# On Determining Grammatical Relations in Slave\*

Joyce L. Hildebrand

### Introduction

Although there is an extensive literature on the analysis of Athapaskan languages, the emphasis has been on the verbal morphology and the phonological systems of these languages. This focus is understandable, given the complexity of the verbal morphology of Athapaskan languages and the difficulty encountered in attempts to describe their syntax within any current theoretical framework. In this paper, however, I will concentrate on a syntactic phenomenon in Slave, a northern Athapaskan language, referring to the verbal morphology only as it relates to the phenomenon under discussion.

A theoretical analysis of any language must be based on an accurate description of that language. Since an exhaustive description of Slave syntax is not yet available, my discussion will be largely descriptive in nature.

# Athapaskan Word Order

Word order in Athapaskan is relatively free, although almost without exception the main verb occurs sentence-finally. The noun phrases in the sentence may occur in various positions, depending partially on discourse factors. Since nouns are not marked for morphological case, however, certain changes must take place in the verb when the basic word order is changed for the purpose of focus or topicalization so that the grammatical relations of the NPs remain unchanged. My discussion will focus on the determination of the grammatical relations of NPs by the interaction of word order and verbal morphology.

### Basic Word Order of Slave

As in other Athapaskan languages, a sentence in Slave may consist of a verb alone, as in (1) and (2).

- (1) Mewohniendi?o.
  'I lent it to him.'
- (2) Nftah.
  'He arrived.'

If a sentence does include a distinct subject NP, it almost always occurs before the verb. In a sentence containing a transitive verb, the basic word order is S-O-V, as in (4). When an oblique object (00)

is also present (i.e., an object of a postposition), the preferred word order is either S-OO-O-V or S-O-OO-V, with the OO always occurring to the immediate left of the postposition, as in (5).

- (3) Dene theda. (S-V) man sits
  'The man sits.'
- (4) Dene ts'élį kaįdi. (S-O-V) man woman told 'The man told the woman.'
- (5) Ts'éli dene gho etsu kaidi. (S-OO-O-V) woman man about grandmother told 'The woman told the grandmother about the man.'

According to this data, it would appear that the grammatical relation of an NP is determined by its position relative to the verb or postposition. The NP immediately preceding the verb is the direct object while the NP preceding the postposition is the OO. The first NP in the sentence is the subject. As we proceed, however, we will see that the situation is considerably more complex.

# Topicalization in an S-O-V Sentence

To emphasize the direct object in a sentence containing both a subject and an object, the object may be placed in sentence-initial position. For the moved NP to retain its grammatical relation of object, however, the copy pronoun (CP)  $\underline{\text{zhe-}}$  must be prefixed to the verb, as in (7).

(O-S-Y)

- (6) Dene ts'éli nidichu. (S-O-V)
  man woman took
  'The man took the woman.'
- (7) Ts'éli dene nizhedichu.
  woman man CP-took
  'The man took the woman.'

### Topicalization in an S-O-OO-V Sentence

In a sentence containing a postpositional phrase (PP) with an  $\infty$ , either the entire PP or the  $\infty$  alone may be moved. If the entire PP is topicalized as in (8), no change in the verb is required to maintain the appropriate grammatical relations. If only the  $\infty$  is moved, leaving behind the postposition, the same CP zhe- must be prefixed not to the verb but to the postposition, since postpositions cannot be stranded (i.e., left without an adjacent object) in Slave (see (9)). Notice also that movement of the  $\infty$  must be leftward.

- (8) Dene gho ts'eli etsu kaidi. (OO-P-S-O-V)
  man about woman grandmother told
  'The woman told the grandmother about the man.'
- (9) Dene ts'éli zhegho etsu kaidi. (OO-S-P-O-V)
  man woman CP-about grandmother told
  'The woman told the grandmother about the man.'

If no change was made to the postposition in (9) dene would no longer be the OO, since the NP immediately preceding a postposition is always its object unless a CP is prefixed to the postposition.

The PP or the subject or object NP may in certain contexts be extraposed and occur to the right of the verb, in which case a pause must occur between the verb and the following constituent.

(10) Ts'éli etsu kaidi, dene gho. (S-O-V-OO-P)
woman grandmother told man about
'The woman told the grandmother about the man.'

### Determination of Grammatical Relations

The following generalizations describe the determination of the grammatical relations of NPs in the data examined thus far.

- (11) If there is no CP prefixed to the verb, the NP immediately preceding the verb is the direct object.
- (12) If there is no CP prefixed to the postposition, the NP immediately preceding the postposition is the OO.
- (13) If a CP is present in the verb, an NP which is not immediately preceding the verb is the direct object.
- (14) If a CP is prefixed to the postposition, an NP which is not immediately preceding the postposition is the OO.

Given that the verb almost always occurs sentence-finally (with the rare exception of sentences like (10)), there are at least 12 possible word order patterns in sentences which contain both a direct object and an OO.

(a)	S-00-P-0-V	(g)	00-S-zheP-0-V
(b)	S-0-00-P-V	(h)	OO-O-zheP-S-zheV
(c)	0-S-00-P-zheV	(i)	S-00-0-zheP-V
(d)	O-OO-P-S-zheV	(j)	O-OO-S-zheP-zheV
(e)	OO-P-O-S-zheV	(k)	OO-O-S-zheP-zheV
(f)	00-P-S-O-V	(1)	00-S-0-zheP-zheV

I will proceed to discuss the grammaticality of each of the above possibilities in light of (11) to (14), making the necessary revisions to the generalizations in order to account for the data.

Patterns (a) and (b) are the two basic word order patterns since no CPs occur in either of these sentence types. The grammatical relations of the NPs are determined by their positions alone. Notice, however, that pattern (b) does not follow the generalization made in (11).

- (15) Ts'éli etsy dene gho kaidi. (S-O-OO-P-V)
  woman grandmother man about told
  'The woman told the grandmother about the man.'
- In (15) there is no CP in the verb and no NP immediately preceding the verb. Furthermore, the nearest NP to the verb is the CO since it is followed by a 'bare' postposition (i.e., a postposition without a CP). (11) must be revised as follows to account for this possibility:
  - (11') If there is no CP in the verb, the first available NP to the left of the verb is the direct object.

I will take 'available NP' to mean an NP which is not followed by a bare postposition. In (15) the first available NP is etsu which is therefore the direct object. The remaining NP is the subject of the sentence.

Pattern (d) is illustrated by (16).

(16) Ts'éli etsu gho dene kazhédi. (O-OO-P-S-zheV)
woman grandmother about man CP-told
'The man told the woman about the grandmother.'

According to (13), the NP immediately preceding the verb is not the direct object since the verb contains a CP. To account for the fact that ts'éli rather than etsu is the object, (13) must be revised as follows:

- (13') If a CP is present in the verb, the first available NP to the left of the verb is the subject.
- In (16) the first available NP is dene since etsu is followed by a bare postposition and is therefore not available.

Pattern (c) shown in (17) is accounted for by (13').

- (17) Ts'éli dene etsu gho kazhédi. (O-S-OO-P-zheV) woman man grandmother about CP-told 'The man told the woman about the grandmother.'
- In (17) dene is the first available NP and therefore, according to (13'), should be the subject, which it is. Etsu is the OO, following (12), and the remaining NP, ts'eli, is the direct object.

Patterns (e) and (f), as illustrated by (18) and (19) respectively, are accounted for by (13') and by (11').

- (18) Dene gho ts'élį etsų kazhédi. (OO-P-O-S-zheV)
  man about woman grandmother CP-told
  'The grandmother told the woman about the man.'
- (19) Dene gho etsu ts'éli kaidi. (OO-P-S-O-V)
  man about grandmother woman told
  'The grandmother told the woman about the man.'

In (18) the first available NP is the subject in accordance with (13'), while in (19) the first available NP is the direct object following (11').

Patterns (g) to (1) involve the separation of the postposition and its object and therefore should be accounted for by (12) and (14). No revisions to either of these principles are necessary to describe patterns (g) and (h) (sentences (20) and (21) respectively) assuming the movement is always leftward.

- (20) Ts'élį dene zhegho etsų kaįdi. (OO-S-zheP-O-V) woman man CP-about grandmother told 'The man told the grandmother about the woman.'
- (21) Ts'élį dene zhegho etsų kazhédi. (OO-O-zheP-S-zheV) woman man CP-about grandmother CP-told 'The grandmother told the man about the woman.'

In (20) since there is a CP prefixed to the postposition, the CO must precede the NP immediately preceding the postposition, according to (14). The only possible CO, then, is ts'eli since it is the only NP preceding dene. The same applies to (21). Notice also that (11') and (13') account for the grammatical relations of the remaining NPs in (20) and (21).

Pattern (i), shown in (22), is somewhat problematic.

(22) Dene ts'éli etsy zhegho kaidi. (S-OO-O-zheP-V)
man woman grandmother CP-about told
'The man told the grandmother about the woman.'

According to (14), either <u>dene</u> or <u>ts'éli</u> could be the CO. (14) must be revised as follows:

- (14') If a CP is prefixed to the postposition, the OO is the first NP notimmediately preceding the postposition.
- (14') also accounts for pattern (j) (see (23)).
  - (23) Dene ts'élį etsų zhegho kazhę́di. (O-OO-S-zheP-zheV) man woman grandmother CP-about CP-told 'The grandmother told the man about the woman.'

Notice that (13') correctly predicts that etsy will be the subject since it is the first available NP to the left of a verb containing a CP.

It appears that patterns (k) (OO-O-S-zheP-zheV) and (1) (OO-S-O-zheP-zheV) do not exist in Slave. If they were present, (23) would have three different meanings. Generalizations (13') and (14') effectively rule out these two remaining patterns, predicting the meaning given above for (23) rather than either of the following meanings:

'The grandmother told the woman about the man' (pattern (k))

'The woman told the grandmother about the man' (pattern (1))

It seems, then, that the CO may never be separated from its postposition by more than one NP.

### Closing Remarks

The determination of grammatical relations is undoubtedly more complex than is indicated in the above discussion. Possibly the generalizations proposed above would have to be revised or replaced if other verbs or NPs were substituted for those in the sentences given. It is quite feasible as well that discourse factors would affect the speaker's interpretation of the sentences discussed. Further study is needed to understand the assignment of grammatical relations in Slave more fully and to interpret the data in light of a theoretical framework. I have simply suggested why certain word order patterns are not possible in Slave and how the speaker of the language determines the grammatical relations of NPs.

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# FOOTNOTES

- [ ] below a vowel indicates a nasal vowel, while [ ] indicates
  high tone. The verb stem always occurs word-finally and prefixes are
  added to mark person, number, aspect and so on.
- <sup>2</sup>I call the prefix <u>zhe-</u> a "copy pronoun" since it is coreferent with a noun phrase elsewhere in the sentence (i.e. the direct object if <u>zhe-</u> is attached to the verb, the oblique object if attached to the postposition). Thus a sentence like (7) has the following literal translation:
  - (7) Ts'eli dene nizhedichu. woman man he-took 'The man he took the woman.'