Constituent Focus in Karitiâna

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§1 Introduction[1]

Karitiâna (K. henceforth) is a Tupí language spoken by approximately 300 people in the state of Rondônia, in northwest Brazil. The language was first described in detail in Landin (1984). Further findings on K. phonology and syntax were detailed in Storto (1999, 2003). Everett (2006) presents a lengthy analysis of K. phonetics, phonology, and morphosyntax. Each of these studies contains findings related to the placement of constituent focus in the language. For instance, in Everett's (2006) description of voice categories and clause types, there are ancillary claims on the placement of focus on e.g. clause-initial verbs. However, narrow constituent focus in K. has yet to be systematically explored. Therefore, this paper represents the first major attempt to delineate the morphosyntactic and prosodic correlates of constituent focus in K. To that end, I will consider relevant findings in the literature, as well as data recently collected in the field.

The discussion below relies on the approach to information structure (and constituent focus more specifically) described in works such as Lambrecht (1986, 1994) and Van Valin (1999b, 2005). Van Valin describes various prosodic and morphosyntactic concomitants generally associated, crosslinguistically, with clause-level focus placed on a particular constituent. Van Valin also presents a typology of languages categorized according to one of four basic focus-syntax interaction types. Below, K. is classified

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according to this typology, after relevant buttressing findings are discussed. What we will find during the course of this investigation is that the findings in K. are generally consistent with the predictions made by the approach to focus structure offered in Van Valin (2005).

The investigation below generally proceeds as follows: In §2, I define some important concepts from Role and Reference Grammar, such as "left-detached position" and "precore slot", since these concepts are essential to the presentation of the claims made below. In §3, I briefly summarize the main findings in the literature regarding Kartiana clause structure and prosody, paying particular attention to any claims vis-à-vis constituent focus. The bulk of the paper is found in §4, in which I provide some new prosodic and syntactic data from K., and offer some analysis of the these data. In §5 I present some sample projections of K. clauses. In §6, I categorize the language according to the typology suggested by Van Valin (1999b, 2005), before offering some general conclusions in §7.

§2 Terminology and tools from RRG

§2.1 Relevant pragmatic terms

Given that terms related to information structure (e.g. topic and focus) are often used in different ways in the literature, the relevant terminology should be made clear at the outset of this study. The term *focus* is used in the manner suggested in Lambrecht (1994) and adopted in Van Valin (2005:69), namely,

The semantic component of a pragmatically structured proposition whereby the assertion differs from the presupposition.

Of course such a definition entails a clear definition of *presupposition* and *assertion.* Presupposition, then, is considered to be

the set of propositions lexicogrammatically evoked in an utterance which the speaker assumes the hearer already knows or believes or is ready to take for granted at the time of the speech. (Lambrecht 1994:52)

Pragmatic assertion, on the other hand, is defined as follows:

The proposition expressed by a sentence which the hearer is expected to know or believe or take for granted as a result of hearing the sentence uttered.

Consider the following brief sample exchange:

1.   a. How's your sister?
        b. She's **sick**.

In 1b, the third person pronoun refers to a presupposed element, the sister. The speaker in 1b clearly expects that the interlocutor is ready to "take for granted" or know about the sister in question, since she was mentioned in 1a. The assertion in 1b is the entire clause, and the focus of the assertion, given the definitions adopted here, is the predicate **sick**, since the predicate is the only portion of the assertion (She's sick) in this case which differs from the presupposition (She).

While this paper focuses on focus in K., it is worthwhile to contrast the concept of focus adopted here with the notion of topic. A given entity, E,

is the topic of a sentence, S, iff in using S the speaker intends to increase the addressee's knowledge about, request information about, or otherwise get the addressee to act with respect to E. (Gundel 1988:210)

There is a strong correlation between a topic and the presupposition of a clause, since the topic often must be a presupposed element, as in the exchange above.

An important point that follows from the definitions of topic and focus adopted here is that they are sentence-level constructs. In the discussion of K. below, then, I focus on the delineation of the morphosyntactic and prosodic correlates of individual sentences and clauses, rather than on large segments of discourse.

Naturally, different elements within a particular sentence can be brought into focus by a speaker. The first and most common type of focus evident crosslinguistically,

as a cursory examination of the typological literature might suggest, is predicate focus. This is the sort of focus evident in a topic-comment sentence such as the response in the question-answer pair in 1. This topic-comment type of structure has been discussed at length in the literature (e.g. Li and Thompson 1980), and further examples need not be adduced at present. However, I will return to the subject of predicate focus in the discussion of the K. data below, in order to contrast the formal correlates of this sort of focus with those observed in certain constituent focus constructions.

A second major category of focus types is sentence focus. As Van Valin (2005:70) suggests:

Sentence focus constructions differ strikingly from predicate focus constructions, in that they have no topical subject; the focus domain is the entire sentence.

Since focused elements represent the asserted, non-presupposed elements, it follows that nothing in a sentence with sentence focus is presupposed at the moment of utterance, and that the entirety of such a sentence is asserted. An example of sentence-level focus, then, might read as follows:

2.   There once was a basketball player from Mauritius.

In such a presentational construction, both the subject and the verb of the sentence are focused, and there is no topical element.

The third major category within the taxonomy of focus types adopted here can be termed *narrow* or *constituent* focus. As we might expect, in sentences with this sort of focus only one constituent is brought into focus. As we will see in the K. data, this

constituent may be a subject, an object[2], verb, postpositional phrase, question word, or one of several other constituent types.

In the following question-answer pair, the focused constituent in each sentence is highlighted:

3.   a.   **What** did you have for breakfast?
         b.   I had **a Southwestern omelette**.

Question words and the focused NP's in question responses are prototypical examples of narrow focus. The most frequent sort of constituent focus is object-type focus. As has been noted in the literature, e.g. in DuBois (1987), Dahl (2000), Jäger (2007), Everett (to appear), object NP's tend to be instantiated with new, non-anaphoric referents[3]. Naturally, then, object NP's often represent focused constituents. Researchers such as Lambrecht (1986) and Van Valin (2005) consider narrow focus on an object to be a case of "unmarked" narrow focus. Conversely, as Van Valin (2005:72) suggests, "narrow focus on a subject is a case of marked narrow focus."

§2.2 Relevant syntactic terms

Constituent focus in a given language may be expressed through morphology, through syntactic manipulation, through prosody, or through some combination thereof. As we will see, K. employs all of these phenomena for the purposes of focusing constituents. Nevertheless, the correlation between these formal tools and the pragmatic goal is not haphazard but conventionalized as we would expect. Therefore, we can speak of the formal "focus structure" in K., which might be defined pithily as follows:

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[2] To the extent that these terms can be fruitfully applied in a split-ergative language such as K. For a summary of GR's in K., see the appendix to this paper.

[3] As I suggest in Everett (to appear), this fact is generally epiphenomenal in the sense that the new-ness of objects follows from their inanimacy and transient nature, when one considers the introduction and perseverance of object referents at the corpus level.

Focus Structure: The conventional association of a focus meaning with a sentence form. (Lambrecht 1994:222)

In fact, there are various focus structures in K. with different constituents having different associated focus structures in several cases. For example, verb-focus is characterized quite differently from object-focus, morphologically, as we will see below. Also, there are certain more general focus structures apparent in K., in that there are certain prosodic and syntactic similarities to the different constituent-focus types. For example, constituent focus is generally expressed via movement to a sentence-initial position.

The mention of sentence-initial position draws us naturally to an additional point, namely that we will need to be more specific than "clause-initial" in the discussion of the syntactic manipulation available to K. focus constructions. To that end, let me provide definitions to some relevant terms employed below, established in works such as Van Valin (2005:4).

The **core** of a clause is simply the combination of the **nucleus** (predicate) and any arguments. The **clause** itself consists of the core plus the **periphery** containing any adjuncts. Consider the following sample clause:

4.   Maria kicked the soccer ball into the goal.

In this case, the entire sentence consists of one clause containing a nucleus ("kicked") a core ("Maria kicked the soccer ball") and a periphery ("into the goal"). In this case the argument Maria clearly occurs sentence-initially and clause-initially. But not all sentence-initial constituents can be said to occur clause-initially, since they may often be clause-external. This point entails the introduction of another term.

The left-detached position, or **LDP**, is the position reserved for elements that are clause external and are separated from the rest of the sentence by a pause. For example, adverbial phrases frequently occur in the LDP cross-linguistically. Arguments of the verb in the adjacent clause may also appear in the LDP, however in such cases they are also represented in the main clause with a resumptive pronoun (see Van Valin 2005:6). The LDP is introduced here primarily to serve as a contrast for another important term, which will play a more prominent role in this discussion of K. constituent focus. That term is precore slot, or **PrCS**. The PrCS simply refers to the position in which fronted elements, such as question words in English, occur. Unlike the LDP, the PrCS is a clause-internal position, and is not typically separated from the following nucleus by a marked prosodic shift or pause. Also, if a noun such as a question word occurs in the PrCS, it is not also represented in the same sentence via a resumptive pronoun.

§3 A brief review of the K. literature

Landin (1984:232) suggests that "a number of different sentence elements in K. can be preposed or topicalised, including post-positional phrases, direct objects, verbs and embedded sentences." Landin's assessment, based on research carried out in the mid-1970's, is generally consistent with the findings proffered below, though it is important to note that the sentence elements he refers to as "topicalised" are "focused" constituents under the current framework. While in some cases focused items may be (subsequently) topical, the evidence presented below is consistent with the preposing of constituents serving primarily as a focusing operation.

Landin also notes that, when the preposed element in a given clause is a notional direct object or undergoer, a prefix is attached to the verb to reflect the special status of the preposed object. Consider the following example:

5.   erembɨ   ti-m-a-andɨki   ĩn[4]
    hammock   OFC-CAUS-make/do-INCEPTIVE   1S
    "It is the hammock I'm about to cause to be made." or
    "I'm about to make a hammock." (1984:234)

This **ti-** prefix is referred to as an object-focus marker in Everett (2006:325).

Aside from the **ti-** prefixation associated with verbs in clauses with preposed objects, Landin also notes that such preposing of elements may be associated with "postposing of the subject." (1984:234) While K. has fairly flexible word order, the basic word order in declarative clauses with non-pronominal NP's can be described as AVO (see Everett 2006:332-342 for a justification of this claim). However, as Landin notes, in clauses with preposed O's the more subject-like (and in fact generally more topical) NP may occur clause-finally as in 5.

 Storto (1999, 2003) also describes the phenomenon of object-focusing associated with **ti-** prefixed verbs. Her comments are consistent with those offered here to the extent that she considers clause-initial elements such as **erembɨ** in 5 to be focused rather than topicalized elements. In her words, the clause-initial position (Spec, CP according to the framework she employs) is the "landing site of all focused arguments in wh-questions, answers to wh-questions, clefts, and object focus constructions." (2003:418) Storto also notes that focused adverbials and postpositions occur clause-initially, and that adverbs in embedded clauses *must* occur clause-initially (425).

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[4] While this example is taken from Landin, I have employed the phonetically-oriented transcription system used for my data, for the sake of consistency with the other examples in this paper. Landin's transcription is based on an orthography he developed for the K., which has been altered somewhat since its adoption by the K.

In Everett (2006) I refer to the conclusions offered in Landin and Storto's work, and also suggest that *verbs* may occur in a verb-focus construction characterized by clause-initial verb-placement and a **pɨrɨ-** prefix, as in the following example:

6. pɨrɨ-héj-ɨ̄n   i
    VB.FOC-hide-NFUT   3
    "He hid." (2006:290)

Following my discussion of the "verb-focus" construction exemplified in 6, I note that

Besides its use in question responses, which crosslinguistically often correlate with focus semantics, the verb-focus semantics of this construction are also hinted at by the fact that the verb in the construction must always occur clause-initially. (2006:292)

In short, then, the findings in the literature suggest that verbs, object NP's, postpositional phrases, questioned elements in wh-questions, adverbs, and question answers, may occur clause-initially when they are focused. However, aside from a general claim that these focused elements often occur clause-initially, much remains to be elucidated vis-à-vis constituent focus in K. For instance, some of the morphosyntactic particulars, and *all* of the prosodic particulars, associated with such focusing need to be fleshed out in order to offer a unifying account of the various sorts of focusing mentioned (primarily tangentially in discussions of other phenomena) in the literature. To that end, in the following sections I examine recently-collected morphosyntactic and prosodic data. This data is offered in order to provide a more holistic account of constituent-focusing in K., and to test whether the framework-internal tools suggested in §2 prove to be of any assistance in the analysis at hand.

§4 The morphosyntactic and prosodic correlates of constituent focus in K.

§4.1 Introduction

§4.1.1 Types of narrow-focus considered

Since the following sections contain many examples of narrow constituent focus, I should note from the outset that further examples of constituent focus are found in Everett (2006), particularly in the discussion of voice categories (2006:402-445). The data presented below were collected more recently, however. The methodology employed in their analysis also differs somewhat, in that the present undertaking is more oriented according to syntactic caategories, such as the PrCS, and also considers prosodic data. Nevertheless, while the analyses and conclusions offered below are novel, they are generally consistent with the analyses and conclusions on voice categories in K. provided in Everett (2006).

In the interests of clarity and space, I will limit myself to discussing certain constituent focus types in K., namely predicate focus, object-focus (via the object-focus construction and passivization), periphery focus, and verb-focus. I will also consider the focus associatied with question words in content questions, as well as that associated with NP's serving as question responses. I will begin, however, by considering the predicate focus evident in those clauses without marked narrow focus. As mentioned above, this sort of focus can be considered the most basic focus type, and occurs in the most *basic* sentences, according to the hierarchy of sentence types purveyed in Keenan (1976), according to which:

a sentence A is <u>more basic</u> than a sentence B if, and only if, the syntactic form and the meaning of B are understood as a function of those of A. (E.g., the form of B is some modification [possibly addition to] that of A, and the meaning of B is some modification of that of A.

If we accept Keenan's definition of syntactic basic-ness, then it follows that basic sentences in K. are those with in the so-called "speech act participant" voice (see Everett 2006:407-408 for a justification of this claim). Such sentences exhibit, among other correlates, **na(ka)-/ta(ka)-** verbal prefixation, AVO basic word order, and, significantly for our purposes, generally exhibit predicate focus. Given their basic status in the taxonomy of K. sentence types (including high frequency in naturally occurring corpora), such basic sentences represent a natural starting point and background for the analyses of other focus types below.

§4.1.2 Methodology employed in recording and transcription of data

The clauses represented below were recorded during field research among the K. in the fall of 2006. The clauses were recorded directly onto a Mac PowerBook G4 via Praat in some cases, and in others were recorded onto Sony minidiscs, and then transferred to hard drive via Praat. In all cases the clauses were recorded via a Sony dynamic microphone, at a sampling rate of 44.5 kHz. The clauses were stored as wav files and in many cases also converted to mp4 format. Samples of these clauses are available for download on the project's web site.

The prosodic contours evident below were created via the pitch-contour-analysis function in Praat. These and other prosodic contours are available on the project's web site.

§4.2 Predicate focus, a type of broad focus, as a tool for comparison

§4.2.1 Predicate focus in the SAP voice

K. has flexible word order. However, in transitive declarative clauses with two full NP's the basic order is AVO, as in the following example:

7.   irip   **naka**-i-j   kojpa
           tapir   NSAP-eat.TRANS-FUT   pineapple
           "The tapir will eat the pineapple."

There are no indefinite or definite articles in K. (though there is a robust set of pre-nominal demonstratives which co-occur with the post-nominal determiner, as in 8). Therefore, the tapir referred to in 7 may be construed as definite or indefinite, depending on the context of the utterance. However, the default interpretation of such NP's is that they are definite, and therefore form part of the presupposition of the utterance. The predicate, in this case consisting of a verb and a post-verbal NP, is focused in 7, exemplifying the most common sort of broad focus apparent in the K. data. Example 8 contains another example of this default focus structure, in which the focus is placed on the entire predicate rather than any specific constituent:

8.   õnĩ   taso   aka   **naka**-mĩː-t   a-oːta
           DEM.DIST   man   DET   NSAP-hit-NFUT   2S-friend
           "That man over there hit your friend."

Despite the variable word order in K., the evidence presented in Everett (2006) suggests that "AVO and SV are the basic unmarked word orders of the language" (342). While intransitive clauses exhibit SV or VS ordering, intransitive clauses with full NP's typically exhibit SV ordering. Consider the following two basic declarative clauses with unmarked predicate focus:

9.   taso   na-aŋgaɾ-i
           man   NonSAP -stand.up-FUT
           "The man will stand up."

10.   ɲonso   naka-tãm-ø
           woman NonSAP-fly.sg-NFUT
           "The woman flew."

In cases such as these, the predicate can occur clause-initially, but most typically the topical NP occurs initially. In cases in which the topical NP is a speech act participant (1st

or 2nd person singular or plural), the optional pronoun referring to the SAP occurs clause-finally, as in 11 and 12, which are counterparts to 9 and 10 respectively:

11.   ɨ-ta-aŋgaɾ-i   (ĩn)
            1S.ABS-SAP-stand.up-FUT   1S
            "I will stand up."

12.   ɨ-taka-tãm-ø   (ĩn)
            1S.ABS-SAP-fly   1S
            "I flew."

As we see in 11 and 12, in intransitive clauses in which the sole argument of the core is a SAP, the optional pronoun occurs clause-finally (in fact preverbal placement of this pronoun is considered ungrammatical). Nevertheless, the pronominal agreement form prefixed to the verb occurs clause-initially. As Van Valin (2005) notes, there is evidence suggesting that:

…with respect to clauses in head-marking languages, *the pronominal affixes on the verb are the core arguments of the clause*, not the optional independent lexical NPs and pronouns. (2005:17, emphasis in original)

The evidence from K. is consistent with this claim, since it appears that in basic declarative clauses the topical arguments occur in clause-initial position, as in 7-10. If we accept the plausible claim that pronominal prefixes such as those in 11 and 12 actually serve as core arguments, then we can note that in basic declarative clauses in K., the topical core argument generally occurs preverbally. This is a tendency rather than a rule, even in sentences with unmarked broad predicate focus. For instance, in intransitive clauses with a 3rd person pronoun core argument, the pronoun may occur clause-initially as in 13, *or* clause-finally as in 14:
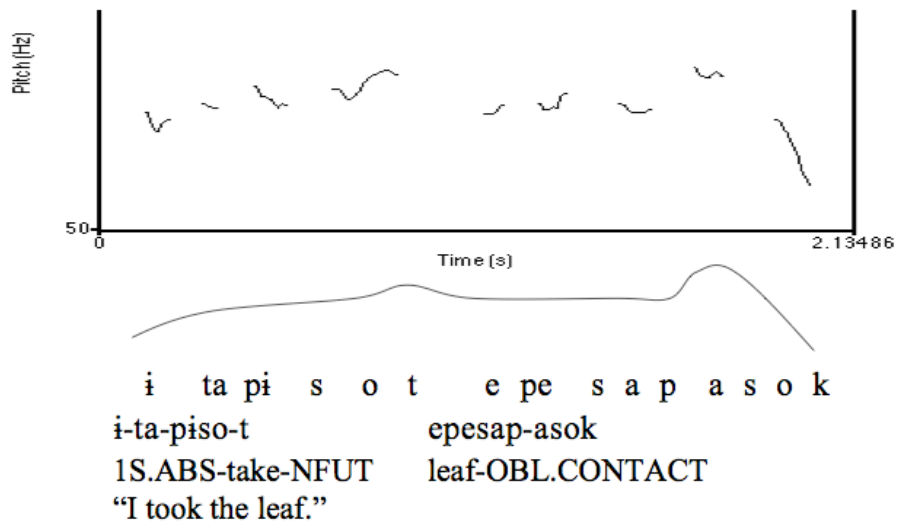
13.   i   na-aŋgaɾ-i
            3S   NSAP-stand.up-FUT
            "S/he will stand up."

14.   na-aŋgaɾ-i   i
            NSAP-stand.up-FUT   1S
            "S/he will stand up."

In cases such as 14, in which there is no person agreement prefix attached to the verb, the core argument does occur post-verbally. Nevertheless, it is generally accurate to say that in basic K. declarative sentences with **na(ka)-/ta(ka)-** verbal prefixation, the topic generally occurs clause-initially, followed by a broadly-focused predicate with optional objects and postpositions. For more arguments supporting the claim that such sentences can be considered to represent the basic sentence type in K. (and therefore the basic focus type) I refer the reader to Everett 2006, Ch. 16.

In the preceding K. examples, several of the fundamental morphological and syntactic correlates of topic-comment-type clauses have been exemplified. Since languages employ three main tools for focusing constituents, namely syntax, morphology, and prosody, it remains to be seen what sort of *prosodic* correlates characterize basic broad predicate focus of the sort illustrated above. In the following two figures, basic declarative clauses with **na(ka)-ta(ka)-** prefixation are provided, along with their pitch contours (original Praat contours beginning at 50 Hz[5] and manually smoothed contours are provided).

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[5] The X values of the contours represent time in seconds, the Y-axis values represent Hz. Particular values for Hz are not presented since these vary according to speaker, and we are interested in basic contours.

i	ta pi	s	o	t	e pe	s a p	a s o k
i-ta-piso-t	epesap-asok
1S.ABS-take-NFUT	leaf-OBL.CONTACT
"I took the leaf."

Figure 1

The smoothed pitch contour in Figure 1 is fairly flat. The intonation begins to rises somewhat from the agentive core argument, in this case a verbal prefix, to the verb, with the stressed syllable of the verb being somewhat higher in pitch. This is not surprising, in that one of the correlates of word-level stress in K. is increased syllable pitch.[6] Nevertheless, the pitch contour in Figure 1 is fairly flat, and its most marked feature is the falling pitch carried by the final syllable in the clause.

In general, the last syllable of basic declarative sentences exhibits such falling pitch. This can be seen in Figure 2, for example, in which the falling pitch is still present, though it is less steep than that in Figure 1.

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[6] However, the most important correlate is increased loudness, attained in part via increased spectral tilt, cf. Everett (2006: 7.1).

ĩn naka   pɨ dn a j   m ã ŋg a
ĩn   naka-pɨdn-aj   mãnga
1S   NonSAP-kick-FUT   mango
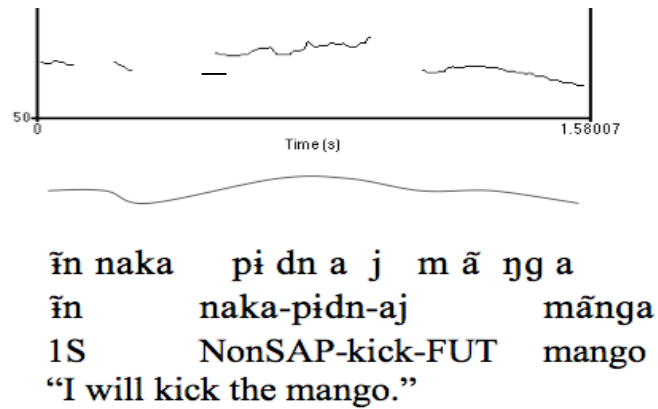"I will kick the mango."

Figure 2

Figure 3 contains the pitch contour taken from a set of recordings of another speaker. Again we witness the same pattern of a fairly flat pitch contour, with some minor variations due largely to word stress, which then drops during the production of the final syllable.
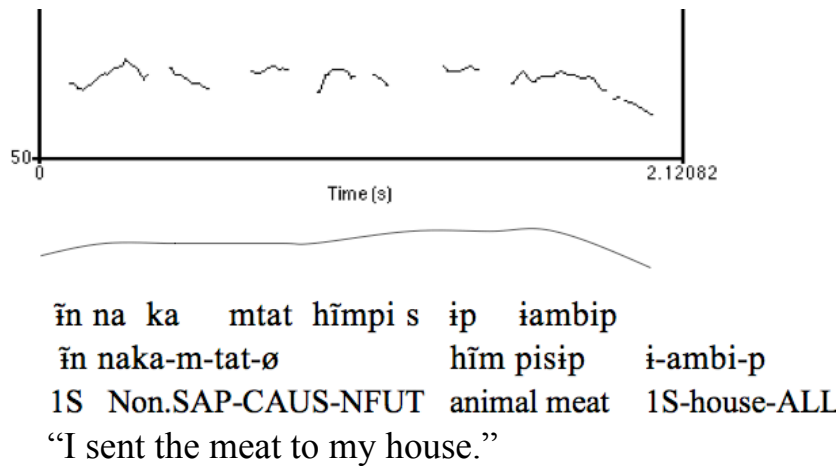

ĩn na ka   mtat hĩmpi s ɨp   iambip
ĩn naka-m-tat-ø   hĩm pisɨp   i-ambi-p
1S Non.SAP-CAUS-NFUT   animal meat   1S-house-ALL
"I sent the meat to my house."

Figure 3

These pitch contours suggest that basic declarative clauses in K. generally exhibit a fairly flat pitch pattern until the final syllable in the sentence, which is produced with a falling pitch.[7]

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[7] In Everett (2006:131-133) I discuss in very broad terms the prosody of K. declaratives, interrogatives, and imperatives, noting that imperatives exhibit the most marked pitch variation, with increased fundamental frequency on the stressed syllable of the verb. No claims with respect to focus types are made in Everett 2006, however.

Figures 1-3 suggest that the falling pitch associated with clause-final syllables does not vary according to constituent type. In Figure 1, the syllable with falling pitch belongs to an oblique marker, while in Figure 3 it belongs to two morphemes, a nominal (house), and an allative suffix attached to the nominal. In Figure 2, however, the falling pitch belongs to a noun serving as a core argument. The basic prosodic pattern, then, is a fairly flat pitch contour produced throughout the clause, including adjuncts in the periphery. The pitch descends during the production of the last syllable, regardless of the constituent type to which the syllable in question belongs.

In terms of amplitude, the clauses represented in the above figures are generally unremarkable, that is there is very little amplitude variation apart from that involved in word-level stress. This is consistent with most other clauses in the data that demonstrate the sort of broad predicate focus discussed here.

While clauses with **na(ka)-/ta(ka)-** prefixed verbs and topic-initial sequencing can be considered in some senses the most basic declarative clauses in K., they do not represent the only declarative clause type with broad predicate focus. Two other clause types are copular clauses and clauses with an intransitive prefix attached to the verb. In the following section we consider the latter clause type, before turning to predicate focus in copular clauses.

§4.2.2 Predicate focus in clauses with intransitive marking

In Everett (2006:241), I note that many clauses in K. are inflected for semantic valency. More specifically, there is an **i-** prefix[8] attached to semantically intransitive verbs, that is, those verbs with only one macrorole in their argument/logical structure,

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[8] This prefix may be related diachronically to the **i-** irrealis prefix attached to imperative, interrogative, and negated multivalent verbs. See Everett (2006:255).

either an actor or an undergoer. The **i-** prefix may not be attached to semantically

multivalent verbs, that is, verbs with more than one macrorole in their logical structure.

Consider the following examples:

> 15.   ĩn   i-diwɨt-ø
>   1S   INT-forget-NFUT
>   "I forgot."

> 16.   * ĩn   i-iː-t   (manga)
>   1S   INT-eat-NFUT   mango
>   "I ate/I ate the mango."

For a list of verbs that can occur with **i-** prefixation in such declarative clauses, such as

the verb in 15, see Table 12.1 in Everett (2006). For a list of verbs that cannot, such as

the verb in 16, see Table 12.2 in the same work.

Given that clauses of this sort contain verbs with only one macrorole in their

logical structure, the basic form of such clauses is generally a topical argument followed

by an **i-** inflected verb. This is true in the vast majority of such clauses in the data I have

collected. Nevertheless, it should be noted that many of these clauses contain other

nominals which serve in the clause periphery. For example, in 17 and 18 we see that the

semantically intransitive verb from 15 is used with two nominals, one a 1S pronoun

filling the macrorole in the verb's logical structure, the other an NP functioning as a core

external adjunct:

> 17.   ĩn   i-diwɨt-ø   manga-tɨ
>   1S   INT-forget-NFUT   mango-OBL
>   "I forgot the mango."

> 18.   i   i-seʔɨ-t   opoɣ-kɨtowo-tɨ
>   3   INT-drink-NFUT white.man-corn.drink-OBL
>   "He drank the white man's corn drink." ("He drank the soda.")

In such cases, the broad predicate focus extends to the post-verbal elements, which are

part of the assertion.

As in the case of basic declarative clauses with **na(ka)-/ta(ka)-** verbal prefixing, the intonation contour associated with clauses such as 15-18 is generally flat, but falls on the final syllable. In other words, broad predicate focus, being the default focus type, does not appear to affect the intonation contour associated with declarative pragmatics. Consider figure 4, which contains a verb prefixed for semantic intransitivity.

a: t ʃ   a i d i w ɨt
a:tʃa   i-diwɨ-t
2PL   INT-forget-NFUT
"You guys forgot."
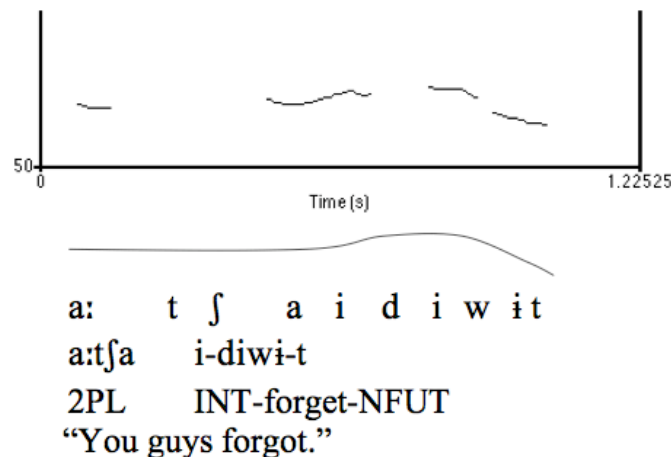
Figure 4

As in the cases of Figures 1-3, Figure 4 is characterized by falling intonation on the last syllable, but flat intonation throughout the rest of the clause. In fact, the fundamental frequency of this male speaker's voice hovers between 120-134 Hz during the first four syllables of the short clause, before falling to 96 Hz during the production of the nucleus of the last syllable.

§4.2.3 Predicate focus in copular clauses

The final category of simple declarative sentences to be described here is copular clauses. Copular clauses in K. typically consist of a noun, followed by the copula, followed by a predicate nominal or adjective. Consider 19 and 20:

19.   i:tʃa   na-aka-t   opok-ø
        1PL   NonSAP-COP-NFUT   white people-COP.AGR
        "We are white people."

20.	taso	na-aka-ɾ	i-sopipok-ø
	man	NonSAP -COP-NFUT	INT-smart/clever-COP.AGR
	"The man is clever."

As in the case of the other declarative clauses, the topic generally occurs clause-initially. However, there are cases in my corpus of predicate-initial copular clauses. Consider 21, which K. speakers insist is the same semantically as 19, though it exhibits inverted word order:

21.	opok	na-aka-t	iːtʃa
	white people	NonSAP -COP-NFUT	1PL
	"We are white people."

The subtle pragmatic differentiation between 19 and 21 is not clear at present.

The copula can also be used as an auxiliary to semantically intransitive verbs with the **i-** prefix discussed in the previous section. In such cases, a progressive reading of the clause may result, however this reading is context-dependent and non-progressive readings are also possible. Consider the following example, in which the copula occurs with a future marker:

22.	õmbakɨbɨedna	na-aka-j	i-pitʔɨ-t
	dog	NonSAP-COP-FUT	INT-eat-COP.AGR
	"The dog will eat."

In such clauses, the more topical nominal generally occurs prior to the copula.

The predicate in copular clauses consists of the copula plus any following intransitive verb as in 22, or any following nominal or adjective as in 19 and 20, respectively. Copular clauses, then, are consistent with the general pattern in K. declarative clauses in which topics generally precede the predicate. The topical nominals that so often occur clause-initially contain the clause's presupposition, while the predicates, containing the focused assertion, occur after the topic. Exceptions like 21

exist, however in most cases in my data they can be explained in terms of altered focus, as we will see in the discussion of non-predicate focus in the remaining sections.

Turning now to the prosodic correlates of copular clauses, we find that the pitch contour associated with such clauses is consistent with that of the other declarative-clause types considered so far.
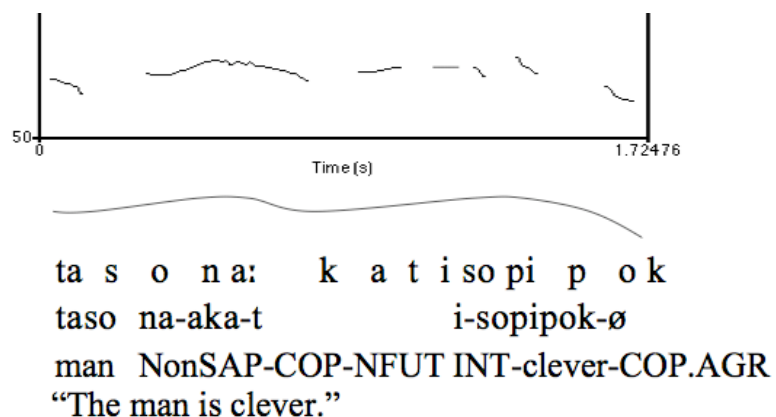

ta s o n a: k a t i so pi p o k
taso na-aka-t   i-sopipok-ø
man NonSAP-COP-NFUT INT-clever-COP.AGR
"The man is clever."

Figure 5

i n a: k a j i h ĩ r̃ ĩɲ ã t
i   na-aka-j   i-hĩr̃ĩɲã-t
3   NonSAP-COP-FUT   INT-sing-COP.AGR
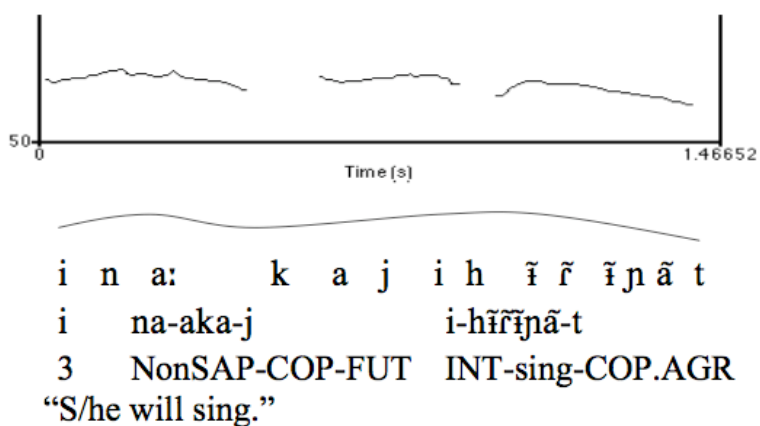"S/he will sing."

Figure 6

Figure 5 is taken from a recording session with a 23-year-old K. male, while Figure 6 is taken from a recording session with a 30-year-old K. male. The copular clauses of both speakers however, demonstrate the general pattern we have observed so far, namely a fairly level clausal intonation contour, followed by a lower or falling pitch on the final

syllable of the clause. In some cases, as in Figure 6, the pitch begins to decrease during the production of the penultimate or even antepenultimate syllable.

The predicate in copular clauses can be considered the copula plus any following noun (cf. 19), adjective (cf. 20 and Figure 5), or verb (cf. 22 and Figure 6). The focus in such cases is a broad focus placed on the predicate following the topical NP.

Given the clause types so far considered, it seems fairly apparent that clauses with broad predicate focus in Karitana, that is those clauses in which "the subject is a topic… and in which the predicate expresses new information about this topic" (Lambrecht 2000:615) are unmarked prosodically. The basic prosodic contour in such clauses falls during the last syllable, whether or not this last syllable is part of the predicate, a core argument (cf. Figure 2), or part of the periphery (cf. Figure 3). For male speakers, the pitch variance during the production of the flat portion of the clause typically varies between 5-25 Hz, primarily in accordance with word-level accent. (Everett 2006:119) However, the sentence-final pitch drop exceeds 30 Hz in most cases. Of course these values tend to be greater for females and others with generally higher F0 values.

I should note that the amplitude in such clauses also oscillates, however this variation is consistent with the findings on word stress in Everett (2006: 121), where it is suggested that perceived loudness, as measured in sones, is the strongest acoustic correlate of word-level stress in K. As we see for the K. speaker represented in the following chart, stressed vowels in K. are generally about 5-15 sones louder than unstressed vowels in the same word:

Sone differentiation of vowels
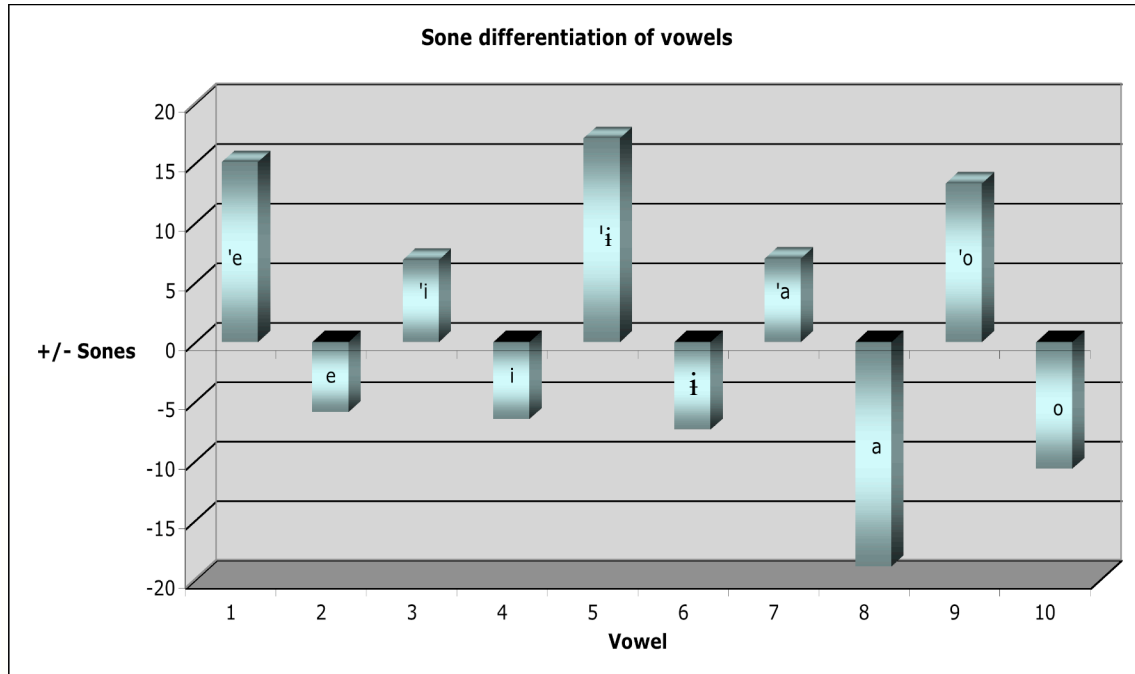
Figure 7 Average sone differentiation of individual vowels, when contrasted to other vowels in same word token. (Taken from Everett 2006:121)

The overall prosodic pattern for declarative clauses with broad predicate focus is the same for all the speakers in my data, independent of whether such sentences are characterized by the copular construction, the intransitive construction, or the SAP construction (clauses with **na(ka)-/ta(ka)-** verbal prefixation).

§4.3 Content questions and responses (unmarked narrow foci)

In this section we examine the first non-declarative clause types so far considered, and the first cases of unmarked narrow constituent focus. (Marked narrow constituent focus will be considered below.) Van Valin (2005:72) notes, with respect to English, that

"A very common example of a narrow focus sentence is a WH-question like *What did you buy?* and the answer *I bought _____* ; the WH-word and the NP filling its slot in the reply are both unmarked narrow foci."

In content questions, the constituent focus naturally and expectedly falls upon the constituent being questioned, and so such clauses present cases of unmarked narrow focus. Van Valin (2005:72), following Lambrecht (1986), suggests that unmarked narrow

focus in the declarative clauses of SVO languages like K. generally falls on the last position in the core, the object.

Given the nature of unmarked narrow focus, it follows that the following K. question exemplifies this focus type:

23.　　mõ̃rãmõ̃n　　　ãn/a-ti-okeːɲ-ø　　　　　　　(hĩ)
　　　　what　　　　　2S/2S.ABS[9]-OFC-cut-NFUT　　Q
　　　　"What did you cut?"

In this case, the word **mõ̃rãmõ̃n** serves as a question word and an object argument in the clause core. As initially suggested by Landin (1984), such content question words generally include **mõ̃rã** plus another syllable, depending on the question word.[10]

Consider two more examples with different content question words:

24.　　mõ̃rãsõ̃ŋ　　ãn　　i-ɨ　　　　asɨrɨtɨ　　　(hĩ)
　　　　why　　　　2S　　IRR-eat　　banana　　　Q
　　　　"Why did you eat the banana?"

25.　　mõ̃rãpip　　ãn　　i-mhip　　　ŋgok -(o)　　(hĩ)
　　　　when/where　2S　　IRR-cook　　manioc-Q.NOM　Q
　　　　"When did you cook the manioc?"

Of course, 24 and 25 also differ from 23 in that the questioned element is not an argument of the verb. Nevertheless, in all content questions such as 23-25, the content question word presents a case of narrow focus.

As mentioned in §3, the literature on K. suggests that clause-initial position is a site where focused elements are placed. However, this terminology is somewhat vague since as we will see some sentence-initial focused elements are clause-external. However, in the case of content questions, the focused question words are in fact clause-internal, as evidenced by the fact that there is no resumptive pronoun referring to the questioned

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[9] This variation between the absolutive prefix and the free pronoun is discussed in Everett (2006:372-373).

[10] This no doubt reflects the bimorphemic nature of this word, diachronically. However, not all WH question words can be accurately analyzed into comprising morphemes.

element even when it refers to an argument in the logical structure of the clause's verb (see 23). Also, pauses are not typically produced between question words and the remaining constituents. This is evident in the interrogative clauses in Figures 8 and 9, which are based on sound files excised from a segment of K. discourse.
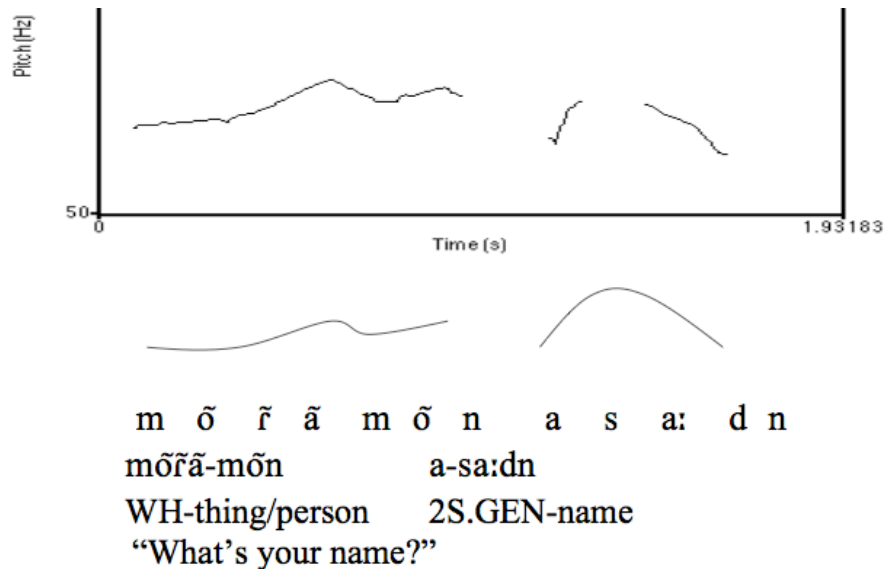

m õ r̃ ã m õ n   a   s   aː   d n
mõr̃ã-mõn   a-saːdn
WH-thing/person   2S.GEN-name
"What's your name?"

Figure 8

In fact, the clause in Figure 8 is generally unremarkable with respect to sugrasegmentals such as pitch, length, and amplitude. Once again, the pitch falls during the production of the last syllable. However, note the rising pitch of the stressed syllable of the question word (the second syllable). In fact, one of the prosodic correlates of questions is a slight rising pitch on the stressed syllable of the focused question word. (Less marked than the rising pitch of a stressed syllable of an imperative verb, cf. Everett 2006:133) In cases in which the question word is more obviously stressed or focused, however, the rise in pitch is more noticeable. This is evident in the clause in Figure 9, which could alternatively be glossed "**Which** city are you going to spend Christmas in?"
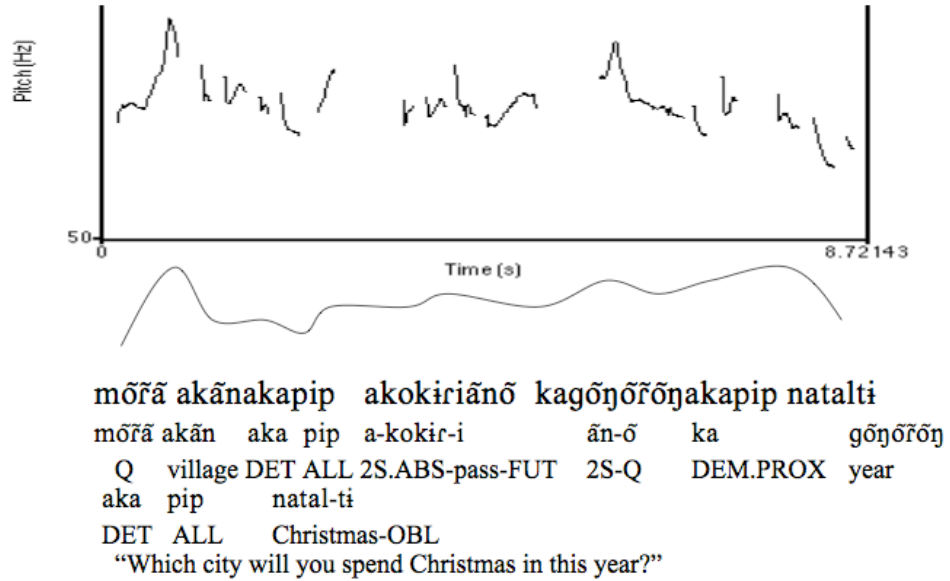
mõ̃rã akãnakapip   akokiriãnõ kagõ̃ŋõ̃rõ̃ŋakapip natalti

mõ̃rã akãn   aka pip   a-kokir-i   ãn-õ̃   ka   gõ̃ŋõ̃rõ̃ŋ
Q   village DET ALL 2S.ABS-pass-FUT 2S-Q   DEM.PROX year
aka   pip   natal-ti
DET ALL   Christmas-OBL
"Which city will you spend Christmas in this year?"

Figure 9

Note also that in Figure 9 there is no pause between the production of **mõ̃rã** and the

following word, "village," suggesting that the questioned element belongs in the precore

slot, filled with a peripheral adjunct in this case, rather than a detached position.

ti k a t   g õ ŋ   õ r̃ õ ŋ ã   aʔa ti ka

tikat   gõ̃ŋõ̃rõ̃ŋã   a-a-tika
how.many   summer/year 2S.ABS-do-PROG.ACT
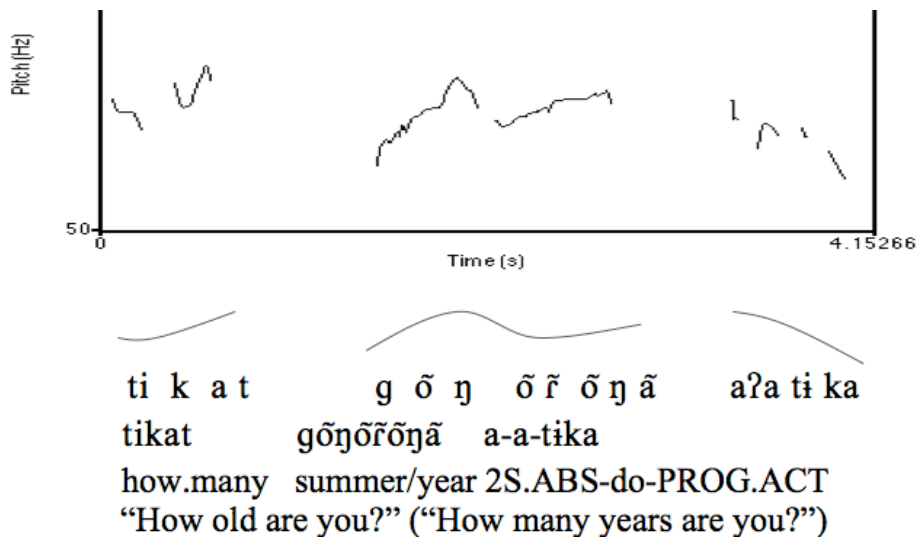"How old are you?" ("How many years are you?")

Figure 10

Not all content question words in K. include the **mõ̃rã** question morpheme. Even in those

cases where a different question word is used, however, there is still a slight pitch rise

evident on the stressed syllable of the question word. This is evident in Figure 10, for instance.[11]

Given that content question words represent a case of unmarked narrow focus, we can conclude from the preceding discussion that one way of showing unmarked narrow focus in K. is through the placement of the focused constituent in the precore slot. Based on the evidence so far considered, unmarked narrow focus is instantiated primarily via syntactic means. Prosody is also involved, however, via increased pitch on the stressed syllable of the question word. In the case of 24 and 25, which do not have pitch contours represented, the original acoustic data suggest that the pitch rises on the third and final syllable of the stressed syllable (word stress is typically final in K.). In the case of the speaker represented, the final syllables of the words **mõʔãsõŋ** and **mõʔãpip** are about 25 Hz higher in F0. This sort of pitch variation is greater than that found on most stressed vowels, since K. word stress is primarily based on loudness. However, as has been mentioned, such pitch variation is not as marked as that exhibited observed on the stressed syllable of imperative verbs, nor as marked as that observed in cleft constructions (see below). The primary means of showing unmarked narrow focus in K. questions is through placement in the precore slot.

§4.4 Unmarked narrow focus on the object

As was evident in example 23 above, when a questioned constituent is the notional direct object of a clause, the verb is prefixed with the **ti-** prefix. This prefixation, along with the preposing of the object into clause-initial position, are the morphosyntactic correlates of the object-focus construction. Consider the following two examples:

---

[11] There is a slight pause between the focused question word in 10 and the remainder of the sentence. However, there is also a pause between the final two words, due to slow overall production.

26. mõ̃rãmõn   ãn   ti-atik-ø   (hɨ̃)
     what/who   2S   O.FOC-throw-NFUT   Q
     "What did you throw?"

27. mõ̃rãmõn   sopãm   ti-mʔa-tɨ̃ɲã-t   (hɨ̃)
     what/who   sopãm   O.FOC-make-PROG-NFUT   Q
     "What is Sopãm (person's name) making?"

As detailed in the preceding section, content question words must occur clause-initially. Given that the **ti-** prefix is obligatorily attached to verbs in clauses with clause-initial objects, it follows that when the question word represents the notional direct object of the clause, it must occur clause-initially and **ti-** must be attached to the verb. However, **ti-** prefixation is not simply a corollary of content questions, since it also occurs in non-interrogatives such as 28 (and 5 above).

28. epesap   popok   ɨn   ti-hɨ̃rã̃-t
     leaves   crazy/drunk   1S   O.FOC-smell-NFUT
     "Crazy leaves/marijuana are what I smelled." or "It's crazy leaves/marijuana I smelled."

In cases such as 28, the notional object is clearly focused. This focus is expressed via syntactic (fronting) and morphological (**ti-** verbal prefixation) means. Focus placement on the object in such declarative clauses still represents a case of unmarked narrow focus, since objects, especially those in questions, are natural recipients of constituent focus, due in large part to their frequent non-anaphoric, non-human nature (see e.g. Everett to appear).

In example 7 above, and in Figure 2, we saw that in transitive clauses the focus generally occurs on the entire predicate, i.e. the verb plus any objects of the verb. K. appears to employ the object focus construction in order to allow the speaker to focus specifically on the object, rather than on the entire verb+object complex. It represents a case of narrow focus, since focus is placed on one constituent, the notional direct object. Nevertheless, as its usage in questions suggests, it also represents a case of unmarked or

default[12] narrow focus. This accords with Van Valin's suggestions on unmarked narrow focus.

The fact that sentences with narrow object focus represent a case of unmarked narrow focus is supported by prosodic data. Consider Figures 11 and 12.
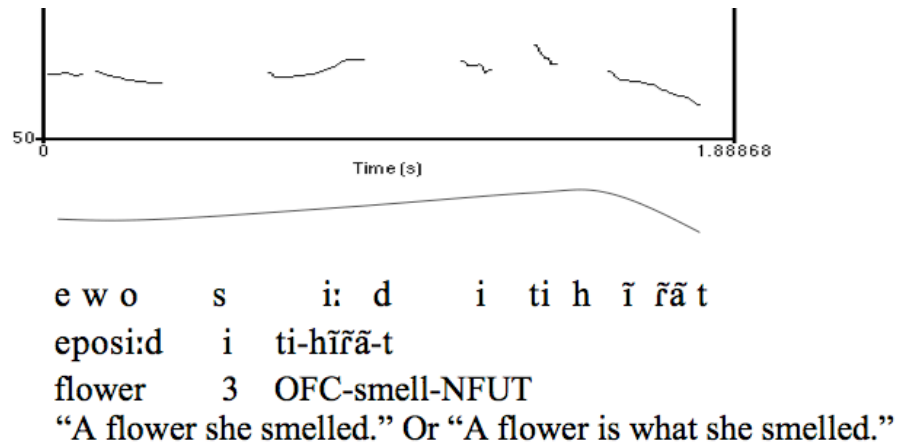


```
e w o     s     iː d     i  ti h  ĩ  r̃ã t
eposiːd    i    ti-hĩr̃ã-t
flower     3    OFC-smell-NFUT
"A flower she smelled." Or "A flower is what she smelled."
```

Figure 11


```
k o j    p   aː        ãn  tio   k   ẽː  ɲ-ø
kojpa        an-ti-okẽɲ-ø
pineapple   2S-OFC-cut-NFUT
"A pineapple you cut." Or "It's a pineapple you cut."
```
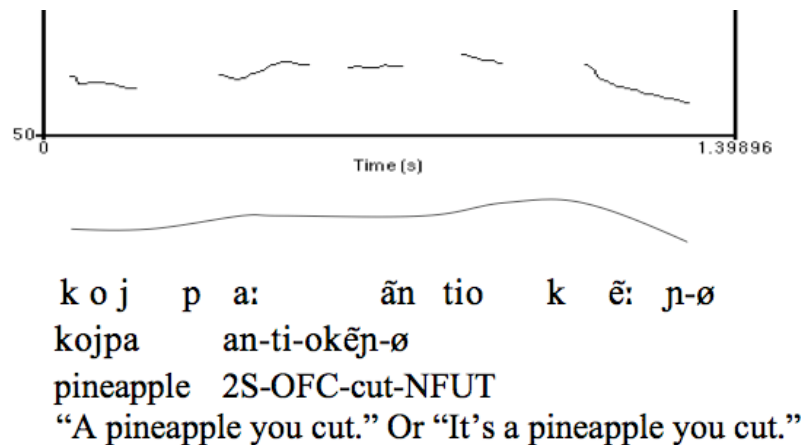
Figure 12

As in the case of the other clauses with unmarked focus, we see in Figures 11 and 12, which represent two of many similar clauses in my corpus, that the pitch contour is generally flat, except for the consistent drop during the production of the last syllable. For example, during the production of the nucleus of the final syllable of the verb represented

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[12] I do not mean that such clauses are unmarked morphologically or syntactically when compared with normal declarative clauses, since clearly they are.

in Figue 12 (**okẽ́ːɲ**, "cut"), the F0 of the male speaker dropped 35 Hz. The correspondent

drop during the final syllable of the clause represented in Figure 11, produced by the

same speaker, measured 37 Hz.

Before turning to passive clauses, it is worth underscoring the important pattern

that is beginning to emerge. K. clauses with unmarked or default narrow constituent

focus, like clauses with broad predicate focus, are consistent prosodically. They may vary

syntactically, in that some constituents such as question words and objects may be placed

in the precore slot, and may also vary morphologically via the presence or absence of the

ti- focus marker. Their pitch, however, is remarkably consistent. The clauses we have

observed, taken from K. discourse and from elicitation sessions, display generally flat

intonation during the majority of the clause (though sometimes there is an increase in

pitch on question words), followed by a noticeable fall in the pitch of the final syllable of

the clause. In some cases, though, this pitch drop begins in the penultimate syllable, as in

Figure 11.[13]

§4.5 Passives

Passive clauses are somewhat similar to clauses employing the object focus

construction, both functionally and syntactically. In terms of function, they are similar in

that less emphasis is placed on actor argument from the verb's logical structure. They are

similar syntactically in that the NP serving as the undergoer in the LS occurs clause-

initially in such clauses. Consider the following sample clauses:

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[13] I should note that for my recordings of older females, the pitch varies more dramatically in some cases. This pitch variance appears to convey some emotive value, and is characterized by rising and falling throughout the production of a clause. I have not observed any correlations between such exaggerated prosodic movements and constituent focus, however, and such movements do not characterize the bulk of the data.

29. i na-aka-t   i-a-okot-ø
   3   NSAP-COP-NFUT INT-PASS-bite-COP.AGR
   "She was bitten."

30. ep o:sid   i-a-hĩr̃ã-t
   tree flower INT-PASS-smell-NFUT
   "The flower was smelled."

The similarities of the passive voice and the OFC are especially apparent when 30 is contrasted with the clause in Figure 11 above. Nevertheless, there are crucial differences, both in form and function, between these two constructions. Obviously a different morpheme is prefixed to the two verbs in passive clauses than in clauses with special object focus. Also, passive clauses differ from OFC clauses in that agents do not typically occur, and are often not permissible, in passive clauses such as 29 and 30 (cf. Everett 2007:432).

Functionally, passive clauses differ from clauses in the OFC in that they are not used simply to highlight the object in a given clause. Instead, their primary purpose appears to be the defocusing of the actor associated with a given action, e.g. the biter in 29 and the smeller in 30. In Everett (2007:431) I suggest that the K. discourse data are consistent with Shibatani's (2006) cognitively-oriented account of voice types. Shibatani (2006:25) suggests that passive clauses are generally employed when an action originates "with an agent extremely low in discourse relevance, or at least lower relative to the patient." All of the K. passives I have collected are consistent with this claim. The low discourse relevance of the actor nominals, when contrasted with the undergoer nominals, in passive clauses is evidenced by the fact that they are generally omitted.[14]

The privileged syntactic argument of a passive clause represents the undergoer macrorole of a given verb's logical structure. While such undergoers occur clause-

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[14] For a more complete discussion of the passive in K., including a discussion of the "intransitive passive," see Everett 2006:430-437.

initially, they do so because of their inherently greater topicality than the actor in such cases, which have inherently low topicality or discourse relevance. They do not occur in a special focus position such as objects in the OFC, which as we have seen occur in the precore slot. They occur instead in the slot reserved for the privileged syntactic argument (the subject-like argument), as evidenced by the fact that the actor in such clauses, if present at all, may not occur in the PSA slot, but must occur instead in oblique position. This is apparent in the following example:

31.	onɨ	taso	aka	na-aka-t	i-a-mɨ̃:-t	i-piɾi
	DEM.DIST	man	DET	NSAP-COP	INT-PASS-hit-NFUT	3-by/from

"That man over there was hit by him/her."

Unlike the OFC, then, the undergoer in a passive clause is characterized by heightened topicality, rather than focus. It occurs in the topical PSA/subject-like slot, while the defocused actor appears in the clause's periphery as in 31, if at all.

We have seen that the primary purpose of passive clauses in K. is to *defocus* a particular constituent, a given actor, rather than to *focus* on a particular constituent. The resulting passive clause is generally treated as a syntactically intransitive clause, often with a copular auxiliary as in 29 and 31. Not surprisingly, then, there is not a marked prosodic contour associated with passive clauses. Semantically, the PSA is the undergoer of the action depicted in the clause. Pragmatically, it is the topic. As we see again in 29-31, the PSA occurs clause-initially or pre-verbally. In the vast majority of cases, nothing occurs between the PSA and the following verb. The only exceptions in my data are adverbials such as tɨ̃m ('also'), which serve as part of the verb phrase and may occur between the PSA and the verb in examples such as 29 and 30.

```
k  ĩ ndan  a  a      k  a   t     i am pi p o p
kinda na-aka-t              i-a-m-pipop-ø
thing  NSAP-COP-NFUT   INT-PASS-CAUS-burn-NFUT
"The thing was burned."
```
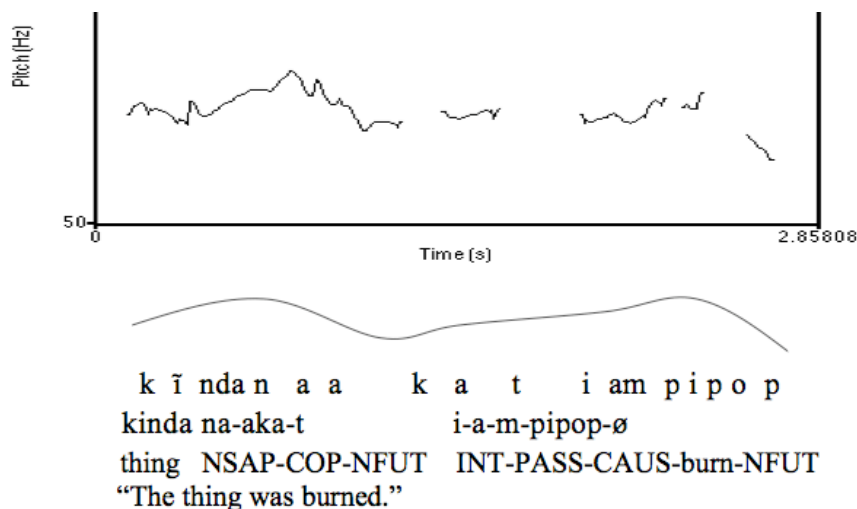
Figure 13

As in the case of the other clause contours considered so far, the pitch modulation reproduced in Figure 13 is fairly unremarkable until the production of the last syllable of the clause in question. The speaker represented in Figure 13 has a generally higher F0 than the speaker represented in Figures 11 and 12. The minor pitch variations associated with word stress are somewhat larger in the case of this speaker, nevertheless the greatest pitch variation in the clause is found in the last syllable, which is approximately 40 Hz lower than the preceding syllable's pitch. A similar pattern is evident in Figure 14.
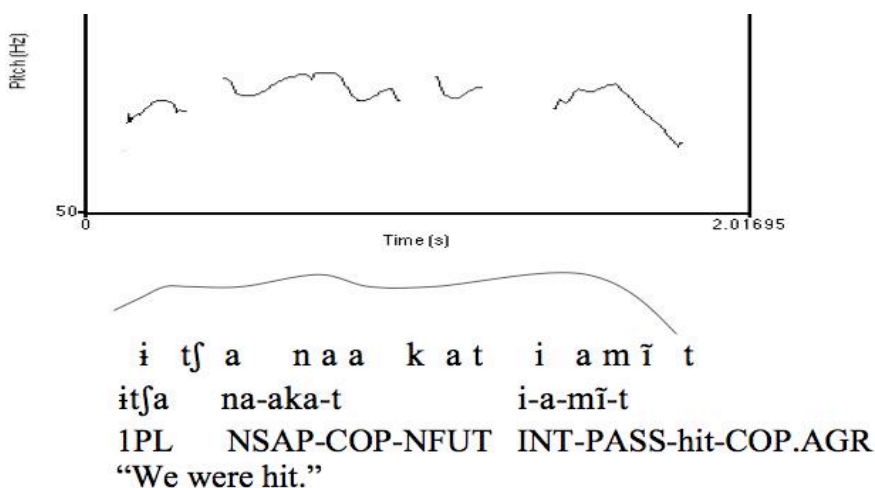


```
ɨ  tʃ a    n a a   k  a t    i   a m ĩ   t
itʃa    na-aka-t           i-a-mĩ-t
1PL     NSAP-COP-NFUT  INT-PASS-hit-COP.AGR
"We were hit."
```

Figure 14

Other clauses could be adduced, leading to similar conclusions: As in the case of the OFC, passivization in K. is signified primarily through morphology and syntax, rather than prosody. Passivized arguments are topicalized constituents, relative to the actor arguments represented in the LS of a given passive clause's verb.

§4.6 Antipassives

We saw in the previous section that there is a clear functional difference between passivization and object-focusing since the primary purpose of passives is to *defocus* a constituent. Antipassive clauses also serve to defocus a constituent, however since they necessarily involve greater placement of focus on the privileged syntactic argument, when contrasted with the notional object, they are worth mentioning here.

There is no morphological antipassive marker, as antipassives in K. are expressed simply by the syntactic omission of the undergoer macrorole from a semantically multivalent verb's logical structure. This is evident in 32 and 33.

> 32.　　ĩn　　　na-pɨhɨka-t
> 　　　　1S　　　NSAP-hold-NFUT
> 　　　　"I held (something)."

> 33.　　ĩn　　　naka-mhip-ø
> 　　　　1S　　　NSAP-make-NFUT
> 　　　　"I cooked (something)."

In a relative sense, greater focus is placed on the actor in such clauses, when contrasted with the omitted O. However, this is the result of a defocusing of the O, rather than of marked narrow focus on the PSA.

Not surprisingly given the prosodic findings we have so far considered, antipassive clauses such as 32 and 33 are unremarkable prosodically. Their pitch is generally flat, but falls during the production of the last syllable.

So far, we have considered cases of default broad focus, i.e. the predicate focus placed on verbs and post-verbal constituents in basic declarative clauses. We have also considered cases of relative constituent focus and topicality, i.e. passivization and antipassivation, as well as cases of unmarked narrow focus, i.e. question words and objects in the OFC. We have seen that unmarked narrow/constituent focus is expressed morphologically and syntactically, and have established that constituent focus in K. may be expressed via movement to the precore slot. None of the cases so far considered exemplify *marked* constituent focus, as evidenced in part by the generally unmarked nature of the prosodic contours of the clauses evinced. In the following two sections, we turn our attention to cases of marked narrow focus.

§4.7 The verb-focus construction

Landin (1982:242-243) first noted that in responses to polar questions, a K. verb receives special morphology. This morphology, considered a circumfix by Landin, consists of a prefix and a separate tense marker. For example, if someone asks, "Did she come to the village?", I might respond with the following clause:

34. piɾ-iɾít-ĩn   ɲõnso
     1S.ABS-VB.FOC-came-NFUT   woman
     "The woman came."

The prefix in such cases takes one of three forms: **piɾi-**, **piɾ-**, or **pi-**.[15]

As was noted in Everett (2006:290), this construction is actually employed frequently in discourse, even when a speaker is not responding to a question. However, as in question responses, the pragmatic function of the construction is consistent with the placement of a special focus on the verb, rather than the default broad predicate focus

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[15] This variation depends on the location of stress in the verb, see Everett (2007:291).

described above. This narrow constituent focus is expressed in part via clause-initial positioning, which is exceptionless in my data. This is evident in 34 and 35.

35.   pɨrɨ-tãm-ĩn   pat
        VB.FOC-fly-NFUT   macaw
        "The macaw flew."

The only content to occur before the verb is a verb agreement marker, as in 36 below. Such verb agreement markers, which we are considering arguments of the verb (see above) are, strictly speaking, clause-initial constituents of the core. However, they form part of the predicate template, which must occur clause-initially. Full NP's, which are not a part of the predicate template, may not occur clause-initially. More specifically, the precore slot in such clauses must not be filled. The motivation for this seems clear, since as we have established the precore slot is used for focused constituents, and it is the clause nucleus which is focused upon in clauses such as 36.

36.   ɨj-pɨɾ-oʔot-ĩn   ɨːtʃa
        VB.FOC-play-NFUT   1PL
        "We played."

Significantly, anaphoric arguments occur in the vast majority of clauses with this morphology. Given the strong correlation between anaphoric referents and topicality, as well as the converse correlation between non-anaphoric/new referents and focus, it is natural that in a construction used to apply constituent focus to the verb, the nominal constituents be expressed pronominally as in 34 and 35, or through pronouns and agreement, as in 36. In other words, in clauses with constituent focus placed on the verb, in which the verb is the only part of the assertion, it is not surprising that the verb's arguments form part of the presupposition and so can be represented anaphorically.

Three strong pieces of evidence, then, suggest that the construction in question is employed to express narrow constituent focus on the verb: The verb must occur clause-

initially, and word order in clauses with such morphology is much less malleable than in those with **naka-/taka-** morphology. Also, the verb is used in question responses, and the remaining elements in the clause are generally topical. All of these pieces of evidence suggest that the verb is focused. In fact, the evidence suggests that verbs in the verb-focus construction occur in the precore slot, much like objects in the OFC. Such a suggestion may seem odd, since the verb represents the nucleus of the core. However, given that the precore slot hosts narrowly-focused constituents, and given that verbs in the verb-focus construction are clearly subject to narrow focus, this conclusion is consistent with the data. As a comparison of the preceding discussions of the OFC and verb-focus construction suggests, there are striking parallels between the ways in which constituents are narrowly focused in these two constructions. Both entail verbal inflection, constituent movement, an absence of prosodic shift (see below), and neither allows anything to occur prior to the clause-initial focused constituent, which is most naturally construed as occurring in the precore slot.

It should be noted that the suggestion that a verb might occur in the PrCS in a given language is not in fact novel, and has previously been made in the literature. Van Valin Jr. and Diedrichsen (2006) present a similar analysis of focused verbs in German, which are said to occur in the precore slot in certain cases. For example, they suggest that in a clause such as "Gewashen haben muss David das Auto vor dem Haus," the verb 'to wash' is placed in the precore slot while the actor (David) and undergoer (Auto) remain in the clause's core.

While the morphosyntactic evidence suggests that the verb-focus construction is used when narrow constituent focus is placed on the verb, the prosodic contour of such

clauses adheres to the pattern we have observed in the preceding sections. We might expect the verb-focus construction to be generally unremarkable prosodically, given what we have observed with other clauses employing the PrCS. This is in fact the case, as we see in figures 15 and 16.
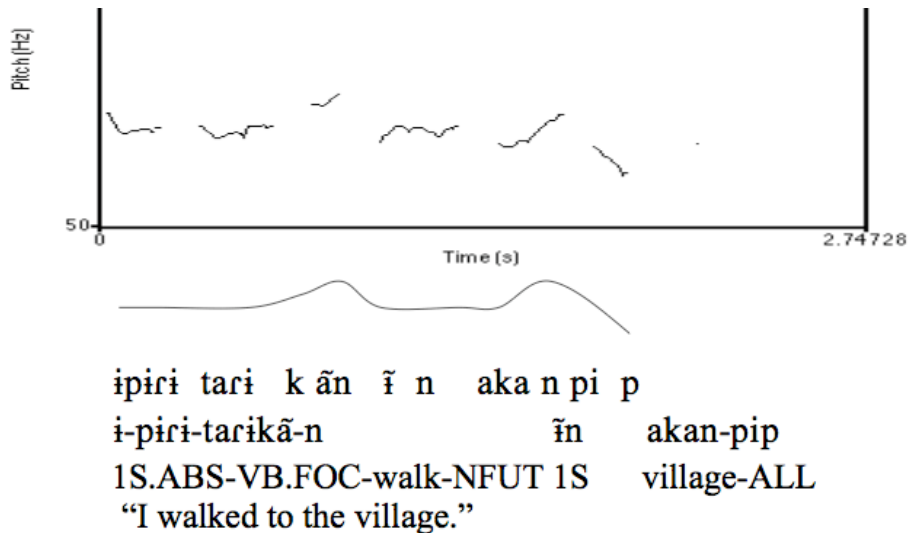


```
ɨpɨrɨ tarɨ  k ãn  ĩ  n   aka n pi  p
i-pɨrɨ-tarɨkã-n                      ĩn      akan-pip
1S.ABS-VB.FOC-walk-NFUT 1S     village-ALL
   "I walked to the village."
```

Figure 15

The clause contours in 15 and 16 are unmarked, since the final syllables convey a definite lowering of F0. In the case of Figure 16, the pitch lowering actually begins during the production of the penultimate syllable of the clause, as we have seen previously.
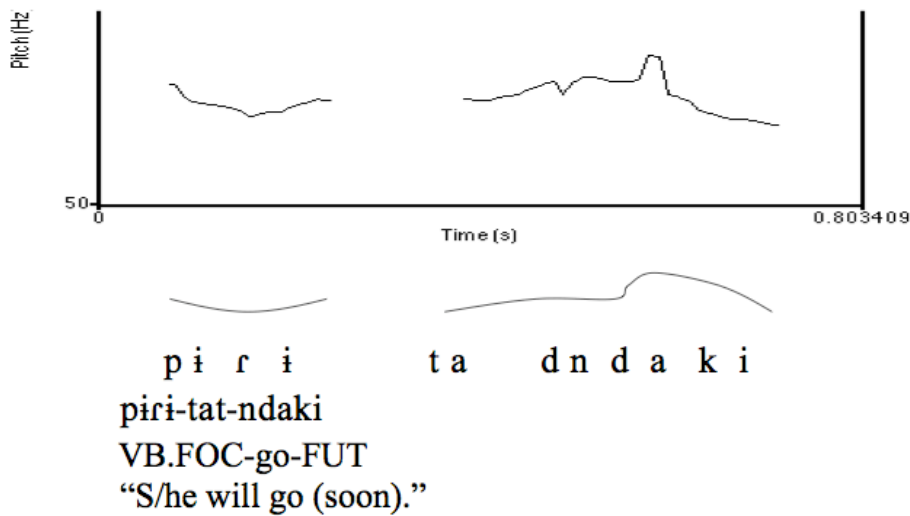


```
    pɨ  r  ɨ         t a    dn d a  k i
piri-tat-ndaki
VB.FOC-go-FUT
   "S/he will go (soon)."
```

Figure 16

§4.8 Peripheral constituents

To this point, little has been said about constituent focus on peripheral items, i.e. constituents not found in the nucleus or core of a clause. Figure 9 above, however, does describe a case in which a postpositional phrase is placed in the PrCS. Like core arguments, then, peripheral arguments may be focused via placement in the precore slot. This syntactic manipulation does not involve pitch manipulation even in the case of peripheral elements, as we saw in Figure 9 and as we can see in Figure 17.
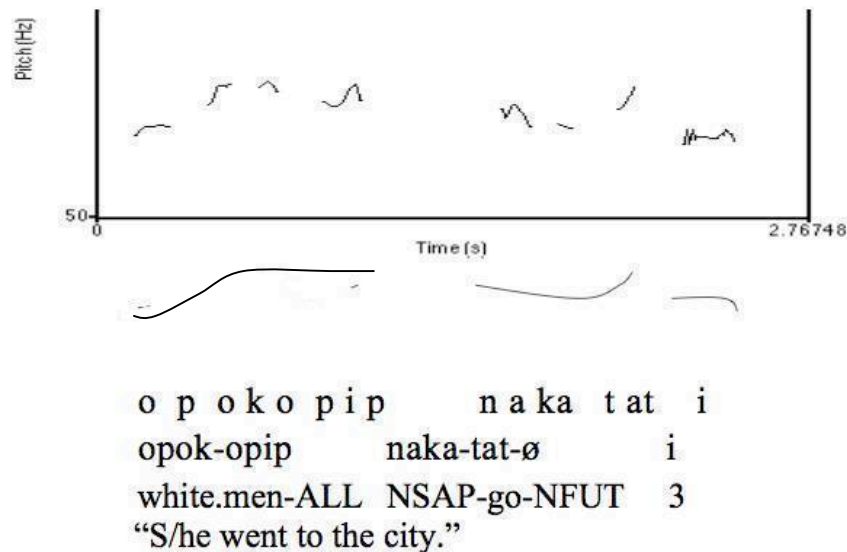

o p o ko p i p	n a ka t at	i
opok-opip	naka-tat-ø	i
white.men-ALL	NSAP-go-NFUT	3

"S/he went to the city."

Figure 17

Once again, we see that the contour is generally unremarkable apart from word-level stress variation, and the pitch drops during the production of the last syllable. Interestingly, however, the focused postpositional phrase from the periphery is set apart via a slight pause produced after the postposition and before the clause core. This pause lasts about 300 ms, significantly longer than most inter-word pauses in clauses taken from discourse, such as 17. While peripheral elements in this focused position are not

always set apart via a pause, they frequently are in my data. In fact the duration of the pause in Figure 17 is fairly typical.

The fact that there is often, though not always, a pause produced between fronted peripheral elements and the clause core may seem to suggest that such fronted elements occur in a detached position, outside the clause. However, their occurrence in the precore slot, within the same clause, is supported by the their morphological marking as obliques, as well as by their pitch contour, which is generally consistent with that of the clause's core. It is also worth noting that the peripheral elements are not represented in the clause core via a resumptive pronoun, as we might expect if they were placed in a left-detached position outside the clause.

One final piece of evidence suggesting that fronted peripheral elements often occur in the PrCS, is that when content questions focus on a peripheral element, the form of the question is the same as that established in §4.3. Recall that question words, prototypical cases of unmarked narrow focus, display all the morphosyntactic and prosodic correlates expected of precore slot constituents. It is worth noting, then, that question words representing the peripheral constituent are treated like any other focused constituent, exhibiting the same correlates. This is apparent in examples 37 and 38.

37. mõrã-tɨ   ãn   i-soʔoːt-ø   ɲõnso
    Q-OBL   2S   IRR-see-NFUT   woman
    "What did you show the woman?"

38. mõrã-tɨ   ãn   i-hiːt-ø   õmbakɨbɨedna
    Q-OBL   2S   IRR-give-NFUT   dog
    "What did you give the dog?"

As we see in these examples, the question word clearly represents the oblique from the clause. As in the case of other content questions, however, the question word occurs in the PrCS. It occurs prior to the core, but as the oblique marking suggests, it remains

clause internal. The pitch contours of 37 and 38 are typical for single clauses, and the same question word is employed as that used in the PrCS in other content questions.

§4.9 The cleft construction

It seems clear from the data presented in the preceding sections that the precore slot is used in K., as in many languages, to place sentence-level, narrow focus on a particular constituent. The PrCS is used in cases of unmarked narrow focus, such as question words, and even in cases of more marked narrow focus, such as peripheral elements in declarative clauses.

As in many other languages, K. narrow focus can also focus a constituent via a cleft-type construction. While less frequent, such a construction does occur in my data. Unlike clefts in e.g. English, no overt dummy subject is employed. Nevertheless, the narrowly-focused constituent is treated differently from constituents focused in the PrCS, since it is set off from the remainder of the sentence through prosody. Specifically, the focused element has its own pitch contour, and is followed by a pause. These two prosodic correlates can be seen in Figure 18.
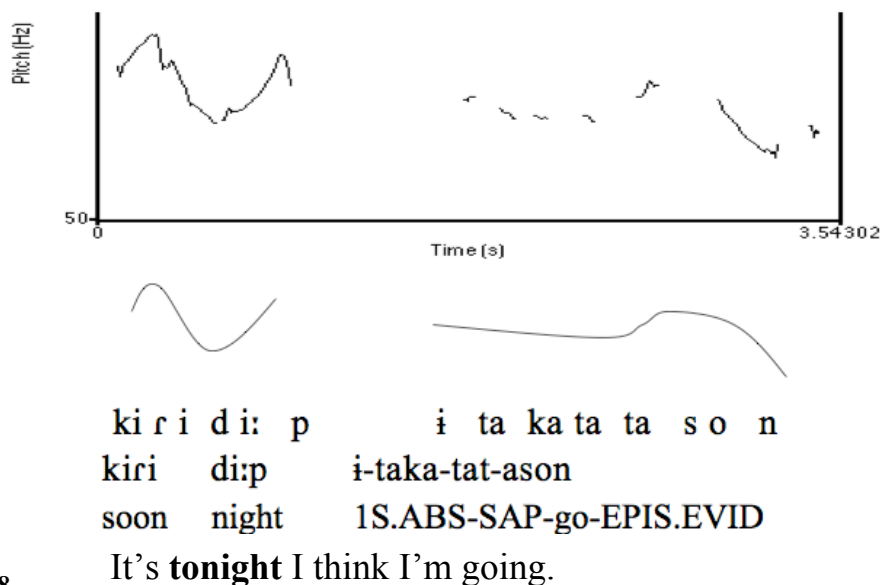

ki ɾ i d iː p	ɨ ta ka ta ta s o n
kiɾi diːp	ɨ-taka-tat-ason
soon night	1S.ABS-SAP-go-EPIS.EVID

It's **tonight** I think I'm going.

Figure 18

In Figure 18, the compound noun meaning "tonight" occurs sentence-initially, as is frequently the case when time words are employed (see Storto 2003). It clearly has a separate intonation contour when contrasted with the rest of the sentence, and is separated from the remainder of the sentence by a pause of approximately 700 ms, which is much longer than any pauses observed in the discussion so far. Other examples with similar prosodic correlates occur in my data. Such cases are best translated in English with cleft sentences in which "it" is followed by the copula, which is in turn followed by the focused element and a subordinate clause. However, in K. there is no evidence of subordination for the non-focused remainder of the sentence.

Examples such as Figure 18 are often used to express contrastive focus, for instance if someone implied that the speaker in 18 were leaving on the following day, an interlocutor might reply with the clause in Figure 18. The speaker is conveying that it is **tonight**, not tomorrow or tomorrow night, that they are going.

Much like cleft constructions in many other languages, the construction in question may optionally but not necessarily employ the copula, as in the following example:

39. õwã   na-aka-t   piɾi-taktaŋ-ĩn   i
      child   NSAP-COP-NFUT   VB.FOC-swim-NFUT   3
      "It is the **child** that is swimming."

Again, such a cleft formation is frequently used to express contrastive focus, for instance if one were saying, "It's not the adult that's swimming. It's the **child** that is swimming."

In 39 the focused constituent, along with the copula, is separated from the remainder of the sentence through prosody, with its own pitch contour and a pause following the copula. This example raises one final interesting point, namely that two focus strategies can be employed simultaneously. In 39, the child is contrastively
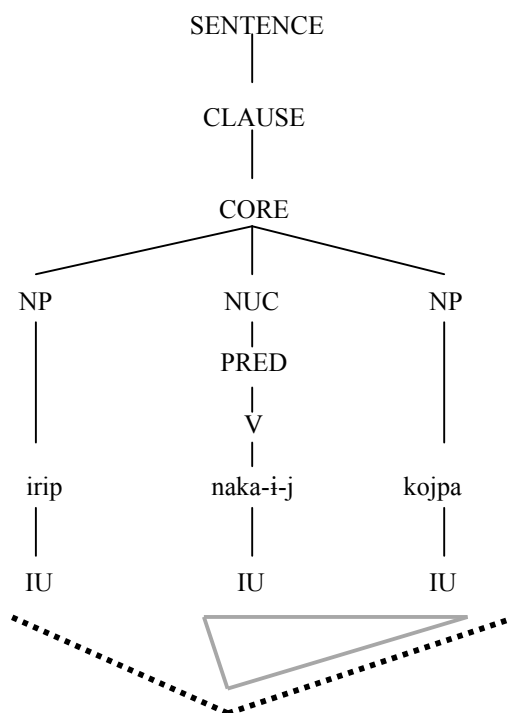
focused. However, narrow focus is also placed on the verbal constituent of the second clause. This clause employs the verb-focus construction discussed above, through which special emphasis is placed on a verb via placement in the PrCS. Given that the each of the predicates in 39 is fully inflected, such cleft-like examples might best be construed as cases of parataxis. Such paratactically-linked clauses allow for a double-focus, in which the cleft-like first portion of the paratactically-linked assertion is used to contrastively-focus a constituent, and the second clause can optionally focus another constituent via insertion in the PrCS. This interpretation is consistent with the fact that clause 39 could be uttered in response to the question "What is Sopam (adult K. name) doing out there in the water?" In such a case, the contrastive focus would be employed to suggest that it is not Sopam, but a child, that is swimming. The verb in the second clause is also focused, but the focus in that clause represents a case of completive focus, forming the response to the question.

§5 Sample projections

It is worth considering briefly the formal representation of K. narrow focus, within the framework of Role and Reference Grammar. To that end, let me offer two sample diagrams demonstrating the interaction of focus and syntax, employing the focus structure projection and the constituent projection described in Van Valin (2005). For a look at how prosody interacts with such projections in RRG, I refer the reader to O'Connor (2007), available on the project web site.
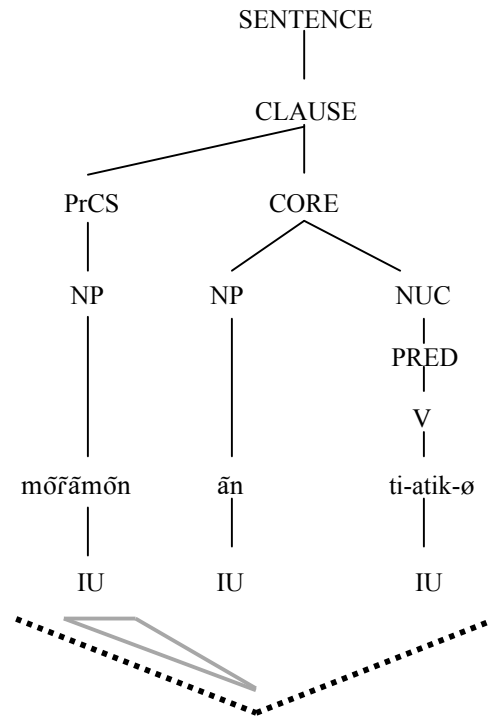
Figure 19 depicts a basic declarative K. clause with broad predicate focus, as described in §4.2. In the diagram, the dashed line denotes the potential focus domain of the clause, while the solid triangle denotes the actual focus domain, which is the predicate

(verb plus object) in this case. Figure 20 describes a case in which a focused constituent is placed in the precore slot. Figure 20 could be said to exemplify the default syntactic template used in K. to represent completive narrow constituent focus. This syntactic template is very similar to the syntactic template used for focused WH questions in English (cf. Van Valin 2005:171).[16]

```
                              SENTENCE
                                 |
                               CLAUSE
                                 |
                                CORE
                   _____/  |  _____
                  NP            NUC             NP
                  |              |              |
                  |            PRED             |
                  |              |              |
                  |              V              |
                  |              |              |
                irip         naka-ɨ-j         kojpa
                  |              |              |
                 IU             IU             IU
```

Figure 19 Broad predicate focus. "The tapir will eat the pineapple." (Example 7 above.)

---

[16] This similarity masks some important differences between constituent focus in K. and English, however. Specifically, while the potential focus domain in both languages stretches the length of the entire clause, as in Figures 19 and 20, in K. narrow constituent focus generally occurs in the PrCS or LDP, while in English it frequently occurs in different positions within the clause. Focus placement in K. is contrasted with focus placement in other languages in §6.2 below.

```
                          SENTENCE
                              |
                          CLAUSE
                         /      |
                    PrCS        CORE
                      |        /     \
                    NP      NP        NUC
                     |       |         |
                     |       |        PRED
                     |       |         |
                     |       |         V
                     |       |         |
                  mõřãmõn    ãn      ti-atik-ø
                     |       |         |
                    IU       IU        IU
```

Figure 20 Narrow constituent focus. "What did you throw?" (Example 26 above.)

For the sake of clarity, in Figures 19 and 20 I have omitted the operator projection, the prosody projection, and the semantic structure of the cores, which are also be linked to the focus structure and constituent projections in RRG.

§6 Crosslinguistic perspective
§6.1 Prosody

The focus "pitch accent" described in §4.9 is consistent with the pitch-oriented focus observed in many languages. The F0 for the male speakers in my data tends to increase between 35 and 60 Hz during the production of stressed nuclei in focused constituents of the cleft-like construction. For female speakers, this value is typically greater, often in the range of 70 Hz.

Many languages employ pitch modulation in order to express broad or constituent focus. There are many relevant studies in the literature on such languages. To cite two recent examples, Scarborough (2007) and Hu (2002) note that pitch accent is used to express constituent focus in Farsi and Mandarin, respectively. Hu notes that, in Mandarin,

"The focused constituent is pitch accented so that its lexical tonal melody is retained and sometimes reinforced, while the lexical tonal melody of the corresponding unfocused constituent is compressed and sometimes reduced to a level tone." (2002:1)

It is interesting to observe that focus pitch accent in a tonal language like Mandarin involves a neutralization of a clause's remaining pitch contour, so that the pitch accent is more noticeable. In a language like Farsi, which like K. is not a tonal language, the primary correlate of the focus pitch accent is increased F0 on the accented nuclei. As Scarborough suggests, "A focused word in Farsi has a higher pitch (in fact, generally the highest pitch peak in the IP)." (2007:20) The F0 increase in Farsi is even greater than that described above for K. The increase for Scarborough's male subject is generally greater than 50 Hz, while the increase for her female subject typically exceeds 100 Hz.

Many languages, Farsi, Mandarin, Korean, and English, among others, employ pitch accent when denoting constituent focus. The K. data is consistent with the general findings on such languages, in that a narrowly focused constituent not occurring in the PrCS has a higher F0 value (on the stressed syllable in K.) when contrasted with the remainder of the clause.

§6.2 Categorization of K. according to focus-syntax typology

Van Valin (1999b, 2005) suggests that languages can be classified according to a typology of focus-syntax interaction types. For example, he notes that

In English, word order is very constrained and focus placement very flexible, whereas in Italian word order is very flexible and focus placement is very constrained. This contrast could be characterized in terms of how syntax and focus structure adapt to each other: in English, the focus structure adapts to the rigidity of the word order by allowing free focus placement (i.e. focus can fall on any constituent within a simple

clause), whereas in Italian, the syntax adapts to the rigid focus structure (i.e. non-WH focal elements must be postnuclear) by having constructions which allow focal elements which would normally be prenuclear to occur in a postnuclear position. (2005:77)

We have observed that K. is unlike English, in that syntax is not extremely rigid. It is also unlike English in that narrow focus is constrained, and narrow focus occurs clause-initially, generally in the PrCS. In these ways, K. is more like Italian, except that whereas in Italian "focal elements which would normally be prenuclear" must occur in a postnuclear position, in K. the converse is true, i.e. focal elements such as objects that would normally be postnuclear are generally prenuclear when focused.

Despite its greater similarity to the Italian end of the focus-typology continuum, K. is in some respect more similar to languages such as Portuguese, Croatian, Russian, Polish, which exhibit flexible syntax and flexible focus. This is true since word order is flexible and since the potential focus domain in K. covers the entire clause. This is apparent in Figures 19 and 20. Nevertheless, K. is quite different from languages such as English, which also has a broad potential focus domain, since *narrow* focus in K. is generally restricted to a precore position. Questions words, for example, cannot appear in situ. One cannot ask a question like "You gave *what* to him?" where the questioned element is not in the PrCS. Objects in the OFC must also occur clause-initially, as well as verbs in the verb-focus construction. To be accurate, then, we must state that K. has flexible syntax, and demonstrates some rigidity vis-à-vis the focus structure associated with constituent focus.

§7 Conclusions

In transitive declarative clauses in K., the topical privileged syntactic argument typically occurs in the prenuclear core. In such cases, broad predicate focus is placed on the predicate, including the verb and any post-verbal constituents. This helps explain the

basic word order of SVO in transitive clauses. In fact, we might claim that the order in such clauses is PSA+focus.[17] In intransitive clauses, this is also the most common order, since the absolutive verbal agreement prefixes are considered arguments under the current approach.

This exploration of focus structure in K. helps elucidate the variable word-order in the language. Such variability is both motivated and constrained, at least in large part, by a particular focus structure, characteristic of the language and consistent with the typology of focus types suggested in the literature.

Rather than simply state that focused elements in K. often occur clause-initially, we have presented a more nuanced account of narrow focus that considers the role of the precore slot. We have seen that sentence-initial constituents in the cleft-like construction may be contrastively focused, and are demarcated from the remainder of the sentence prosodically and morphologically in ways that constituents in the PrCS are not. To the extent that they have been employed, then, the tools of Role and Reference Grammar have been fruitful in demonstrating the interaction of narrow constituent focus and syntax in K.

This work is certainly not exhaustive. In fact, it represents a fairly modest examination of a certain aspect of information structure in K., and only at the clause level. It is left to future endeavors to explore related notions such as topic continuity in K. discourse, or the way in which narrow constituent focus is employed across discourse types, or the correlation between narrow constituent focus and newness. Such investigations have yet to be undertaken, but would also help us to better understand the

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[17] This would seem consistent with Van Valin's approach that "VPs, to the extent that they exist in languages, are the grammaticalization of focus structure; they are not primitive categories in clause structure. (2005:81)
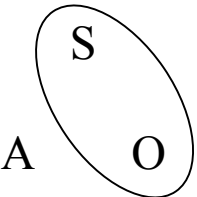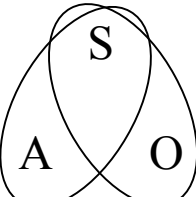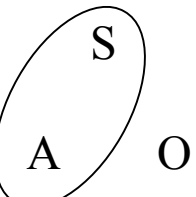
role of information structure in this Amazonian language. Perhaps this current study can

serve as a useful relief for such investigations into K. or other Tupí languages.

Appendix

Given that K. is a split-ergative language, the status of the subject role is somewhat ambiguous. There is no unequivocal grouping of S's in intransitive clauses with A's in transitive clauses. In Everett (2007, Ch. 15), I present a detailed outline of the grammatical relations in K. A summary of these findings is presented in Table 1 below.

As the table suggests, the GR's evident in K. morphology are consistent with an S+O absolutive grouping, while the GR's evident in K. syntax generally link S+A. For this reason, I refer to S or A nominals as the privileged syntactic argument, or PSA, in a given clause.

Number agreement, irregular verbs.	Coreferential deletion.	Object-focus construction.
Number agreement, aspect.	Post-verbal pronouns.	Word order in SAP construction.
Pronominal affixes.		Word order in valence construction.
Pre-verbal pronouns in SAP construction.		Controller-pivot phenomena.
na(ka)-/ta(ka)- distribution		Quantifier float.
Word order in Verb-focus construction		Imperatives.

Table 1. Summary of S, A, and O grouping in K. (Table 15.2 in Everett 2007.)

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