

The Semantics of Switch-Reference in Kwtsaan
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In this paper¹, we shall discuss the operation of the principle generally known as 'switch-reference' in Kwtsaan² (Yuma), spoken on the Quechan Indian Reservation located in Winterhaven, California. We will illustrate the normal application of the reference marking principle, discuss its source and effect in seemingly anomalous cases, and finally propose a semantic corollary of the principle which allows us to treat the anomalous cases in an intuitively satisfying manner.

The reference marking device, as it has been shown³ to operate in Kwtsaan and in Yuman languages in general, provides that a verb may bear the same-subject suffix -k or the different-subject suffix -m to indicate identity or non-identity of its subject with that of the next highest verb of the sentence. This device may attach a reference marker to what appear to be higher adverbial clauses (1a,b), coordinate clauses (2a,b), and object clauses (3a,b):

- 1a. n^ya:-m-axav-k m-ayu:-k (when-2-enter-SS 3/2-see-tns) 'Did you see him when you came in?'
- b. n^ya:-m-axav-m n^y-ayu:-š (when-2-enter-DS 2/1-see-tns) 'I saw you when you came in.'
- 2a. marik '-šū:'at-k '-al'ul'-š (beans=obj 1-buy-SS 1-boil-tns) 'I bought some beans and boiled them.'
- b. Su-c marik šū:'at-m '-al'ul'-š (Sue-subj beans=obj 3=buy-DS 1-boil-tns) 'Sue bought some beans and I boiled them.'
- 3a. n^y-ayu:-k '-šū:paw-ta (2/1-see-SS 1-know-opin) 'I'm sure I saw you.'
- b. m-ayu:-m '-šū:paw-š (2/3-see-DS 1-know-tns) 'I know he saw you.'

The 'existential' auxiliaries adu/o 'to do, be', awi/e 'to do', and a'i/e 'to say' also occur following a lexical verb in an auxiliary construction whose function is to underscore the role of the subject in the action in question. This is illustrated in 4-6:

4. avaxay '-acew-xay-k '-adu-m (dress=obj 1-make-just-SS 1-be-tns) 'I just made a dress!'
5. m-cakanav-k m-a'i-m (2-tell-SS 2-say-tns) 'Did you tell?'
6. '-i:ša:l' '-xu:vik-k '-awi-m (1=poss-hands=obj 1-double-SS 1-do-tns) 'I did it with both hands.'

The semantic representation of such sentences contains a lexical verb₆ embedded as the sentential complement of the auxiliary.

The sentence types discussed so far represent clear-cut cases of the application of a reference marking rule. It has often been suggested that other cases involving the contrastive use of -k and -m might be related to the reference marking device. In what follows, I shall discuss a number of less transparent cases in which some version of the reference marking device can be shown to be responsible for the usage of -k and -m on verbs. Cases to be discussed include those of sentence-final -k and -m, sentences in which a surface -m-marked verb co-occurs only with another verb having the same subject, cases of what Halpern has termed the 'present-past interrogative suffix', cases in which -k and -m reflect the speaker's sense of self-righteousness or humility, respectively, and finally the case of a special class of verbs which normally take -m regardless of questions of referential identity.

In Kwtsaan, as in all of the Yuman languages, cases of sentence-final -k and -m are plentiful. Pam Munro has suggested that such cases in Mohave provide evidence for the presence of abstract same- or different-subject auxiliaries which are₇ deleted in the course of the derivation of a sentence. Semantic arguments based on Kwtsaan data support this claim.

Let us first consider sentences with final -k. This is the kind of sentence normally given as a response to an attempt to elicit the equivalent of an English present or present progressive:

7. m-uxay-k (2-know=how-SS) 'You know how?'
8. cpaq l^yvi-k (flower=obj 3=resemble-SS) 'It looks like a flower.'
9. '-taraxa:r-k (1-work-SS) 'I'm working.'

Sometimes, however, responses to such elicitation will yield -m in place of -k:

10. m-ku:va:r-m (3/2-care=for-DS) '(I know) you care for her, but...'
11. '-taraxa:r-m (1-work-DS) 'I'm working.'
12. marik m-al^yul^y-m (beans=obj 2-boil-DS) 'You're cooking beans, of course,' (I can smell them)

Closer investigation reveals that most verbs may take either -k or -m sentence-finally, and that the choice is semantically significant. Thus the use of sentence-final -k yields a boast, a leading question, or a statement otherwise underscoring the role of the subject of

the reference-marked verb. The use of sentence-final -m, on the other hand, subordinates the role of the subject to that of the situation itself. In a culture with strong negative values regarding boasting, it is not surprising that sentence-final -m is considered more appropriate in many conversational contexts. Note the following sentence pairs:

- 13a. 'i:ya:-n^y-n^y-c n^ya:-ama-m ' -ašto-t-k (mesquite=beans-dem-dem-subj when-be=soft-DS l-get-opin-SS) 'When the mesquite beans are ripe, I get them, of course!' (What else is there to do?)
- b. 'i:ya:-n^y-n^y-c n^ya:-ama-m ' -ašto-t-m (mesquite=beans-dem-dem-subj when-be=soft-DS l-get-opin-DS) 'I gathered mesquite beans when they were ripe.'
- 14a. vi-n^ya:-adaw-k (loc-when-3=be=located-SS) 'There they are!' (right where they're supposed to be)
- b. vi-n^ya:-adaw-m (loc-when-3=be=located-DS) 'They're over there.'

The conclusion that the reference-marking principle is responsible for the presence of sentence-final -k and -m is inescapable. If there is any semantic difference between sentence-final -k- and -m-marked verbs and their counterparts followed by an auxiliary in surface structure, it is that the former, although of frequent usage, are often considered to be abrupt, slangy, or incomplete. Final -m is often described as 'hanging', and final -k as 'blunt'; this is probably best attributed to the fact that sentence-final -k and -m are indications of a truncated verb phrase.

In his description, Halpern has noted the existence of a 'present-past interrogative suffix' -am which applies only to verbs with first- and third-person subjects, second-person verbs always requiring a g-k suffix in interrogatives as well as in declaratives. There is a functional explanation for these facts which obviates the need for such a suffix and from which the use of -k and -m on interrogatives is seen to follow as a natural consequence of the reference marking principle.

Let us first inquire into the nature of interrogatives. First of all, except in the case of introspective questions, all questions are addressed to a second person. In some very important sense, then, a question having a second-person subject is quite different from a question having a first- or third-person subject. (Questions with a first-person subject are semantically very strange, of course, and we will not consider them here in any detail.) Secondly, a question does not normally appear out of the clear blue sky; on the con-

trary, questions, like their declarative counterparts, are generally grounded in the real world, i.e., the speaker generally bases a question on some phenomenon which he has observed.

As we have seen, use of the same-subject marker -k underscores the importance of the subject of the -k-marked verb. This is as true in questions as it is in declarative sentences. The primary difference between Kwtsaan interrogatives and declaratives lies in their respective intonation contours-- questions have rising intonation, while declarative sentences have falling intonation. The presence of -k on second-person interrogative verbs is most likely the direct result of the fact that it would be considered rude to downplay the importance of the role of the person addressed. Third-person questions, on the other hand, are not influenced by such social considerations. On the contrary, they constitute simple requests for information regarding a situation which has come to the inquirer's attention, and as such they are semantically very much like the 'hanging' sentences discussed above.

As support for this proposal, note that the -k suffix can occur on third-person leading questions, in which the subject's involvement in the questioned event is assumed, as in 15 and 16:

15. umpes atay-m ta'ul^y-k (money 3=be=big-DS 3=carry-SS) 'He's carrying a lot of money?'
16. bil-c taraxa:r-k (Bill-subj 3=work-SS) 'Bill's working, then?'

We will now explore cases in which an -m-marked verb is nonetheless followed by a verb having an identical subject. There are actually two types of such sentences.⁹ In the first, the action indicated by the reference-marked verb is asserted to be inadvertent. Note the contrastive sentence pairs 17-19:

- 17a. taman-k adaw-ta (3=raise=up-SS 3/3=get-tns) 'He raised it up (the cookpot lid) and got him.'
- b. taman-m adaw-ta (3=raise=up-DS 3/3=get-tns) 'He raised it up by accident and got him.'
- 18a. n i:-n a:-m-eqwev-k m-adu-m k-aya=m-k (loc?-when-2-cannot-SS 2-be-tns imp-go=away-SS) 'If you don't know how to do it, you can go home.'
- b. n i:-n a:-m-eqwev-m m-adu-m k-aya=m-k (loc?-when-2-cannot-DS 2-be-tns imp-go=away-SS) 'If you can't do it, you can go home.' (physically unable or due to outside circumstances)
- 19a. aq'a:s a'e-t-k ak^wi:ša xal^ykwa:-k (weak 3=say-opin-SS shade=obj 3=look=for-SS) 'He was weak,

- so he hunted for shade.'
- b. aq^wa:s a'e-t_m ak^wi:ša xal^yk^wa:-k (weak 3=say-opin-DS shade=obj 3=look=for-SS) 'Overcome by weakness, he hunted for shade.'

Other examples of the same type of surface structure reflecting different semantics are illustrated in the sentence pairs 20 and 21. Here, the -m-marked verb is actually a stative referring to the situation resulting from the action indicated by the verb stem:

- 20a. vi-aya-t-k mak^yi-k ka:-ado-m-u:m vi-adaw-k
(dem=loc-3=go-opin-SS where-dir indef-3=be-tns-mod dem=loc-3=be=located-SS) 'He went along there, where would he be located?'
- b. vi-aya-t_m mak^yi-k ka:-ado-m-u:m vi-adaw-k
(dem=loc-3=go-opin-DS where-dir indef-3=be-tns-mod dem=loc-3=be=located-SS) 'Having gone along there, where would he be located?'
- 21a. '-ava=m-k '-ukanav-k '-a'av-š (1-arrive=dir-SS 3/1-inform-SS 1-hear-tns) 'I arrived there and tried to tell him.'
- b. '-ava_m '-ukanav-k '-a'av-š (1-arrive-DS 3/1-inform-SS 1-hear-tns) 'On arriving, I tried to tell him.'

We come at last to the discussion of the special class of verbs which normally take an -m suffix regardless of considerations of referential identity.¹⁰ This class of verbs was first described by Halpern, who gives the following as an exhaustive list of verb themes belonging to this class (arranged here into four groups for ease of exposition).

Group A

cakana 'to decide'
ak^ye 'to shoot'
acpa 'to emerge'

Group B

aštu/o 'to gather'
at'i/e 'to bear abundantly'
cam/e 'to lay down long object'
kam/e 'to bring'
ace 'to lay down long object'
tawe 'to grind on metate'
uice 'to lead' (war party)
maspa 'to die out' (fire)

Group C

ami/e 'to weep'
asi/e 'to drink'
a:l'i/e 'to think,
prefer, believe'
macac'i/e 'to weep'
(pl)
ama 'to eat'
al'apa 'to mistake,
be mistaken'
ašma 'to sleep'

Group D

adu/o 'to do. be'
a'i/e 'to say'
awi/e 'to do'

These verbs regularly take -m as what Halpern has termed the 'present-past indicative' suffix (reanalyzed here as the reference marking suffix), even in instances where normal verbs take -k. Thus we have sentences like 22-24, all of which appear to violate the reference marking principle:

22. ac=m=ama-m m-adu-m (things=2=eat-DS 2-be-tns) 'You're here, but have you eaten?' / 'Are you eating?' / 'Have you eaten?'
23. Su-c ašma-m vi-adik-'aš (Sue-subj 3=sleep-DS loc-3=be=lying-tns) 'Sue's lying there sleeping.'
24. šasduk-n'-a cami-m ava-ly axav-k vi-aya-š (shovel-dem-dem=obj 3/3=lay=down-DS house-in 3=enter-SS dem=loc-3=go-tns) 'He laid the shovel down and went into the house.'

There are, however, circumstances under which many of these verbs do take -k, and the choice of -m or -k is conditioned by the same kinds of semantic/syntactic factors which are responsible for the choice or reference markers on normal verbs, as discussed above.

Let us first discuss the verb themes in Group A. According to my consultant, the verb cakana-m means 'to tell something to someone' and contains the same synchronic theme as that found in cakanav-k 'to tell something'; ake-m means 'to shoot at something', as opposed to ake-k 'to shoot'.¹¹ These usages will remind any Yumanist of the directional suffix -m which distinguishes ava 'to go' from ava=m 'to go away', and indeed these suffixes are one and the same. These themes, along with acpa, behave differently from those of Groups B, C, and D in that forms with the -m suffix (directional) may be further suffixed with -k to underscore the role of the subject. Thus, although the directional -m is clearly somehow related to the different-subject marker -m, the nature of the relationship is unclear and will not be further discussed here.

Let us now turn to the themes in Group B, which have in common the fact that they refer not only to the action indicated by the verb stem and its various derivational prefixes, but also to the state resulting from that action; as such, they are often glossed as 'past' or 'passive'.¹² Thus, aštu-m indicates the presence of something (generally some type of berries or beans in my data) as a result of its having been gathered; kami-m refers to the object brought as well as to the bringing; tawe-m refers to flour which has been ground on a metate. The forms cami-m and ace-m, while they may mean 'to lay down a long object', refer as well to situations in which no actual 'laying down' is taking place. In 25,

for example, what is asserted is that the sick woman alluded to is in a prone position; nothing is said about how she got into that position. In 26, the same verb is used to refer to the mere possession of a long object, which may even be standing in the corner. Both are literally something like 'I have it (her) in a long shape.'

25. '-cami-m (1-have=long=object-DS) 'I have her lying down.'
26. ša:duk-n^y-a '-cami-m (shovel-dem-dem=obj 1-have=long=obj-DS) 'I have the shovel' / 'I'm the one with the shovel.'

As stated above, some of these verbs may be used with -k instead of -m; the result of -k-marking is that the action indicated by Halpern's glosses is focussed upon. Note the difference in meaning between 27 and 28:

27. '-tawe-k (1-grind=on=metate-SS) 'I ground flour.'
28. '-tawe-m (1-grind=on=metate-DS) 'The flour was ground by me.'

Sentences like 25, 26 and 28 probably derive historically from structures containing a final stative result clause, possibly once lexicalized simply as adu, which continually failed to surface due to its absolute predictability.¹³ A parallel instance in which the result clause is not deleted is illustrated in 29:

29. 'an^ya: '-awi-m, u:v'aw-k (I 1-do-tns 3=rain-SS) 'I made it rain.'

The synchronic treatment of the verbs of Group B with -m will be discussed in detail below.

The verb themes of Group C are somewhat different from those just discussed. In these, the suffix -m serves to indicate that the subject is compelled from within or by the very nature of the situation and is therefore not the prime motivator of the action in question.¹⁴ This, of course, is reminiscent of sentences 17b, 18b, and 19b, in which an inadvertent action was indicated. This kind of meaning is fairly obvious with the themes meaning 'to sleep', 'to think', 'to weep', and 'to mistake/be mistaken', all of which are easily seen as non-agentive. The other two have been explained to me as follows:¹⁵ In the 'old days', the people lived a much different lifestyle; they took advantage of the smallest, most informal gathering as an occasion for feasting together for physical and spiritual gratification. At that time, it was proper to use the themes

ama 'to eat' and asi/e 'to drink' with the -k suffix. Nowadays, people eat and drink only to satisfy the needs of their bodies or due to other compulsions; since the deliberate aspect of feasting is lacking, it is no longer proper to use these two verb stems with -k. Today their use with -k is derisive, as in 30, in which the subject of ama has just had a small snack:

30. ma-n^y-c ac=m=ama-k m-a'i-m (you-dem-subj things=
2=eat-SS 2=say-tns) 'And you call that eating!?'

The verb themes of Group D are, of course, the three 'existential' auxiliaries. The verb stems adu/o, awi/e and a'i/e are in some sense the most basic stems in the language; the fact that they generally take -m in preference to -k reflects cultural values alluded to above which place a negative valuation on any statement which can be seen as drawing too much attention to the person indicated by the subject of the reference-marked verb. When these verbs are used as the complement of a'i/e 'to say', they may bear the suffix -k; in this usage, they represent a sort of parody of action, often glossed as 'trying to be/do.' It has been brought to my attention that the supernatural Animals, who inhabited the earth prior to the creation of men, did use these stems, as well as all of the other verb themes discussed in this section, with -k; this correlates perfectly with the analysis offered herein, as the Animals are known to have been in perfect control of their Universe.¹⁶

One would certainly like to be able to explain the behavior of this special -m-preferring class of verbs, as well as that of the normal verbs in sentences indicating inadvertent action or focussing upon the resultant situation, in terms of the syntactic reference marking device. This would of course entail positing the existence of a different-subject abstract verb which is obligatorily deleted following application of the reference marking rule. Although such an analysis was proposed above as a possible historical source of synchronic -m-marked verbs focussing on the resultant situation, it is not at all clear that this is a correct representation of synchronic sentences containing these verbs, verbs indicating inadvertent action, or the 'existential' auxiliaries. The verb themes of Groups B, C, and D, as well as the normal verbs in sentences indicating inadvertent action or focussing on a resultant state, have in common the fact that a -k-marking focusses on the subject of the verb while an -m-marking subordinates the subject to some other aspect of the situation.

If this 'situational' focus is to be represented as an abstract syntactic predicate, then the logical choice for such a predicate would be adu/o, the most semantically neutral of the three 'existential' auxiliaries. This leaves us with the problem of accounting for the fact that this occurrence of adu/o in the abstract representation of a sentence is obligatorily deleted, while that of sentences like 31, which constitutes a statement of necessary logical entailment, is never deleted:

31. '-taraxa:r-m adu-m '-apuy-tan-š (1-work-DS 3=be-DS 1-be=tired-very-tns) 'I was working, that's why I'm so tired.'

The derivation of sentence 32 under this analysis would involve one abstract occurrence of adu/o which is obligatorily deleted and one which is obligatorily blocked from deleting:

32. '-ac=ama-m adu-m '-ato-t-k (1-things=eat-DS 3=be-DS 1-be=full-SS) 'I'm full because I ate, that's why.'

The structural configurations of entailment clauses and situation-oriented clauses in Kwtsaan are not yet fully understood, and at present no non-ad-hoc statement of a principle regulating deletion of adu/o can be stated.

Another problem with such an analysis centers around the fact that when a surface auxiliary does appear with the situation-oriented verbs, it inevitably bears a person-marker prefix agreeing with the prefix on the lexical verb (except in cases of logical entailment, of course.) Although this could be accounted for in terms of a raising-and-copying treatment, such a solution does not strike me as particularly insightful.

Even if the use of -k and -m cannot be attributed to a syntactic reference marking rule in all cases, it is clear that, in all instances discussed in this paper, -k and -m have the same primary function: to indicate that the main focus of an utterance is or is not the subject of the reference-marked verb. This function is seen in what have come to be known as 'normal' switch-reference cases as well, in that a -k-marking indicates that the primary focus of the utterance as a whole is on the subject of the -k-marked verb, while an -m-marking indicates that other aspects of the situation (i.e., other subjects) are being focussed in as well. I am not proposing doing away with the reference marking rule or

altering it in any way; I am, however, proposing that we may be forced to consider this rule as having a semantic corollary which marks a verb with -m and exempts it from the normal reference marking rule just in the case that the focus of the utterance is situational. The semantic skewing which results from -k-marking of the verb themes belonging to the special -m-preferring class would follow naturally from the fact that these themes are lexically marked as subject to the semantic corollary of the reference marking principle.

Whether the semantic corollary proposed here constitutes an extension of the syntactic reference marking rule or a previously existing principle which gave rise to a syntactic correlate remains to be seen; comparative investigations along the lines suggested here will undoubtedly shed some light on this question.

Notes

¹ Although the semantic distinctions discussed in this paper are often difficult to pinpoint, my primary consultant, Cynthia Wilson, has managed to convey them with amazing clarity. It is only thanks to her endless patience and innate linguistic genius that I have finally begun to make some sense of all the data involved. I am also indebted to Christine Emerson, who provided some insightful glosses. In addition, much is owed to A.M. Halpern for his incredibly precise and detailed description of the language.

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I would also like to express my appreciation to Pamela Munro for getting me un-stuck.

² The examples used in this paper are written in phonemized form, following (as closely as possible) the system set forth by Halpern in his description. The only deliberate deviations involve the spelling of the tribal name, for which I have used the practical orthography developed by the 1975 UCSD field methods class, and the fact that practical considerations have led me to use the symbol ɖ to represent the voiced interdental fricative which Halpern more accurately represents as ʒ. In addition, I have not bothered to mark the accented syllables as such.

The spelling Quechan is the one used by the people themselves; I have used it only once, as it does not constitute an accurate reflection of the linguistic facts.

³The applicability of the notion of 'switch-reference' to languages of the Yuman family was first pointed out by Margaret Langdon.

⁴Symbols used in glosses are as follows: - and =, used both in Kwtsaan representations and in English glosses: - indicates a morpheme boundary, while = is used in cases where no overt morpheme is present (as with the phonologically null object marker) and in cases in which a morpheme is more integrally connected to the verb stem, as with directional suffixes and transitive-object prefixes. SS represents 'same-subject'; DS represents 'different-subject'; dir is 'directional'; imp is 'imperative'; loc is 'locative'; dem is 'demonstrative'; subj is 'subject'; obj is 'object'; opin is equivalent to Halpern's 'assertive', and indicates that the conversants are aware of the fact being asserted; 3/2, 1/3, etc. refer to object and subject prefixes in that order (obj/subj); ˀ indicates rising intonation.

⁵-m on adu/o will be discussed further on in this paper.

⁶The (optional?) subject copying rule posited by Munro for Mojave, which derives sentences of the type 'Verb-k adu-m' from structures consisting of a sentential subject and the existential auxiliary, and which also accounts for the fact that surface negatives have personal subjects, is not needed for Kwtsaan, where surface subject markings reflect underlying semantic considerations. Note for example the difference between (a) and (b):

- (a) m-aši:t=amul^y-1^y=m='em-c (2-have=clan=name-2=neg-subj) 'You are not an Indian.' (to a white man)
 (b) m-aši:t=amul^y-1^y=m='em-c (2-have=clan=name-not-subj) 'You're not being Indian' (to an Indian acting like a white man).

⁷Munro, pp. 138-151.

⁸Halpern, IJAL XIII, p. 159. This suffix is phonetically identical in all respects with the reference marker -m.

⁹Halpern has indicated (personal communication) that some instances of -m with no switch in referent are meant as descriptions of discontinuous actions by the same actor. Sentences 17, 19, 20 and 21 were elicited based on his examples of such cases. The notion of discontinuous action is readily applicable to sentences 17b-21b,

reflecting the fact that an action constitutes a disruption of or a departure from a situational focus.

Verbal complements of the verb a'i/e 'to say' and a:l^y'i/e 'to think', which may have final -m or -k regardless of considerations of referential identity to the subject of these verbs, are not considered here. a'i/e and a:l^y'i/e do not affect reference marking in any way, and are best considered as peripheral (conjoined?) to the message clause.

10 Halpern refers to this suffix as -v_m, with the explanation that it sometimes affects the length or quality of a preceding accented vowel. My research indicates, however, that this sporadic change in vowel quality reflects semantic considerations which, while they often interact in complex ways with the semantics of reference marking, are in fact distinct from the latter. The factors conditioning vowel length and quality are poorly understood in Yuman.

As demonstrated by Halpern, the verbs of this class are reference-marked as normal verbs if another suffix intervenes between the stem and the reference marker. Further investigation of the semantics of possible intervening suffixes may provide an explanation for this fact.

11 My consultant would not accept the gloss 'to decide' for the form cakana-m. With this gloss, however, the form reflects a preparatory notion also found in an alternate reading which she gave for ak^ye-m, which reportedly originally meant 'to light a fire', then 'to draw a bow'.

12 It has been suggested to me that this is very reminiscent of the function of a middle voice. As I understand this notion, however, it does not really fit these Kwtsaan verbs; if it did, the grammatical subject of 28, eg, would be 'flour', which it is not. The 'passive' reading here is clearly due to the fact that these verbs focus on the total situation rather than on the action of the subject.

13 The verb themes of Group B may be historical relics of forms consisting of a causative prefix and a verb stem (e.g., astu/o may be historically something like 'to cause to be (there) by means of the hand' ('to gather')). At this point, this is pure conjecture; perhaps evidence can be brought to bear from other Yuman languages.

14 The use of -m here bears striking resemblance to the use of the 'agitator' case introduced by Kahn (Kahn 1975)

particularly as the latter relates to instrumentality in much the same way as Kwtsaan -m seems to relate to the instrumental case.

¹⁵This is my paraphrase of the explanation given to me by Cynthia Wilson.

¹⁶This report was given to me by Cynthia Wilson, and reportedly has been verified by her grandmother and her uncle.

References

- Barber, E.J.W., 'Voice--Beyond the Passive'; BLS I, pp. 16-24. 1975.
- Gorbett, Larry, A Grammar of Diegueno Nominals, New York: Garland Publishing, Inc. 1976.
- Halpern, A.M., 'Yuma'; IJAL, XII, 25-33, 147-151, 204-212; XIII, 18-30, 92-107, 147-166. 1946; 1947.
- Jacobsen, William, 'Switch-Reference in Hokan-Coahuiltecan'; Studies in Southwestern Linguistics, ed. Dell Hymes; The Hague-Paris.
- Kahn, Edward, 'Frame Semantics for Motion Verbs With Application to Metaphor', BLS I, pp.246-256. 1975.
- Langdon, Margaret, A Grammar of Diegueno, University of California Publications in Linguistics 66. 1970.
- McLendon, Sally, A Grammar of Eastern Pomo, University of California Publications in Linguistics 74. 1975.
- Munro, Pamela, Mojave Syntax, New York: Garland Publishing Co., Inc.