Language and Culture Archives

Bartholomew Collection of Unpublished Materials

SIL International - Mexico Branch

NOTICE

AVISO

The Cora Two-Verb Construction

by

Eugene H. Casad

Summer Institute of Linguistics

August 25, 1993

Eugene H. Casad
SIL P.O. Box 8987 CRB
Tucson, AZ 85738

1.0 Introduction

The Cora language of northwestern Mexico is a member of the Southern branch of Uto-Aztecan family (cf. Langacker 1977a:5; Campbell and Langacker 1978b:197). In this paper I discuss a pair of bi-verbal constructions that are quite productively employed in Cora discourse, and are diagnostic grammatical structures that clearly relate Cora to other Uto-Aztecan languages such as Huichol, Náhuatl and Tohono O'odham. Against the background of Uto-Aztecan history I discuss how these patterns have come to be grammaticalized in their present forms, and offer a few suggestions as to the stage in the history of the Southern Uto-Aztecan languages at which particular components of the construction arose. Certain of these constructions involve a CONNECTOR element tɨ that is etymologically related to Proto-Uto Aztecan *tɨ 'ABSOLUTIVE/PARTICIPLE/BE/THING.' I also suggest that the element in question should be reconstructed as *tu rather than as *tɨ, since the correspondences between the Cora forms and the non-Cora cognates are regular.[1]

I begin by relating the data to several key notions taken from Langacker (1977b) and from Heine and Reh (1984). I use the term 'grammaticalization' in a broad sense, assuming it to be at work at various levels of grammar and involving much more than just the simple reanalysis of morphological categories, although it does include many of

these (cf. Langacker 1977b). The term **reanalysis** is important to this study. Langacker defines it as a "change in the structure of an expression or class of expressions that does not involve any immediate or intrinsic modification of its surface manifestation" (1977b:58).

I have borrowed heavily from Heine and Reh's monograph on grammaticalization processes in African languages. For describing certain aspects of the data I have found both their inventory of processes and their notational devices useful. They group grammaticalization processes into (a) phonetic, (b) morphosyntactic, (c) functional and (d) other processes. The phonetic processes include **adaptation**, i.e. the phonological changes that a morpheme undergoes in its several environments (1984:17); **erosion**, the reduction of phonological material from the string that comprises a given morpheme (1984:21); **fusion**, the loss of a boundary which results in two previously distinct morphemes being now treated as one (1984:25); and finally, **loss**, the stage in which a morpheme disappears as a distinct unit with phonological content (1984:27).

The morphosyntactic processes include **permutation**, the change in the linear order in which morphemes occur (1984:28); **compounding**, in which two or more 'free' linguistic units are combined into a single 'word' (1984:28); **cliticization**, a process in which a free lexical

item becomes dependent, both semantically and phonologically, on some other word in a phrase (1984:32); **affixation**, i.e. in which a function word (in contrast to a prototypical lexical item) becomes grammatically and phonologically dependent on another word (1984:35); and **fossilization**, i.e. the process by which a productive morpheme loses that productivity.

Heine and Reh's inventory of functional processes include **desemanticization**, which they define as a process by which a lexical item takes on "a second non-lexical function, which may ultimately become its only function (1984:36). As will become clear in this paper, this is the process included in the Heine and Reh inventory with respect to which I have the most misgivings and will suggest that it be restricted to the notion of 'bleaching', i.e. the loss of aspects of the semantic content of a morpheme. I will show that, for one, 'desemanticization' is not an all or none process, that the 'desemanticized' versions of morphemes still have meaning and that the resultant meaning is, in many cases at least, systematically related to the meaning the morpheme had at an earlier stage. All this, of course, is a matter of degree, as Langacker often points out (1987:18).

The other functional processes include **expansion**, the process by which a morpheme fits into additional contexts or categories (1984:39); **simplification**, the regularizing of paradigmatic irregularities (1984:41) and **merger**, the process in which the meaning of function of a pair of linguistic units that function together extends into a distinct meaning or function (1984:43-4).

Finally, Heine and Reh give a class of 'other' processes which include (a) **verbal attraction**, (b) **infixation**, (c) **split** and (d) **shift**. Only three of these are relevant to Cora; they are **verbal attraction**, the process by which free linguistic elements that typically function as arguments of the verb become bound phonologically to the verb (1984:50); **split**, the case in which an older function is retained even while new ones are developed (1984:57) and **shift**, the process in which one function of a linguistic unit is replaced by another function (1984:59).

All of the above varieties of grammaticalization processes still do not account for many of the phenomena that are easily discernible. For one, perceptual and conceptual factors interact with grammatical category changes in subtle and significant ways (Dirven 1985:115; Jongen 1985:124). In addition, the results are frequently multiply motivated (Langacker 1977b:99); Jongen 1985:135;

DuBois 1985:344; Claudi and Heine 1986:310, 327). In some cases, contexts even broader than a single sentence play a key role in grammaticalization. Pragmatic factors definitely play a part (Givon 1979a). It is also not clear that the commonly accepted progression from free lexical item to function word to grammatical morpheme always holds (cf. Claudi and Heine 1986:298).

In the rest of this paper, then, I discuss the grammaticalization of several Cora bi-verbal constructions, some of which contain the connector tɨ, a reflex of Proto-Uto Aztecan *tu 'BE/ABS/PARTICIPLE'.

2.0 Verb1 - Verb2 Constructions

Langacker (1977c) outlines the bewildering history of several different Uto-Aztecan grammatical elements, all of which can be glossed 'BE', but , even in Proto-Uto-Aztecan times, these elements had taken on several functions, including that of an ABSOLUTIVE suffix and that of an ACTIVE PARTICIPLE, which could also be glossed 'THING'. Three distinct forms of 'BE' are reconstructible. These include ***tɨ*** (or ***tu***), ***ka*** and ***yɨ***, with Proto-Uto-Aztecan ***tɨ*** being the most archaic of them all (Langacker 1977c:41).

The reflexes of Proto-Uto-Aztecan ***tɨ*** provide a clear example of functional split (cf. Heine and Reh 1984:57), although it is by no means simple to account for the phonological shape of the present day reflexes of ***tu***. The

expected Cora reflex of *tɨ would be te.2 Instead we almost always find the form tɨ. On the other hand, there is a certain amount of evidence for a form of *tɨ with the shape tu. Yaqui, another Southern Uto-Aztecan language, still has such a form. This is important for us here, since Yaqui u directly reflects Proto-Uto-Aztecan *u (cf. Voegelin, Voegelin and Hale 1962:76; Langacker and Campbell 1978a:102). Beyond all this is the need to reconstruct for Proto-Uto-Aztecan an extension of *tɨ which served as an Absolutive suffix, and has subsequently become grammaticalized as a participial suffix (cf. Langacker 1977:20; Hale 1983:310, 312). For the purposes of this paper, then, I assume that Cora tɨ arose from a Proto-Southern form *tu. It is important to keep in mind that *tu already had several distinct functions long before the Proto-Cora stage.

2.1 V1-V2: Auxiliary Verbal Constructions

The first of the constructions that I discuss consists of simple V1-V2 sequences in which the second verb of the sequence has come to play the role of an aspectual auxiliary verb that adds one of several different aspectual meanings to the entire construction.

This construction had already developed, or was simultaneously developing, in a number of the Southern Uto-Aztecan languages (cf. Canger 1981: ; Hale 1983:). The examples in (1) are from Classical Nahuatl and Yaqui.

(1)a.(NA) ix-polo-ti-nemi
face-perish:caus-CONN-live/walk(?)
'To lose one's way on the road.'

b.(NA) malin-ti-uetzi
twist-CONN-fall
'For two persons to fall to the ground, grasping each other'

c.(NA) nic-iuh-ti-uitz
(?)-hurry-CONN-come
'To come hurriedly.'

d.(YQ) káa túa 'áu 'alléa-t-ia-ka née
NEG really REFL happy-CONN-say-PPL me

'etého-ria á'a hi-mucá-k-t-ia hunáka'a
tell-APPL him UNSPO-bury-PRF-CONN-say DEM:ACC
'Saying that he was not really happy, he told me that they buried that guy.'

e.(YQ) huá-m-po betuk béhuk-tu-sime
tree-PL-in under duck-CONN-go:SG
'He went along, ducking under the brush.'

f.(YQ) 'tú'i-si tú-tu'uli hámut-tu-k-an-tea
very-ADV RDP-pretty woman-PERF-PRTC-QUOT
'It is said that she was a very beautiful woman.''

The discussion in this paper, therefore, relates not just to the grammaticalization of V1-ti-V2 sequences, but also to the origin of the entire Cora auxiliary system. Since this system involves successive layerings of double verb constructions, I begin with a discussion of the component parts and work toward an account of the entire complex structure later on.

The Cora auxiliary system is organized around the non-finite form of a locative verb **ha'a/he'e**, which can be glossed as 'BE IN X LOCATION', as in (2).

(2) a. ha'uní púh-me'e-n hé'e meehiku
where that-go-PRTC be:LOC Mexico City
way
'In which direction is Mexico City.'

The stem **he'e/ha'a** also joins in constructions with the verb stem **pɨ-rɨkɨ** 'DO/BE. This stem is itself morphemically complex. For one, the component stem **rɨkɨ** can occur as a free form. In such cases, it is typically glossed 'DO', as in (3).

(3) b. ka=nú á'ih rɨkɨ
NEG=I anything do
'I'm not doing anything.'

In combination with the ASSERTIVE MODE prefix **pɨ́-**, **rɨkɨ** means 'BE' and takes topicalized complements, as in (4).

(4) ¢anká pú pɨ́-rɨkɨ
sugar SUBJ ASSR-do
'It is crude brown sugar.'

In combination with the DISTRIBUTIVE PLURAL prefix **t^{y}i'i-**, **pɨ́-rɨkɨ** designates the time of day, month or season, as in (5).

(5) tamwáamwata'a pú pɨ́-t^{y}i'i-rɨkɨ
ten SUBJ ASSR-DISR-be
'It is ten o'clock'

Finally, **ha'a** 'BE (LOC)' combines with **pɨ́-rɨkɨ** to mean 'X is a named location', as in (6).

(6) Téepi pú pɨ́-há'a-rɨkɨ
Tepic SUBJ ASSR-be:LOC-be
"It is the city of Tepic.'

In many languages, a verb meaning 'GO' becomes grammaticalized as a marker of Future Tense (cf. Bybee and Pagliuca). This phenomenon is clearly seen in the development of the Cora Verb-Auxiliary construction. Not only does **ha'a/he'e** combine with **pɨ́-rɨkɨ** to mean 'BE IN X LOCATION', as in (6), it also combines with the intransitive stem **-me** 'to go:SG' taking on the derived meaning 'BE-FUT'. With this derived meaning, the compound verb **ha'ame** can either take nominal complements, as in (7a), or it can occur as a free complex intransitive verb with a future meaning, as in (7b). In both cases, the compounding process has involved the loss of a word boundary (cf. Heine and Reh 1984:32).

(7) a. amɨ́ pú ta-'i-ɣá'u há'a-me
DEM SUBJ our-NARR-father be:LOC-go
BE-FUT
'He will be our Father.'

b. ayáa pú ty-é'e-me
PROCOMP SUBJ DISTR-be-go
BE-FUT
'This is how it will be.'

Once **ha'ame** became fused into a single word, occurring either as free lexical item or taking nominal complements, the way was opened for it to become cliticized to verbs also. This seems to be a natural process based on the fact

that the derived form **ha'ame** is a verb and therefore would be of the same morphosyntactic status as other verbs (cf. Heine and Reh 1984:32). In addition, the schematic meaning of **ha'ame** allows it to coherently combine with practically any verb or adjective stem, giving the entire complex a more specific derived meaning 'To go along doing X' or 'to continue in the state of X.' For example, beginning with the verb stem **ant^{y}awaa** 'to have a name', the resulting **V-ha'ame** construction in (7a) means 'be called by name X.' Taking the verb šɨká 'to make warm', the **ha'ame** construction of (7b) means 'be warming things up.' The adjective stem ruuri in (7c) means 'to be wet' or 'to be alive.' In construction with **ha'ame**, the meaning 'to remain alive' is conveyed.

(8) a. šɨká pú nyá'u an-tyawaá há'a-me ta-yá'u
sun SUBJ well top-named be:LOC-go our-father
BE-FUT
'The sun shall be called 'Our Father.'

b. ka-pu hú'u-šɨka há'a-me
NEG-SUBJ NARR-COMPL-warm be:LOC-go
BE-FUT
'It would not warm things up.'

c. anšɨ šɨka pa-pu'u p-í rúuri pw-á'a-me
five day you-PAUS you-SEQ alive you-be:LOC-FUT
'You will be alive for just five more days.'

A crucial point of evidence that helps account for the development of the system of verbal auxiliaries is based on the fact that the Cora verb meaning 'to go' is suppletive for singular versus plural subject as well as for tense and aspect. The **V-ha'ame** construction has essentially

generalized to all the suppletive possibilities by a process which, for the lack of a better term, I call Paradigmaticization. As (9)(a and b) show, the singular 'present/future tense form of 'GO' is **-me** and the corresponding plural is **-hu'u**.

(9) a. n-a'-u-mé
I-DISTAL-EXT-go
'I am going to go'/'I am going.'

b. t-á'-u-hu'u-n
we-DISTAL-EXT-go:PL-FUT(?)
'We are going.'

In its singular continuative, non-past form, the stem is **-ye'i** (10a); the matching plural is **kɨ'ɨka** (10b).

(10) a. ču'aatá pú há'-u-ye'i
San Francsico SUBJ DISTAL-EXT-go:HAB
'He's off yonder in the ranch of San Francisco.'

b. ču'aatá mú há'-u-kɨ'ɨka
San Francisco they DISTAL-EXT-go:PL:HAB
'They're off yonder in the ranch of San Francisco.'

The perfective singular stem is **-raa** (11a), whereas the corresponding plural is **-kɨh** (11b).

(11) a. há'-u-raa
DISTAL-EXT-go
'He went away.'

b. m-a'-u-kɨh
they-DISTAL-EXT-go:PL
'They went away.'

Finally, the singular form of 'GO' in potential aspect is **-ra'an^{y}i** (12a). Its plural counterpart is **-kɨɨn^{y}e** (12b).

(12) a. nyí-čé'e há-'u-ra'a-n^{y}i
I-EXHRT DISTAL-EXT-go:SG-FUT
'Let me be on my way.'

b. tʏ́-čé'e há'-u-kɨɨnʏe
we-EXHRT DISTAL-EXT-go:POT:PL
'Let us be on our way.'

All the suppletive forms of 'GO' given in the simple verb phrases in sentences (9)-(12) combine with **ha'a** in the full range of V1-V2 constructions. One bit of evidence that some of these constructions are actually bi-verbal phrases and are not all compounds is that subject clitics can occur between the individual verbs of some of them. In addition, the auxiliary verb, the erstwhile **ha'a-me** compound, can be inflected with the set of subject prefixes, which are different from the clitics. Both sets of subject markers are given in (13).

(13)

Clitics	Prefixes
1SG: nu	n^{y}a-
2SG: papu'u	pa-
3SG: pu	O
1PL: tu	t^{y}a-
2PL: su	sa-
3PL: mu	ma-

Subject clitics can occur between the individual verbs in certain of these constructions. For example, a first person singular subject clitic is seen preceeding V2 in (14a), whereas a second person plural subject clitic occurs in (14c). In addition, the **ha'ame** verb can be inflected for person and number of the subject. Since this stem is underlyingly vowel-initial, all the subject prefixes lose

the prefix vowel, a rule common to both Cora and Huichol (cf. Grimes 1964:27). The particular subject prefixes illustrated by the examples in (14) include a first person singular subject prefix on V2 (the auxiliary in (14a)), a second person singular subject prefix in (14b), and a second person plural subject prefix in (14c). The unmarked third person singular form is given in (14d).

It is interesting that all the V1 forms in (14a-d) are marked for imperfective aspect. This is a significant parallel to the V1-c-V2 constructions discussed in Hale (1983:303). The imperfective status of the Cora V1 verbs can be determined either from the forms of the individual verb stems themselves or from the presence of an imperfective participial suffix -a. These observations show that one set of V1-V2 constructions really consists of phrases and is not constituted by a class of compounds. In addition, these constructions provide another example of a serial verb-verb construction in which one verb undergoes a semantic change to become a tense-aspect marker (cf. Heine and Reh 1984:129)

(14) a. nye-t^{y}í'i-ra-caáh=nú=n-á'a-ẏe'i
I-DISTRI-face-put=I=I-be:LOC-go:SG:HAB
'I go around piling them up.'

b. vale mas páh m^{w}áa ta-čaɬh=p^{w}-á'a-ra'a-nyi
worth more you:SUBR us-care=you-be:LOC-FUT
'It's better for you to start taking care of us.'

c. sa-táakuh=šu=š=á'a-hu'u-n
you:pl-suffer=you:PL=you:PL-go:PL-FUT
hunger
'You all are going to be hungry.'

d. hɨ́íta'a pú pɨ-hí-éenya-'a há'a-raa
woman SUBJ ASSR-NARR-be-PRTC=be:LOC-go:PAST
'It turned out to be a woman.'

In short, the various suppletive forms of 'GO' are each grammaticalized so as to mark a distinct aspect in V1-V2 constructions. The examples in (14) are not exhaustive of the system , but merely set out typical instantiations. Thus, **na'aye'i** in (14a) marks HABITUAL or REPETITIVE aspect, **p^{w}a'ara'an^{y}i** in (14b) marks SIMPLE FUTURE, **ša'ahu'un** in (14c) marks FUTURE DURATIVE, and **ha'araa** in (14d) marks PAST PERFECTIVE.

At this point, then, I summarize the various stages in the grammaticalization of the V1-V2 constructions cited thus far in this section. Borrowing notations adapted from Heine and Reh (1984), I summarize in Figure 1 the various processes that have operated together throughout the history of Southern Uto-Aztecan to determine this section of the Cora verbal auxiliary system. The arrows along the diagonal trace the successive stages of grammaticalization. The fact that earlier stages of the bi-verbal construction have been retained through time both makes this analysis plausible, at least, and allows representation in terms of vertical lines that are anchored to distinct nodes (cf. Langacker 1977a:68; Heine and Reh 1984:36). Each node along the diagonal

represents the point at which a particular process operated to bring about a new stage in the grammaticalization of the linguistic unit under consideration. One needs to keep in mind that, usually, a subset of the grammar remains which reflects each stage; Hopper refers to this as "the persistence principle (Hopper 1989:)." The vertical lines all end at the same level, which represents the present stage of observation of the linguistic data.

As Figure 1 suggests, then, the Cora bi-verbal construction began with the stage in which the locative verb **ha'a** formed a compound with a following verb. The compounding of **ha'a** with the motion verb **-me** 'GO' led to a specialized usage that involved the desemanticization of **ha'a** and the extension of **-me** to mean FUTURE. This stage also resulted in a greater degree of binding between the two components of the construction. In its specialized usage, then, the compound **ha'ame** took on nominal complements by a process of EXPANSION into a new grammatical context. It also came to combine with a preceeding verb by a process of SPECIALIZATION in that it did not create a new verb, but rather colored the meaning of V1 by imparting a FUTURE meaning to the whole structure. This specialized usage, in turn, initiated an entire sequence of selections of related forms that each contributed unique aspectual colorings to the resultant bi-verbal construction. I summarize the entire sequence of selections under the general label of

PARADIGMATICIZATION, a process recently discussed by a number of scholars (cf. Matisoff 1989). A result of this, then, is the extraction of a specialized schematic pattern given as the last stage of the grammaticalization of the bi-verbal auxiliary construction.

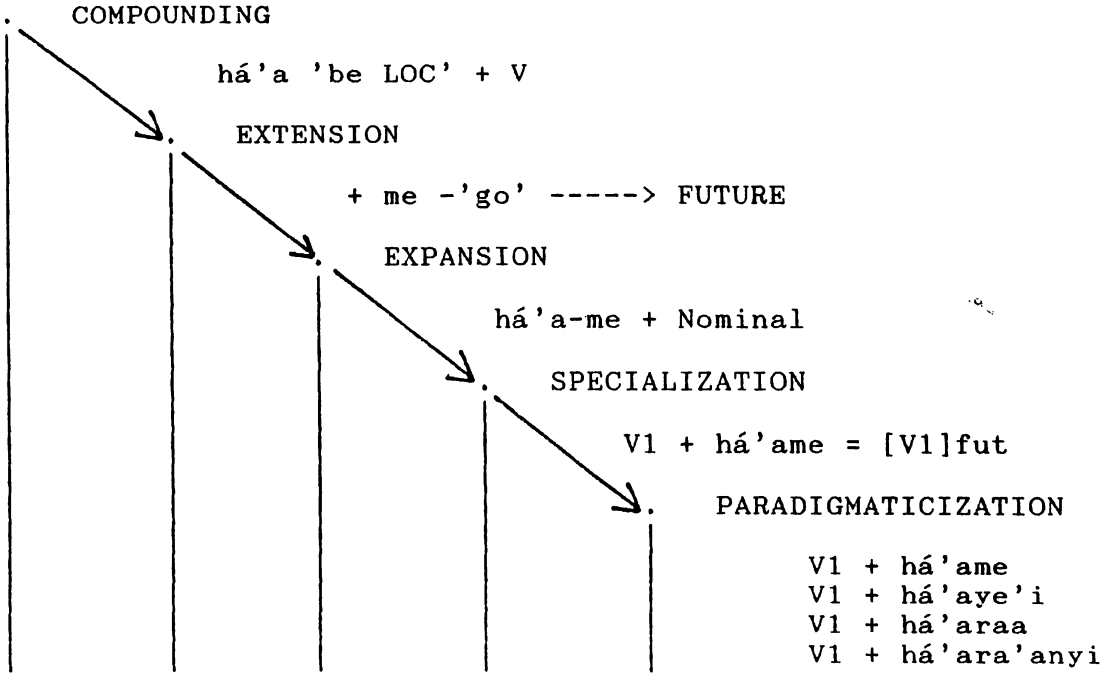

Figure 1: The V1-V2 Auxiliary Construction

2.2 [V1-tɨ]-V2 Constructions

A second version of the V1-V2 construction includes the connecting element tɨ in a tightly knit V1-V2 serial construction. In these constructions, tɨ has undergone a semantic change from a participial suffix that could be glossed 'THING' to an even more semantically bleached out unit that plays a role of acting as a base for attracting the second verb of the construction. The entire Verb1-tɨ-Verb2 construction is much more tightly bound than the

serial verb constructions discussed in Section 2.2. In this case, the auxiliary seems to be really suffixed to tɨ, which itself is tightly bound to the preceeding stem. This structure parallels the [V1-tɨ]-V2] pattern of Nahuatl that I illustrated earlier. Three more examples of this common construction are given in (15).

(15) a.(NA) cauh-ti-quiza
leave-CONN-emerge
'To stop someplace on the way.'

b.(NA) aci-ti-uetzi
reach-CONN-fall
'To hunt or sieze something violently.'

c.(NA) ac-ti-tlaza
fit-CONN-lower
'To trample down the earth.'

A second observation about these constructions is that the stem **ha'a** 'BE:LOC' is completely absent from them. This may suggest that, ultimately, Cora tɨ may be traceable back to an earlier Proto-Uto-Aztecan form that did mean 'BE'. In turn, this could suggest that at an earlier stage the V1-V2 constructions with **ha'ame** and the [V1-tɨ]-V2] constructions were actually competing patterns.

Yaqui data provide a slight suggestion of the plausibility of this, since present-day Yaqui has a clear **ti/te/tu** connector in V1-V2 constructions, which in certain contexts, still retains a clear meaning of 'BE'. This is important for us here, since Yaqui **u** directly reflects Proto-Uto-Aztecan ***u** (cf. Voegelin, Voegelin and Hale

1962:76; Langacker and Campbell 1978a:102. Typical Yaqui examples are given in (16).

(16)(a)(YQ) wa'a hámut-tu-k-a'u , wakáh-tu-k
that woman- BE-PERF-formerly cow-BECOME-PERF
'The one who hab been a woman became a cow.'

(b)(YQ) 'ínepo 'á'a bíča-k naámukia-tu-k-o
I- him see-PERF drunken-BE-PERF-when

wečía-tu-ka-n
fallen-GER-PCN
'I saw him when he was drunk; he had fallen down.

(c)(YQ) hiáki 'á'a múhu-ka, á'a ró'i-tu-k
Yaqui him shoot-PERF him cripple-VB-PERF
'A Yaqui had shot him and crippled him.'

(d)(YQ) 'áa hóo-tu
able do-VB
'It can be done.'

The examples in (17), then, illustrate the Cora bi-verbal constructions with tɨ. As in the serial construction, the initial verb in this construction is expressed in the imperfective aspect.

(17)(a)(CR) án pú nú'u t^{y}á-ha'a-ka-n^{y}á'a-tɨ-ye'i
on SUBJ QUOT DISTR-DISTAL-down-CONN-go
top
'He is going around there dancing on top of it.'

b.(CR) t^{y}i-hí'i-k^{w}a'a-tɨ-raa
DISTR-NARR-eat-CONN-go:PAST
'He began to eat.'

c.(CR) n^{y}a-k^{w}í'i-tɨ-me
me-hurt-CONN-COLL
'My feet hurt me.'

The examples in (17) show additional distinctions in the aspectual system. In (17a), -tɨye'i marks REPETITIVE aspect, whereas in (17b) -tɨraa marks INCEPTIVE aspect. Finally, in (17c),-tɨme marks MULTIPLE aspect. It turns out that the sets of aspect distinctions signalled by V1-V2 serial verb constructions only partially overlaps that signalled by [V1-tɨ]-V2] constructions. This may well suggest that the [V1-tɨ]-V2] construction is the older one and also suggest why the newer construction did not completely replace the older construction; the two constructions have thus settled down into their own niches within the grammar.

It is likely that both kinds of double-verb constructions can be reconstructed for Proto-Cora-Huichol, if not for an even earlier stage. This is suggested by the Huichol examples given in (18) and (19), which consist of both a tightly bound construction with -tɨ- as the connector (18)(a-c) and a more loosely connected construction, which is represented orthographically as two distinct verbs (19)(a-e).

Grimes refers to the tightly bound construction as a class of compounds. In this construction, only the initial verb is marked for the person and number of the subject, although the second verb may still be either in its singular form (18)(a,c), or its plural form (18)(b).

(18)(a)(HU) pɨ-ti+-kuuye+-tɨ-yaa
ASSRT-DIST-sick-CONN-go:SG
'He got sick.'

(b)(HU) te-p-te+-ku-xaa+taa+-tɨ-kɨɨ
2PL:SUBJ-ASSER-DISTR-RECIP-talk-CONN-go:PL
'We started to converse.'

(c)(HU) mi-wa-ka+-huuxaa+-tɨ-kaa
SUBJ-down:out-down-body:hair-CONN-be:loc:SG
' It [nose] has hairs sticking down out of it.' (Song)

In contrast, Huichol also has a bi-verbal construction that displays subject marking on both clauses. typical examples are shown in (19)(a-e). Thus, (19a) illustrates 3rd singular subject agreement, (19b) exemplifies 1st person plura subject agreement and (19c) gives an example of an unspecified 3rd person singular subject. Finally, 3rd plural subject marking is seen in (19d).

In addition, the CONNECTOR tɨ is more closely bound to the initial verb of the construction than it is to the second verb. The examples in (19) also show that the initial verb tends to be in an imperfective form (19)(a and b). The initial elemant in this construction may also be a noun or adjective, as in (19c). In this case, tɨ demonstrates a kind of protasis bracketing very similar to that which Hale (1983) demonstrates for Papago c (Hale 1983:304,310). This means of course, that this pattern goes clear back to Proto-Southern Uto-Aztecan. Finally, the biclausal staus of the constructions in (19) is substantiated by the fact the -me

'OBJ' occurs in the functional slot of verb 1 where tɨ does in the other constructions. Since V2 of (19d) is a CAUSATIVE suffix, it appears reasonable to assign tɨ the meaning of SINGULAR SUBJECT and -me the meaning OBJECT, with its presence in (19e) reflecting differential case selection due to distinct grammatical structures.

(19)(a)(HU) ti-kuu+ye-tɨ n-aa-yaa+
DISTR-sick-SS=SIMUL NARR-allative-go-

ni
NARR:CLOS
'He got sick.'

(b)(HU) te-tee+-ku-kuuyee-tɨ te-p-aa+
1PL-DIST-REDU-sick-SS:SIMUL 1PL-ASSER-all

-kɨɨ
-go:PL
'We got sick.'

(c)(HU) xuu+ree-tɨ p-aa+yeika
red/blood-CONN ASSER--allative-go:SG:DUR
'It turns red (whenever the conditions are right).'

(d)(HU) me-tee-kwaa+-tɨ me-p-aa
3PL-DIST-eat-SS:SIMUL 3PL-ASSER-allative

-kɨɨ
-go:PL
'They got to be so they would eat.'3

(e)(HU) heekɨa.ka-me p-aa-yei-tɨa
visible-obj ASSR-allat-go:SG:PUNC-CAUS
'He made it become visible.'

I close by citing an alternate version of the Cora [V1-tɨ]-V2] construction which shows an h occurring between the V1 stem and the auxiliary (20a and b). It is possible that the h form of the connective represents the final stage in the grammaticalization of tɨ as a connective element in

these constructions. This stage involves the loss of the vowel ɨ and the softening of t to h, in short, a version of Adaptation (cf. Heine and Reh 1984:18).3

(20)(a)(CR) tya-'ah-ta-mwáaka-h-me
DISTR-outside-slope-straight-hand-CONN-COLL

tɨh síiku'u-ri
SUBR shirt-ABS
'It has sleeves just like a shirt.'

(b)(CR) naíhmi'i šu wa-t^{y}á-kɨ'ɨšɨ-h-ra'a
together you:PL COMPL-middle-chirp-CONN-go-

-n^{y}i
FUT
'You will all begin to chirp together from your holes.'

Figure 2, then, summarizes the development of the [V1-tɨ]-V2] construction in Cora. The first stage, which actually occurrred well before the emergence of Cora as a distinct language, involved the phonological change of the PUA vowel *u to ɨ. The second stage, still in early Southern Uto-Aztecan times, involved the partial desemanticization of tɨ when it was suffixed to V1. This stage is reflected in Náhuatl, Cora, Huichol, Tohono O'odham and Yaqui. This change involved the split from a previous use as an ABSOLUTIVE suffix to an additional IMPERFECTIVE PARTICIPIAL function which came to serve as a base for attaching a following verb. The result of this was straightforward [V1-tɨ-V2] verbal phrases. This stage must also be assigned to Proto-Southern Uto-Aztecan times. The subsequent stage involved the specialization and paradigmaticization of the tɨ-V2 sequence as a marker of aspect. This stage appears to

be restricted to Cora and Huichol. The final stage consisted of the phonological reduction of tɨ to h in certain environments. This reflects the major difference between these two languages and may well be the only stage fully restricted to Cora.

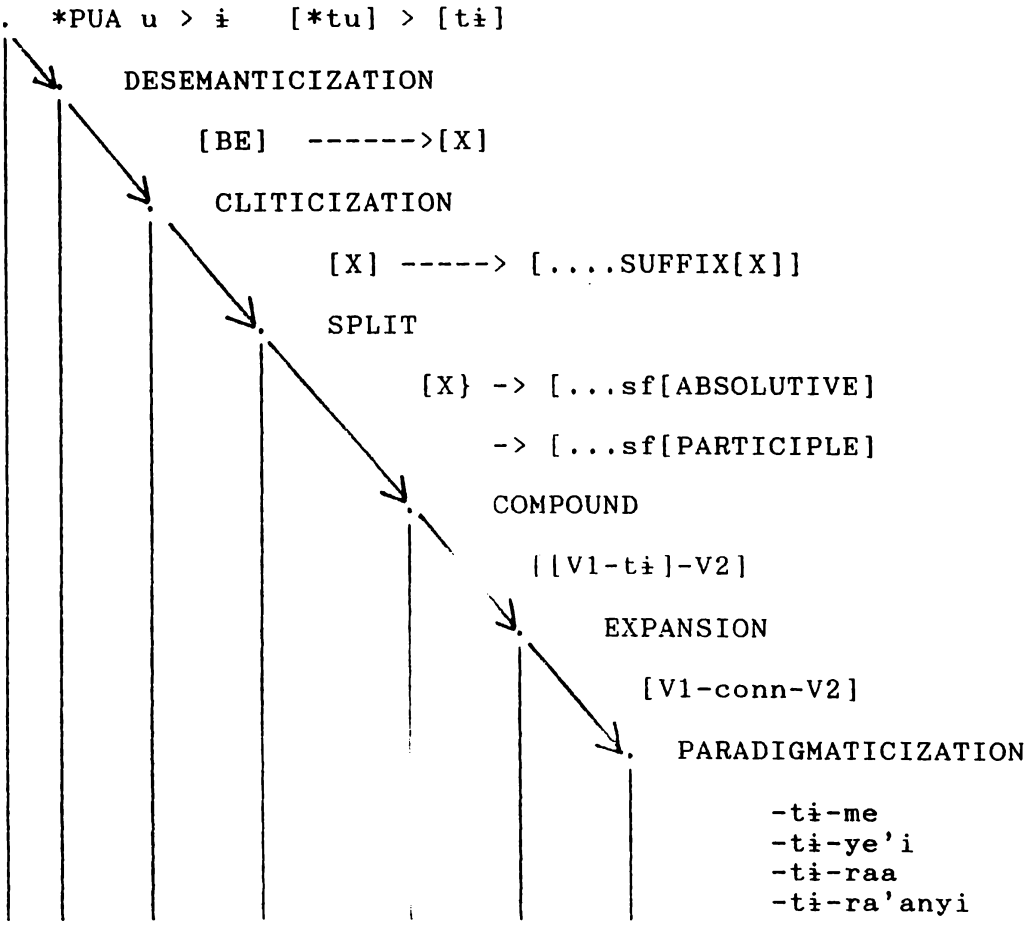

Figure 2: tɨ as CON TOR

FOOTNOTES

1 I am indebted to both Terrence Kaufmann and Wick Miller for pointing this out to me. Comments by Lyle Campbell at the Conference on Grammaticalization held at the University of Oregon in 1988 were partially helpful. Lyle was clearly wrong when he claimed that Aztec did not have any double verb constructions. I am very grateful to R. Joe Campbell who generously provided me with copious examples from his Náhuatl data base.

2 Santa Teresa Cora does employ the expected -te form, as in the following example:

(i) ka=nú a'a-té wa'ate
NEG=I thing-ABS know
'I do not know anyone.'

3 There is independent evidence in Cora for a rule of C-softening. This affects at least both r and s under various conditions.

References

Casad, Eugene H. 1984. "Cora." In: Ronald W. Langacker, ed. *Studies in Uto-Aztecan Grammar, Volume 4: Southern Uto-Aztecan Grammatical Sketches*:59-453. Dallas: The Summer Institute of Linguistics and the University of Texas at Arlington.

Claudi, Ulrike and Bernd Heine. 1986. "On the Metaphorical Base of Grammar." Studies in Language 10:297-335.

Grimes, Joseph E. 1964. *Huichol Syntax*. London/ The Hague/ Paris: Mouton & Co.

Hale, Ken. 1983. Papago c. IJAL

Heath, Jeffrey. 1977. "Uto-Aztecan Morphophonemics." *IJAL* 43:27-36.

------ 1978. 'Uto-Aztecan -na Class Verbs." *IJAL* 44:

Heine, Bernd and Mechthild Reh. 1984. Grammaticalization and Reanalysis in African Languages. Hamburg: Helmut Buske Verlag.

Jongen, Rene. 1985. "Polysemy, Tropes and Cognition or the Non-Maggrittian Art of Closing Curtains Whilst Opening Them". In: Paprotté and Dirven, eds.:121-39.

Langacker, Ronald W. 1977a. An Overview of Uto-Aztecan Grammar. Ronald W. Langacker, ed. Studies in Uto-Aztecan Grammar:Volume 1. Arlington, TX: The Summer Institute of Linguistics and the University of Texas at Arlington.

Miller, Wick R. 1964. *Uto-Aztecan Cognate Sets. University of California Publications in Linguistics, Volume 48.* Berkeley and Los Angeles/ University of California Press.

----- 1988 and Kevin Jon Hegg, Laurel Anderton and Cindy High. *Computerized Data Base for Uto-Aztecan Cognate Sets.* Salt Lake City/ University of Utah, Department of Anthropology.

Voegelin, C.F., F.M. Voegelin and Kenneth L. Hale. 1964. Typological and Comparative Grammar of Uto-Aztecan:I (Phonology). Indiana University Publications in Anthropology and Linguistics, Memoir 17. Baltimore: Waverly Press, Inc.