

SWITCH-REFERENCE IN HOKAN-COAHUILTECAN

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This paper discusses a device for pronominal reference, denominated "switch-reference", which is found, with considerable differences of detail, in three languages of the Hokan-Coahuiltecan group. The principal emphasis is on the cognitive and typological analysis of the device, but some attention is also given to the question of whether the possession of this device is a specific enough point of resemblance between these languages to constitute a piece of evidence for a genetic relationship between them. By way of evaluating the uniqueness of this device, some contrastive notes describe variations on the theme that have come to my attention in a few other languages, mostly from the New World.¹

The three languages in question are: Tonkawa, which was formerly spoken in the vicinity of Austin, Texas; Kashaya (or Southwestern Pomo) of west central California; and Washo of east central California and Nevada. Two of these, Kashaya and Washo, are distantly related members of the Hokan family, which includes a number of other languages in California and Meso-America; the third language, Tonkawa, has been said to be a member of the Coahuiltecan family, along with other languages in Texas and northeastern Mexico. Edward Sapir presented evidence to show that the Coahuiltecan languages might be related to the Hokan languages, forming a Hokan-Coahuiltecan grouping (Sapir, 1920 and 1925).² However the quantity and quality of this evidence, in my opinion, is not enough to make it entirely convincing, and at any rate Tonkawa figures in the comparisons less frequently than the other

¹ I am indebted to Mary R. Haas, Samuel E. Martin, and Robert L. Oswalt for their comments. A preliminary version of this paper was read to the Thirty-Sixth Annual Meeting of the Linguistic Society of America at Chicago on December 28, 1961. I have profited from the comments made on that occasion by Bernard Bloch, H. A. Gleason, Jr., E. Adelaide Hahn, A. A. Hill, Martin Joos, Kenneth L. Pike, and David A. Reibel.

² A brief statement on the history of the classification of Tonkawa is found in Hoijer, 1946, 289. Cf. also Haas, 1954, 57-60, and most recently, Troike, 1963, 295-296, and their papers in this volume.

Coahuiltecan languages, so that one must conclude that these last two relationships, namely that of Tonkawa to Coahuiltecan and of Coahuiltecan to Hokan, are not well established. It certainly has not been established that these units are more closely related to one another than they might be to some other American Indian languages. This is especially true in view of the alternative, but not necessarily incompatible, hypothesis of a relationship between Tonkawa, Algonkian, and the Gulf languages (Haas, 1959).

The Tonkawa data have been thoroughly described by Harry Hoijer in a paper (Hoijer, 1949*a*) that furnished much of the inspiration for the present one. That paper, which appeared in the same year as his dictionary of Tonkawa (Hoijer, 1949*b*), constituted an addendum to two grammatical treatments of this language (Hoijer, 1933 and 1946). The Kashaya data are extracted from the very clear and detailed description given by Robert L. Oswalt in his University of California dissertation (Oswalt, 1961). The Washo data derive from my own field notes; this language is taken as something of a defining case for this phenomenon and is treated more extensively than the others in the present paper.³

A. SWITCH-REFERENCE CHARACTERIZED

As a first step towards the explanation of what I mean by "switch-reference" in these languages, let us consider some simple English sentences:

After I came, he left.

After she came, he left.

In both these sentences there is a change of grammatical subject between the introductory subordinate clause and the main clause. This is shown unambiguously, of course, because English pronouns are differentiated for person and, in the third person singular, for gender. Thus, a switch between clauses from a first person to a third person subject, as in the first sentence, or from a feminine to a masculine subject, as in the second sentence, will automatically be signaled. Similarly, a switch from singular to plural number, or vice versa, within the first or third person, will inevitably be shown, as, for instance, in the sentence

After they came, he left.

³ My field work on Washo has been supported by the Survey of California Indian Languages, Department of Linguistics, University of California, Berkeley.

But if there is a change in the referent from one subject to another within the same class with respect to person, number, and gender, this will not be shown without further circumlocution. This is illustrated by the sentence

After he^a came, he^b left.

Here the superscript letters indicate that the two *he*'s refer to two different individuals. Similar remarks might be made about many other languages in which, although the pronouns may be classified quite differently from the way they are in English, still a switch of subject or agent would be indicated only more or less accidentally, when it happened to entail a switch from one pronominal class to another.

A moderately different system is exhibited by the Algonkian languages. Here there are two third persons, the proximate and the obviative. The choice between them is partly dictated by the gender classes of their antecedents, but to some extent the pronominal morphemes corresponding to these two categories are available to differentiate two third-person items to which they are assigned optionally, according to the relative importance given to them in the discourse.⁴

We are now ready for an explanation of what I mean by "switch-reference" in the languages under consideration. It consists simply in the fact that a switch in subject or agent, of the sort that has been exemplified, is *obligatorily* indicated in certain situations by a morpheme, usually suffixed, which may or may not carry other meanings in addition.

It may be helpful to make a loose comparison in terms of algebraic symbolism. In Algonkianoid languages it is as though one assigned two distinct symbols, X and Y, to two antecedents that one wished to distinguish, whereas in these Hokan-Coahuiltecan languages it is as though one used just one symbol, X, to indicate anaphoric reference, together with another symbol, S, signaling a switch in the referent. Thus a stretch of text in an Algonkianoid language of the form

X...Y...Y...X...X...

⁴ These brief remarks are intended merely to characterize a possible "Algonkianoid" type of language, rather than as a completely accurate account of the Algonkian system. Short descriptions of obviation in Algonkian are found in Bloomfield, 1946, 94, and in Gleason, 1955, 152-153; a statement on the syntactic functioning of this system in a language of this family, Potawatomi, is found in Hockett, 1939, "Sequence of person", pp. 244-245. The Kutenai language of Idaho, Montana, and British Columbia also has a category of obviation, quite different in detail from the Algonkian category, which also often serves, among other functions, to differentiate a primary from a secondary subject in successive clauses. This category in Kutenai is carefully described in Garvin, 1951 and 1958.

would be paralleled in one of these languages by a stretch of the form

X...SX...X...SX...X...

It will be seen that both these formulaic patterns give the same amount of information by using the same size stock of symbols; they differ only in the distributional patterns of the symbols.⁵ This is the system that shows itself most clearly in Washo.

Some other languages having this device signal retention of the same subject as well as switch in subject. Using the symbol R for retention, our text stretch would take on the form

X...SX...RX...SX...RX...

One can also conceive of a third type of system that would have a symbol for retention, but not for switch, a switch being implied by the lack of a signal for retention in the appropriate situation.

In these Hokan-Coahuiltecan languages there are two main situations in which the switch is signaled. The suffixes forming certain kinds of subordinate clauses indicate such a switch as between the subordinate clause and the main clause. This may be exemplified by a pseudo-English sentence:

After he came-S, he left.

Here the -S suffixed to the subordinate clause signals that this sentence has the same reference pattern as does one that we have already met:

After he^a came, he^b left.

The sample sentence is, however, still unlike what we find in these languages because they would show the subordinating morpheme at the end of its clause, in association with the reference-switching morpheme, rather than at the beginning.

The other main situation in which the switch is signaled is between sentences. In this case the switch morpheme is suffixed to a sentence-particle stem which begins the second sentence and which has anaphoric reference to the first sentence. The following sample utterance, in which the adverb *Afterward* does duty as a sentence particle, is intended to exemplify this:

⁵ The relationship between these two stretches is not bi-unique, for the latter might correspond also to a stretch of the form X...Y...Y...Z...Z.... That is, there is no indication whether the second switch takes us back to the first referent or to a third referent. Thus it is correct to say that these two patterns give the same amount of information only if it is known a priori that only two antecedents are being distinguished.

He came. Afterward-S, he left.

This pattern — the same suffixes occur with verbs to link them with what follows, and with sentence-introducing particles to link one sentence to another — is a striking agreement among the three languages being considered; and it is this pattern which Hoijer emphasizes in his treatment of the Tonkawa situation. The following are contrasting Tonkawa utterances adduced by Hoijer:

tekekeʔe:k cʔa:pata keyacew “in that-brush hide!-and watch-me!: hide in that brush and watch me!”

tekekeʔe:k cʔa:paw ʔe:ta keyacew “in-that-brush hide! (you)-do-so-and watch-me!: hide in that brush! and watch me!”

In the first of these, the conjunctive nonrelated suffix *-ta* is suffixed to the verb theme meaning “to hide”, linking it to the verb immediately following. Since this suffix does *not* signal a switch of actor, the two actions of hiding and watching are to be performed by the same person. In the second utterance, the verb “to hide” takes the imperative suffix *-w*, and the suffix *-ta* is added to the sentence-particle theme, which has the form ʔe:-.

The following two Washo utterances (occurring near one another in the same text) have been chosen to show the striking parallelism between Washo and Tonkawa in this regard. The italicized suffix sequence *-ida* has an adverbializing effect and does *not* signal a change of reference.

ʔišgéʔšuweʔida ʔišgéweʔi. “they-moved-away-and made-camp”

lák’ašiya dawMášdim ʔumʔišgéʔšuwaʔaʔ, ʔida, mišgéwaʔaʔ, “to-somewhere hidden you-(are to)-move-away and you-(are to)-make-camp: move away to somewhere hidden, and make camp!”

In the first of these utterances the suffixes are added directly to the verb theme, whereas in the second they are added to the sentence-particle theme, which has the form ʔ-. It will be observed that the resemblance between the two languages extends to the forms of the suffixes and of the sentence-particle themes, but the significance of this is questionable.

B. THE WASHO SYSTEM

In Washo a change of subject of the type that has been discussed is signaled by the suffix *-š* “reference switching”. This suffix may follow

either of two suffixes which may be appended to verb themes and to the sentence-particle theme, -i “imperfect” and -aʔ ~ -a “aorist”. The latter suffix has the allomorph -a when before this -š and the allomorph -aʔ elsewhere. The suffix -i “imperfect” is often followed by one of three subordinating suffixes, two of them nominalizing and one adverbializing, and it may take these whether or not the reference switching -š intervenes. Thus the commonest suffix sequences signaling a switch or nonswitch of subjects are those shown in the following tabulation:

	<i>Same actor</i>	<i>Switch actor</i>
Aorist	-aʔ	-aš
Imperfect	-i	-iš
Nominalized subjective	-igi	-išgi
Nominalized objective	-ige	-išge
Adverbialized	-ida	-išda

The three subordinating suffixes are unstressed allomorphs of certain pronouns and of an adverb that occur independently as *gí*: “this, that, he, she, it (subjective)”, *gé*: “id. (objective)”, and *dá*: “there”. The nominalizing suffixes indicate whether the nominalized clause is subject or object in the larger predication. There are no other instances of subjective or objective caselike forms in the language.

The endings -aš and -iš are not considered subordinating endings, but they normally imply that another clause containing a different subject will follow, and this tends to make clauses containing them subordinate in a weak sense, or at least nonfinal. Sentences that end in -aš or -iš may perhaps be special instances of Waterhouse’s *dependent sentences*, presumably a combination of her *sequential* and *referential* functional types (Waterhouse, 1963). Instances in which no further clause follows one of these endings are not rare; they usually occur because the speaker decided belatedly not to continue or, as sometimes happens, because the switch has reference to the preceding rather than the following clause.

Washo verb forms identify their subjects by prefixes that show three persons and also the imperative. (The number of the subject is not indicated by verb forms, and is hence shown only by accompanying words, if at all). Therefore, if a change in subject entails a change of person, it will be redundantly signaled by the change of prefixes, as well as by the reference switching suffix (where this can be used). A change of subject within the third person will be shown, not by a difference of prefixes, but only by this suffix, although the change is often made additionally clear by the use of a noun or demonstrative to label the new

subject. Conversely, the retention of the same subject is normally implied by repetition of a first- or second-person or imperative prefix on successive verbs, but is not necessarily implied by repetition of a third-person prefix.

To illustrate the syntactic use of these suffixes, let us first consider the adverbializing suffixes, *-ida* and *-išda*. These suffixes form clauses that either explain the location of the main clause ("where" clauses) or that express an action conjoined to that of the main clause, often, but not necessarily, preliminary to it; in the latter function the endings are usually translated by "and". The following are examples of the suffix *-ida*, implying retention of the same subject, added to verb themes in the three persons and the imperative:

dibáli?ge lé?ewšiyida láyatše, "what-I-shoot we-eat-and let's-spend-the-night: let's eat what I shoot and (then) spend the night"

wi:di?, ?umc'uwítihayida míšmušta? dihámuyige. "this you-hang-up-and you-would-sing I-thought: I thought you would hang this up and sing"

?íp'amida, bemú:c'ukgaŋa?i. "he-got-there-and he-started-to-doctor"

gebeyé:c'iksá?ida tukdá:šuweti?a?. "they-opened-the-door-and they-looked-inside"

géyewe?ida ŋaŋáwŋaŋ gayá:ma?, "go-away-and children tell!: go away and tell the children!"

A change between singular and plural subjects, when the singular referent is included in those referred to by the plural, is ordinarily not signaled as a switch:

?ida gumhóc'iwewe?ida ?émdegaš, "and where-they-landed she-was-digging"

t'é:liwhu hésgilši, ?é?ida, lák'a? t'é:liwhu yáli?aš lák'a? gúk'uya?, "men two are-there-and one man is-standing-S one is-crouching: two men are there and one man is standing, one is stooping over"

Occasionally, as indicated above, the signaling of a switch or nonswitch has reference to the preceding rather than the following clause, in the case of subordinate clauses that are added as a sort of afterthought:

pík'idi. gumséwe?ida. "he-fell-in, where-he-had-made-a-fire"

pí:gela?yida, k'uléwe?i. tugáyaweti?da. "he-fell-over-backwards-and he-lay-there, where-he-fainted"

Here are a few examples of this same suffix added to the sentence-particle theme P-:

gawgát'igi. ʔida t'áŋal ʔugác'abi. "he-clubbed-him-to-death. and his-house he-kicked: he clubbed him to death. and (then) he kicked his house"

ʔáŋalaʔ. ʔida, memdé:wi dí:gu, gewgúyuhayi. "they-built-a-house. and deer inside made-a-corner: they built a house. and the deer made a corner inside"

miw ʔump'áy't'iʔtiʔgi, ʔida ʔumdó:bašhayi, "you (pl.) will-play, and you-will-burn-them-to-death"

Turning to the ending -išda, which signals a switch of subject, let us first observe some examples in which there is a change of person, as indicated. (An S will be inserted in the analytical translation after the word signaling the switch of subject).

(a) Second person to first person:

lé. ʔumbeyec'ú:c'umiyeʔišda diyáhayi "me where-you-have-tied-too-tight-S I-have-pain: it hurts where you have tied me too tight"

(b) Imperative to first person:

géšmuwaʔaʔ gaʔló:šišda dimsúwehi. "start-singing! dance!-and-S I'll-watch"

(c) Third person to second person:

ʔá:šaʔišda, ʔumyá:gali, "when-she-is-urinating-S you-go-inside"

(d) First person to third person:

wí:diʔ wá:ʔ dikMáhaduwahayišda yaŋáhaduweʔlegi, "this (leg) here I-put-across-and-there-S they-ran-across"

(e) Third person to imperative:

há:ʔ ʔumʔéwšiʔ, k'ómho, yaʔwályališda gép'amidašiʔ, "there your-uncle cow-parsnip where-he-is-spinning-S go-to-and-from-there: go to where your uncle is spinning cow parsnip and from there ..."

(f) Here are examples of a switch of subject within the third person, both with and without the use of a noun to identify the new subject:

déʔek ʔiʔyišda píтелиʔ Móc'obaʔ. "rock where-it-was-S Lizard ran-into-a-crack: Lizard ran into a crack where a rock was"

c'ĩṇá:m, gumsá?išda, bú:ši Pémlyuša, "bowl where-it-is-placed-S cat is-eating-S: where a bowl is placed, a cat is eating"

git?á:t'u Pé?išda Múwami "his-older-brother where-he-was-S he-ran-to: he ran to where his older brother was"

gúk'ugat'umuwe?išda yá:gila gedumbéc'edi. "he-was-stooping-over-going-in-and-S in-his-testicles he-poked-him"

(g) An example of a switch with reference to the preceding, rather than the following, clause is the following:

yá:gila gum?epši:ga? dá: gedépuyišda. "on-the-testicles he-rubbed-himself there where-he-had-stuck-him-S"

(h) Finally, here are a few examples of this suffix also when added to the sentence-particle theme ?-:

gáhil Máhaduwetihayi. Pišda šáhaduwe?i. "her-leg she-lay-across. and-there-S she-went-across"

píteli? yát'umuwa?a?. Pišda géwe ge?išúwamida "Lizard went-down-in. and-there-S Coyote pursued-him-and ..."

Pum?éwši? há:ʔda k'ómho ya?wályaligi k'éʔle, Pišda dá: gép'am "your-uncle there cow-parsnip is-spinning he-is, and-there-S there go-to!: go to there, where your uncle is spinning cow parsnip!"

The remaining endings in our chart may be exemplified more briefly, with examples of their addition both to verb themes and to the sentence-particle theme. However, the endings -i and -aʔ are very rarely added to the sentence-particle theme, so that examples of these are not given.

(i) -aʔ aorist, no switch of reference:

t'ánu gabášdawa? míʔlaʔa gewi:k'ilaʔ. "people missed-him, everywhere they-looked-for-him"

lašášudúwe?é:saʔ, leʔwíšilgišé:saʔ gekʔéʔšugaš "don't-be-afraid-of-me, don't-turn-your-back-on-me, face-me!"

(j) -aš aorist, with switch of reference:

gémaʔaš diwgayáyhi "drink-S I'll-talk: drink and I'll talk!"

lémluyaš Pímeʔlegi "I-eat-S he-drank: while I was eating, he was drinking"

gedukgá:gunáṇayaʔ. ʔaš tugáyʔlelaš, geší:lemihayi. "he-pretended-he-didn't-know-how. and-S he-looked-away-for-a-moment-S he-busted-his-bones"

(k) -i imperfect, no switch of reference:

yá:saʔ duléʔʂugi yá:saʔ gedumbéc'edášaʔi "again he-is-reaching-towards-him again he-is-going-to-poke-him"
 yaŋáhadik'ili. gúʔšemiʔé:setiʔaʔ. "they-ran-back-and-forth. they-stopped-making-noise"

(l) -iʂ imperfect, with switch of reference:

mémлуйiʂ lémehi "if-you-eat-S I'll-drink"

séwit geʔséʔšuweʔigelu gaʔlók'aʂha ʔiʂ mawLaʔáʔaʂhayʔ, "porcupine take-and-therewith scare-him and-S he'll-tell-you: take a porcupine and scare him with it, and he'll tell you"

(m) -igi nominalized subjective, no switch of reference:

díc'em k'éʔigi yéʔšuweʔgišuwaʔaʔ. "woodpecker it-was it-went-flying-away: it was a woodpecker that went flying away"

dulé:c'uʔaŋaʔŋáŋagap'iligi, gaʔlók'padugá:guŋáŋayaʔ. "he-kept-pretending-to-put-his-paws-on-it, he-pretended-he-didn't-know-how-to-hold-it"

ŋaŋáwŋaŋ yá: hámuʔigi ʔéʔaʔ, ʔigi ŋáwŋaŋ lí:, t'é:k'ew lák'aya ʔéʔida "children then many there-were, and children indeed many together there-were-where: then there were many children, and indeed, where there were many children together, ..."

(n) -iʂgi nominalized subjective, with switch of reference:

ŋáwŋaŋ bó:ŋiyiʂgi p'imeweʔiʂge "child she-called-S it-came-out: she called the child and it came out"

k'émc'iduwéwahayaŋiʂgi ʔémc'iyé:sk'enʂi. "he-tried-to-wake-him-up-but-S he-just-didn't-wake-up"

memdé:wi báliʔi, daʔá:t'u Wáʔigi. peʔwéc'eliʔ Wáʔigi. ʔiʂgi Móʔmuweʔgišuweʔi. "deer he-shot, his-older-brother did-it, Weasel did-it and-S it-ran-away-going-west: he shot a deer, his older brother did it, Weasel did it, and it (the deer) ran away going west"

(o) -ige nominalized objective, no switch of reference:

ʔlé:biʔige ʔiʔwaʔ "he-bit-it-off he-ate-it: what he bit off he ate"

gamsáluhayige gebúʔu "make-it-brittle-by-cooking feed-it-to-him!: feed him what you make brittle by cooking!"

gadác'ibaʔ k'adaʔé:šibaʔ. ʔige, yáwbaʔ. ʔige sáʔaʔ. "he-broke-it-up-small he-fixed-it-up. and he-wrapped-it-up. and he-put-it-away"

(p) -iʂge nominalized objective, with switch of reference:

lí:giyé:sišge ʔumYá:mi "I-didn't-see-him-S you're-talking-about: I didn't see the one you're talking about"

míʔleši guwát'aya ʔát'abiʔ ʔiŋé:sišge t'ánu wéʔwaʔ, "both in-rivers fish there-was-much-S people ate-them: in both rivers there was much fish, which people ate"

wá:ʔna gú:diŋaŋa lí:gilelé:sk'eŋi, ʔišge ʔumYá:mi "here anybody I-just-haven't-seen whom-S you're-talking-about: I just haven't seen anybody here, that you're talking about"

(q) There are a few other morphemes that may follow those shown in the table, so that the signaling of switch or nonswitch of subject may be located several morphemes in from the end of a word. A complete treatment of these would lead us too far afield, but a few examples may be indicative of the patterns.

-šiʔ "from" added to -išda (switch of reference):

míʔlaʔa ŋówa liwáyawánaʔišdašiʔ diméʔšuweʔé:saʔ "everywhere earth he-made-mounds-and-from-there-S I-couldn't-track-him-away: he made mounds of earth everywhere and I couldn't track him away from there"

-lu "with, by means of" added to -ige (no switch):

léʔewšiyigelu dik'éšēšiyi "we'll-eat-it-and-therewith we'll-live"

-duŋ "as, like" added to -išge (switch of reference):

t'ánu mabugayáʔyušluliyáyt'iʔišgeduŋ, léw lé:daʔ. "people as-they-used-to-talk-to-you-long-ago-S we are-talking: we are talking to you as people used to long ago".

C. THE KASHAYA SYSTEM

In Kashaya (Southwestern Pomo) there are six adverbializing suffixes that are paired off into two groups, according to whether or not there is a change in the actor in the following clause. A cross-cutting three-way classification of these suffixes gives aspectual information: whether the subordinate action is simultaneous with or precedes the main action, and, if the latter, whether the subordinate action has been completed. The endings may thus be charted as follows:

	<i>Same actor</i>	<i>Switch actor</i>
Adverbialized progressive	-vn	-em
Adverbialized future completive	-p ^{hi}	-p ^{hila}
Adverbialized past completive	-ba	-.li

There are also two other adverbializing endings of the same distribution class which do not signal whether there is a change of actor, the adverbialized oppositive *-eti* and the adverbialized (causal, etc.) *-na*. The Kashaya sentence-introducing formulas that take these suffixes may also include an evidential suffix, which gives preliminary information as to the basis for the subsequent statement. The element *-la* in the second pair of suffixes seems to signal the switch of actor, but beyond this the endings do not lend themselves to analysis. Since the verbs in this language do not give any indication of the person of their actors, although they may show plurality of actors, this device perhaps looms larger in the referential economy of Kashaya than it does in that of Washo.

D. THE TONKAWA SYSTEM

Tonkawa displays a system of subordinating and coordinating endings wherein the device of switch-reference is less clearly present than in the Hokan languages we have examined. Before discussing the system, we may tabulate the endings, as follows:

	<i>Same actor</i>	<i>Switch actor</i>
<i>Added to theme</i>		
Conjunctive nonrelated	-ta	
Conjunctive related	-t	
Nominalized subjective	-la	
Gerundial	-ʔan	
<i>Added to k-form of theme</i>		
Completive subjective		-la
Completive objective		-lak
Completive oppositive		-latoy
<i>Added to conjugated theme</i>		
Conditional progressive		-kaʔak
Conditional present or incomplete		-ʔok
Conditional past or complete		:-k ^w a
<i>Free form</i>		
Anaphoric nominalized objective		lak

The first difficulty in the way of recognizing this device in this language is that it is not clear that the endings entered in the *switch actor* column always and necessarily signal such a switch. The endings added to the *-k* form certainly do imply this in the overwhelming majority of the examples

given. Hoijer states that the subjective forms in *-la* signal a new actor when added to verbs, and usually, but not necessarily, when added to the anaphoric-particle theme. All his examples containing this suffix show a switch of actor. The objective ending *-lak* occurs only on anaphoric particles in the *-k* form. Again, most of the examples show a switch of actor, but one or two fail to do so. The ending *-latoy* occurs only twice in the data, both times with a switch of actor. As for the conditional endings that are added to the conjugated form of the verb or anaphoric particle, Hoijer makes no statement about whether they imply a change of actor, but his examples, with possibly one exception, all show such a change. It is, however, possible explicitly to signal a retention of the same actor by adding the suffix *-ʔok* to a verb theme bearing the gerundial suffix *-ʔan*. The free form *lak* nominalizes a preceding independent clause and connects it loosely with the preceding clause, either directly or via an anaphoric particle. All the examples cited show a different actor in the clause preceding *lak* from those in both the surrounding clauses.

The endings in the *Same actor* column more clearly belong there. The only apparent exceptions arise in connection with *-la* added to anaphoric particles. In several examples where the preceding clause is a quotation, the reference seems to be to the actor of an understood verb expressing the uttering of the quotation. Two other examples show a brief clause of time ("when evening had come", "the next day came") intervening after the particle before the actor reverts to that of the clause preceding the particle. The gerundial ending *-ʔan*, alone of these suffixes, cannot be added to the anaphoric particle theme, but only to verb themes.

A second difficulty in the interpretation of this system is that the switch or nonswitch seems to be signaled as much, or more, by the form of the verb to which the endings shown above are added as by the endings themselves. This is seen most clearly in the two subjective suffixes *-la* (which are doubtless the same morpheme). It is really the presence or absence of the *-k* formative preceding this ending that signals switch or nonswitch. The question also arises whether this *-k* may be historically related to some of the *k*'s or *kʷ*'s that appear in the conditional endings. (It should be explained that the *-k* forms of the verb are much like the conjugated forms to which the conditional endings are added, but with a *-k* at the end and certain differences of detail; both types of forms show the person and number of the actor of the verb.) If the comparison is valid, this *k* might once have been a morpheme signaling a switch in actor. On the other hand, a more straightforward way of looking at the problem may be to note that the verb forms implying switch of actor

carry in themselves an indication of the person and number of their own actor, whereas those implying nonswitch do not (since the indication on the following verb can do for both). Still, the anaphoric particles carry no indication of person and number in either case; they normally refer to a preceding verb form that does so. It is thus on the anaphoric theme that the presence or absence of the *-k* shows its force most clearly: *ʔe:-k-la* implying a switch, as opposed to *ʔe:-la* implying no switch.

In connection with this problem the coordinative suffix *-ʔila* should be mentioned. This suffix was not entered in the table above, because of Hoijer's statement that the actions linked by it are not necessarily those of one actor. However, of the examples given, there is only one in which there is a change of actor; and the same example is said by Hoijer to be his only example of a form in which *-ʔila* is preceded by the gerundive or infinitive suffix *-n*. All other examples show an *-l* (probably the third-person suffix) preceding *-ʔila*. Thus, the possibility suggests itself that the *-n* signals the change of actor. (Information is lacking as to whether the unpublished corpus of texts has any contrary examples, that is, forms which have *-l* preceding *-ʔila*, and which also show change of actor).

In any case, the discussion above shows that switch-reference has a somewhat tentative status in Tonkawa, for three related reasons: (1) it is not certain that switch or nonswitch is clearly implied by all the endings in question; (2) it is difficult to pinpoint the morpheme that signals switch or nonswitch; and (3) it is difficult to disentangle a meaning of switch or nonswitch from the additional meanings of the relevant morphemes. These difficulties of interpretation do not seem sufficient, however, to prevent one from concluding that the device of switch-reference is validly a part of Tonkawa structure.

E. SWITCH-REFERENCE AMONG GRAMMATICAL CATEGORIES

The parameters recognized by Jakobson in his classification of the categories of the Russian verb (Jakobson, 1957, esp. pp. 3-5) provide an appropriate framework for the characterization of the position of switch-reference among pronominal and verbal categories; indeed, the recognition of this category fills a logical gap in Jakobson's scheme. His classification is based on two intersecting dichotomies: on the one hand, an event, as opposed to any of its participants (symbolized respectively by E and P); on the other hand, speech itself, as opposed to the narrated matter (symbolized by the superscripts ^s and ⁿ). This gives rise to four

points of reference: two categories of events, the speech event and the narrated event (E^s and E^n), and two categories of participants, the participant of the speech event and the participant of the narrated event (P^s and P^n).

Of the categories mentioned in the introductory remarks, those of gender and number characterize the participants of the narrated event (P^n) in themselves, without the use of any other point of reference. The category of person characterizes the participants of the narrated event with reference to those of the speech event; the symbolization for this relationship is P^n/P^s . This latter is a category of the type called *shifters* by Jakobson (adopting the term from Jespersen) — those categories in which the meaning of the code has reference to characteristics of the message in which it is used. One other category of those explicated by Jakobson is relevant to the present investigation; this is the one that he calls *taxis* and symbolizes as E^nE^n . Taxis, in his words, “characterizes the narrated event in relation to another narrated event and without reference to the speech event”. In this category comes the opposition between independent and dependent clauses, as well as temporal, aspectual, and other relationships between the subordinate verb and the superordinate verb, such as we have seen, for example, in the Kashaya adverbialized predications. A category of this sort, which makes reference to another narrated item, is called a *connector* by Jakobson.

In the light of the categories just discussed, it seems clear how switch-reference is to be classified. It constitutes the characterization of a participant of the narrated event with reference to another participant of the narrated event and without reference to the speech event or to the participants thereof. This category is therefore a type of connector (and nonshifter), just as is *taxis*. Indeed, the close typological similarity of switch-reference and *taxis* finds symptomatic expression in the fact that categories of both types are often expressed by the same morphemes or portmanteau morphs. By analogy with the symbolization for *taxis*, that for switch-reference should be P^nP^n (or, P^n/P^n — see n. 6). Switch-reference is thus different from person, with which it is apt to be confused, in that it characterizes a participant of the narrated event with reference not to a participant of the speech event, but to another participant of the narrated event.

There are, to be sure, a few other grammatical relationships that would also fit this general description but that are not switch-reference. Chief among these are the categories that label a participant in the narrated event as to referential identity or nonidentity with the subject of the verb.

Reflexivity is such a category of identity of the object with the subject of a verb, and the same opposition applied to the possessor of a noun gives rise to the familiar *suus/eius* opposition, mentioned below in connection with the Eskimo system of reference. These categories differ from switch-reference in having to do with relationships among participants playing different roles with respect to the same narrated event; switch-reference concerns relationships among participants playing like roles with respect to successive narrated events. Yet another category of this general type is that of obviation as in Algonkian. Here again we find the expression of a relationship between two participants in the narrated events, but the relationship is not one of simple identity or nonidentity, but rather one of relative importance or emphasis in the narrative.⁶

More generally, we have to do here with grammatical devices of the type called by such terms as *indicator words* (Quine, 1960, 101), *deictic signs* (Weinreich, 1963, 123), or *shifters* (Jespersen, 1922, 123). As Weinreich puts it, "these are signs (or components of designata) which involve a reference to the act of speech in which they are used". Within this general field, we are concerned with signs that refer to other parts of the message in which they are used, rather than to external features of the speech event, such as its time, place, or participants.⁷ Switch-refer-

⁶ After this section was written, it came to my attention that Dell Hymes had previously noted this logical gap in Jakobson's combinations of the basic points of reference for grammatical categories: "Here could be added P^n/P^n for a category such as *reciprocal* (characterizing the participants of the narrated event with reference to each other) ..." (Hymes, 1961, 33). It may be noted that Hymes used a diagonal slash separating the two parts of his symbol, whereas I did not. Whether Jakobson would have done so is a moot point, since he uses the slash only when the right-hand member of the symbol is P^s or E^s , and has no compound symbols whose right-hand member is P^n . However he does not use the slash in the symbols for connectors, such as taxis (E^nE^n) and voice (P^nE^n). The slash might perhaps be redefined to indicate the difference between the same and a successively narrated event, in which case taxis would become E^n/E^n , switch-reference P^n/P^n , and reciprocal and the other categories mentioned above P^nP^n .

⁷ For other terms, see Weinreich, 1963, 156, n. 16; Quine, 1960, 101, n. 1. With regard to *shifter* as a designation in this connection, notice that Jakobson has narrowed the meaning of the term somewhat. On his definition, switch-reference would be a non-shifter, since it does not make reference to the speech event, or to its participants (as has been mentioned). The broader meaning given the term in Jakobson's introductory remarks, however, as well as the scope given it in Jespersen's (very loose) characterization of the class, would seem to include switch-reference. Its referent does not change with change in the nonverbal context (speaker, hearer), but does change with change in the verbal context of the message in question. The best general surveys of this area of grammar are Bloomfield, 1933, Ch. 15, "Substitution", pp. 247-263; Weinreich, 1963, 2.2.2 "Deictic signs", pp. 123-127; Hockett, 1958, Ch. 30, "Substitutes", pp. 253-260; Bühler, 1934, Part II, "Das Zeigfeld der Sprache und die Zeigwörter", pp. 79-148; and Gleason, 1955, Ch. 11, pp. 143-157.

ence, as exemplified in these Hokan-Coahuiltecan languages, seems to differ from most other anaphoric devices or "pro-forms" in several significant characteristics. The main difference would seem to inhere in its role of signalling whether the referent of what has preceded is the same as the referent of what will follow. Unlike most other grammatical substitutes, the morphemes signalling switch-reference do not enter into paradigmatic sets with morphemes that identify the subjects of verbs with respect to person, number, and so forth. Rather, they usually occur (Januslike) at some point in the utterance between such morphemes. The other main difference has been mentioned: switch-reference identifies participants in narrated events solely in terms of identity within the message; there is no other categorization of referents and no reference to the speech event.

F. CONTRASTIVE AND COMPARATIVE NOTES

This section presents brief notes on a few systems for pronominal reference that are either very similar to those we have been discussing or else different from them in some significant details, in order to make a tentative assessment of the situation of those systems in typological, areal, and genetic perspective.

A device for pronominal reference that has many, but not all, of the defining characteristics of the one found in these Hokan-Coahuiltecan languages is the fourth or recurrent person of Eskimo.⁸ For the expression of the possessor of a noun, the fourth person as opposed to the third person embodies the familiar *suus/eius* contrast; that is, the fourth person is used when the possessor of the noun is identical with the subject of the clause, whereas the third person is used if these are two different individuals. What concerns us most here, however, is the use of the fourth/third person contrast in subordinate clauses. When such a clause has a non-first or -second person subject whose referent is identical with that of the subject of the main clause, this subject appears in the fourth person, whereas if the two subjects are referentially different, the subject of the subordinate clause appears in the third person. Under certain conditions the object of a subordinate verb may also appear in the fourth person, to indicate identity with the subject of the main clause. Finally, a fourth-

⁸ My information comes mostly from the very clear description given in Swadesh, 1946, 40-41, which is a restatement based principally on Kleinschmidt's 1851 grammar of Greenlandic. A briefer statement is found in Hill, 1958, 436.

person expression of the possessor of a noun may also refer across clause boundaries and indicate identity with the subject of the main clause, as well as with that of the subordinate clause itself (thus leading to occasional ambiguities). It will be seen that this system differs from the Hokan-Coahuiltecan one in that the morphemes expressing same or different subject (fourth or third person) appear at the same point in the utterance as, and are mutually exclusive with, those identifying participants in the narrated events according to categories of person, so that a switch or non-switch per se cannot be signaled in conjunction with a first or second person subject. On the other hand, the Eskimo system is more like the Hokan-Coahuiltecan system than is the Algonkian one of two third persons, in that the choice between the two forms expresses mechanically a relationship of identity or nonidentity between the subjects of subordinate and superordinate clauses, rather than being a matter of the option of the speaker for purposes of relative emphasis.

Turning to languages of the Southwest, systems similar to those in Hokan-Coahuiltecan have been noted in several Uto-Aztecan languages and in Zuni. The Hopi system, carefully explained by Whorf (1938, 277-280, reprinted in Carroll, 1956, 115-117; also Whorf, 1946, 176), shows six suffixes pertaining to the generic category called *mode*. This is the category, in Whorf's words, "by which is denoted the nature of the mingled discreteness and connection between a sentence (clause) and the sentence (clause) which follows or precedes it." These six suffixes serve to subordinate one clause to another, and are called *dependent modes*, in opposition to the zero form, signaling the *independent mode*. Of the six dependent modes, five, the *conditional*, *correlative*, *concurive*, *sequential*, and *agentive*, imply an identity of subjects in the subordinate and superordinate clauses, whereas the sixth, the *transrelative*, signals a difference of subjects in the two clauses. Thus the expression of this difference of subject is emphasized by the system to the extent of neutralizing the five-way contrast of types of connectedness that obtains when the two subjects are the same. However, notions similar to those of the other five modes may apparently be expressed when the transrelative is required, by the use of adverbs and word order. Examples of contrasting sentences in Hopi are tá:qat ni? tiwá-q níma "the man that I saw went home", with the transrelative mode (-q), and tá:qa niy tiwá'qa níma "the man that saw me went home", with the agentive mode (-qa).

The Southern Paiute language of southwestern Utah and northwestern Arizona (Sapir, 1930, 243-247) shows a more even division of its subordinating suffixes, in that, of the five suffixes present, two imply a switch

of subject and three imply a nonswitch. The latter group of suffixes consists of the gerund (-t:si-), which, alone of the subordinating suffixes, does not allow of the pronominal expression of the subject of its clause, and two suffixes expressing contemporaneity of action, -kai- and -yu-, which are partially in complementary distribution. The two suffixes implying a difference of subjects are -q:a-, forming antecedent temporal and conditional clauses, and -ku-, forming clauses usually implying contemporaneity of action. Although the suffixes in these two sets are opposed more symmetrically than in Hopi, a comparison of their forms does not seem to allow the extraction of morphemes signaling either switch or nonswitch.

Farther to the west, the Tübatulabal language of the southern Sierra Nevada of California (Voegelin, 1935, 123-127) has a pair of subordinating suffixes signaling the sameness or difference of subjects that we are concerned with. The suffix -(a)š ~ -ša indicates the same subject in the two clauses, whereas the suffix -(a)ŋ indicates a difference of subjects. Both these suffixes form clauses of time wherein certain aspectual contrasts may be expressed by immediately preceding suffixes. The -(a)š form also has infinitival force when used after certain verbs, especially the verb "to know". Besides these paired suffixes, the language has two other subordinating suffixes implying identity of subjects.⁹

In Zuni of western New Mexico we also find a pair of subordinating suffixes, which may be preceded by a full system of tense and mode suffixes (Bunzel, 1938, 488-489; Newman, 1958, 110-114). These suffixes are -nan ~ -n to form a subordinate clause with the main-verb subject, and -ʔappa ~ -appa ~ -ppa to form a subordinate clause with a distinct subject. Contrasting sentences given by Newman are ʔito-nan ʔa:ka "after eating, he went" and ʔito-p ʔa:ka "after he ate, he (another person) went". Newman's dictionary lists four other subordinating suffixes, all of which seem to imply an identity of subjects; these are -: contemporaneous subordinate, -ʔan ~ -Ø ~ -an ~ -n subordinate before ʔona agentive, -kan ~ -kkan ~ ʔkan resultative subordinate, and -n ~ -ʔ adjunctive subordinate. It will be seen that many allomorphs of the last three of these suffixes end in -n. One wonders whether this is to be equated, at least historically, with the subordinating suffix -nan ~ -n. As in Kashaya, verbs in Zuni are inflected for number but not for person. However, independent pronouns are apparently commonly used to indicate a first or second person subject.

Ranging farther afield, I have noted essentially the same sort of system

⁹ Robert Abernathy informs me that the Uto-Aztecan Papago language of southern Arizona and adjacent parts of Sonora also possesses the device of switch-reference.

as in Hokan-Coahuiltecan in two languages of the Panoan family of South America on which descriptions are available, Cashibo and Chacobo (Shell, 1957, 202-209, 216-217; Prost, 1962, 109-110). Both languages have different sets of subordinating suffixes according to whether the same or a different subject is anticipated in the following main clause. The suffixes of the two sets are not clearly paired off one-to-one, and do not resemble one another in form, so there seems to be no separate morpheme indicating switch or nonswitch. In addition, most of the margins of subordinate verbs show concordance with the verb of the main clause with respect to the intransitive/transitive dichotomy, regardless of whether they are themselves intransitive or transitive. In Chacobo, only margins of the type indicating nonswitch in subject show this concordance, but in Cashibo some margins of both types show it. In Cashibo the affixes of the subordinate verb do not show person, whereas those of the principal verb indicate only third vs. non-third person. In Chacobo three persons in the singular and first vs. non-first person in the plural can apparently be indicated optionally by suffixes on verbs; whereas person is seldom shown in independent intransitive verbs, it usually is shown in subordinate intransitive verbs anticipating a different subject in the main clause.

Pike refers briefly to the Cashibo signaling of the expected occurrence of the same or a different subject in the next clause as a matter of *concord* across clauses (Pike, 1962, 237, n. 27). I would doubt, however, that it is appropriate to apply this term to the switch-reference in either this or any of the previously discussed languages. The term *concord* conventionally refers to agreement with respect to covert or overt classes that are a fixed property of certain morphemes or constructions of morphemes. Switch-reference, on the other hand, has to do with purely referential identity or difference without regard to any fixed classes.¹⁰

Finally, brief mention may be made of a very different system operating to give much the same results in a language of a different part of the world, the Eastern Highlands District of New Guinea. My attention was first

¹⁰ There has belatedly reached me a more detailed description of this device in a third Panoan language, Capanahua (Loos, 1963). This article spells out the syntactic function of the device more fully than do the other descriptions of Panoan languages referred to, and it explains more clearly the extent to which the use of this device replaces the use of pronominal or nominal reference; see especially sections 2, 4.2, and 5.1.1.4. The system of this language seems to be a little more complicated in that, of the six endings implying a difference of subject, two imply an identity of the subject of the subordinate clause and the object of the main clause, and one implies an identity of the object of the subordinate verb and the subject of the main verb. The language also possesses three subordinating suffixes which carry no implication as to whether the subject referents are same or different.

drawn by a general characterization by Wurm of the morphology of the languages of the large East New Guinea Highlands Stock (Wurm, 1961, 116):

On the morphological level, the distinction between utterance-medial and utterance-final forms of the verb is a universal feature of the languages belonging to the Stock ... In most languages of the Stock, the utterance-medial forms appearing in those cases in which the subjects refer to the same actor in both parts of the utterance, are not identical with those utterance-medial forms which are met with in instances in which the subjects refer to different actors. Furthermore, several utterance-medial forms do, as a rule, occur in individual languages to denote different types of relationship between the actions referred to by the two verbs; e.g., simultaneity, successivity, duration, etc.

The only one of these languages on which detailed information has been available to me is Tairora, of the Gadsup-Auyana-Awa-Tairora family (Vincent, 1962). In the extremely interesting system found in this language, the utterance-medial forms take a suffix that anticipates and agrees in person and number with the suffix that appears on the following verb to express its subject, as well as categories of tense and mode. When the two verbs have the same subject, this suffix on the nonfinal verb thus does duty as an indication of its own subject also, but when the two verbs have different subjects, the nonfinal verb takes an additional specialized suffix preceding this anticipatory one, to express the person and number of its own subject, as well as categories of tense. Thus this system, which, unlike the others we have examined, may properly be called one of concord, signals an up-coming switch of subject by the fact that a verb takes two person-number suffixes.¹¹ This means that even a change of referential subject within the same person-number category, such as third person singular, can be signaled. Contrasting sentences exemplifying this are *né-ro bí-ro* "he ate and he went" and *ná-iba-ro bí-ro* "he ate and he (different person) went", where *-iba-* is the third person singular past tense morpheme and *-ro* is the third person singular neutral tense morpheme.

These few contrastive notes do not pretend to be a complete survey or typology of the devices that are found to indicate the relationships between subjects or actors of successive clauses. They have merely outlined a few instances in which these relationships are quite clearly marked. It is

¹¹ A minor exception to this statement derives from the fact that an anticipatory second or third person subject is signaled by the lack of any other suffix, when a non-final verb bears a future tense-person-number suffix. In this case the switch of subject is signaled by the fact that the one overt tense-person-number suffix is of the nonfinal series.

clear enough, after all, that all languages have ways of keeping such things straight most of the time, but most languages probably function in this respect by more indirect hints that are not so clearly localized in a few morphemes as they are in the languages discussed. For example, the comments on the oral presentation of this paper cited some examples in European languages in which either the use or the omission of a third-person pronoun or demonstrative tended to imply a switch in the appropriate context.

If we now consider a possible historical explanation for the resemblances noted between these Hokan-Coahuiltecan languages, we are faced with the usual three alternatives: (1) the resemblances may be fortuitous, the result of independent convergent developments; (2) the resemblances may reflect the structure of a common proto-language, at least indirectly by parallel development from a system tending to incite this; (3) the resemblances may be due, in whole or in part, to diffusion between languages within the same geographical area.

In order to evaluate properly the likelihood of chance convergences in this matter, one would want to have available many more detailed language descriptions — ones that treat of relationships and regularities extending across clause and sentence boundaries — than there are at present. It is clear that many of the descriptions, mostly of North American languages, consulted in connection with this question are not detailed enough and do not result from intensive enough study to have necessarily included such a phenomenon even if it is present in the languages treated. On the other hand, it is equally clear that most languages of North America do not possess anything that would fit under the label of switch-reference.

Questions of the necessary and sufficient structural concomitants of this device also present themselves. In particular one wonders whether languages that indicate subordination of clauses by suffixes appearing at the end of these clauses may not be especially prone to the development of this device. One also is inclined to speculate about the degree to which this device may, on the one hand, be incompatible with an elaborately developed system of pronominal classification and may, on the other hand, have its development induced by a relative paucity of other referential devices.

Perhaps the most distinctive point on which these Hokan-Coahuiltecan languages agree, one which sets them apart from the other languages mentioned above, is the system of sentence-introducing particles that may carry the subordinating and switch-indicating suffixes. Even this point

is not a decisive indication of historical relationship, however, for the particle themes might have arisen independently from the weakening of certain verb themes. In fact Hoijer suggests that the Tonkawa particle theme ?e:- may be identical with the verb theme ?ey- , ?e:- "to be, to do" (Hoijer, 1946, 310; cf. the paper by Hymes in this volume).

Militating against the ascription of this device to the Hokan parent-language is its lack in several other Hokan languages. We have full enough grammatical descriptions or text collections available to be able to say with considerable certainty that it does not occur, in California, in Karok (Bright, 1957), Yana (Sapir, 1910 and 1923), Salinan (Mason, 1918), or Yuma (Halpern, 1946 and 1946-7), or, in Mexico, in Tequistlatec (Chontal de Oaxaca) (Waterhouse, 1962). Thus although we may have to do with survivals of a system that was lost in the majority of the branches, the simple probabilities are against it. Another negative consideration would be the hypothesis that Kashaya may have developed this device as a compensation for the loss of the pronominal prefixes of verbs that were doubtless present in Proto-Hokan. Even in Washo, this device may help to compensate for the lack of inflection for number of the subject, in addition to that for person, that is present in some of the languages, such as Karok and Salinan.

The possibility that we may have to do here in part with an areal phenomenon of the Southwest suggests itself. But this must probably remain on the whole just a tantalizing possibility — the distances are too great, the resemblances are too diffuse. Insofar as diffusion may have occurred, one would think of the Uto-Aztecan languages as the probable source or principal mediator. This would be reasonable enough in the case of Washo and Zuni, but unlikely for Tonkawa, and inconceivable for Kashaya. The Penutian languages of the central valley of California, intervening between Washo and Kashaya, seem to be quite different in syntactic structure. Witness this description by Newman of Yokuts, of the San Joaquin Valley and adjacent foothills of the Sierra Nevada (Gayton and Newman, 1940, 7; reprinted in Heizer and Whipple, 1951, 102):

In the same spirit Yokuts avoids expressing subordinate and superordinate relations between its predications. It possesses particles indicating temporal and modal subordination, such as "when" and "if", and suffixes forming subordinate verbs, but these are syntactic tools that Yokuts employs only on rare occasions. Its favorite device for relating predications to one another is the particle ?ama? , that can best be translated as "and" or "and then", an element that achieves only the loosest and most ambiguous type of co-ordination. The

great majority of sentences in a Yokuts text begin with this feeble co-ordinator. Occasionally a tighter cohesion is attained by the use of another particle meaning "also, again". But the language seldom goes beyond this in its efforts to connect and relate its predications.

Thus, in view of the uncertain balancing of the factors of chance resemblance, functional motivation, genetic resemblance, and structural diffusion, we must conclude that the possession of switch-reference cannot be taken as significant evidence for a genetic relationship between these Hokan and Coahuiltecan languages. The steady increase in our knowledge of the syntax of languages of the New World that is taking place may one day allow us to arrive at a more accurate historical interpretation of the resemblances that have engaged our attention herein.

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