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Source: *International Journal of American Linguistics*, Vol. 53, No. 2 (Apr., 1987), pp. 119-135

Published by: [The University of Chicago Press](#)

Stable URL: <http://www.jstor.org/stable/1265141>

Accessed: 29/08/2010 02:39

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# CLITICIZATION AND THE MORPHOSYNTAX OF MIXTEC

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**1. Introduction.** “Clitic”<sup>1</sup> and “cliticization” are terms which are frequently encountered in descriptions of American Indian languages, but they are terms which are rarely defined in any explicit manner. In fact, there are several different types of elements and/or processes which have been described by these terms, without any acknowledgement of the variation in usage. This has resulted in a certain degree of confusion in some analyses of languages manifesting clitic phenomena.

This article describes a portion of the morphosyntax of the Otoman-guean language Mixtec in terms of a typology of clitics in which three distinct types of clitic element are defined. It can be shown that an adequate synchronic account of Mixtec requires that such distinctions be recognized. This description of Mixtec will be contrasted with Kenneth Pike’s classic (1944) analysis,<sup>2</sup> in which cliticization is treated as a unitary phenomenon—one which is quite similar to the contraction found in rapid speech in English. Pike’s claim is that all monosyllables in Mixtec (including those which appear to be clitics and affixes) are underlyingly independent disyllabic words.<sup>3</sup> He denies that any basic category of bound morphemes exists in the language, claiming instead

<sup>1</sup> Research on this article was supported in part by a grant from the Tinker Foundation and the Program in Mexican Studies of Berkeley, and by the Survey of California and Other Indian Languages. I would like to thank Nicolás Cortés for providing most of the data on which this study is based. I would also like to thank Claudia Brugman, Amy Dahlstrom, Charles Fillmore, Leanne Hinton, Paul Kay, Tom Larsen, Marianne Mithun, Joel Nevis, Karl Zimmer, and Arnold Zwicky for their valuable comments on earlier drafts of this article. In addition, comments from anonymous reviewers were of help in clarifying certain points in the text. Any errors are, of course, my own.

<sup>2</sup> Pike’s data were collected from speakers in the town of San Miguel el Grande, Oaxaca, in the years 1935–41. Most of the examples given in this article, however, are from the dialect of Mixtec spoken in the town of Chalcatongo (a few miles from San Miguel el Grande). The Chalcatongo data were collected between 1981 and 1985, both in Berkeley and in Mexico. Data from the two towns are for the most part identical, but some differences will be noted. Examples from Pike are always marked as such; all unmarked examples are from the Chalcatongo dialect.

<sup>3</sup> Free words must contain (at least) two syllables in Mixtec. This is discussed further below.

that all bound forms are the result of a synchronic process of “cliticization.” He further claims that as a result, no sharp distinction can (or need) be made between syntax and morphology in the language.

Here I describe the phenomena which led Pike to analyze the language in this way and show that his approach fails to account for various Mixtec data. I propose a quite different analysis—one which is based on the typology mentioned above and which accounts for all of the relevant data.

**2. The data and Pike’s analysis.** The canonical syllable in Mixtec is composed of V, CV, or nonfinal CV?.<sup>4</sup> All stems are formed of at least two syllables, with possible combinations restricted to the following:<sup>5</sup>

- (1) VV:           *uù* ‘two’, *úa* ‘bitter’  
 CVV:           *čàà* ‘man’, *saù* ‘rain’  
 CVCV:          *kíi* ‘animal’, *ba?a* ‘good’  
 VCV:           *una* ‘eight’, *u?ù* ‘to hurt’  
 CV?CV:        *ká?nu* ‘big’, *kó?lo* ‘turkey’

Stems composed of three syllables are also found but appear in most cases to be relics of compounds which have lost one syllable of the first member. These are discussed further in 3 below.

Complicating the analysis of the structure of root forms is the fact that there is a strong tendency in the language to abbreviate forms of more than one syllable in rapid speech. This “contraction” occurs according to the following rules:<sup>6</sup>

<sup>4</sup> The only case in my data of an initial syllable closed by anything other than /ʔ/ is the word *čilža* ‘lizard’. Consonant clusters are limited to initial syllables and are formed with /s/ followed by /k/, /t/, /n/, or /nd/. Clusters are treated as a single instance of initial “C” in this article, for ease of presentation.

<sup>5</sup> The segmental phonemes of Chalcatongo Mixtec are as follows: stops *b*, *t*, *k*, *kʷ* (labialized velar stop), *ʔ*; prenasalized stop *nd*; nasals *m*, *n*, *ñ*; oral resonants *l*, *r* (the latter phonetically a flap before /u/, /o/, and /i/, but a voiced interdental fricative before /e/—found only in pronouns and a few loanwords); fricatives *s*, *š*, *z*, *h*; affricate *č*; continuant *w*; oral vowels *i*, *ɨ* (high central unrounded), *u*, *e*, *o*, *a*; nasal vowels *ĩ*, *ẽ*, *ũ*, and *ã*. Tones are marked as follows: high (´), low (˘), and mid (unmarked).

Abbreviations which are used in this article are as follows: 1, 2, 3—first, second, and third person, Caus—Causative, Cl—Clitic, Cp—Completive, F—Feminine, Incho—Inchoative, M—Masculine, Neg—Negative, Pl—Plural, Poss—Possessive, Qu—Quotative, Rep—Repetitive, Sj—Subjunctive.

<sup>6</sup> Note that a word of the form (C)V?V has two possible rapid speech forms: (C)VV (by 2a) and (C)V (by 2a and 2b). Representative examples of the rules in (2) are as follows:

From (2a):

- (i)    *ba?a* → *baa* (‘good’)  
 (ii)   *u?ù* → *uù* (‘to hurt’)

## (2a) Glottal Stop Deletion

(C)  $V^i ? V^i \rightarrow (C) V^i V^i$ 

## (2b) Vowel Deletion

(C)  $V^i V^i \rightarrow (C) V^i$ 

## (2c) Initial Syllable Deletion

 $C^j V^i C^k V^i \rightarrow C^k V^i$ 

Example (3) illustrates the operation of some of these rules. As indicated by the second line of (3), full forms underlying abbreviated roots can always be elicited from the speaker in slow speech.<sup>7</sup>

(3) *s-ndíʔi bikó-yó ha-kú ñu-yò ya**s-ndíʔi bikó-žó ha-kúu ñuù-žo žáʔa*

Caus-finish fiesta-1Pl that-is town-1Pl this

‘We finish our fiesta that is of this, our town’.

The prevalence of this contractionlike phenomenon was used by Pike to support his conclusion that all monosyllabic forms in Mixtec are synchronically derived from underlying independent words. That is, Pike claims that all of what appear on the surface to be monosyllabic clitics and affixes are actually free words at some abstract level of analysis. This is the basis for his claim that syntax and morphology need not be distinguished in Mixtec.<sup>8</sup>

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From (2a) and (2b):

(iii) *baʔa* → *baa* → *ba* (‘good’)(iv) *uʔù* → *uù* → *u* (‘to hurt’)

From (2b):

(v) *uù* → *u* (‘two’)(vi) *čàà* → *čà* (‘man’)

From (2c):

(vii) *kíi* → *í* (‘animal’)(viii) *ndíži* → *ži* (‘corpse’)

Rule (2c), while still productive, is far less often employed than rules (2a) and (2b).

<sup>7</sup> [ž] and [y] are in free variation in Chalcatongo Mixtec, which accounts for the difference between the first line and the second in the initial segment of some morphemes in (3).

<sup>8</sup> Pike actually takes it somewhat further, hypothesizing that the distinction might not be necessary in the description of other languages either: “Once granting for description of a language of this type [i.e., Mixtec] the value of emphasis upon positions first and form or form classes resulting from position as secondary, it might well be enquired whether a similar approach to languages of a far different type would not uncover some descriptive advantages which would help to supplement the traditional arrangement of grammars which takes for granted as its most prominent division (apart from sounds) a linguistic chasm between morphology and syntax” (1944:113).

(4) is a typical example of Pike's analysis. The first line is the sentence as spoken, and the second is Pike's representation of its underlying form.<sup>9</sup>

- (4) *ndé-nì-hinì-rì hà-ká'àn ?əən kaba?*  
*?ondè nù hinì ruù hàà ka'àn ?əən kaba?*  
 where complete see I thing talk one cliff  
 'Where have I ever seen a cliff talking?' (Pike 1944:118)

I call the analysis represented by (4) the "deep isolating" hypothesis. My claim is that in such an analysis, crucial distinctions between types of monosyllabic elements go unrecognized. In fact, at least three subclasses can be distinguished, as follows. First, there are forms which do contain two syllables in slow speech, such as the pairs *kú/kúu*, *ñu/ñuù*, and *ya/žá'a* of example (3), and *ndé/?ondè* of example (4). Second, there are monosyllabic forms which do not themselves appear as full forms in slow speech but which are clearly related to full forms appearing independently in other environments. Pronominal clitics such as the *-ri* (first-person singular) of (4) are of this type. These are discussed further in 5, but note in (5a) below the correspondence between the full form and the clitic form of the pronoun, and in (5b) and (5c) the positional restrictions on each of the forms.<sup>10</sup>

- (5a) *ru?u nì-žee-ri*  
 I Cp-eat-1(C1)  
 'I ate'
- (5b) *\*nì-žee ru?u*
- (5c) *\*ri-nì-žee*

Finally, a third class of monosyllabic forms consists of those which appear invariantly as a monosyllable, and for which Pike's putative corresponding disyllabic form is unattested. *Niì*, which Pike glosses as 'complete' (corresponding to what I view as the Completive prefix *ni-*), is an example of such a nonoccurring form.

Pike's analysis does not recognize any difference between these various types of monosyllabic elements. He analyzes all three types as instances of the same rapid speech contraction phenomenon, which he calls "cliticization." In the following sections we see that in an adequate synchronic account of Mixtec, these classes of elements must be kept distinct.

<sup>9</sup> Pike's /ə/ corresponds to the Chalcatongo dialect's /i/.

<sup>10</sup> The full form of the first-person pronoun is *ruù* in Pike's San Miguel el Grande data; it is *ru?u* in the Chalcatongo data.

**3. Counterexamples.** One quite compelling reason for rejecting the deep isolating hypothesis is that there are many examples in which a given derivationally complex word has a different semantic interpretation than that of the periphrastic construction which would, on Pike's analysis, have to be postulated as its underlying form. Two such cases are presented in the following sections, and a third somewhat different case is presented after that.

**3.1. Causatives.** Hinton (1982) observes that causatives can be formed in Chalcatongo Mixtec either syntactically (as in 6 and 7) or morphologically (as in 8 and 9). Note that the morphological causative is formed by prefixation of *s-* to verbs and *sa-* to adjectives.

- (6) *sáʔa hà-ná-káčaʔa*  
cause that-Sj-dance

'Make him dance!' (i.e., get him up and have him go out there and dance!)

- (7) *ni-sáʔa-re hà-ní-ndu-k<sup>w</sup>áʔá-ri*  
Cp-cause-3M that-Cp-Incho-red-l

'He made me blush' (lit. 'get red')

- (8) *s-káčaʔa*  
Caus-dance

'Dance (him)!' (e.g., if you are riding a horse, make him dance by manipulating the reins)

- (9) *ni-sa-k<sup>w</sup>áʔá-re*  
Cp-Caus-red-3M

'He made (me) red' (e.g., he painted (me) red)  
(Hinton 1982:356-57)

While it is clear that the two forms of the Mixtec causativizing morpheme (*s-* and *sa-*) are historically related to the verb meaning 'to make' or 'to do' (*sáʔa*), at present they are no longer precisely synonymous with it. Instead, the syntactic causative of (6) and (7) is interpreted as two-agent or directive causation, and the morphological causative, as in (8) and (9), is interpreted as a single event with only one agent or as manipulative causation.

In addition to this difference in interpretation, there is also the obvious phonological difference between *s-* and *sa-* themselves. If this difference were due to a simple phonological process like Pike's "cliticization," we would expect it to occur under predictable phonological conditions. Yet

there is no phonological or morphophonological motivation for the reduction of *sa-* to *s-*, as the following near minimal pair shows:<sup>11</sup>

- (10a) *s-ndóo*  
 Caus-stay(verb)  
 'Leave' (transitive verb)
- (10b) *sá-ndoo*  
 Caus-clean(adj.)  
 'Clean' (transitive verb)

Rather, as noted above, this difference is conditioned by the syntactic category of the affixed root: *s-* attaches to verbs and *sa-* to adjectives.

Invocation of a purely phonological rule of cliticization to account for the Mixtec causatives, then, would obscure the semantic difference between use of the full form and use of the prefixes, as well as render unpredictable the distribution of the two prefixes themselves.

**3.2. Lexicalization with *be-*.** Quite often in Mixtec one finds that the majority of words in a given semantic domain are composed of three syllables (as opposed to the expected two) and, further, that all of these trisyllabic words have an identical first syllable. In this section we consider a somewhat limited example of this phenomenon, and in the next section we consider a domain in which the examples are much more widespread.

Consider the data in:<sup>12</sup>

- (11) *be?e* 'building'  
*àní* 'mayoralty' (Spanish 'presidencia')  
*be-àní, be?e àní* 'city hall' (Spanish 'palacio')

The fact that *be-àní* alternates freely with the two-word phrase *be?e àní* indicates that in this case the Pikean analysis would be right: the initial syllable *be-* of the former is clearly a reduced form of the full word *be?e*.

The following examples, however, do not conform so nicely to such an analysis:

- (12) *be-kaa* 'jail'      (*kaa* 'iron')  
*be-ñú?ũ* 'church'    (*ñú?ũ* 'earth')

The relationship between the full noun *be?e* 'building' and the initial syllable (*be-*) of these two examples is again transparent. However, in

<sup>11</sup> Tone sandhi may be ignored for the purposes of this article.

<sup>12</sup> I should mention that Pike did notice examples like these (Pike 1949:134) but, for reasons which remain obscure to me, decided that they did not pose serious problems to his analysis.

this case, a synchronic derivation of *be-kaa* and *be-ñũ'ũ* from underlying nominal compounds would fail to predict the meanings of the trisyllabic forms, since speakers instead interpret the corresponding compounds compositionally, as shown in:

- (13) *be'e kaa* 'building made of iron'  
*be'e ñũ'ũ* 'building made of earth'

Once again, the deep isolating hypothesis fails to account for the specialized interpretation of derivationally complex words—in this case, lexical items which are only historically related to phrases consisting of two independent words.

**3.3. Animal names.** In the domain of animal names, we find both a large number of trisyllabic words beginning with *tĩ-* (as in 14) and also a large number of disyllabic words which do not have any particular syllable in common (as in 15):

- (14) *tĩ-ndákú* 'worm'    *tĩ-kičĩ* 'bat'  
*tĩ-kàka* 'crow'    *tĩ-sú'má* 'scorpion'  
*tĩ-ndóó* 'spider'    *tĩ-kàà* 'grasshopper'  
*tĩ-ñúú* 'owl'    (cf. *kĩtĩ* 'animal')
- (15) *saà* 'bird'    *bílu* 'cat'  
*ina* 'dog'    *bá'u* 'coyote'  
*sá'ba* 'frog'    *sndĩki* 'bull'  
*kòò* 'snake'    *čúkú* 'mosquito'

The words in (14) are undoubtedly at least historically derived from nominal compounds composed of *kĩtĩ* 'animal' plus some second element. The correlation between the initial *tĩ-* of these words and the full word *kĩtĩ* is predicted by a regular rule of truncation or "contraction" (see 2c). In addition, the two final syllables can in some cases be analyzed as a morpheme denoting a characteristic feature of the animal in question. A few of the examples of (14) are analyzed along these lines in:<sup>13</sup>

- (16a) *tĩ-ndákú* 'worm':  
*kĩtĩ* + *ndákú* 'change'—'changing animal'
- (16b) *tĩ-sú'ma* 'scorpion':  
*kĩtĩ* + *sú'ma* 'tail'—'tail animal'
- (16c) *tĩ-kàà* 'grasshopper':  
*kĩtĩ* + *káá* 'rise'—'rising (jumping) animal'

<sup>13</sup> Macri (1981) cites parallel data from San Miguel Mixtec, and the examples in (16) are formulated following her lead.



Under Pike's approach, we of course would have to claim that the forms represented in (14) are synchronically derived from the corresponding compounds (as shown in 16). However, note that the full word *kítí* never appears (and indeed may not appear) in place of the single initial segment *tí-* in these forms, as it does in examples such as the following:

- (17) *kítí mulá* 'mare'  
 animal mule  
*kítí tátá* 'breeding animal'  
 animal father  
*kítí žúkú* 'mountain animal'  
 animal mountain

Any attempt at formulating synchronic rules of cliticization to account for these data would have to include purely arbitrary stipulations concerning the obligatory nature of the rule for the forms in (14) and its optional nature for the forms in (17). The alternative which I propose is to list forms such as those in (14) in the lexicon in their trisyllabic form and to allow forms such as those in (17) to be derived by regular rules of compounding.<sup>14</sup> This solution avoids the optional versus obligatory rule problem entirely.

An additional bit of evidence which we can adduce in support of the claim that the words in (14) are lexicalized trisyllables is provided by the fact that there is for some speakers a certain amount of variation in the vowel of the initial syllable of these words. In some cases in my sample *tí-* varies with *te-*, in one case *tí-* varies with *ti-*, in two cases *tí-* is replaced by *ti-*, and in one case it is *ti-* which varies with *te-*:

- (18) *tí-ndákú, te-ndákú* 'worm'  
*tí-ñúú, te-ñúú* 'owl'  
*tíñi, tiñi* 'rat'  
*tíhi* 'buzzard'  
*timí* 'bee'  
*ti-kokó, te-kokó* 'worm'

It would be difficult, if not impossible, to state a synchronic rule of cliticization which could predict the vowel (or vowel variants) resulting from reduction of *kítí* in each of these cases.<sup>15</sup> In addition, such an

<sup>14</sup> N+N compounding is highly productive in Mixtec, creating genitive and locative structures as well as endocentric nominal compounds.

<sup>15</sup> Pike claims that this variation is rule governed: "Before front high vowels or palatal consonants, the [ɛ] usually changes to [i]" (1944:128). This rule (modified for the Chal-

analysis would be unable to explain the loss of the third syllable in *tihí* 'buzzard', *timí* 'bee', and *tíñí/tiñí* 'rat'. Under the analysis which I propose, however, these facts are not at all unexpected. It is precisely the fact that the forms have been lexicalized, and that there is no longer awareness on the part of speakers that the initial syllable represents some kind of classifier, which permits the wandering of the initial vowel and the loss of the final syllable in some of the words in this domain.

A final argument that the trisyllabic animal names must be treated as lexicalized involves the contrast between animal names such as those in (14) and animal names such as those in (15). The deep isolating hypothesis analyzes the words of (14) with *kíí* in classifier position and the words of (15) with no such classifier. Whether a given animal name will be classified appears under this analysis to be entirely arbitrary. I would like to suggest instead that words of type (17), (14), and (15) form a continuum (in that order), from two words, to a trisyllable, and finally to a disyllable. The prevalence of the disyllabic type illustrates the fact that Mixtec is now in the final stages of erosion of the classifier system. A clue that this is actually the case is to be found in the fact that for at least one word, loss of the prefix can be documented. This is the word for 'dog', which is *ína* (never *\*tí-ína*) in my data but which appears as both *tí?inà* and *?inà* in Pike's data,<sup>16</sup> collected approximately forty years earlier. We therefore have evidence that at least one word has passed from the trisyllabic stage (with initial *tí-/ti-*) to a present-day form which lacks that initial element. This fact suggests that other animal names which do not now begin with *tí-* may have similarly evolved from classification with *kíí*, through the *tí-* stage, to their present-day form.

These arguments indicate that the trisyllabic animal names must be analyzed as single words, rather than being derived from nominal compounds by the synchronic process which Pike calls "cliticization."

**4. Types of clitics.** We have seen that the deep isolating hypothesis cannot be maintained in the face of counterexamples such as those just

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catongo dialect by replacing [ə] with [i]) works for *tihí* 'buzzard' and *timí* 'bee' but not for any of the other examples given in (18). It does appear to predict the variation in *tíñí/tiñí*, but note the difference in the final vowels. Furthermore, the rule is not valid for many other trisyllabic nouns which also begin with *tí-* but which are from other semantic domains. These are nouns which appear to have been derived by a similar process from a compound with a general classifier meaning 'thing' as initial element, whose cliticized form has merged with the reflex of *kíí* (Longacre 1957:148). Some such examples are *tíčí* 'avocado' and *tí-ka?za* 'corn fungus'.

<sup>16</sup> Pike (1944:115). His *ti-* corresponds to my *tí-*. The tone difference is also characteristic of the dialect differences between Chalcatongo and San Miguel Mixtec.

discussed. In this section I present a framework which supplies us with the terms and distinctions needed to account for the kinds of data we have observed in Mixtec. This framework is essentially the same as Zwicky's current model of clitic types (Zwicky 1987)<sup>17</sup> and incorporates that presented by Zwicky (1977). The original (1977) classification was based mainly on distributional factors such as whether there was a full (or "strong") alternant to the clitic in question and, if there was, whether the full form could appear in the same position as the clitic or had different distributional requirements. The present revision attempts to retain the insights of this typology while proceeding from a somewhat different—morphosyntactic—basis of classification. The three primary types are (1) fast speech clitics—clitics which are the result of rules of fast speech, (2) phrasal affixes—elements which are essentially affixal in nature but which can be shown to attach to the phrase rather than to single lexical items, and (3) bound words—-independent words which either must or can be phonologically subordinated to a neighboring word. These are explicated further below.

**4.1. Fast speech clitics.** This category is derived from (but not equivalent to) the "simple clitics" of the 1977 typology. The original conception of simple clitics defined them as "cases where a free morpheme . . . [is] phonologically reduced, the resultant form being phonologically subordinated to a neighboring word" (Zwicky 1977:5). Simple clitics appear in the same position in the surface string as do their unreduced counterparts, and usually occur only in a given register. An example of simple cliticization is the destressing of object pronouns in English, as in:

(19a) *He sees her* [hì síz hɪ̃] → [hì sízɹ]

(19b) *She met him* [ʃì mét hɪ̃m] → [ʃì méɹm] (Zwicky 1977:5)

However, the original category of simple clitics included both forms which were derivable from corresponding full forms by regular phonological rules and forms which showed "special phonology" and which therefore had to be listed in the lexicon as allomorphic variants. The term "fast speech clitic"<sup>18</sup> is used here to refer only to the former type of simple clitic.

<sup>17</sup> Zwicky's current analysis of clitic types separates elements attached morphosyntactically ("phrasal affixes" and "bound words"—to be explicated in the text) from elements attached prosodically (what Zwicky calls "leaners," equivalent to my "fast speech clitics," also to be described in the text) and is formulated within the theory of Generalized Phrase Structure Grammar (GPSG). I propose below a more general, theory-neutral framework, which is better suited to the purposes of this article.

<sup>18</sup> I am borrowing the term from Kaisse (1985), in which "fast speech rules" constitute one of the categories of connected speech phenomena which she surveys. Fast speech rules

**4.2. Phrasal affixes.** Phrasal affixes are similar to inflectional affixes, but they are positioned “outside of” (farther from the stem than) true inflectional affixes, attaching instead at the margins of constituents (i.e., before or after the phrasal host).<sup>19</sup>

The English possessive ‘s is the most often cited case of a phrasal affix (although see Zwicky 1987). Its attachment properties are illustrated in (20a) through (20c), in which the phrasal host is underlined:

(20a) Germany’s defenses

(20b) The Queen of England’s hat

(20c) The woman I talked to’s arguments  
(Zwicky 1977:7)

In the 1977 typology, the possessive ‘s was classed as a “bound word,” which was defined at that time as “a morpheme . . . [which] is always bound and always unaccented [and which differs from affixes in that it] can be associated with words of a variety of morphosyntactic categories” (Zwicky 1977:6). Bound words were distinguished from another category called “special clitics” primarily on the basis of the existence or non-existence of a corresponding full word: bound words have no related full forms, while special clitics do.

Special clitics were defined as “cases where an unaccented bound form acts as a variant of a stressed free form with the same cognitive meaning and similar phonological makeup” (Zwicky 1977:3). Special clitics also show “special syntax,” in that they appear in different syntactic positions and obey different constraints with respect to certain rules of syntax than full pronouns and nouns might.

Spanish (and other Romance language) pronominal clitics provide an example of the special clitic. As illustrated in (21a) and (21b), a full NP direct object may follow but not precede the verb, while a clitic direct object may precede but not follow the verb:<sup>20</sup>

(21a) *Tengo la pluma*/\**La pluma tengo*  
‘I have the pen’

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are defined as “a class of fully productive phonological rules that operate within and between words across any sort of syntactic boundary, subject only to conditions on rate and/or syllabification” (1985:2). The reduction rules of Mixtec appear to fall into this class of connected speech phenomena.

<sup>19</sup> Zwicky (1987) treats phrasal affixes (as well as inflectional affixes) as clusters of features. For the purposes of this article, I simply describe phrasal affixes in terms of their phonological forms and leave aside the details of the formal mechanisms of their realization and attachment.

<sup>20</sup> Klavans (1980) points out that a sentence like the unacceptable one in (21a) would be acceptable with a clitic inserted before the verb: *La pluma, la tengo*. In addition, Tom

- (21b) *Lo tengo*/\**Tengo lo*  
 ‘I have it’

The current category of phrasal affixes (into which both the English genitive *'s* and the Spanish pronominal clitics fall) is distinguished from another category called, somewhat confusingly, “bound words” (to be described below). The new categorization crosscuts the old, and the occurrence of a corresponding full form is no longer criterial to the distinction. We shall see below how certain Mixtec forms which had to be distinguished under the old system fall together under the new.

**4.3 Bound words.** Bound words are precisely what one might imagine them to be—dependent words distributed by the syntax just as other lexical items are but differing from free words in that they (optionally or obligatorily) undergo a rule of liaison such that they form a phonological word with their host.<sup>21</sup> Second position clitics such as those found in Tagalog, Pashto, etc., are examples of bound words.

Bound words are distinguished from phrasal affixes by two related criteria. First, they are located farther from the host than phrasal affixes are; and, second, their phonological interaction with the host is less than is the interaction of phrasal affixes with the host.

**5. Reanalysis of Mixtec.** We are now in a position to take another look at the data of 2. Applying the classification of clitic types described above to Mixtec, we see that Pike’s analysis is unworkable because of a failure to distinguish between clitic and other morphological types.

The “contraction” of example (3) is fast speech cliticization, an optional and register-specific process. These contracted forms develop due to spontaneous loss of a (usually final) syllable during rapid speech. (22) below is a longer example containing several instances of this phenomenon. Note that the second line in this example is a transcription of the sentence spoken slowly, not an abstract analysis of all forms into full words, as it would be under the deep isolating hypothesis.

- (22) *tú-ní-ta-ndà-ri à-ta-nda ba-rì*  
*tú-ní-tá-nda?a-rì hà-ta-nda?a ba?a-rì*  
 Neg-Cp-Qu-hand-1 that-Qu-hand well-1  
 ‘I didn’t marry [then] that I might marry well [later]’

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Larsen has pointed out to me that there are some dialects of Spanish for which a sentence like *La pluma tengo* is perfectly acceptable. This example, then, is only a valid illustration of the distributional differences between special clitics and full NPs for certain dialects of Spanish.

<sup>21</sup> Nevis (1985) conceives of this operation as simple phonological concatenation, while Zwicky (1987) formulates it as Chomsky-adjunction to the host word. Again, these issues are not critical for the point at hand.

TABLE 1

Person	Gender	Full Form	Clitic Form
1 . . . . .	Familiar	<i>ruʔu</i>	<i>-ri</i>
	Polite	<i>naʔa</i>	<i>-na</i>
2 . . . . .	Familiar	<i>roʔo</i>	<i>-ro</i>
	Polite	<i>niʔi</i>	<i>-ni</i>
3 . . . . .	Masculine	<i>čàà</i>	<i>-re</i>
	Feminine	<i>ňaʔa</i>	<i>-ňa</i>
	Polite	<i>toʔò</i>	<i>-to</i>
	Animal	<i>kíti</i>	<i>-ti</i>
	Supernatural	<i>iʔa</i>	<i>-ža</i>

In this sentence it is valid to analyze, e.g., *ba-*, as an abbreviated form of the stem *baʔa*, because a speaker will always produce the longer, independent word when asked to speak more slowly.

The subject-marking pronominal clitics, however (as illustrated in 5a and by the *-ri* of 22) are phrasal affixes. Several of them bear the same relationship to a corresponding free pronoun or noun as is predicted by the rules of fast speech just illustrated. However, as can be seen in table 1, several are suppletive, indicating that they are not the result of rules of fast speech.

Further evidence that these pronominal subject clitics are not derived by fast speech cliticization comes from the behavior of pronominal direct objects. As (23) through (25) indicate, the suppletive third-person masculine clitic may appear as direct object, while the suppletive first person may not. The full pronoun is required for expression of a first-person direct object.

- (23) *činde-ri-re*  
 help-1-3M  
 ‘I am going to help him’
- (24) *činde-re ruʔu/\*činde-re-ri*  
 help-3M I  
 ‘He is going to help me’
- (25) *činde-ro ruʔu/\*činde-ro-ri*  
 help-2 I  
 ‘You are going to help me’

These data show that the suppletive first-person pronominal clitic may not appear as a direct object. However, pronominal direct objects in their full forms are susceptible to fast speech cliticization. Crucially, for the first person, this yields the form predicted by the regular rule rather

than the suppletive. (26) shows that this is true even when no phonological material separates the first-person direct object from the verb:

- (26) *wá ni-s-kée-Ø-ru/\*-ri*  
*wáã ni-s-kée-Ø ru<sup>?</sup>u*  
 that+one Cp-Caus-eat-3 I  
 ‘She fed me’

In (26) we see that direct object *ru<sup>?</sup>u* cliticizes into *-ru* in rapid speech, following the usual rules of syllable deletion (in this case, CV<sup>?</sup>V → CVV → CV). (26) also shows that direct object *ru<sup>?</sup>u* may not be realized as the suppletive *-ri*. This provides us with clear evidence that the subject clitics are not the product of fast speech rules.

The phrasal affix status of the subject clitics can be seen by comparison of (27) and (28):<sup>22</sup>

- (27) *ni-žéé-ri staà*  
 Cp-eat-1 tortilla  
 ‘I ate’
- (28) *ni-žéé šãã-ri staà*  
 Cp-eat much-1 tortilla  
 ‘I ate a lot, I ate excessively’

In (27) the clitic attaches directly to the verb. Because of this, we have no way of knowing a priori whether the pronominal element is an inflectional affix or whether there is a phrasal boundary at that point which just happens to coincide with the “edge” of the lexical item (the verb). In (28), however, the clitic attaches not to the verb but to the adverbial *šãã*. These data show that the pronominal subject clitics are positioned at the right margin of the V’,<sup>23</sup> and hence we can conclude that they are phrasally attached.

Certain of the other invariant monosyllabic elements found in Mixtec also fall into the class of phrasal affixes. These differ from the special clitic type of phrasal affix just described in that they do not have currently existing, corresponding full forms appearing in other positions. Still other monosyllabic elements (such as the Completive *ni-*) must be classified as affixes. I return to these shortly.

One of the clearest cases of a phrasal affix with no synchronically corresponding full word in Mixtec is the complementizer *ha-*. This

<sup>22</sup> These examples have a direct object, but their translation reflects the fact that *žéé staà* is interpreted as the generic ‘eat’. Note that it is also possible to say *ni-žéé-ri šãã staà*, in which case *šãã staà* would be a constituent and the sentence would mean ‘I ate many tortillas’.

<sup>23</sup> Note that the direct object is not included in this constituent.

element is homophonous with the deadjectival nominalizing prefix *ha-*.<sup>24</sup> (29) illustrates various nouns in *ha-*, and (30) through (33) are examples of subordinate clauses introduced by *ha-*:

- (29) *hà-siʔi* ‘woman’            [*siʔi* ‘female’]  
*ha-lúli* ‘boy’                    [*lúli* ‘small’]  
*hà-biši* ‘fruit’                 [*biši* ‘sweet’]  
*ha-kʷáʔá* ‘red’ (noun)        [*kʷáʔá* ‘red’ (adj.)]
- (30) *taba-žó tíʔi ha-má-bée šãã*  
 remove-1Pl little that-Neg-heavy much  
 ‘We’ll take a little out so that it won’t be so heavy’
- (31) *tinì šãã háʔá ká-hitá-ri ha-ká-sátũ-ri*  
 some many time Pl-sing-1 that-Pl-work-1  
 ‘Often we sing while we work’
- (32) *kačini ha-kúú žee pedrú káá káʔnu*  
 hat that-be Poss Pedro be big  
 ‘The hat that is Pedro’s is big’
- (33) *kuní-ri hà-hõã nà-kúnu*  
 want-1 that-Juan Sj-run  
 ‘I want Juan to run’

The complementizer *ha-* cannot be considered a free word in Mixtec because it is only one syllable long. (Recall from 2 that stems must be composed of at least two syllables.) Evidence for its phrasal attachment comes from the fact that it always appears at the margin of the subordinate clause which it introduces. As a result, it shows the typical “promiscuity” of attachment of a phrasal affix, that is, it forms a phonological word with lexical items of a wide variety of categories (a predicate adjective preceded by the negative phrasal affix in 30, an inflected verb in 31, the copula in 32, and a topicalized noun in 33).

Returning now to affixes, we find that we can label elements like the Completive *ni-* and the nominalizer *ha-* “affixes” (inflectional and derivational, respectively) precisely because they behave like affixes. They are always monosyllabic, so they cannot be called “words” (and having abandoned the deep isolating hypothesis, we have no reason to claim that some unattested free form underlies them). They show a high degree of selection with respect to the word to which they attach (e.g., *ni-* may only attach to the Realized stem of a verb, never to any other category, and so on), which indicates that they do not attach phrasally. In fact,

<sup>24</sup> It is quite likely that the two developed from a single source.



they show all of the expected behavior of “normal” affixes (among other things, they appear closer to the stem than do elements we have determined independently to be phrasal affixes).

**6. Conclusion.** We have seen that an adequate synchronic account of Mixtec must include affixes, clitics (of various kinds), and free words. Words which are abbreviated by means of rules of fast speech may be analyzed as underlyingly free, but our description must also make reference to phrasal affixes (e.g., the pronominal clitics of table 1 and the complementizer *ha-*) and prefixes (such as the derivational prefixes *s-*, *sa-*, *be-*, *t-*, nominalizer *ha-*, and inflectional prefixes such as *ni-* and *ka-*).<sup>25</sup> Contrary to what Pike has claimed about the language, there is a need to make a distinction between syntax and morphology in Mixtec. The distribution of free words is a syntactic matter (with the optional reduction of full words to fast speech clitics a phonological phenomenon), while the distribution of bound forms (phrasal, inflectional, and derivational affixes) is a morphological matter.

This is not to say that clitics (and at least some affixes as well) bear no relation to free words in this language. It is unarguable that Mixtec shows evidence of an evolution from free morpheme to fast speech clitic to phrasal affix (and perhaps even further to various kinds of word-level affixes). However, in a synchronic account of the language, there is no motivation for (and considerable evidence against) making part of the analysis the diachronic relationship between free words (on the one hand) and clitics and affixes (on the other). As we have seen, doing this leads to misanalysis of much of the data. The reanalysis proposed in this article not only accurately describes the synchronic status of clitics and affixes in Mixtec, but by acknowledging the similarities and differences between fast speech cliticization and phrasal affixation also allows us to see the results of a process which has had and will surely continue to have an extraordinary influence on the development of the morpho-syntax of the language.

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<sup>25</sup> Mixtec turns out to have no members of the category “bound word.”

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