INFLECTIONAL AFFIXES & CLITICS
IN KASKA (NORTHERN ATHABASKAN)*

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This paper argues for a specific hierarchical syntactic structure for Kaska, a Northern Athabaskan language spoken in the southern Yukon Territory and northeastern British Columbia. The arguments herein are grounded in Minimalist Syntax (Chomsky 1995; Collins 1997) and Distributed Morphology (Halle & Marantz 1994; Harley & Noyer 1999). Traditionally, Athabaskan morphology has exemplified templatic morphology, which by definition, has no meaningful correspondence between the underlying, morpho-syntactic hierarchy and the surface, morpho-phonological linear form. Using the derivation of transitive sentences, this paper shows that, in Kaska, there *is* a direct, meaningful correspondence between the hierarchical syntactic structure and the linear order of morphemes within the verb complex at spell-out.

1.   Introduction

Kaska is a Northern Athabaskan language spoken in the southern Yukon Territory and northeastern British Columbia. Traditionally, Athabaskan morphology has exemplified templatic morphology which implicitly has no meaningful correspondence between the underlying, morpho-syntactic hierarchy and the surface, morpho-phonological linear form. This paper argues for a hierarchical structure for Kaska, and in doing so shows that there *is* a direct, meaningful correspondence between the hierarchical syntactic structure and the linear order of morphemes within the verb complex at spell-out. The arguments for this analysis are grounded in Minimalist Syntax (Chomsky 1995; Collins 1997) and Distributed Morphology (Halle & Marantz 1993; Harley & Noyer 1999).

This paper is structured as follows. Section 2 presents Kaska morphology in traditional, templatic terms, by providing a description of the linear order of the Kaska verbal prefixes involved in simple transitive constructions. Section 3 reviews several aspects of Kaska grammar that are relevant to the paper, including

word order, argument structure, and quantification. Section 4 argues for a specific hierarchy of functional projections in Kaska. A summary and some remaining issues are discussed in Section 5.

2.   The Kaska Verb-Sentence & Verbal Morphology[1]

This section reviews nine verbal prefixes that may be present in a Kaska simple, transitive construction.

In Kaska, a fully inflected verb is a complete proposition. So, a fully inflected verb is equivalent to a complete sentence in English. For example, (1a) is the Kaska word for the English sentence glossed in (1c). (1b) shows the Kaska word broken down into its morphological parts.

(1)   a.   neyédzedíh.
       b.   ne-   yé- dze-   Ø-   díh
              2.sg.O PP 1.pl.S CL   know
       c.   We know you.

The verb form in (1) consists of the verb stem *-díh*, three overt prefixes, *ne-*, *yé-*, and *dze-*, and one null prefix. *ne-* marks the second person, singular, oblique object, *yé-* is an incorporated postposition, and *dze-* marks the first person, singular subject. The complete set of possible prefixes is shown in Table I.

Table I.   Kaska Verbal Prefixes: meganégenhtan   'They looked at him/them.'

Disjunct Prefixes			Conjunct Prefixes				Verb Theme[2]		
Oblique Object	Post-Position	Dist. Plural	Subject Agr II	Direct Object	Mood/ Aspect	Subject Agr I	**Thematic Prefix**	**Classifier**	**Stem**
me-	ga-	né-	ge-		n-			**h-**	**tan**

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[2]The thematic prefix may, in fact, surface in various places within the conjunct. The question of where this morpheme surfaces will be left to future research. For the remainder of the paper the thematic prefix will be shown at the left of the verb theme in tables for expository simplicity, rather than accuracy, unless it is indicated otherwise. Motivation for including the Thematic Prefix as part of the Verb Theme will be presented in Section 2.1.

As presented in Table I, the Kaska verb-sentence is analyzed as having three parts: (1) the verb theme, (2) the conjunct, and (3) the disjunct. This division is based on evidence from both the morpho-syntactic and phonological domains. First, each part of the verb-sentence has a distinct grammatical role in the sentence. The morphemes in the verb theme are lexically associated with the verb, the morphemes in the conjunct tend to be inflectional, and the morphemes in the disjunct tend to be adverbial or derivational. Second, prefixes in the conjunct behave phonologically distinctly from prefixes in the disjunct. An example of a phonological process that affects only the conjunct prefixes is the vowel shift that accompanies the stem change that marks verb tense. ('=' marks the boundary between the conjunct and the disjunct prefixes, and '–' marks the boundary between the conjunct prefixes and the verb theme.)

(2)　(a)　meye:=d**es**-dis　　　　I am drilling it.
　　　(b)　meye:=d**is**-dats　　　　I drilled it.
　　　(c)　meye:=d**us**-di:zi si　　　I will drill it.

In (2), the vowel shift only occurs in the conjunct prefixes, but this alternation does not spread to the disjunct prefixes. The next three sections review each of the three parts of the verb-sentence, in more depth.

2.1　The Verb Theme

At the heart of the Athabaskan verb-sentence is the verb theme. This is the closest thing in Athabaskan languages to a lexical entry for a verb (Rice 1989, 2000). The verb theme is comprised of the verb stem plus any thematic prefixes (if one or more are associated with the lexical item) and the classifier. The linear order of the morphemes in the verb theme is shown in (3).

(3)　verb theme　=　　(thematic prefix)　+ classifier　+　verb stem

　　　The presence or absence of a thematic prefix is lexically determined. Although it is considered part of the verb theme because it is lexically 'selected' by the verb stem, the thematic prefix may, in fact, be found in various places within the verb-sentence. Rice (1989) describes thematic prefixes as archaic adverbial elements that are no longer used productively. Native speakers do not have intuitions as to the meaning of thematic prefixes, but rather, the thematic prefixes are necessary for the grammaticality of the verb-sentence. Examples of thematic prefixes are shown in (4) & (5).

(4)   Thematic prefix *né-*
   a.   **né**senentał.
   b.   **né**-   se-   ne-   n-   Ø-   tał
          TH   1.sg.O   M/A   2.sg.S   CL   kick
   c.   You kicked me.

(5)   Thematic prefix *de-*
   a.   geye**de**negés
   b.   ge-   ye-   **de-**   ne-   Ø-   gés
          3.pl.S   3.sg.O   **TH**   M/A   CL   twist
   c.   They are twisting it.

All verbs appear with one of four classifiers: Ø, -h-[3] (-ł-), -l-, and -d-. The absence of an overt classifier is analyzed as the presence of the Ø classifier (Rice 1989; Meek p.c.). The classifier is always located directly to the left of the verb stem. (6) shows a verb form with an overt classifier, whereas (7) shows a verb form with a Ø classifier.

(6)   Overt Classifier
   a.   negadzene**h**tan.
   b.   ne-   ga-   dze-   ne-   **h-**   tan
          2.sg.O   at   1.pl.S   M/A   **CL**   look
   c.   We see/look at you.

(7)   Zero Classifier
   a.   guyéndíh.
   b.   gu-   yé-   n-   **Ø-**   díh
          1.pl.O   about   2.sg.S   **CL**   know
   c.   You know (about) us.

2.2   The Conjunct

The conjunct includes inflectional information such as marking for subject, direct object, and mood/aspect. The linear order of the conjunct prefixes is as follows.

(8) Conjunct = Subject Agr II + Direct Object + Mood/Aspect + Subject Agr I

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[3]Although most of the phonological processes at work in Kaska have been left for future work, one process worth noting is that the classifier [h] is deleted following first person singular subject marking [s].

The following subsections remark on each element of the conjunct.

2.2.1 Subject Marking

Within the set of conjunct morphemes, subject marking is found in two distinct places. In other Athabaskan languages it has been argued that subject agreement II is occupied by third person agreement while subject agreement I is occupied by first and second person agreement (Rice 2000; Rice & Saxon 1994). However, in Kaska, the overt morphemes found in subject agreement II are *dze-* (first person, plural) and *ge-* (third person, plural). The positioning of the first person, plural morpheme *dze-* in the "third person" subject position is sufficient evidence to not adopt this aspect of previous analyses.[4]

For descriptive purposes, it suffices to characterize the difference between the morphemes in subject agreement I and subject agreement II phonologically. Subject agreement I contains the subject markers with phonological shape (V)C- (first person, singular *s-*, second person singular *n-*, and second person, plural *ah-*), and subject agreement II contains the subject agreement markers with the phonological shape CV-/ Ø- (third person, singular Ø-, first person plural *dze-*, and third person plural *ge-)*. Table II shows the full paradigm of subject markers. (In Table II, the morphemes found in subject agreement I are shaded and the morphemes found in subject agreement II are *not* shaded.)

Table II.   Subject Markers

	singular	plural
1	s-	dze-
2	n-	ah-
3	Ø-	ge-

2.2.2 Direct Object Marking

The direct object is marked directly to the right of subject agreement II. Table III shows the direct object paradigm.

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[4]Historically, *dze-* the 1ˢᵗ person, plural subject agreement marker is derived from the proto-Athabaskan *ts'e-* 3rd person, unspecified #, human morpheme. This leads to one possible explanation of why the 1ˢᵗ person, plural marker might be found in the "third person" slot. (See Rice 2000 & Story 1989.) In many Athabaskan languages, such as Slave, Babine-Witsuwit'en, and Sekani, the cognate for Proto-Athabaskan *ts'e-* has broadened to mean *both* the 3rd person unspecified # human morpheme *and* the first person plural. Ahtna patterns like Kaska, in that the *ts'e-* cognate no longer has the meaning of unspecified # human. In Navajo, *ts'e-* became the 4th person *ji-*.

Table III. Direct Object Marking

	singular	plural
1	se-	gu-
2	ne-	neh-
3	Ø- / ye-	ge-

The most remarkable block of the direct object paradigm is the allomorphy between *Ø-* and *ye-* in the third person singular. If the subject is first or second person, then the third person singular direct object marker is *Ø-*. However, if the subject is third person, then the third person singular direct object marker is *ye-*. In other Athabaskan languages, *ye-* has been described as a disjoint anaphor, meaning that its referent must be different than the subject (Rice 1989, 2000; Saxon 1984). Examples of disjoint reference are shown in (9). In (9a) there must be two different participants: one who is doing the kicking, and one who is being kicked. Additionally, in (9b), the person who is being kicked must not be either of the two people who are actually doing the kicking.

(9) 3rd Person Singular Direct Object with 3rd Person Subject

    a. néyenetał

       né-   Ø-   ye-   ne- Ø- tał

       TH   3.sg.S 3.sg.O M/A CL kick

       He$_i$ kicked [him/her/it]$_{j/*i}$.

    b. négeyentał

       né-   ge-   ye-   n-   Ø- tał

       TH   3.pl.S 3.sg.O M/A CL kick

       They$_{i\&j}$ kicked [him/her/it]$_{k/*i/*j}$.

2.2.3 Mood/Aspect

If overt mood/aspect marking is present, it appears to the right of the direct object marking, as shown in (10), and to the left of subject agreement I, as shown in (11).

(10) Mood/Aspect Marking (to the right of an overt direct object)

    a. nése**ne**tał

    b. né-   Ø-   se-   **ne-** Ø- tał

       TH   3.sg.S 1.sg.O **M/A** CL kick

    c. S/he kicked me.

(11) Mood/Aspect Marking (to the left of subject agreement I) [5]

    a.   neganestan

    b.   ne-   ga- **ne-**   s-   h-   tan

           2.sg.O at **M/A** 1.sg.S CL look

    c.   I see/looked at you.

To summarize, the linear order of the morphemes of the conjunct prefix and the verb theme are shown in Table IV.

Table IV.   The Linear Order of Kaska Conjunct Prefixes & Verb Theme

Conjunct Prefixes				Verb Theme		
Subject Agr II	Direct Object	Mood/ Aspect	Subject Agr I	**Thematic Prefix**	**Classifier**	**Stem**

2.3 The Disjunct

We will now turn to the disjunct prefixes which are found to the left of the conjunct prefixes. They include the following morphemes.

(12) Disjunct = Oblique Object + Postposition + Distributive Plural

2.3.1 Distributive Plural

The distributive plural morpheme is *né-*. Consider the data in (13a) & (13b).

(13) a.   geyedenegés

          ge-   ye-   de- ne- Ø- gés

          3.pl.S 3.sg.O TH M/A CL twist

          They (dual) are twisting it.

    b.   **né**geyedenegés

          né- ge-   ye-   de- ne- Ø- gés

          DIST 3.pl.S 3.sg.O TH M/A CL twist

          They (plural) are twisting it. / They (plural) are twisting them.

The distributive plural prefix may have two effects. The first effect is to change the subject number from dual to plural, meaning from two people to three or more people. The second effect is to give a potential distributive reading to the object.

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[5]Although the only mood/aspect marker shown in this data set is -n-, others do exist.

Notice that (13a) is glossed as having a singular direct object 'it', while (13b) is glossed as having either a singular direct object 'it', or a plural direct object 'them'. Because of the English gloss, it is tempting to associate the morpheme *né-* with syntactically pluralizing both the subject and the object. However, this is misleading. Imagine the following two situations.

Situation 1: There are three fishermen and one net.
                     Each fisherman is twisting the net, so 'they are twisting it'.

Situation 2: There are three fishermen and each one has a net, for a total of 3 nets.
                     Each fisherman is twisting his net, so 'they are twisting them'.

The Kaska verb-sentence in (13b) describes **both** situation 1 **and** situation 2, even though the direct object in (13b) is marked as being grammatically singular.

2.3.2 Postpositions & Oblique Objects

Postpositions and oblique objects may also be incorporated into the verb-sentence. Whether or not the postposition incorporates is determined by the verb-postposition combination. For example, the verb-postposition combination shown (14), *ye+díh* 'know of/about' incorporates the postposition and the oblique object into the verb, while the verb-postposition shown in (15), *ts'i'+ ayal* 'walk (to)' does not.

(14)   Postposition *yé-*
        a.   gu**yé**nehdíh.
        b.   gu-   **yé**-   neh-   Ø-   díh
                 1.pl.O **about** 2.pl.S CL   know
        c.   You know about us.

(15)   Postposition *ts'i'*
        a.   men **ts'i'** ayal.
        b.   men **ts'i'** Ø-   Ø-   ayal.
                 lake **to**   3.sg.S CL   walk
        c.   She is walking to the lake.

The full paradigm of oblique object pronouns is given in Table V. In the Oblique object paradigm the vowels are fully specified because, unlike the direct object markers found in the conjunct, they do not vary with their phonological environment.

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Table V.   Oblique Object Pronouns

	singular	plural
1	es-	gu-
2	ne-	neh-
3	me-	ge-

A postposition may also be incorporated into a verb with its nominal oblique object located to the left of the verb-sentence, as in (16).

(16)   Postposition *ga-* with a nominal oblique object
     a.   eskie   **ga**dzenehtan
     b.   eskie   **ga-**   dze-   ne- h-   tan
               boy   **at**   1.pl.S M/A CL look
     c.   We see/look at the boy(s).

2.4   Section Summary

To summarize, the relative linear order for a fully inflected Kaska verb-sentence is represented in Table VI. (The prefixes that are part of the verb theme are **bolded**.)

Table VI.   Linear Order of Kaska Verbal Prefixes

	Kaska	English Gloss
i)	meganégenhtan	They saw him/them.
ii)	nehyédih	He knows you(pl).
iii)	yedenehtsuk	He smoked it.
iv)	meyénes'an	I gave it to him.
v)	yentsets	You(sg) are eating it.

Disjunct Prefixes			Conjunct Prefixes					Verb Theme	
Oblique Object	Post-Position	Dist. Plural	Subject Agr II	Direct Object	**Thematic Prefix**	Mood/ Aspect	Subject Agr I	**Classifier**	**Stem**
me-	ga-	né-	ge-			n-		**h-**	**tan**
neh-	yé-		Ø-			Ø-		**Ø-**	**díh**
			Ø-	ye-	**de-**	n-		**h-**	**tsuk**
me-	yé-					n-	es-	**Ø-**	**'an**
				ye-			n-	**Ø-**	**tsets**

3.   Relevant Kaska Grammar

Section 3 will review some additional Kaska grammar that will be relevant to the arguments presented in the remainder of the paper.

3.1 Canonical Word Order

When a sentence contains two independent NPs (nominals), in Kaska, the canonical word order is S-O-V.

(17)   (Subject) - (Object) - Inflected Verb

(18)   a.   eskie ayudeni nénetał.
  b.   eskie   ayudeni   né-   Ø-   ne-   Ø-   tał
       boy   girl   TH   3.sg.S M/A CL   kick
  c.   The boy kicked the girl.

(19)   a.   eskie ayudeni ganehtan.
  b.   eskie   ayudeni   ga-   Ø-   ne-   h-   tan
       boy   girl   at   3.sg.S M/A CL   look
  c.   The boy saw/looked at the girl.

If the verb is transitive, that is, the verb has two arguments, and only one independent NP is present, then that NP may be either the subject or the object of the sentence. The form of the verb indicates which argument the NP is.[6]

(20)   a.   eskie nénetał.
  b.   eskie   né-   Ø-   ne-   Ø-   tał
       boy   TH   3.sg.S M/A CL   kick
  c.   She kicked the boy.

(21)   a.   eskie né**ye**netał.
  b.   eskie   né-   ye-   Ø-   ne-   Ø-   tał
       boy   TH   **3.sg.O** 3.sg.S M/A CL   kick
  c.   The boy kicked her.

(22)   a.   eskie **me**ganehtan.
  b.   eskie   **me**-   ga-   Ø-   ne-   h-   tan
       boy   **3.sg.O** at   3.sg.S M/A CL   look
  c.   The boy saw/looked at her.

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[6] Although the surface position of the NP *eskie* in (20) - (23) appears to be the same, it is shown in Section 4 that in (20) *eskie* is in the Focus position, in (21) & (22) *eskie* is in the Topic position, and in (23) *eskie* is the complement of P. Full NPs are not morphologically marked for subject/object, therefore, the form of the verb determines the grammatical status of full NPs.

(23) a.   eskie ganehtan
     b.   eskie   ga-   Ø-   ne- h-   tan
           boy   at   3.sg.S M/A CL   look
     c.   She saw/looked at the boy.

If an independent NP appears in an intransitive sentence, then it must be the syntactic subject of the sentence. This is regardless of the thematic role of the NP. For example, in (24), *noba* 'your father' is assigned the 'actor' theta role by the unergative verb *etsey* 'cry'. However, in (25) *kón* 'fire' is assigned the 'patient' theta role by the unaccusative verb *de-k'ah* 'burn'.

(24) a.   noba sek'ade etsey.
     b.   no-ba   sek'ade   Ø-   Ø- etsey
           your-father   still   3.sg.S   CL cry
     c.   Your father is still crying.

(25) a.   kón dek'ah.
     b.   kón   de-   Ø-   Ø-   k'ah
           fire   TH   3.sg.S CL   burn
     c.   The fire is burning.

3.2   Head-Final Language

Kaska proves to be a strong head-final language, meaning that the 'head' of the phrase is located at the end of the phrase. For example, the verb is right-most in the verb phrase (26), the postposition is right-most in the postpositional phrases (27), and an adjective always follows the noun that it is modifies (28).

(26) a.   geyedene**gés.**
     b.   ge-   ye-   de-   ne- Ø- **gés**
           3.pl.S 3.sg.O   TH   M/A CL **twist**
     c.   They are twisting it.

(27) a.   **men ts'i'** ayal.
     b.   **men ts'i'** Ø-   Ø-   ayal.
           lake to   3.sg.S   CL   walk
     c.   She is walking to the lake.

(28) a.   **keda cho'** ganestan.
     b.   **keda   cho'** ga- n-   s-   h-   tan.
           moose   big   at   M/A 1.sg.S   CL   look
     c.   I'm looking at a big moose.

3.3   Independent Pronouns

Kaska does have a set of independent pronouns, although they are used only to show contrastive focus. In the literature they are referred to as emphatic pronouns (Rice 1989). There is a difference in meaning between sentences with and without an emphatic pronoun. This difference is shown in (29) - (31).

(29) a.   neganes**t**an.
     b.   ne-   ga- ne- **s-**   h-   tan
             2.sg.O at   M/A **1.sg.S** CL   look
     c.   I saw/looked at you.

(30) a.   **seni**, neganes**t**an-la.
     b.   **seni**   ne- ga- ne- **s-**   h- tan   -la
             1.sg.EM   2.sg.O at   M/A **1.sg.S** CL look EV
     c.   **I** (not my sister) saw/looked at you! / It was <u>me</u> who saw you.

(31) a.   **neni**, kuyegah **ne**ganestan.
     b.   **neni**   kuyegah   **ne-**   ga- ne- s-   h- tan.
             2.sg.EM   there   **2.sg.O** at   M/A 1.sg.S CL look
     c.   I saw/looked at you there (not your dog)! / It was <u>you</u> who I saw there!

The emphatic pronoun marks the argument that it is co-indexed with for contrastive focus. In Kaska, emphatic pronouns are always found sentence initially, in the contrastive focus position. (32) shows that the emphatic pronoun *neni* must be above the surface subject position, because the subject position is filled by *John*.

(32) a.   neni, John kuyegah neganehtan.
     b.   neni   John   kuyegah ne- ga- Ø-   ne-   h- tan.
             2.sg.EM John   there   2.sg.O at   3.sg.S M/A   CL look
     c.   You, John looked at you there! / It was <u>you</u> who John saw there!

Table VII shows the full set of emphatic pronouns.

Table VII.   Emphatic Pronouns

	singular	plural
1	seni	guheni
2	neni	neheni
3	meni/heni	geheni

3.4   Kaska Argument Structure

Jelinek (1995) argues that human languages show two argument types: Languages that allow nominals to be in argument positions (Lexical Argument languages), and those that do not (Promoninal Argument languages).[7] Interestingly, different branches of the Athabaskan language family show different argument types. The Southern Athabaskan languages, such as Navajo & Apache, are Pronominal Argument languages, while the Northern Athabaskan languages, such as Slave & Dogrib, are Lexical Argument languages (Jelinek 1989; Willie 1991). A given language's argument type may be determined by looking at the distribution of overt nominals versus the marking of subject and object in the verb complex. Each argument type predicts a different syntactic distribution of these elements.

In a Pronominal Argument (PA) language, such as Navajo (Willie 1991) all nominal elements are in non-argument positions. That is, all nominal elements are adjuncts. In the direct voice in Navajo, the 3rd person, singular subject morpheme is Ø- and the 3rd person, singular object morpheme is *yi-*. Transitive verbs in Navajo are <u>always</u> marked for both subject and object. In (33 a-c) the verb form does not change, despite the occurrence of overt NPs in the sentence. Important to note is that the omission of the overt object morpheme *yi-* results in ungrammaticality, even when there is an overt NP present that could potentially be the argument of the sentence, as in (34 a & b).[8]

(33) a.   ashkii łíí yiztał
            ashkii   łíí   yi-   Ø-   ztał
            boy   horse   3.sg.O 3.sg.S kicked
            The boy kicked the horse.

      b.   łíí yiztał
            łíí   yi-   Ø-   ztał
            horse   3.sg.O 3.sg.S   kicked
            He kicked the horse.

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[7] This analysis of polysynthetic languages is due to Jelinek (1984). See Baker (1996) for an alternative analysis of polysynthetic languages. In sum, his claim is that all nominals are, in fact, adjuncts in polysynthetic languages, and the argument positions of the verb are actually occupied by pro which is in turn co-indexed with the agreement features found on the verb.

[8] See McDonough (1990) for an alternative, phonological analysis of the necessity of *yi-* in these forms.

c. yiztał
yi- Ø- ztał
3.sg.O 3.sg.S kicked
He kicked it.

(34) a. *ashkii łíí ztał
  ashkii łíí Ø- ztał
  boy horse 3.sg.S kicked

b. *łíí ztał
  łíí Ø- ztał
  horse 3.sg.S kicked

In contrast to PA languages, Lexical Argument (LA) languages allow nominals in argument positions. Because verbs in Kaska are often marked for both subject and object and because nominal arguments are not necessary for a sentence to be a complete proposition, the question arises: Is Kaska a pronominal argument language? Two aspects of Kaska grammar refute this hypothesis. The first is the distribution of 3rd person direct object pronouns. The second is the existence of D-quantification in Kaska. The evidence will show that like other Northern Athabaskan languages, Kaska must be classified as a Lexical Argument language (Jelinek 1989; see also Rice 1989 for data in Slave).

3.4.1 3rd Person Object Pronouns

Recall that in PA languages all argument positions must be filled by a pronoun, which may be affixed to or incorporated into the verb. Any nominal in a PA language is an adjunct, and is thus in a non-argument position. If Kaska were a PA language, then the object marking on transitive verbs would be obligatory because it would be the only possible argument. In a PA language, this would be the case, even if there were a "free" NP in the sentence. In Kaska, however, the object marking on the verb disappears when a nominal object is present.

(35) a. né**ye**netał He kicks her.
   b. **ayudeni** nénetał He kicks the girl(s).
   c. ayudeni né**ye**netał The girl kicks him./*He kicks the girl.

(36) a. **me**ganehtan He looks at her.
   b. **ayudeni** ganehtan He looks at the girl(s).
   c. ayudeni **me**ganehtan The girl looks at him./*He looked at the girl.

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Note that the object marking on the verb disappears, even when this will create an ambiguity. The ambiguity in (35b) & (36b) is due to the lack of number marking on overt nominals in Kaska. So, the Kaska sentences in (35b) and (36b) each have two English translations, repeated here as (37) and (38).

(37)
ayudeni nénetał.

He kicks the girl.

or

He kicks the girls.

(38)
ayudeni   ganehtan

He looks at the girl.

or

He looks at the girls.

The fact that the object marking on the verb disappears when a nominal object is present suggests that pronouns are **not** the only object that can fill an argument position. Thus, this provides the first piece of evidence that Kaska is a LA language. That is, the object argument position can be filled either by the incorporated object pronoun, or by the nominal, but not both. We will briefly return to this discussion in Section 3.5.

3.4.2 D-quantification in Kaska

A second diagnostic for determining a language's argument status is the existence of D-quantification (Jelinek 1995). The terms D-quantification and A-quantification were first introduced by Partee (1987). The "A" in A-quantification stands for adverb, auxiliary, and affix, and the "D" in D-quantification stands for determiner. These are all places that quantification can be introduced in a sentence. Whereas A-quantification is found in *all* languages, only a language that allows nominals in argument positions can have D-quantification (Jelinek 1995).

A-quantification has scope over predicate/argument structure. For example, in English, A-quantification can be expressed by an adverb, as in (39).

(39)   Moose **always** drink from this river.

D-Quantification, on the other hand, has scope over specific arguments. In English, D-quantification takes the form [quantifier + NP], as in (40) and (41).

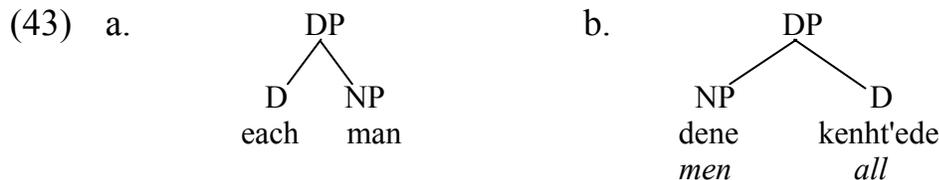(40)   **Each man** killed a moose.
(41)   **All men** slept peacefully.

Jelinek (1995) maintains that because D-quantification fixes quantifier scope to a specific argument position, and PA languages do not have lexical items in argument positions, PA languages cannot have D-quantification.

One indication that Kaska has D-quantification is the fact that the universal quantifier is selective, meaning that the quantifier *kenht'ede* in (42a) may only have scope over the object *dene*. It may not have scope over the predicate *nenetał*, as shown by the unavailability of (42c) as a possible reading for (42a). It also may not have scope over the subject *eskie*, as shown by the exclusion of (42d) as a possible reading for (42a).

(42) a. Eskie **dene kenht'ede** nénetał.
           boy **man all**   kick

      b. The boy kicked all the men.
      c. *The boy kicked the man, completely / all over.
      d. *All of the boys kicked the man.

Additionally, in a strongly right-headed language such as Kaska, you would expect the D-quantifier to follow the NP, which it does. Compare the DP structure of English, a left-headed language (43a), to the DP structure of Kaska (43b).

(43) a.
```
        DP
       /  \
      D    NP
    each   man
```
      b.
```
        DP
       /  \
      NP    D
    dene  kenht'ede
    men     all
```

(44) - (47) show more examples of Kaska D-quantification.

(44) a. **Eskie**   **kenht'ede** dene négentał.
      b. **boy**   **all**   man kick
      c. **All the boys** kicked the man.
      d. *The boys kicked the man completely / all over.
      e. *The boys kicked all the men.

(45) a. Eskie **dene łigedet'e** nénetał.
      b. boy **man two**   kick
      c. The boy kicked (those) **two men**.

(46) a. **Eskie** **łigedet'e** dene négentał.
    b. **boy** **two** man kick
    c. **The two boys** kicked the man.

(47) a. Eskie **ayudeni** **nestlon** ganehtan.
    b. boy **girl** **many** see
    c. The boy saw **many girls**.

3.5 The Status of Subject and Object Marking on Kaska Verbs

Section 3.4 demonstrated that in Kaska, independent NPs may be arguments. Given this, the question then becomes: What is the status of the subject and object marking on the verb? Are they pronominal elements or agreement?

Tuttle (1996), in discussing direct objects in Salcha Northern Athabaskan, argues that agreement will differ from pronominal elements in the distributional patterns of verb-internal marking and verb-external nominals. The "pronominal" hypothesis predicts that verb-internal object marking will be in complementary distribution to verb-external arguments. In contrast, the "agreement" hypothesis predicts that verb-external arguments and verb-internal agreement may co-occur. In fact, Kaska has both patterns; Kaska object marking patterns with the pronominal hypothesis, while subject marking patterns with the agreement hypothesis.

3.5.1 Object Marking

In (48a) the direct object of the verb is the prefix *ye-*. In (48b) the direct object of the verb is the nominal *ayudeni*. In (49a) the oblique object of the verb is the prefix *me-*. In (49b) the oblique object of the verb is the nominal *ayudeni*.

(48) a. né**ye**netał He kicks her.
    b. **ayudeni** nénetał He kicks the girl.
    c. **ayudeni** né**ye**netał *He kicks the girl./The girl kicks him.

(49) a. **me**ganehtan He looks at her.
    b. **ayudeni** ganehtan He looks at the girl.
    c. **ayudeni** **me**ganehtan *He looks at the girl./The girl looks at him.

(48) and (49) show that verb-internal object marking and verb-external object arguments are in contrastive distribution, thus supporting their status as pronominal elements.

3.5.2 Subject Marking

In contrast, the subject agreement morpheme *ge-* is present in both (50) and (51) regardless of the presence of the nominal subject in (51), *eskie*. In fact, *ge-* is the only indication that the subject of (51) is *boys* and not *boy*, since *eskie* is not marked for number.

(50) a. Nega**ge**nehtan.
    b. ne- ga- **ge-** ne- h- tan
         2.sg.O at **3.pl.S** M/A CL look
    c. They saw you.

(51) a. Eskie nega**ge**nehtan.
    b. Eskie ne- ga- **ge-** ne- h- tan
         boy 2.sg.O at **3.pl.S** M/A CL look
    c. The boys saw you.

(51) shows that verb-internal subject marking may co-occur with verb-external subject arguments, thus supporting its status as agreement.

3.6 Section Summary

This section has shown that Kaska is a head-final, lexical argument language with an S-O-V word order. In Kaska, independent pronouns are used for contrastive focus. Subject marking on the verb is agreement and thus may co-occur with an independent nominal subject. Object marking on the verb is a pronominal clitic, and thus, is in complementary distribution with independent nominal objects.

4. The Derivation of Kaska Transitive Sentences

This section argues for a specific hierarchical architecture for Kaska transitive sentences. Section 4.1 presents two theoretical assumptions of the analysis and then, provides a brief description of Distributed Morphology. Sections 4.2 thru 4.8 argue for a specific hierarchy of functional projections in Kaska, and goes step-by-step through an example derivation. Section 4.9 identifies and addresses one apparent problem with the derivation presented in Section 4.2 through Section 4.8.

4.1   Theoretical Assumptions & Précis

Section 4 of this paper presents a derivation of the Kaska transitive sentence using Minimalist Syntax (Chomsky 1995; Collins 1997) and Distributed Morphology (Halle & Marantz 1993; Harley & Noyer 1999). However, before proceeding, it is worthwhile to explicitly outline two theoretical assumptions and highlight the features of Distributed Morphology that set it apart from previous morphological theories.

4.1.1 Checking Domain

The driving force for movement in Minimalist syntax is to "check" morpho-syntactic features (Chomsky 1995). In order for feature checking to occur, both features must be in the same checking domain. This analysis uses the following definition of checking domain (Collins 1997: 20).

(52)   The checking domain of feature F, dominated by Head A is defined as,
       i.   any X adjoined to A and any features dominated by X, and
       ii.   YP in Spec AP and any features dominated by Y.

So, in (53), YP and X are both in the checking domain of feature F, but ZP is not.

(53)
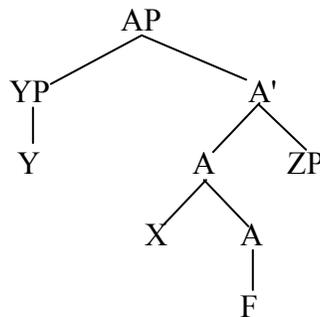
4.1.2 Terminal V

Second, for the purposes of this paper, I assume that the verb form that is inserted into the derivation at terminal V includes the verb stem and thematic prefixes. What determines the final location of the thematic prefix is left for future research.

4.1.3 Distributed Morphology

Within   Distributed   Morphology   (DM),   the   grammar   has   many   of   the

characteristics of the classic Y-model; however there are several differences to be aware of. In the
classic model, shown below in (54), syntactic operations, such as Move and Merge, are applied to lexical items that are fully specified for sound /kæt/, meaning *Four-legged animal that meows*, and part of speech [+N], as well as other morpho-syntactic features, such as [+PL] or [+ACC].

(54)   Classic Y-Model of Grammar
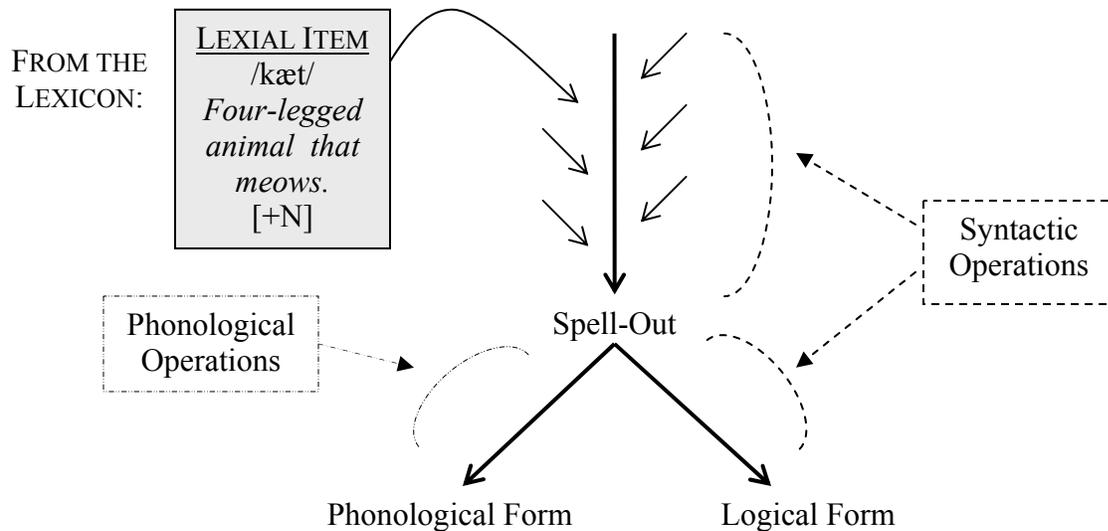
        In contrast to the classical model of grammar, in the DM model of grammar, shown in (55), the set properties that are traditionally found in the lexicon are *distributed* throughout the derivation. Rather than applying syntactic operations to fully specified lexical items, within DM, syntactic (and morphological) operations apply to bundles of morpho-syntactic features. Once all of the necessary morpho-syntactic features have been included in the structure, the derivation splits. One thread of the derivation continues with syntactic operations until it reaches Logical Form (LF). The other thread of the derivation leads to Phonological Form (PF). Before any phonological information is associated with the morpho-syntactic features, various morphological operations may apply. One of these operations, morphological merger, will be discussed in Section 4.9. After morphological operations have been applied, then vocabulary insertion occurs. This is when phonological information is associated with morpho-syntactic feature bundles. At this point in the derivation PF and LF re-connect at the conceptual interface. With the addition of non-linguistic information from the Encyclopedia, the complete meaning of the sentence is determined.

60

(55)   Distributed Morphology Model of Grammar

MORPHO-
SYNTACTIC
FEATURES:
[+N]
[+singular]
[3rd person]

Syntactic
Operations

Morphological
Operations

VOCABULARY
INSERTION:
/kæt/
/-s/

Phonological Form   Logical Form

ENCYCLOPEDIA:
Non-linguistic
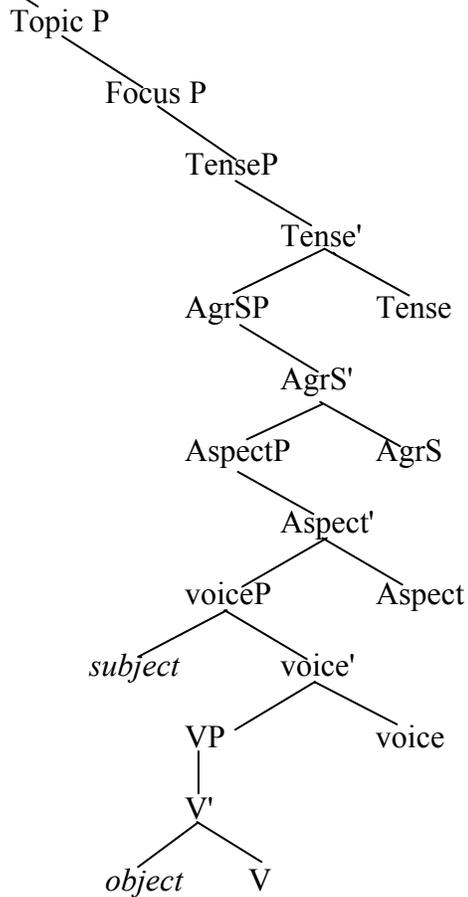Knowledge--
Meows.

Conceptual
Interface

"Meaning"
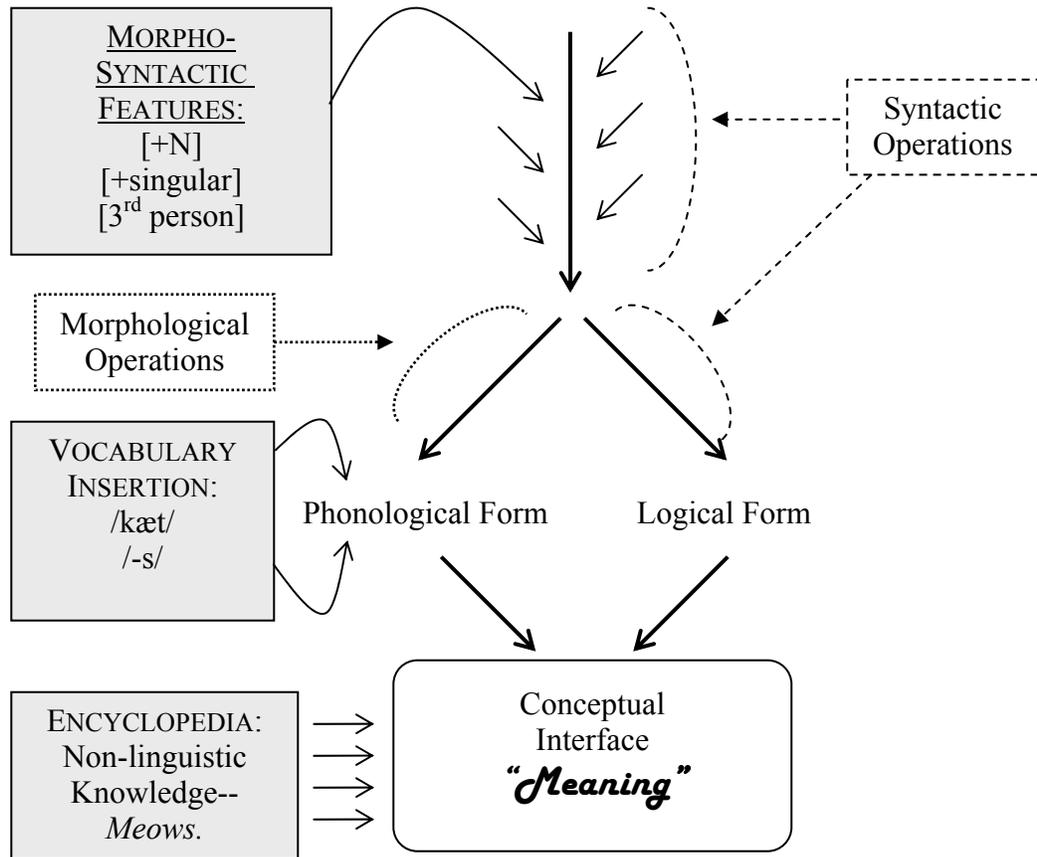
Keeping these ideas in mind, the remainder of Section 4 argues for a specific syntactic structure for Kaska and provides a step-by-step derivation of a simple transitive sentence.

4.2   Kaska Sentence Schematic

The schematic in (56) shows the proposed hierarchical structure for Kaska.

(56)

Contrastive Focus P
    Topic P
        Focus P
           TenseP
              Tense'
          AgrSP   Tense
            AgrS'
        AspectP   AgrS
           Aspect'
      voiceP   Aspect
   subject   voice'
      VP   voice
      V'
   object V

4.3   VP: V and its Complement

The verb stem and its thematic prefix are base generated in terminal V.   In a transitive sentence, the complement of V, the direct object, is sister to V. Here, the verb assigns a theta role to the direct object.

4.4   voice P

Directly above V is the functional projection voice (Kratzer 1996). The subject is base generated in the specifier of voice. Here, voice assigns a theta role to the subject. Kratzer's voiceP may be considered equivalent to PredP (Bowers 1993), EventP (Harley 1995), and vP (Chomsky 1995), the unifying characteristic being that each is a functional projection that takes the subject as its argument. This is in keeping with Marantz (1984) who noticed that the relationship of the verb to the object is different than the relationship of the verb to the subject, most noticeably in idiomatic expressions.

In Athabaskan languages, the voice projection is also associated with valency and the classifiers (Rice 2000). It has been argued that across Athabaskan languages, one indication of a shift in valency from one argument to two (for example the inchocative-transitive alternation or the active-passive alternation), is the change of the classifier from Ø- to h-/(ł-). An example of the inchocative-transitive alternation is given in (57) & (58).
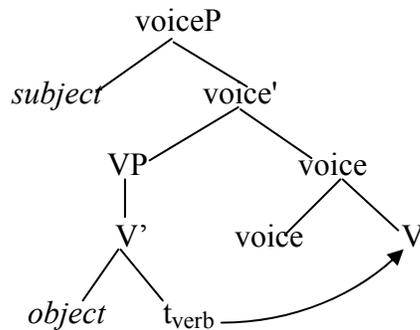
(57) Inchocative
    a.   kón   di-   Ø-   **Ø-**   k'an
    b.   fire   TH   3.sg.S CL   burn
    c.   The fire burned.

(58) Transitive
    a.   John kón   da-   Ø-   **h-**   k'an
    b.   John fire   TH   3.sg.S CL   burn
    c.   John lit the fire.

At this point in the derivation, V raises and adjoins to voice via head-to-head movement and V checks its features against those in voice (i.e. active/passive). The structure looks like (59).

(59)

4.5   Aspect

Above the voice phrase is the Aspect phrase. A strong motivation for the functional projection Aspect is the presence of overt mood/aspect markers such as *n-* in (60).

(60) a.   nédze**n**tał
       b.   né-   dze-   Ø-**n-**   Ø-   tał
            TH   1.pl.S   3.sg.O M/A CL   kick
       c.   We kicked him.

The [voice + V] complex raises and adjoins to Aspect via head-to-head movement and the verb checks its Aspect features (i.e. perfective/imperfective). Also, the direct object raises to Spec of Aspect and checks ACC Case against the [Aspect + voice + V] complex. The structure, then, looks like (61).

(61)
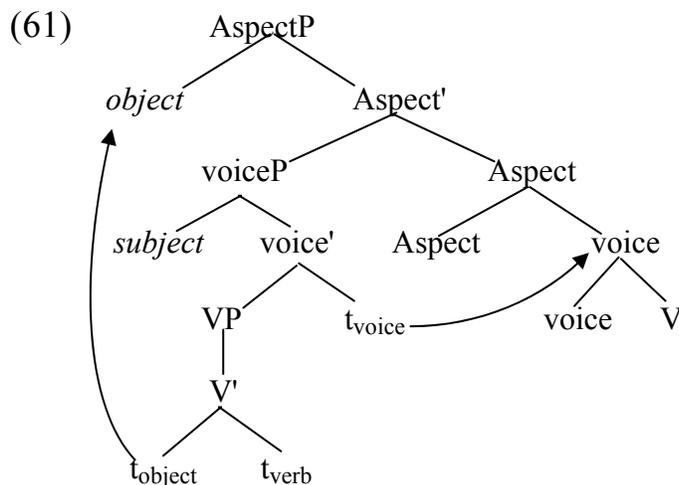
Travis (1991) proposes a structure in which AspectP appears between the voiceP and verbP. However, in Athabaskan languages, M/A is always found <u>outside</u> both the classifier (i.e. in voice) and first and second person subject agreement, suggesting that, at least in Kaska, Aspect is higher in the structure than voice.
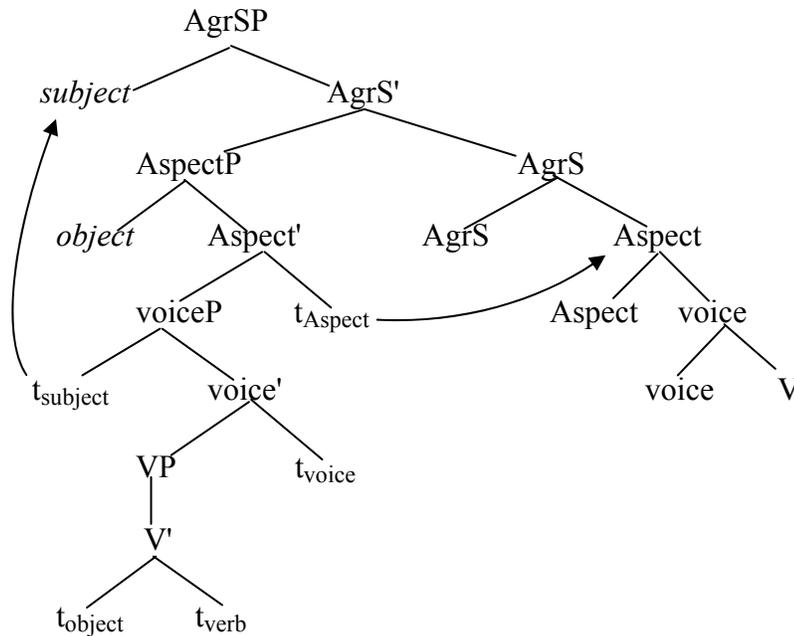
4.6   Subject Agreement

Directly above Aspect is AgrS (Pollock 1989; Chomsky 1993, 1995). The strongest evidence for the functional projection AgrS is the subject agreement found on all Kaska sentences, as shown in (62).

(62)   a.   e-**s**-tsets   I eat (something)
       b.   e-**n**-tsets   you eat (something)
       c.   e-**Ø**-tsets   s/he/it eats (something)
       d.   e-**dze**-tsets   we eat (something)
       e.   e-**h**-tsets   you(pl) eat (something)
       f.   e-**ge**-tsets   they eat (something)

At this point in the derivation, [Aspect + voice + V] raises and adjoins to AgrS where the φ-features of V check the φ-features of AgrS. In addition, the subject moves into Spec of AgrS where it too, checks its φ-features against the φ-features of the [AgrS + Aspect + voice + V] complex. Subsequently, the structure looks like (63).

64

(63)

AgrSP
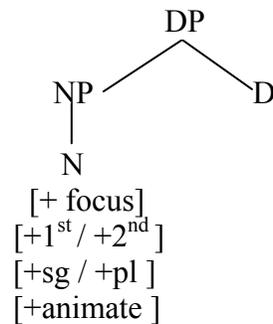- *subject*
- AgrS'
  - AspectP
    - *object*
    - Aspect'
      - voiceP
        - $t_{subject}$
        - voice'
          - VP
            - V'
              - t_{object}
              - t_{verb}
          - t_{voice}
      - t_{Aspect}
  - AgrS
    - AgrS
    - Aspect
      - Aspect
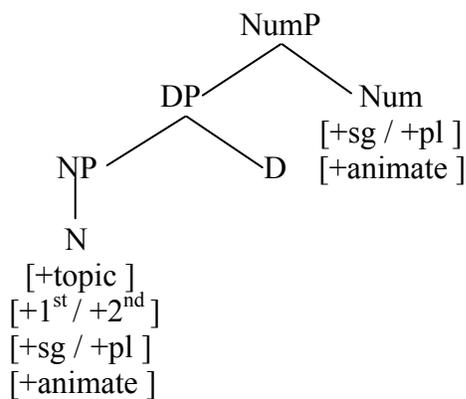   - Aspect
        - voice
          - voice
          - V

4.6.1 Internal Structure of *Subject* and *Object*

At this point it is appropriate to explore one aspect of the structure in (63) in more depth. That aspect is the internal structure of the positions now labeled *subject* and *object*. I propose the following structures for subjects (64a) and objects (64b).

(64) a. Internal Structure of Subjects   b. Internal Structure of Objects

NumP
- DP
  - NP
    - N
      [+topic]
      [+1st / +2nd]
      [+sg / +pl]
      [+animate]
  - D
- Num
  [+sg / +pl]
  [+animate]

DP
- NP
  - N
    [+ focus]
    [+1st / +2nd]
    [+sg / +pl]
    [+animate]
- D

Under this proposal, both N$_{subject}$ and N$_{object}$ may be specified for the person features [+1st] or [+2nd]. The presence of a person feature blocks the ability for N to have an overt noun, such as *eskie*. In essence, the absence of the specification for a person feature is the 3rd person. N$_{subject}$ and N$_{object}$ may also be specified as [+singular] or [+plural], and may also have the feature [+animate]. N$_{subject}$ carries the discourse feature [+topic], while N$_{object}$ carries the discourse feature [+focus]. Above the NP in both N$_{subject}$ and N$_{object}$, there may be a DP. An example of an element found in D is a quantifier (See Section 3.4.2).

The main structural difference between subjects and objects is that Num (Ritter 1991) may only be found as a functional projection in subjects. Num may carry the features [+singular] or [+plural], and [+animate]. As shown in Table VIII below, these feature bundles will be realized at vocabulary insertion as the 3rd person, singular, subject agreement *Ø-*, the 3rd person, plural, subject agreement *ge-*, and the first person, plural, subject agreement *dze-*[9].

Table VIII. Feature Bundles for Subjects found in Num

	Found in Num		
Number	--	+sg	+pl
Animacy	+A	-- /+A	-- / +A
Person	--	--	--
Form	**dze-**	**Ø-**	**ge-**

N$_{subject}$ may be filled either by an overt noun, such as *eskie*, or by *pro*. If there is an overt pronoun in the subject position, then, just as in other pro-drop languages, it must be realized as an emphatic pronoun, such as the first person, singular *seni*. In contrast, N$_{object}$ may be filled by either, an overt noun, or an overt pronoun, such as the first person, singular object clitic *s-*.

4.6.2 Two Functional Heads: Num & AgrS

At first, it may seem unusual to propose that the internal structure of subjects and objects differ categorically within a single language. After all, why would the grammatical status of a noun effect what functional categories it may project? Recall, however, from Section 2.2.1, there are two distinct places to mark subject agreement; one to the right of the M/A marker (subject agreement I), and another to

---

[9] Recall from f.n. 4 that historically, *dze-* the 1st person, plural subject agreement marker is derived from the proto-Athabaskan 3rd person, unspecified #, human morpheme *ts'e-*. Although the subject marker has evolved in Kaska into meaning 1st person, plural, subject it was able to do so because it maintained its morpho-syntactic features—it is only marked for [+animate].

the left of the M/A marker (i.e. subject agreement II). Why are there two distinct places where subject agreement may be found? This falls directly out of an analysis which represents subjects with an additional inflectional projection, here called NumP. As shown below in Table IX, the morphemes that surface in AgrS (subject agreement I) are morpho-syntactically specified for person, [+1] or [+2]. Given that they are the speaker and the listener, the forms in subject agreement I are also specified for [+animate] by default. In contrast, the affixes that surface in Num (subject agreement II) are not specified for person, but may be specified for animacy and/or number. Table IX shows the fully specified feature bundle found in each of these functional heads and how each feature bundle is phonologically realized.

Table IX.   Comparison of Feature Bundles for Subjects found in AgrS vs. Num

	Found in Num / Subject Agr II			Found in AgrS I			
Number	--	+sg	+pl	+sg	+pl	+sg	+pl
Animacy	+A	-- /+A	-- / +A	+A	+A	+A	+A
Person	--	--	--	+1	+1	+2	+2
Form	**dze-**	**Ø-**	**ge-**	**s-**	**Ø-**	**n-**	**ah-**

4.7   Tense

Above AgrS is the Tense Phrase (TP). In Kaska, there is no distinct morpheme position marking tense in Kaska. Rather, tense can be marked by a change in the verb stem, as in (65) or by a change in vowel quality in the conjunct morphemes, as in (66).
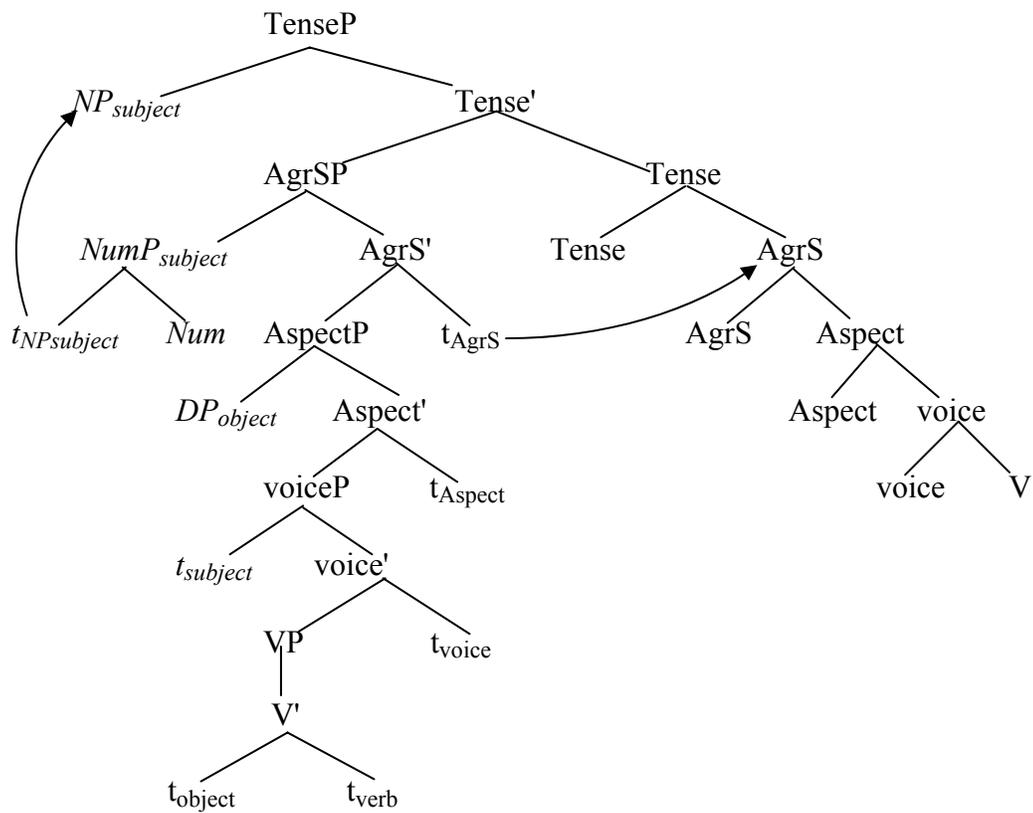
(65)   es-**tsey**   I am crying.
        d-es-**tseł**   I will cry.

(66)   **es**-dan   I am drinking.
        as-dan   I drank.

However, to be parsimonious with current theory, Tense is represented as a separate functional projection.
   As shown in (67), [AgrS + Aspect + voice + V] raises and adjoins to T via head-to-head movement. V checks its tense features against the features in T (i.e. past, present, future). The subject DP (i.e. the DP complement of the subject NumP) moves to Spec of T where it checks NOM Case against the [Tense + AgrS + Aspect + voice + V] complex.

(67)

TenseP
- $NP_{subject}$
- Tense'
  - AgrSP
    - $NumP_{subject}$
      - $t_{NPsubject}$
      - Num
    - AgrS'
      - AspectP
        - DP_{object}
        - Aspect'
          - voiceP
            - $t_{subject}$
            - voice'
              - VP
                - V'
                  - t_{object}
                  - t_{verb}
              - t_{voice}
          - t_{Aspect}
      - t_{AgrS}
  - Tense
    - Tense
    - AgrS
      - AgrS
      - Aspect
        - Aspect
        - voice
          - voice
          - V

## 4.8   Topic, Focus, and Contrastive Focus Positions

Finally, (following Hale, Jelinek & Willie 2000, who base their argument on Navajo) at the top of the tree are the Topic, Focus, and Contrastive Focus Positions. These positions are non-argument positions that reflect the sentence's information structure. The spell-out position of overt nominals is shown in (68).

(68)

Contrastive FocusP
- Emphatic Pronouns
- TopicP
  - Subject
 - FocusP
    - Object
    - S
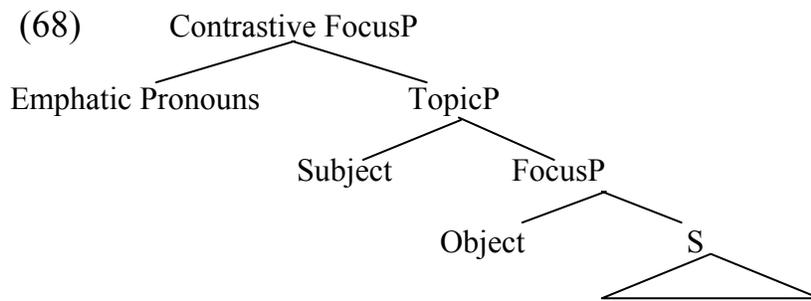
As previously mentioned in Section 4.6.1, all overt nominals are marked for semantic discourse function: subjects for topic, and objects for focus. Accordingly, the position of overt nominal subjects at Spell-out is the Specifier of TopicP, and the position of overt nominal objects at Spell-out is the Specifier of FocusP.

(69) shows the surface position of overt nominals in a sentence with an overt subject <u>and</u> an overt object. (70) shows the surface position of an overt nominal if it is the subject, and (71) show the surface position of an overt nominal if it is the object.

(69) a.   TopicP
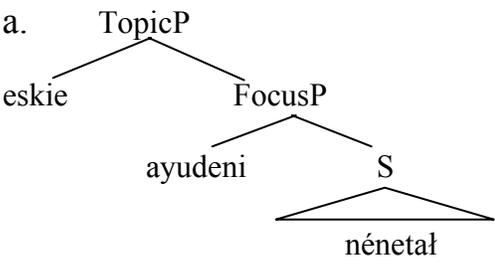
    eskie   FocusP

       ayudeni   S

            nénetał

  b. eskie ayudeni né- Ø- ne- Ø- tał
      boy girl TH 3.sg.S M/A CL kick
  c. The boy kicked the girl.

(70) a.   TopicP

    eskie   S

   néyenetał
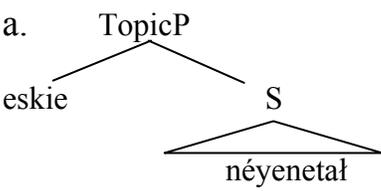
b. eskie né- ye- Ø- ne- Ø- tał
    boy TH 3.sg.O 3.sg.S M/A CL kick
c. The boy kicked her.

(71) a.   FocusP
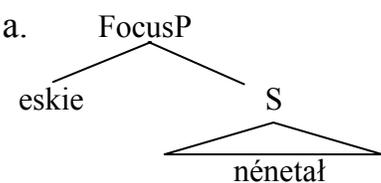
    eskie   S

        nénetał
  b. eskie né- Ø- ne- Ø- tał
      boy TH 3.sg.S M/A CL kick
  c. She kicked the boy.

Now, consider the sentence in (72).

(72) a. Neni, John kuyegah neganehtan.
    b. **Neni**   John kuyegah **ne-** ga- Ø- ne- h- tan.
      2.sg.EM John there **2.sg.O** at 3.sg.S M/A CL look
    c. You, John looked at you there! / It was <u>you</u> who John saw there!

In (72), the pronominal object of the postposition *ga-* is still present on the verb-sentence, reinforcing the idea that the object clitic pronoun *ne-* is in the argument position, and the emphatic pronoun is in a non-argument position. (69) also shows that the emphatic pronoun *neni* must be above the Spell-out subject position (Spec of Topic P) which is filled by *John*. The spell-out positions for the overt nominals in a sentence like (69), is shown in (73).

(73)   Contrastive FocusP
            Neni   TopicP
                  John   S (=TP)
                        kuyegah neganehtan
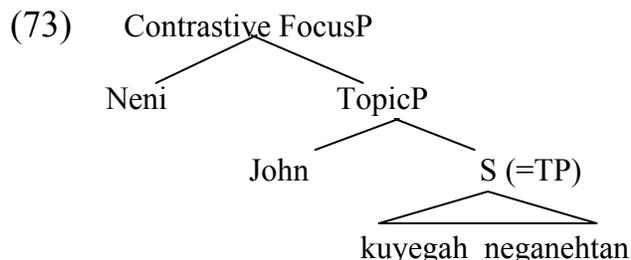
4.9   Morpho-Syntactic Structure at Spell-out

With the addition of Topic, Focus and Contrastive Focus positions, the syntax is complete, and the derivation is ready for morphological operations. The basic structure in (67) is reflected below in (77) with two additions. The first addition is the Focus Projection. The second addition is phonological information associated with the sentence in (74). Crucially, I am not proposing that phonological information is actually included in the derivation at this point. This would be directly against late insertion, a core tenet of DM. However, having phonological information available at this point *is* useful to more clearly see the linear order of the morphemes at this specific point in the derivation.

(74) a.   kedazés denesgés
       b.   kedazés   de-   n-   es-   Ø-   gés
             moosehide TH   M/A 1.sg.S CL   kick
       c.   I am twisting the moosehide.

With the addition of phonological information, there are two striking problems for the present analysis. The first problem is how to get the thematic prefix in the right place within the conjunct prefixes. This problem, however, is not within the scope of this paper, and will be left for future research. The second problem is the ordering of the AgrS head and the Aspect head. The linear order of the morphemes before morphological operations have occurred is shown in (75), while the target order of the morphemes is shown in (76).

(75)   Linear order before morphological operations: kedazés   de-**es-n-Ø**-gés

(76)   Actual order of morphemes: kedazés   de-**n-es-Ø**-gés

The problematic morphemes are bolded in (77), below.

(77)
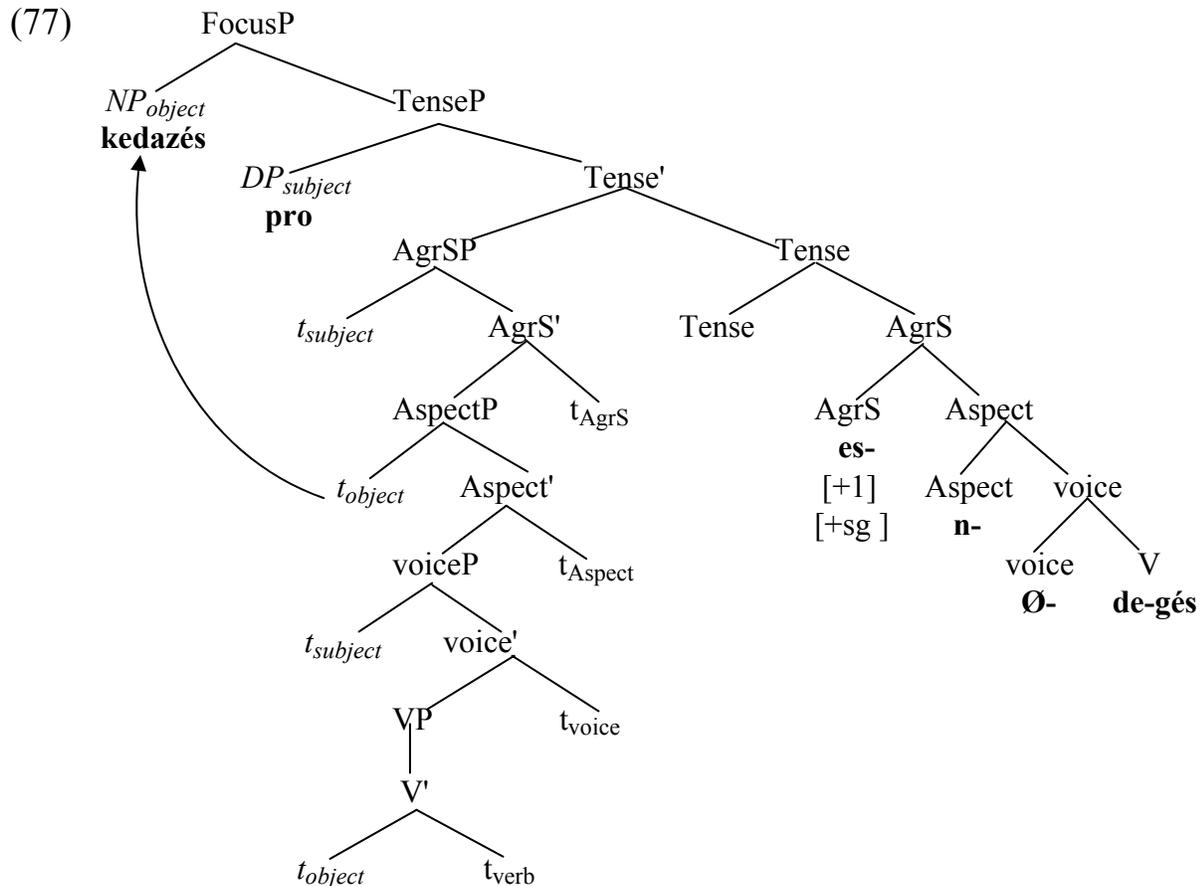
One possibility, is that the Aspect projection is actually located above the AgrS projection, rather than below. A argument against this line of reasoning is the nature of AspectP. Cross-linguistically, Aspect, which is often associated with checking the Case of the object, likes to be as close to the VP as possible (Andrew Carnie p.c.). In fact, the ordering of AgrS and Aspect is not a problem within Distributed Morphology (DM). One of the strengths of the DM framework is its ability to adjust apparent mismatches between the morpho-syntactic pieces and phonological pieces in predictable, constrained ways. One way that DM is constrained is in the locality of the morphemes that are allowed to adjust. Before morphological operations, the linear order of AgrS and Aspect is AgrS-Aspect. However, these inflectional heads are sisters and thus, are local enough for Morphological Merger, or Local Dislocation to apply. In Local Dislocation, one head may trade its relation of adjacency to a following constituent by affixing to

the head of the second constituent (Harley & Noyer 1999: 15). This operation is shown schematically in (78).

(78)   Local Dislocation: X [Y…] → [Y + X …

So in fact, in the morphology, Morphological Merger applies; the head AgrS affixes to the head of the second constituent, Aspect, thus creating the linear order found on the surface, AgrS-Aspect.

5.   Summary & Concluding Remarks

This paper has shown that Minimalist Syntax and Distributed Morphology may successfully be applied to Kaska, an Athabaskan language that traditionally is described as having a templatic morphology. In conclusion, I would like to address two remaining issues concerning the application of Minimalism and DM to Athabaskan morpho-syntax.
        First, I would like to acknowledge the similar approaches have been applied to Athabaskan morpho-syntax (in particular, see Embick 1996; Jelinek & Willie 1996; Rice 1989, 2000; Rice & Saxon 1994; Speas 1991). Most recently, Rice (2000) gives a comprehensive examination of a number of languages across the Athabaskan family in an attempt to show the unifying aspects of Athabaskan morpho-syntax and to propose a hierarchy for the Athabaskan language family. However, Kaska diverges greatly from the other Athabaskan languages that have been studied in depth, such as Navajo and Slave. One exemplar of this divergence can be seen in argument structure. Navajo, the most comprehensively studied Athabaskan language has been argued to be a PA language, which predicts a drastically different syntactic structure for the VP (see Jelinek & Willie 1996). Another exemplar of this divergence can be seen in the 'human vs. non-human' distinction. Kaska differs from both Navajo & Slave in that it has no 'human vs. non-human' distinction. Rice (2000), following Rice & Saxon (1994), argues that there are two subject positions in Athabaskan languages. For them, AgrS is the sight used by first and second person, while the functional projection NumP, is the sight used by the third person morphemes: Ø- (singular third person), *ts'e*- (unspecified <u>human</u> subject) and *ge*- (plural <u>human</u> subject). Rice's analysis might predict that since Kaska lacks the 'human vs. non-human' distinction, that it might also lack two subject positions, since one of the subject positions is only filled overtly by morphemes that make the human distinction. Alternatively, Rice's analysis might predict that Kaska would have two subject positions, but that they would correspond to the ones in Slave. Kaska does in fact, have two templatic positions for subject. However, there is no natural way to divide the two positions by referring to person, like there is in Slave. Additionally, the NumP that Rice and

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Saxon label as an extension of the VP, was proposed as a functional projection for DPs (Ritter 1991).

A second point worth highlighting is the difference between the descriptive nature of the templatic morphology and the predictive nature of a derivational morpho-syntax. Templates are a useful tool for describing the complex Athabaskan morphology, but they lack the hierarchical structure that is inherent in a syntax-based morphology. As such, templates lack the constraint on the possible forms in a language that is inherent in a concatenative morphology like the piece-based Distributed Morphology, or even the non-concatenative prosodic morphology proposed in Optimality Theory. Templates are simply over-predictive. There is nothing inherent in the template that restricts the possible forms in a given language. One way to argue in favor of a morpho-syntactic approach rather than a templatic approach would be to find empirical data that would be predicted by the morpho-syntactic approach, but would not be predicted by a templatic process. However, templates can describe **any** form, so even a 'test' such as this would not be insightful.

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