPH say-INAN.OBJ-IPFV-FIN
'frog, where are you, he says'

(D.72) *ente* *en* *daru* *kukuru-eːte=ca* *miyaɖ* *kokor*
then that tree tree.hole-ABL=EMPH one.ANIM owl
oʔl-eya-n-a
come.out-PST-ITR-FIN
'then from that tree hole an owl came out'

(D.73) *kokor* *oʔl-eye-n-torsa* *hon=do=eʔ* *nel-kiʔ*
owl come.out-PST-ITR-IMMEDIATELY boy=FOC=3SG see-PFV:TR
matu=do *nel-kiʔ-re=do*
Matu=FOC see-PFV:TR:3SG-LOC=FOC
'immediately when the owl came out, the boy saw it, when Matu saw him'

(D.74) *boro-te* *iyuʔ-rengaː-eya-n-a* *daru-eːte*
fear-ALL fall-absolutely-PST-ITR-FIN tree-ABL
'[he] fell from the tree afraid'

(D.75) *latar-rengaː-re* *iyuʔ-rengaː-eya-n*
under-absolutely-LOC fall-absolutely-PST-ITR
'[he] absolutely fell under [the tree]'

(D.76) *iyuʔ-rengaː-eye-n-a=ʔ*
fall-absolutely-PST-ITR-FIN=3SG
'[he] absolutely fell'

(D.77) *ente=ʔ* *nir-ten-e* *matu=do* *nir-nir-ten=do=eʔ*
then=3SG run-IPFV-FIN Matu=FOC run-run-IPFV=FOC=3SG
nir-nir-te *etka* *buru* *buru*
run-run-ALL a.lot forest forest
'then he was running, Matu was running in a dense forest'

(D.78) *maraŋ buru-noʔ-paː=eʔ nir-beʈa-ke-ɖ-a*
big forest-little-approx.place=3SG run-arrive-PFV-TR-FIN
'he ran and arrived near a big jungle'

(D.79) *ente miyaɖ daru=ma en diri maraŋ-leka-n sereɲ*
then one.INAN.BJ tree=FOC that stone big-like-ITR big.flat.rock
diri-leka-n-aʔ deʔ-ya-n-a
stone-like-ITR-GEN climb-PST-ITR-FIN
'then he climbed a tree, a big stone, like a stone'

(D.80) *deʔ-ye-n-eːte=ʔ*
climb-PST-ITR-ABL=3SG
'after he climbed up'

(D.81) *en sereɲ diri cetan-re deʔ-ye-n-eːte=ʔ*
that big.flat.rock stone top-LOC climb-PST-ITR-ABL=3SG
iyu-i-ten-e
shout-3SG-IPFV-FIN
'after he climbed onto that rock, he was shouting'

(D.82) *coke am okon-paː-re=ma mente*
frog 2SG what-APPROX.PLACE-LOC=EMPH COMP
iyu-i-ten-e
shout-INAN.OBJ-IPFV-FIN
'frog, where are you?', he was shouting'

(D.83) *ente=ca en diri japaʔ-re=ca*
then=AGREE that stone near-LOC=AGREE
'then near that stone'

(D.84) *en iye naʔ buru-ren jantu=bu men-e-ya*
that thing now jungle-GEN animal=1PL.INCL say-INAN.OBJ-FIN
'that thing now, the jungle's animals, we say'

(D.85) *badu badu gitiʔ-ke-n-taikena*
antelope antelope sleep-PFV-ITR-PST.COP
'an antelope, antelope, was sleeping'

(D.86) *aya?* *iyu-kakala* *ayum-ke-ɖ-te* *badu=ce*
3SG:GEN shout-shout hear-PFV-TR-ALL antelope=AGREE
tingu-renga:-ye-n-a=e?
stand-absolutely-PST-ITR-FIN=3SG
'when he heard his shouting, the antelope stood right up'

(D.87) *tingu-ye-n=do* *en* *iye=do* *matu=do* *aya?*
stand-PST-ITR=FOC that thing=FOC Matu=FOC 3SG:GEN
diriŋ-re=? *ba?-renga:-ye-n*
horns-LOC=3SG fasten-absolutely-PST-ITR
'standing on that thingy, Matu was completely stuck on his horns'

(D.88) *diriŋ-re* *ba?-renga:-ta?-i-ye* *ini?-o:*
horns-LOC fasten-absolutely-PNCT:TR:3SG-FIN 3SG.ANIM-ALSO
'he [antelope] also stuck him [Matu] on his horns'

(D.89) *badu-o:* *iyu-beʈeŋ-ki?-leka*
antelope-also shout-startle-PFV:TR:3SG-LIKE
'[Matu] also startled the antelope by shouting'

(D.90) *diriŋ-re=?* *ba?-ka-n-e:-te=ge* *keʈe?* *jo:r=e?*
horns-LOC=3SG hook-PRF-ITR-ABL=EMPH strong force=3SG
nir-eke-ɖ-a *badu=do*
run-PRF-TR-FIN antelope=FOC
'after he was stuck on the horns, he ran very fast'

(D.91) *nir-nir-nir-nir-te*
run-run-run-run-ALL
'running'

(D.92) *ayer-pa:-re=do* *hangi* *beʈa-o?-tan-a*
in.front-approx.place-LOC=FOC steep.incline arrive-MID-IPFV-FIN
ena-do *ka=ko* *nel-e-tan-a*
that.INAN=FOC NEG=3PL see-INAN.OBJ-IPFV-FIN
'a steep incline is coming up in front, they aren't seeing it'

(D.93) *endo* *badu=do* *miɖ* *torsa=e?*
then antelope=FOC one immediately=3SG
tingu-ure-tab-en-tan-a=e? *tingu* *ne=ɲ* *mene:ɖ*
stand-back-quickly-REFL-IPFV-FIN=3SG stand this=1SG supposing

'then the antelope immediately stood back up quickly, I suppose stood up'

(D.94) *ente* *hon=do* *poca-ya-n-leka=e?* *rike-ya-n-a*
then boy=FOC let.escape-PST-ITR-LIKE=3SG do-PST-ITR-FIN
'then the boy made like to escape'

(D.95) *ente* *en* *na?=do* *matu=do* *en* *hangi-re*
then that now=FOC Matu=FOC that steep.inclne-LOC
iyu?-ye-n-a
fall-PST-ITR-FIN
'then now, Matu fell down that steep incline'

(D.96) *hangi-re* *iyu?-ye-n-re=do*
steep.incline-LOC fall-PST-ITR-LOC=FOC
'when he fell down that incline'

(D.97) *seta=do* *ondo?* *esu* *jo:r=e?* *kaki:-eke-ɖ-kiɲ-e*
dog=FOC and very fast-3SG chase-PRF-TR-3DU-FIN
'the dog has chased them very fast'

(D.98) *aɲ-a?* *matu=do* *cike-te* *ni:=do* *neka=?*
1SG-GEN Matu=FOC how-ALL 3SG=FOC like.that=3SG
go?-ka-ya *mente* *seta-o:* *kaki:-eke-ɖ*
carry.on.shoulder-PRF-FIN COMP dog-also chase-PRF-TR
kaki:-eke-ɖ-kiɲ-ge-ya
chase-PRF-TR-3DU-EMPH-FIN
'my Matu! how did he get carried like that on his shoulder?, the dog was chasing them'

(D.99) *ente* *hora-ko=do* *ka=ko* *nel-tan-a*
then path-PL=FOC NEG=3PL see-IPFV-FIN
'the they weren't seeing the paths'

(D.100) *matu=do* *iyu?-ye-n-e*
Matu=FOC fall-PST-ITR-FIN
'Matu fell'

(D.101) *seta-o:* *iyu?-ye-n-e*
dog-also fall-PST-ITR-FIN

'the dog also fell'

(D.102) *ente en latar-re=do ga˞a taikena*
then that under-LOC=FOC river PST.COP
'then there was a river below'

(D.103) *ga˞a-rengaː-re=kiɲ copol-ke-n-te=kiɲ iyuʔ-ye-n-e*
river-absolutely-LOC=3DU splash-PFV-ITR-ALL=3DU fall-PST-ITR-FIN
'they fell right into the river with a splash'

(D.104) *iyuʔ-eye-n canab=do*
fall-PST-ITR after=FOC
'after falling'

(D.105) *naʔ meɖ-baː-e-tan-a=kiɲ*
now eye-here.there-INAN.OBJ-IPFV-FIN=3DU
'now they looked around'

(D.106) *are men-e-tan-a=kiɲ*
hey say-INAN.OBJ-IPFV-FIN=3DU
'"hey", they're saying'

(D.107) *ente canab=do seta=do ondoʔ iye*
then after=FOC dog=FOC and yes
goʔ-kiʔ-ye
carry.on.shoulder-PFV:TR:3SG-FIN
'then the dog put him (Matu) on his shoulder'

(D.108) *matu goʔ-kiʔ-ye aya˞ taran-re*
Matu carry.on.shoulder-PFV:TR:3SG-FIN 3SG:GEN shoulder-LOC
'Matu carried him on his shoulder'

(D.109) *goʔ-kiʔ-te naʔ=do=kiɲ*
carry.on.shoulder-PFV:TR:3SG-ALL now=FOC=3DU
meɖ-baː-e-tan-a=kiɲ
eye-here.there-INAN.OBJ-IPFV-FIN=3DU
'while he was carrying him on his shoulder, they're looking around'

(D.110) *ente en da?-re mindɻo maraŋ-leka-n daru*
then that water-LOC one.ANIM big-like-ITR tree
'then in that water, [there was] a big-like tree

(D.111) *maraŋ-leka-n daru baʈi-ke-n-taikena en da?-re*
big-like-ITR tree overturn-PFV-ITR-PST.COP that water-LOC
'a big-like tree was overturned in that water'

(D.112) *endo en-ta? joka=kiɲ japa?-ya-n-a*
then that-EXACT.PLACE little=3DU near-PST-ITR-FIN
daru-te?-te=kiɲ japa?-eya-n-a
tree-EXACT.PLACE-ALL=3DU near-PST-ITR-FIN
'then they got a little near that place, they got near the tree'

(D.113) *japa?-ya-n-e:te*
near-PST-ITR-ABL
'after they neared [it]'

(D.114) *matu=do coke-ko ra?-e-tan ra?=e?*
Matu=FOC frog-PL cry-INAN.OBJ-IPFV cry=3SG
ayum-ʈo?-ke-ɖ-a
hear-sudden-PFV-TR-FIN
'Matu suddenly heard frogs' cries'

(D.115) *ayum-ʈo?-ke-ɖ-re=do*
hear-sudden-PFV-TR-LOC=FOC
'when he heard all of a sudden'

(D.116) *seta-ke meta-i-ten-e auri hapa-n-me*
dog-ACC say.to-3SG-IPFV-FIN wait quiet-REFL-2SG.IMP
'[he] said to the dog, "wait! be quiet!"'

(D.117) *hapa-n-me auri meta-i-ten-e*
quiet-REFL-2SG.IMP wait say.to-3SG-IPFV-FIN
'be quiet! wait!", he says to him'

(D.118) *endo canab=do en daru-te tor-pa:*
then after=FOC that tree-ALL that.distant-exact.place
kuʈi=laŋ koyo?-leka mente
side=1DU.INCL stretch.neck.to.look-try COMP

'then, on the other side of that tree over there, we'll try to look'

(D.119) *en-kiɲ* *koyoʔ-e-tan-a*
that-3DU strech.neck.to.look-INAN.OBJ-IPFV-FIN
'they stretched their necks to look'

(D.120) *baroː* *jakeɖ*
both until
until both

(D.121) *matu* *seta-oː=kiɲ* *koyoʔ-e-tan-a*
Matu dog-also=3DU strech.neck.to.look-INAN.OBJ-IPFV-FIN
koyoʔ-e-tan=do=kiɲ *nel-lam-ta-ɖ-ko-wa*
strech.neck.to.look-INAN.OBJ-IPFV=FOC=3DU see-find-PNCT-TR-3PL-FIN
en *iye* *daru* *danaŋ-re=ca*
that yes tree behind-LOC=AGREE
'Matu and the dog were stretching their necks to look, when they were stretching their necks to look, they discovered them behind a tree'

(D.122) *baroː* *enga* *sanɖi* *coke-kiɲ=kiɲ* *neɖ-lam-ta-ɖ-kiɲ-e*
both female male frog-DU=3DU see-find-PNCT-TR-3DU-FIN
'they discovered both male and female frogs'

(D.123) *coke-kiɲ=kiɲ* *neɖ-lam-ta-ɖ-kiɲ-re=do* *ondoʔ=kiɲ* *are=kiɲ*
frog-DU=3DU see-find-PNCT-TR-3DU-LOC=FOC and=3DU hey=3DU
men-e-tan-a
say-INAN.OBJ-IPFV-FIN
'when they discovered the frogs, they say "hey"'

(D.124) *ondoʔ* *gaːɽi-noʔ=kiɲ* *meɖ-ke-ɖ-re=do* *sangi-leka*
and delay-little=3DU eye-PFV-TR-LOC=FOC many-like
coke-ko=kiɲ *neɖ-lam-ke-ɖ-ko-wa*
frog-PL=3DU see-find-PFV-TR-3PL-FIN
'when they looked a little more, they saw many frogs'

(D.125) *ente* *akiɲ-eʔ* *coke-oː* *en-taʔ-re=kiɲ*
then 3DU-GEN frog-also that-exact.place-LOC=3DU
neɖ-lam-taʔ-i-ye
see-find-PNCT:TR-3SG-FIN

'then they discovered their frog there too'

(D.126) *neɖ-lam-taʔ-i-re=do=kiɲ* *esu=kiɲ*
see-fin-PNCT:TR-3SG-LOC=FOC=3DU very=3DU
rãsa-rengaː-ye-n-a
happy-absolutely-PST-ITR-FIN
'when they saw him, they were very happy'

(D.127) *ente* *akiɲ-eʔ* *coke=do=kiɲ* *nam-ure-kiʔ-te=do*
then 3DU-GEN frog=FOC=3DU find-back-PFV:TR:3SG-ALL=FOC
en-taʔ-eːte=kiɲ *iɖi-ure-kiʔ-ye*
that-exact.place-ABL=3DU take-back-PFV:TR:3SG-FIN
'then after they found the frog again, they took him back from there'

(D.128) *ente* *ne-ko* *naʔ* *ondoʔ* *tara* *coke-ko=do* *en* *sama=ge=ko*
then this-PL now and some frog-PL=FOC that only=EMPH=3PL
nel-aka-n-te=kiɲ *ten-e* *canab=do*
see-PRF-ITR-ALL=3DU COP-FIN after=FPC
'then these other [left-behind] frogs have just been watching them'

(D.129) *matu* *ente* *seta=do* *akiɲ-eʔ* *coke=do=kiɲ*
Matu then dog=FOC 3DU-GEN frog=FOC=3DU
nam-ure-kiʔ-te=do
find-back-PFV:TR:3SG-ALL=FOC
'Matu and the dog found their frog again'

(D.130) *rãsa-rãsa-te=kiɲ* *senoʔ-ye-n-a* *owaʔ-te*
happy-happy-ALL=3DU go-PST-ITR-FIN house-ALL
'happily they went home.'

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