Paradigmatic and Syntagmatic Mechanisms for Syntactic Change in Athapaskan

Author(s): Keren Rice and Leslie Saxon


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Paradigmatic and syntagmatic mechanisms for syntactic change in Athapaskan*  
Keren Rice and Leslie Saxon  
University of Toronto and University of Victoria

1. Introduction

The third-person morphemes which developed from Proto-Athapaskan *y- and *w- have posed one of the longest-lived problems in the study of the morphosyntax of Athapaskan languages. Considerable attention has been given to their use in particular languages (Frishberg 1972, Hale 1973, 1987, Perkins 1978, Platero 1982, Saxon 1986, Sandøval and Jelinek 1989, Thompson 1989b, Speas 1990, Uyechi 1991, Rice 1991, Willie 1991, and Parsons and Speas 1992, for example), as well as in the family as a whole (Thompson 1979, 1989a, Rice and Saxon 1991, Saxon and Rice 1992). In this paper, we focus on the properties of the pronoun *y-. Following Saxon 1984, 1986, Rice and Saxon 1991, and Saxon and Rice 1992, we propose that *y- is a third person anaphor that can, under certain conditions, appear as a subject. In one Athapaskan language, Hupa, *y- is found under rather different conditions: it is a third person subject agreement marker. Unlike *y- in the other languages, Hupa y- exhibits no anaphoric properties. We explore in this paper how this situation might have developed in Hupa, a language that appears to be typologically unique within the Athapaskan family. We suggest that a process of paradigm regularization resulted in Hupa y- being reanalysed as a subject prefix. The particular meaning of this subject prefix in Hupa we see as an effect of syntactic conditions on *y-. We conclude that Hupa y-, historically and in the present, illuminates what it is to be a subject.

2. Background

In our earlier work on this question, we argue that the third person pronominal morpheme *y- is a syntactic anaphor, occurring only in contexts where it is licensed by a third person clausemate argument from which it is disjoint in reference. A circumstance which strongly favours treating y- as a syntactic anaphor is the fact that it and the third-person NP with which it necessarily cooccurs are clausemates. Clause-boundedness is a common property of the relationship between a reflexive or reciprocal and its antecedent, and is required for reflexives or reciprocals in Athapaskan.

While we take y- to be an anaphor, it shows an unusual property in many Athapaskan languages: it can be a subject. In order to account for this, we adopt a structural assumption which permits y- as an anaphor to occur in subject position in some instances. This assumption is based on a hypothesis developed by Kuroda 1988, Sportiche 1988, and others, that all subject NPs originate within the verb phrase. While many subjects move out of the verb phrase into the canonical subject position, under some circumstances a subject remains within the VP. In such a position, according to our hypothesis, there is the possibility that y- may occur as a subject.

The basic structure we assume for clauses in Athapaskan, incorporating this assumption, is sketched in (1).1
The structure in (1) allows y- as an anaphor to fill the position of the internal subject, the object of a postposition, or the direct object, provided that a distinct third person licensor NP exists somewhere in the tree.

As Thompson 1989a notes in a cross-family survey of the use of *y-, only in some Athapaskan languages does y- in fact occur as a subject. To account for this and other kinds of cross-linguistic variation in the distribution of y-, we propose that the languages of the family differ according to restrictions on the licensor of the disjoint anaphor, conditions on the movement of an NP from internal to canonical subject position, and cooccurrence restrictions on NPs and pronouns. For a language like Hupa, in which the distribution of y- is significantly different than in other languages, we suggest that a restructuring has taken place.

For reasons of space, we will use a single language, Koyukon, to represent the usual Athapaskan pattern. Koyukon will provide the background against which we present the restructured pattern seen in Hupa. We present our analysis of languages besides these two in a table only; however, we refer you to Rice and Saxon (in preparation) for details and argument.

3. Koyukon

In the examples in this section we recapitulate Thompson's (1989a) description of the contexts in which y- occurs in Koyukon. The most familiar of these to students of Athapaskan is as the third person object of a verb or postposition when a human third person is subject.2

(2) \textbf{John} yeneel'aanh. \\
y:DO-theme-CL-see \\
'John is looking at him/her' (Thompson 1989a:40)

(3) \textbf{John} yugh neeneeyo. \\
y:OO-to up-Perf-walk \\
'John walked up to him/her' (Thompson 1989a:40)

In these examples third person subject agreement (agreement with 'John') is zero. Y- indicates a third person direct object (2) or oblique object (3) which is non-coreferential with the subject.

The possibility also exists in Koyukon for y- to occur in a sentence with a non-third person subject. This possibility arises when the following general conditions on y- in Koyukon are met: first, there must be another licensing third person NP within the simple clause—for instance, an oblique or postpositional object. Second, y- occurs only in complementary distribution with an overt NP filling the same grammatical role. Further, when the licensing NP is a non-subject, it must be
pronominal. Examples are given below. Note the first person subjects in these sentences. The prefix b-, reflex of Proto-Athapaskan *w-, marks a third person pronominal in Koyukon.

(4) Bugh yooghashkaat.  
3:OO-from y:DO-theme-Perf-Is:S-buy  
'I bought it from him/her'  (Thompson 1989a:45)

(5) Bet'o yens'oyh.  
3:OO-to y:DO-Is:S-give  
'I am giving it to him/her'  (Thompson 1989a:45)

In (4) and (5) b- represents an oblique object and y- the direct object of the verb. The examples below show that all of the conditions mentioned must indeed be met. Ungrammaticality is produced when there is no licensing third person NP, as in (6), and when that licensing NP is non-pronominal, as in (7).

(6) * Yooghashkaat  
y:DO-theme-Perf-Is:S-buy  
(I bought it)  (Thompson 1989a:46)

(7) * John ghu yooghashkaat  
from y:DO-theme-Perf-Is:S-buy  
(I bought it from John)  (Thompson 1989a:46)

The circumstances are similar when third person subjects in Koyukon occur marked by the prefix y-. In this case, the licensing third person pronominal may stand as a direct, oblique, or postpositional object. It is realized as b-. Examples of y- occurring as a subject prefix follow:

(8) a. Yet'o beyegheetaanh.  
y:OO-to 3:DO-y:S-Perf-CL-give  
'It (y) gave him (b) to her/it (y)'  (Leer 1990)

b. Bet'o yeyegheetaanh.  
3:OO-to y:DO-y:S-Perf-CL-give  
'It (y) gave him (y) to her/it (b)'  (Leer 1990)

These examples involve the ditransitive verb 'give'. In (8a) the third person pronominal direct object licenses y- as the marker of third person subject and third person oblique object; in (8b), subject and direct object are marked by y-, licensed by the pronominal oblique object. Both of these sentences contrast with (9) below, in which third person direct and oblique objects are marked by y-, licensed by the zero-marked third person subject.

(9) Yet'o yegheetaanh.  
y:OO-to y:DO-Perf-CL-give  
'He gave it (y) to her/it (y)'  (Leer 1990)

The three sentences in (8) and (9) differ in interpretation. In contrast with (9), the direct object in (8a) is topical, while in (8b) the oblique object is topical. Nontopical subjects are preferentially interpreted as non-human in Koyukon, a point to which we will return in our discussion of Hupa.

(10) and (11) provide further examples of y- occurring as a subject prefix.
(10) Beyeneel'aanh.
3:DO-y:S-theme-CL-see
'S/he is looking at him/her' (Thompson 1989a:40)

(11) Bugh neeyeeneeyo.
3:OO-to up-y:S-Perf-walk
'S/he walked up to him/her' (Thompson 1989a:41)

(11) strongly supports the claim that y- may occur as a subject: as 'walk' is
intransitive, the agreement element which we see in the verb cannot be other than a
subject marker. These examples contrast with (2) and (3) in having pronominal
subjects. They also contrast with (12), in which the pronominal object is a full NP.

(12) John ghu neeneeyo.
to up-Perf-walk
'S/he walked up to John' (Thompson 1989a:36)

In these contexts y- cannot occur as subject.

We propose the following to account for the distribution of the third person
form y- in Koyukon. Its presence is dependent on the existence of a distinct third
person elsewhere within the simple clause. This distinct third person NP we will
call the licensor for y-. If the licensor occupies the canonical subject position, then
y- may occur in any position lower in the tree structure. If the licensing NP is not a
subject, it must be pronominal. We display these generalizations in the statement
below.

(13) Licensing Conditions on y- (Koyukon)
A third person NP# licenses y- agreement for a clausemate NP* which it c-
commands. If NP# is not in a subject position, NP# must be pronominal.

According to (13), a licensor must c-command the NP showing y-agreement.3 The
licensor must furthermore have one of two distinguishing marks of grammatical
prominence: it must be a subject, or a pronoun. Given the requirement for c-
command, any subject which is marked by y- must occupy the internal subject
position.

When does an NP move from the internal to the canonical subject position? Our
interpretation of Thompson's observations lead us to the following hypothesis:

(14) Subject Movement in Koyukon
Topical human subjects must move to the canonical subject position. The
movement of non-human subjects is only marginally possible.

Thompson 1989a, 1989b provides the following examples showing a contrast
between human and non-human subjects in relation to y- agreement.

(15) a. John yeneel'aanh.
y:DO-theme-CL-see
i. 'John (topic) is looking at him/her' (Thompson 1989a:40)
ii. 'John (non-topic) is looking at him/her'

b. John beneel'aanh.
3:DO-theme-CL-see
i. * 'John (topic) is looking at him/her' (Thompson 1989b)
ii. 'John (non-topic) is looking at him/her'
The sentences in (15), which contain the human subject John, show that a pronominal direct object in this context may be overtly marked either by the anaphoric y- agreement or by the 'ordinary' third person pronominal b-. However, (15b) shows that the latter possibility exists only when the subject is non-topical, and by hypothesis occupies the internal subject position. (16), with the non-human subject deneega 'moose', is fully grammatical only with pronominal agreement b-. This contrast follows from the condition on subject movement stated in (14). Deneega 'moose' cannot move from the internal subject position. In the internal subject position it potentially licenses y- agreement with the direct object, yielding (16a). However, this same form is potentially understood as having deneega in canonical subject position, contrary to the condition in (14). We postulate that speakers' uneasiness with the very salient ungrammatical interpretation of (16a) is what leads to their finding (16b) "far preferable" (Thompson 1989a:42) to (16a).

A further illustration of the condition on subject movement can be seen in the contrast between the following two examples, which involve only human NPs.

(17) Yugh neeneeyo.
y:OO-to up-Perf-walk
'S/he (topic) walked up to him/her' (Thompson 1989a:40)

(18) Bugh neeeyeeneeyo. (= (11))
3:OO-to up-y:S-Perf-walk
'S/he walked up to him/her (topic)' (Thompson 1989a:41)

These examples differ from each other in topicality. In (18), the oblique object is topical; in (17), the subject is. According to the condition on subject movement, a topical human subject must move to the canonical subject position. Therefore, the non-overt pronominal subject in (17) occupies this position. From here it serves as a licensor for y- as oblique object agreement lower in the tree. In (18), however, the subject is non-topical, and does not move to the canonical subject position, remaining instead in the internal subject position. Since in this position it is c-commanded by the pronominal oblique object NP, the object can license y- as (internal) subject agreement.

Our account of the distribution of y- in Koyukon has relied first and foremost on our claim that y- is a syntactic anaphor with limited privileges of occurrence dependent on structure. The potential in Koyukon for y- to mark subject follows from assumptions we make about clause structure and about conditions on the movement of subjects from VP-internal to canonical subject position.

4. Summary: the anaphoric use of y-

The table in (19) displays our conclusions about Koyukon and summarizes our general findings about other languages of Alaska, Sarcee, and languages of the Mackenzie and Apachean branches of the family.
<table>
<thead>
<tr>
<th>(19)</th>
<th>Koyukon and general Alaskan, Sarcee</th>
<th>Mackenzie, Apachean</th>
</tr>
</thead>
<tbody>
<tr>
<td>licensing</td>
<td>y- licensed by 3 person</td>
<td>y- licensed by 3 person</td>
</tr>
<tr>
<td>conditions</td>
<td>c-commanding clausemate</td>
<td>canonical subject</td>
</tr>
<tr>
<td>for y-</td>
<td>under conditions of topicality,</td>
<td>obligatory</td>
</tr>
<tr>
<td>subject</td>
<td>agentivity, humanness, etc.</td>
<td></td>
</tr>
<tr>
<td>movement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>from VP-internal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to canonical subject position</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The third person prefix y- is an anaphor in all of these languages, being licensed by another third person within its clause. Structural conditions and conditions on subject movement predict that Koyukon and its class of languages will allow y- as a marker of subjects when the subject is nontopical, non-agentive, non-human, and the like. For the Mackenzie and Apachean languages, the conditions predict that y- will never mark subjects.

5. Hupa

In Koyukon and the other languages represented in (19), y-, whatever its grammatical function, occurs only in clauses which contain at least two third person NPs. At first glance, Hupa appears to be similar to the other languages, as the transitive forms in (20) show. In these examples, we find third person subject and object, and the pronoun y- is present. Given our knowledge of other Athapaskan languages, we suspect that y- marks the third person object pronoun, as it does elsewhere in the family.

(20)  Yayıtiwh.
      ‘Something (e.g. flooding river) picks (e.g. log) up’ (Golla p.c.)

      Yiłkis.
      ‘It (e.g. a tree limb in the wind) hits it’ (Golla p.c.)

On closer examination, the distribution of y- in Hupa is quite different from that of y- in the other languages. First, while y- in the other languages appears in a transitive clause only when both subject and object are third person, this is not true in Hupa. This can be seen in the transitive sentence in (21).

(21)  YiWilkis.
      y:S-IS:DO-see
      'It sees me' (Golla 1970:99)

In this example, though there are two participants in the event, only one of them, the experiencer subject, is third person. This subject is marked by y-; W- marks the first person singular direct object.

Examples with intransitive verbs provide even more striking support for the fact that y- is a subject agreement form rather than an anaphor in Hupa. In the examples in (22)-(25), the verbs are intransitive, and the event described in each involves just the single argument of an intransitive verb. The fact that the single argument of these clauses is signalled by y- shows clearly that in Hupa, y- functions as subject agreement.

(22)  Nayxe'ine:W.
      y:S-speak again
      'It always speaks again' (Golla 1970:99)
(23) Mije'e:din yisahlh.
   baby y::Syawn
   'The baby yawns'
   (Golla p.c.)

(24) Yiwinchwiw.
   y:S-Perf-cry
   'It cried'
   (Thompson ms)

(25) Chwing yileh.
   dirty y:S-become
   'It (e.g. dog) gets dirty'
   (Golla p.c.)

Finally, Hupa intransitives with oblique objects also illustrate that y- functions as a subject. In the example in (26), mî- marks a third person oblique object. The prefix y- is also present; again in this case it can be nothing but subject agreement.

(26) Miyindin.
   3:ÔO-y:S-want
   'It (y-; e.g. animal; supernatural force) wants it (m-;')
   (Golla p.c.)

Extending our investigation, we find that Hupa y- is restricted to marking a sub-class of third person subjects. This sub-class is described by Goddard (1911:117) as other than adult Hupas, by Thompson (1993) as non-human or non-topical subjects, and by Golla (1970, 1984) as animals or inanimate forces capable of initiating an action, and 'a child, a woman, or someone in a highly structured [social] role'. The examples above therefore contrast with (27)-(31), which show ch'i- marking a human subject and zero marking a non-human subject.4 (Ch'i- is glossed '4' for 'fourth person.')

(27) Ch'iwinchwiw.
   4:S-Perf-cry
   'He/she cried'
   (Thompson 1993)

(28) Winchwiw.
   Ô-Perf-cry
   'It cried'
   (Thompson 1993)

(29) Ch'i̱kis.
   4:S-hit
   'He hits it'
   (Golla p.c.)

(30) Chwing ch'i̱leh.
   dirty 4:S-become
   'He gets dirty'
   (Golla p.c.)

(31) Chwing 'ileh.
   dirty Ô-become
   'It (object) gets dirty'
   (Golla p.c.)

Both zero and y- mark nonhuman subjects in Hupa; however, they appear to have somewhat different force. Consider the following sets of sentences.

(32)a. i.  Ei̱wihin.
   Ô-be black
   'It is black'
   no y- form
   (Golla p.c.)
ii. Chwing 'ileh.
   dirty  Ø-become
   'It (object) gets dirty'
Chwing yileh.
   dirty  y:S-become
   'It (e.g. dog) gets dirty'

b. i. 'ane.
   Ø-say something, make a noise
   'It (e.g. dog) 'says' something'
   no y- form

ii. Yixine:wh.
   y:S-speak
   'It (e.g. child) is speaking'
   no Ø form

As these examples show, while some verbs are acceptable with either a y- or a null subject, this is not the case with all verbs. It appears to us that the difference between the verbs that allow y- subjects and those that do not might be one of control: with a zero subject, the subject has no control over its actions, while with a y- subject, the subject can exercise control. Consider, for instance, (32a). The verb 'be black' is stative. A subject has no control over a state such as this. In the case of the verb 'become dirty', on the other hand, we observe that either subject marking is possible. When a subject is capable of control, y- is found; when it is not, the null subject is present. The difference between the verbs in (32b) is less clear to us, but it appears that speaking may be thought of as an action that is under control while making a noise is involuntary and not under any kind of control.

Our understanding of the semantics of the Hupa pronoun y- remains somewhat vague, but one thing is clear about Hupa: y- represents subject agreement. In view of the significant difference between Hupa and the other languages we have looked at, it is worthwhile to consider how the reanalysis which led to the current state of affairs in Hupa might have come about in the history of the language.

It is our view that paradigmatic considerations yield an important clue to the reanalysis we postulate. Navajo, Sarcee, and Mattole are three languages which are closely related to Hupa. Let us consider a simple paradigm in each of these languages, the singular subject paradigm for a transitive verb with a third person pronominal direct object.

(33) Navajo      dishlé     'I carry it'     (Y&M 1987:336, 332)
    dilé        'you carry it'
    yidilé      's/he carries it'

(34) Sarcee      nàdinísíh  'I'll go to see him' (Cook 1984:287)
    nàdinísíh  'you'll go to see him'
    nàyídisíh  's/he will go to see him'

(35) Mattole     gič’á’     'I throw it [cloth] away'  (Li 1930:20, 73)
    gin’á’      'you throw it [cloth] away'
    ge’yó’á’    'let him throw it [cloth] away'

In the transitive paradigms in these languages, first and second person subject agreement is overt, a sibilant and a nasal respectively, but third person subject
agreement is unmarked. On the other hand, the third person pronominal direct object is signalled overtly only in the context of a third person subject, where it takes the form y- which we have been considering. In light of these facts, it is easy to imagine a language regularizing the paradigm so as to have the overt marker always marking subjects and the object consequently never marked. In this case, y- emerges as subject agreement. The evidence of the reanalysis comes when the use of the morpheme as subject agreement is extended to intransitive contexts such as those in examples (22)-(25), and in the intransitive Hupa paradigm below.

(36) 'iwhsahlh 'I yawn'
    'insahlh 'you yawn'
    yisahlh 'it yawns'
    ch'isahlh 's/he yawns'
    'isahlh 'something yawns'

    (Golla 1984, and p.c.)

In Hupa, however, y- marks only a certain subclass of third person subjects, the core set being non-humans. It is a question, therefore, why it is that y- should have this restricted interpretation rather than any other. We would like to suggest that this facet of y- in Hupa has its origins in the functions of y- as a subject crosslinguistically in Athapaskan. For Koyukon and other languages of its class, the structural conditions laid out in the table in (19) conspire to yield the result that subjects marked by y- in these languages commonly refer to non-human or inanimate subjects. We provide in (37) a number of examples from Koyukon and other languages showing subjects marked by y-.

(37) a. Sarcee
    (Cook 1984)
    mayit'ih 'it (y) does like him/her (b)'
    3:DO-y:S-do like

b. Tanaina
    (Tenenbaum 1978)
    nunigi veɬ yuchel 'fog (y) is lifting with him/her (b)'
    fog 3-with y:S-lift
tiqin chiveydaɬyuq 'the wolf (y-), killed him/her (b-)'
    wolf 3:DO-y:S-kill

c. Ahtna
    (Kari 1990)
u'el yayaal 's/he/it (y-) is walking with him/her (b-')
    3:OO-with y:S-walk
    ba tayghighel 'it (y-) fell in the water on him (b-)'
    3:OO-at water-y:S-Perf-fall
    bijnaɬʔaen 'it (y-) is looking at him (b-)'
    3:DO-y:S-see

d. Koyukon
    (Leer 1990)
betɬo yeyegheětaanh 'it (y-) gave him (y-) to her (b-)'
    3:OO-to y:DO-y:S-Perf-give

Typically, subjects marked by y- in Athapaskan languages are non-topical: subjects lack topicality when another NP in the structure outranks the subject on some hierarchy of prominence. Commonly, then, subjects marked by y- refer to non-canonical subjects—non-human or inanimate subjects, for instance. In Hupa, as noted above, y- is restricted to referring to "a non-human entity capable of initiating an action, or ... a child, a woman, or someone in a highly-structured [social] role" (Golla 1970). In our view, the grammaticalization of a syntactically motivated limitation on y- is responsible for the semantic limitation on y- as a subject in Hupa.
We suggest further that the alternation between \( y \)- and zero as subject markers in Hupa, illustrated in (32) above, is due to a notion of control, or power. If the action of the verb is within the power of a nonhuman subject to bring about, the subject may be marked by \( y \)-. All overt markers of subjects in Hupa thus occur when the subject has power to initiate or control action. The subject marker \( y \)- in this language serves to distinguish those entities not typically endowed with power when they exert the power they have.

6. Summary

We have suggested that most commonly in Athapaskan languages, \( y \)- is a third person anaphoric form, typically occurring as a non-subject. Under the special circumstance that the subject remains within the VP, \( y \)- exceptionally may represent a subject. In Hupa, the distribution of \( y \)- suggests that it is simply a non-anaphoric third person pronominal affix.

We suggest that the anaphoric form represents the historical situation. Paradigm generalization has occurred in Hupa, with the result that \( y \)- is reanalyzed as a subject form. We see the semantic limitations on \( y \)- in Hupa as arising from the fact that \(*y\)- as a subject is of necessity non-canonical -- being non-topical, non-human, or inanimate. From these origins, \( y \)- in Hupa has come to represent third person subjects, but only those third person subjects which combine in a single entity the typical property of subjects in that they control events, and the not so typical referential properties of non-canonical subjects.

Notes

* We would not have been able to write this paper without the assistance of Victor Golla, to whom we are very grateful. We owe a big thanks also to Chad Thompson for his earlier help with Koyukon. We thank the participants at the conference for their useful comments, which we have tried to incorporate into the paper.

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1 For the purposes of this paper, we ignore the role of the functional head of the clause, Inflection (I). See Rice 1993 and Speas 1990, 1991 for much discussion of the syntactic role of inflection in Athapaskan.

2 Abbreviations are as follows: CL: classifier (voice marker), s: singular, S: subject, DO: direct object, OO: oblique object, Perf: perfective. Verbs without marking for aspect are imperfective. Morphemes labelled 'theme' are part of the underlying lexical entry of the verb.

3 We intend the definition of c-command whereby the first maximal projection dominating a node defines its c-command domain. Thus, in (1), the internal subject and direct object positions are in a relation of mutual c-command, as both are contained within VP. For implications of this relation of mutual c-command, see Saxon and Rice 1992.

4 Goddard (1911:106) remarks that signs for third person subject and object are frequently absent from the verb in Hupa. Golla (personal communication) seconds this observation.
Li (1930:64) remarks that Mattole y- signals "third person object with third person subject (unexpressed)". He notes that the absence of this morpheme in intransitive forms like nítítx 'he lies down' shows that y- is an object form.

The placement of the subject agreement y- in a different location in the verb from first and second person singular subjects might at first strike one as a problem for this analysis. However, other third person pronominals in Hupa occur adjacent to y-, as do third person pronominals in other Athapaskan languages.

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