A Functional Analysis of Switch-Reference in Lakhota Discourse*
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Lakhota, the primary language of the Sioux Indians, has an opposition of conjunctions that some researchers have described as a switch-reference system.¹ Their hypothesis is that the form chosen to express 'and' marks the two conjoined clauses as having the same or different subjects.² I believe this does not capture what is going on here, and will show that what this opposition marks instead is continuity/discontinuity of the action in the narrative. But first, I'll discuss the hypothesis that this is a switch-reference system, and show how it would differ from canonical switch-reference.

(1) a. Joe wîyâ wâ hâska čha wâyâki na heye woman tall "a" see and say
   'Joe saw a woman who was tall, and he said, ...'
   b. Joe wîyâ wâ hâska čha wâyâka yûkâ heye and
   'Joe saw a woman who was tall, and she said, ...'

(2) Havasupai
   a. vok-k kwe-ma -k yu arrive SS thing-eat SS be
   'When he arrived, he ate.'
   b. vok-m i kwe-ma -k yu DS
   'When he arrived, he ate.'

(1) is an example of a minimal pair that suggests a switch-reference marking system. Na is said to indicate same subject, and yûkâ, different subject. Note that there is no subject noun or pronoun in the second conjuncts, and that there is no indication of switch-reference on the verbs themselves. (The final vowel of wâyâka in (1a) becomes nasalized by the following na; this is not related to switch-reference.) Since 3rd person singular is Ø in Lakhota, there are no person markers on the verbs at all. Thus, it appears that the conjunction is the signal of same or different subject.

However, if this opposition between na and yûkâ is a switch-reference system, then it differs in several ways from the canonical type of switch-reference, illustrated by the Havasupai example in (2).³ Canonical switch-reference indicates same or different subject (SS or DS) by an obligatory suffix on the leftmost verb. Because the marker is on the verb itself, verbs in embedded S's are marked as having the same or different subject as the matrix verb, just as the verbs in conjoined clauses are marked. In Lakhota, however, embedded S's cannot be marked in this way. Neither can switch-reference be marked between clauses conjoined by conjunctions other than 'and', including those con-
joined by 'or', 'but', 'while', etc. The marking of switch-reference, if that is the correct analysis, is therefore less extensive in Lakhota than in many other languages, and is, rather, an option that the speaker may choose to use.

However, claiming that na and yūkʰə simply mark same and different subject does not account for the way they are actually used. There are four possible classes of counterexamples to the switch-reference hypothesis, and an example of each is given below.

(3) SS, but yūkʰə
kʰoškalaka nūp kʰolakičʰiya-pi
young man 2 friend-recip-pl
na lila thekičʰixila-pi
and very love-recip-pl
yūkʰə heniyos nūplila zuya iyaya-pi
and those 2 only to war set off-pl
'Two young men were friends with each other and loved each other very much. One day, those two set off to war.'

(4) DS, but *yūkʰə
čʰuwe leye "lečʰi. taktokanūnə he"
sister say here what 2A do Q
{yūkʰə} "asʰpi oʰetʰu wahi" eʰhe
and so milk buy 1A come 1A say
'My sister said, "What are you doing here?"'
'I came to buy milk," I said.'

(5) DS, but na
čʰə ota lileyap-pi na el ixpeya-pi
wood much make-burn-pl and on place-pl
na heńkʰel. xupnaye
and thus burn up
'they set fire to a lot of wood and they placed him on it and he burned up.'

(6) SS, but *na
mazopʰiyeta waʻi (yūkʰə) čʰuwe wāblake
store-to 1A go and sister 1A see
'I went to the store and I saw my sister.'

In (3) yūkʰə conjoins two clauses that have the same subject: "two young men". This sentence occurs at the beginning of a story, and there are no other possible candidates that could be subject of "set off to war".

In (4), the two conjoined clauses have different subjects: "my sister" and "I". Yet here yūkʰə is impossible, and the conjunction that must be used is čʰake, 'and so'. (See the discussion of (10) and footnote 10 for more about čʰake.)

The next two examples present problems for analyzing na as a same-subject marker. In (5), the second occurrence of na, the one that is underlined, conjoins two clauses with different subjects.
The subject of the preceding verb is "they", that of the following verb is "he". Note that there is no plural marker on the verb xuynaye -- that is, it does not mean, "they burned him up." Xuynaye is an intransitive stative verb, meaning 'being in a burned-up state'. An example of a transitive verb meaning 'burn' occurs earlier in (5): lleya.

In (6), there is an example of two same subject clauses which cannot be conjoined by na. "I" is the subject of both, yet ūkʰa must be used. Again, the second S is not a passive: Lakhota has no passive construction that can express a demoted agent.

To summarize, there are two problems for the switch-reference hypothesis. First of all, switch-reference is not as extensive in Lakhota as it is in languages known to exploit switch-reference as the primary means of tracking reference across clauses. Lakhota speakers have developed other strategies for determining reference in the contexts where neither na nor ūkʰa may occur. Secondly, even if one argues that this is only a marginal switch-reference system, there are still a disturbing number of counter-examples to this claim.

What I believe the opposition of na and ūkʰa marks instead is continuity versus discontinuity in the action. (These terms are mentioned in Givón (forthcoming).) To put it another way, na preserves the "same scene", while ūkʰa is a signal that the scene is going to shift, or that the clause following ūkʰa will introduce a new element into the scene. 4

Looking first at the distribution of this opposition, I noted above that a switch-reference opposition which is only marked on two words meaning 'and' is extremely limited. But these two conjunctions are well suited for marking a distinction that is primarily of interest in foregrounded clauses: that is, those clauses that carry along the main story line, in temporal sequence. Continuity/discontinuity is less of an issue for relative clauses, sentential complements, and adverbial clauses. 5

There are several possible changes in the "scene" that get marked by ūkʰa. One very common type of discontinuity is when a significant period of time has elapsed, as in (7). Here ūkʰa is the only indication of a change in the time frame.

(7) wakʰalapi blakte na wagli
    coffee 1A drink and 1A go home
    ūkʰa  čʰámapi ewaktúže opʰetʰušni wagli
    and sugar 1A forget buy-neg 1A go home
    'I had some coffee and went home.'
    Later on I realized I had forgotten to buy sugar.'

A related use is a storytelling formula frequently found at the beginning of narratives. The first sentence will be an introduction, setting the scene, then ūkʰa will signal the beginning of the action. (3), above, is an example of this. First the two young men are introduced, then ūkʰa begins the sequence of
actions: "they set off to war". The English translation uses a functionally equivalent formula, "One day,..."

Yükʰã also frequently marks the first mention of new animate NP's that are in some sense "topic-worthy" -- that is, they are going to play a part in the story and are likely to be subjects of verbs later on. Note that this is not switch-reference per se, since the new character does not have to be the subject of the verb immediately following Yükʰã. But it does imply that this new character will shortly appear as subject. The sentences in (8), which appeared above as (6) and (4), are the first sentences from a narrative. Here, "my sister" is introduced in non-subject position following Yükʰã, and then appears as subject of the next sentence.

(8) mazophiyeta wa'i Yükʰã čhuwe wāblake store to 1A go and sister 1A see čhuwe leye "lečhi taktokanũhã he?" sister say here what 2A do Ø
'I went to the store and I saw my sister.
My sister said, "What are you doing here?"

A third use of Yükʰã is to mark something surprising or unexpected, as in (9). Again, this is something that the hearer could not have predicted from the scene as given. Furthermore, (9) constitutes a pivotal, dramatic moment in the story from which it is taken: the woman had believed that this man was her husband, returning at night. When she discovers that he is missing a toe, she realizes that he is an imposter, and kills him.

(9) hâpa kičiyušlokã shoe pull off someone else's Yükʰã si-sani sipʰahũka waniča and one foot toe big not exist 'she took off his shoe and his big toe was missing.'

The conjunction na is still opposed to Yükʰã, but what it marks is continuity of the scene, not necessarily same subject. This means that the time elapsed between the two actions conjoined by na is either zero, or insignificant. If a new NP is introduced following na, that NP tends to be inanimate or otherwise not "topic-worthy". Also, the clause that follows na will not contain any surprises. In practice, most of the occurrences of na do conjoin same subject clauses. However, this is a consequence of its function of preserving the "same scene". The unmarked case in narratives is to preserve the same subject over a series of clauses. Na is not operating as part of a system whose primary function is to track reference across clauses. It may, for instance, conjoin different subject clauses where the verbs are identical.

Most of the examples given above of Yükʰã were in same subject
contexts, and were chosen deliberately to argue against yūkhā being a switch-reference marker. All of the functions described up to now, though, may occur in either same subject or different subject contexts.

There is, however, some evidence that yūkhā has an additional function that only shows up when the subjects of the two clauses are different. Furthermore, this particular use of yūkhā suggests that Lakhota gives special status to the main character of a narrative, much as Algonkian and other obviative languages single out one animate 3rd person NP as proximate.\textsuperscript{7} In Lakhota texts, yūkhā often occurs in the following context: the subject of the first S is the main character and the subject of the second S is a minor, peripheral character. But, yūkhā is not found in the opposite context, where a minor character is the subject of the first clause, and the main character is the subject of the second clause.\textsuperscript{8}

Examples of this use of yūkhā can be found in (10).\textsuperscript{9} This is an excerpt from "The Stingy Hunter", Deloria (1932). The lines are arranged so that the conjunctions are all on the left margin. Besides na and yūkhā, we also find čha'ke, 'and so'. The use of čha'ke is very intriguing: it often occurs when the main character regains subject position.\textsuperscript{10}

\begin{align*}
\text{yūkhā} & \quad ? \text{čha'ke} \\
\text{main char. } & \rightarrow \text{ minor char.} & \text{minor char. } & \rightarrow \text{ main char.}
\end{align*}

There are two people involved in the episode in (10). The main character is the man, who is the stingy hunter referred to in the title. He is the only character that appears throughout the story; he travels about encountering dangerous adversaries like this old woman (who subsequently tries to kill him.) Though the old woman is subject of the majority of the clauses in this fragment of text, she is clearly a minor character in the story as a whole.

All four occurrences of yūkhā in (10) mark a switch from the main character as subject to the minor character as subject. For example, yūkhā in (10.8) links "he was eating" and "she said". čha'ke, in (10.7) and (10.12), marks the return of the main character as subject. All instances of na here conjoin clauses with the same subject.

(10.3) and (10.10) begin new sentences. Though yūkhā, na, and čha'ke may all appear in sentence-initial position, here the new sentences do not begin with a conjunction. It may be noted that Lakhota sentences are longer than typical English sentences (at least, English written sentences; spoken English displays longer "sentences"). The length of Lakhota sentences provides many opportunities for action discontinuity or continuity to be marked. The sentence boundaries in Lakhota are determined by a class of evidentials that either appear as particles (ke', in 10) or as morphophonemic changes to the sentence-final vowel.
1. ... wizila wã el ihûni
tent-yellow-dim. a to reach
... he reached a small yellow tent

2. yûk'ã he winûxčala wã thi ke'
and that old woman a live [S-final evidential]
an old woman lived in that tent

3. Thima kičho
inside invite
She invited him in

4. na "..." eyî
and say
she said, "Well, my grandson ... has finally arrived."

5. na yupîya mak' atomniča ohî
and well beans cook
she cooked some beans very nicely

6. na wok'û
and food-give
she served them to him

7. čhâke wotahã
and so eat
he was eating

8. yûk'ã heya ke' "..." eyî
and say evid. say
she said, "It's time to sleep. You must be very tired."

9. na e'upa ke'
and lay down evid.
she put him to bed.

10. Wana khul xpayahã
now down lie
He was lying down

11. yûk'ã ūgna winûxčala kî "yû, yû" eyahã
and suddenly old woman the say
suddenly the old woman was moaning

12. čhâke ḋina el oxloka wã etã eyokas'î
and so blanket in hole a from peek
he peeked through a hole in the blanket

13. yûk'ã winûxčala k'ũ he e čhã hu kî gluk'eqahã ...
and old woman [cleft] leg the scratch
it was that old woman who was scratching her leg ...
In (10), some of the yūḫā's display "action discontinuity" as well as marking a shift in subject to a minor character. For example, a new character is introduced in (10.2), and a period of time has probably elapsed in (10.11). But the pattern of using yūḫā when there is a transition from main character as subject to minor character as subject occurs so frequently that it, by itself, may qualify as one of the "discontinuities" that trigger yūḫā. This use of yūḫā is especially striking since the minor characters themselves are often first mentioned -- as subjects or not -- in clauses following a yūḫā.

Looking back at some of the earlier examples, it can be seen that yūḫā marks a shift to a minor character in (9): the woman is the main character, and the man pretending to be her husband is the minor character. It is not surprising that instances of yūḫā should have more than one feature of "discontinuity": the different features listed above are not mutually exclusive.

Going back to the minimal pair in (1), I believe that the shift to a minor character subject is the motivation for yūḫā in (1b). The woman, introduced in a relative clause with an indefinite head, is considered more peripheral than "Joe". It is impossible, however, to be certain of the "correct" motivation for using yūḫā in an artificially isolated sentence such as this. This type of data is not very useful for understanding context-dependent phenomena.

Before concluding, I will mention some findings from very different domains of research that may bear upon this phenomenon in Lakhota. First, in support of the proposal that action discontinuity is something likely to be marked, there is some interesting evidence from studies of hesitation (Chafe 1980). In oral narratives, there are certain points that have been identified as places where speakers are likely to fumble and hesitate. These places include the introduction of a new character, change in location, change in time frame, and change in event schema -- some of which correspond to discontinuities that yūḫā will mark.

Secondly, there is other evidence that a switch from a main character subject to a minor character subject gets especially marked. Karmiloff-Smith (1980) has shown that children above six single out a main character (or "thematic subject", in her terms) in their narratives. The subject of most of the sentences within the narrative is the main character, typically pronominalized. It is possible, at least for the older children, to have sentences whose subject is not the main character, but these minor character subjects tend to be marked in some way. English children use full NP's here, and French children use right dislocation. For both groups, it's rare to have simple pronominalization of a minor character subject.

This evidence, plus the phenomenon of obviation in other languages, suggests that singling out one NP as central to the narrative is a universal of discourse. Karmiloff-Smith has
examined pronouns versus full NP's: while that's not the issue with the Lakhota facts, it may be noted that full NP's are often used when minor characters gain subject position (10.11, 10.13). However, the use of yũhkā when minor characters appear as subjects suggests that something similar is going on: that the main character (or, equivalently, thematic subject) is preferred as sentential subject, and that any departure from this is likely to be marked.

At the same time, these indications that Lakhota assigns central status to an NP within a narrative are of interest to linguists working on North American language systems. If this is indeed what is going on in Lakhota, it means that many of the languages of northern North America have surface manifestations of an obviative type of opposition. Geographically, Lakhota speakers form a link between Algonkian in the northeast and Kutenai in Montana and southeastern British Columbia, both of which exhibit obviation. Obviation is also well-attested in southern Athabaskan languages, and has been reported, but not yet investigated (as far as I know), in some northern Athabaskan languages as well. Finally, Eskimo has a "fourth person" distinction in the 3rd person category. All of this raises the possibility that obviation, or its functional equivalent, may be an areal trait of the north, just as the more mechanical type of switch-reference is thought to be an areal trait of the southwest. (For references, see Jacobsen, forthcoming.)

In conclusion, I believe that the claim that na and yũhkā constitute a switch-reference opposition cannot be maintained. What they mark instead is continuity or discontinuity of the action within a narrative. Yũhkā is further sensitive to a central versus peripheral distinction among the characters of a narrative. The apparent examples of switch-reference marking are a consequence of the continuity/discontinuity opposition. Conservation of the same subject goes along with preserving the "same scene". In contrast, abandoning the central character as subject and making a minor character subject instead qualifies as discontinuous enough to warrant the use of yũhkā.

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1. For example, see Chafe (1976). Van Valin (forthcoming) presents a different account, but still assumes that Lakhota has a switch-reference system.
2. A note on terminology: I refer to "same subject" and "different subject" throughout this paper; by "subject" I mean a category including actors of transitive verbs plus arguments of intransitives (S/A). The person agreement markers on Lakota verbs, however, are morphologically stative-active (split S), rather than nominative-accusative. In any event, the arguments presented here do not crucially depend upon the definition of subject.

3. I am grateful to Leanne Hinton for the Havasupai examples.

4. The texts in Buechel (1978) present counterexamples both to my account of yūkʰa vs. na, and to the switch-reference hypothesis. yūkʰa is used extremely frequently in this collection, beginning the majority of the sentences in the stories I examined. These stories were collected in 1904-21 on a different reservation than those in Deloria (1932). Since the usage of yūkʰa seems to be consistent within the Buechel collection, I assume that this is a dialectal variation. I have not yet had time to discover the constraints on yūkʰa within this dialect.

5. For a discussion of several levels of text foregrounding and backgrounding, see Nichols (1981).

6. Introduction of a new "topic-worthy" NP in non-subject position is also common in English: "I met this guy and he said, ..."

7. In obviative languages, "proximate" essentially means central, or the NP first mentioned. All other animate 3rd persons in the discourse are "obviative", or peripheral, and they get special marking in some contexts. The Lakota phenomenon, however, is not limited to the 3rd person.

8. Stories about Iktomi, the Trickster (see, for example, Deloria 1932), form a curious class of counterexamples to this claim. Iktomi stories have one character that is singled out by the distribution of yūkʰa -- but it is not Iktomi. Rather, the person that Iktomi is trying to trick is treated as the "main character" for the purposes of the yūkʰa/šáke marking. This suggests that the main character must be a sympathetic character, or that Iktomi is too far from the prototype of "hero" to receive this marking.

9. I've modified the English version found in Deloria, to give a clause-by-clause translation of the text.

10. Šáke, as well as ša, 'so', may occur in both same subject and different subject contexts. However, I do not yet understand all the functions encoded by šáke and ša. Another example of šáke being used to return to the main character as subject occurs in (4), where šáke must be used to switch from "my sister" to "I". It is certainly plausible that "I" would be the main character of a personal narrative.

References


W. Chafe, 1976. Givenness, definiteness, contrastiveness, subject,
topic, and point of view. In C. Li, ed., Subject and
Topic, Academic Press.
W. Chafe, 1980. Some reasons for hesitating. In H. Dechert and
M. Raupach, eds., Temporal Variables in Speech: Studies in
Honor of Frieda Goldman-Eisler. Janua linguarum series
major, 86. Mouton.
Ethnological Society, vol. XIV.
T. Givón, (forthcoming). Topic continuity in discourse: the
W. Jacobsen, Jr., (forthcoming). Typological and genetic notes
on switch-reference systems in North American Indian
languages. In Haiman (forthcoming).
A. Karmiloff-Smith, 1980. Psychological processes underlying
pronominalization and non-pronominalization in children's
connected discourse. Chicago Linguistic Society: Parasession
on Pronouns and Anaphora.
J. Nichols, 1981. Transitivity and foregrounding in the north
Caucasus. Proceedings of the Seventh Annual Meeting of the
Berkeley Linguistics Society.
R. Van Valin, (forthcoming). Lexical constraints on Dakota
clause structure. In J. Nichols and A. Woodbury, eds.,
Grammar Inside and Outside the Clause.