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## FOREWORD

It is indeed gratifying to recognize the degree of acceptance the *Kansas Working Papers in Linguistics* has come to enjoy, and this is especially true for the series of *Studies in Native American Languages*. Even before the call for papers went out in the fall, we had received inquiries from prospective contributors, and the response to the call itself was remarkable in quality as well as diversity.

This year the *KWPL* marks its first decade of existence, and we are publishing two numbers. Number one is devoted to theoretical issues, general linguistics and old-world languages, while number two is the fourth in the *Studies in Native American Languages* series. This number includes articles representing seven different language families from all over North America (Uto-Aztecan, Muskogean, Yuman, Siouan, Otomanguan, Athabaskan and Algic), and a great deal of original scholarship.

We wish to thank the contributors, both those whose papers appear in this volume, and those whose papers we did not include. We also wish to thank the faculty of the Linguistics department of the University of Kansas for their support and encouragement for the *KWPL* throughout the year.

THE SEMANTICS OF 'COME,' 'GO,'  
AND 'ARRIVE' IN OTOMANGUEAN LANGUAGES<sup>1</sup>

Monica Macaulay

Abstract: Kuiper and Merrifield (1975) have analyzed Diuxi Mixtec verbs of motion and arrival in terms of the notions "Base," "one-way," and "round trip." This paper compares their analysis with Speck and Pickett's (1976) work on the same domain in Texmelucan Zapotec, and presents an analysis parallel to the latter for Chalcatongo Mixtec. A reanalysis of the Diuxi data along these same lines is then shown to be much more explanatory, and also allows a general statement to be made about verbs of motion and arrival in the Otomanguean language family.

Introduction

Several discussions of verbs of motion and arrival in Otomanguean languages have been published in the last decade. Most notably, Kuiper and Merrifield (1975) described this domain for the San Juan Diuxi dialect of Mixtec, while Speck and Pickett (1976) described it for Texmelucan Zapotec.<sup>2</sup> This paper will present the verbs of motion and arrival which are found in the dialect of Mixtec spoken in the town of Chalcatongo, Oaxaca, and, based on that data, will address issues raised by Speck and Pickett about the correct analysis of Kuiper and Merrifield's Diuxi Mixtec data. The Chalcatongo Mixtec verbs were originally analyzed (Macaulay 1982) in a framework parallel to that presented by Kuiper and Merrifield, but a reanalysis of that data along the lines suggested for Diuxi Mixtec by Speck and Pickett is found to be much more satisfactory. This reanalysis is consistent with the analysis of the Zapotec verbs that Speck and Pickett present, supporting their hypothesis that a general statement about Otomanguean verbs of motion may be made.

Kuiper and Merrifield (hereafter K&M) give a definition of Mixtec verbs of motion as follows: Motion of an Agent through space and time to a Goal (K&M 1975: 32), and of the verbs of arrival as: Arrival of an Agent at a Goal (K&M 1975: 33). Their analysis defines the verbs with respect to the following three properties:

- (a) the Place of the Locutionary Act (PLA)
- (b) the Location of the Goal
- (c) the Location of the Agent's Base<sup>3</sup>

In addition, K&M claim that the verbs of motion are further differentiated by incorporation of the notions "one-way" and "round trip" in their semantic descriptions.

K&M also claim that the verbs of motion and arrival are "momentary" verbs. That is, while regular Diuxi Mixtec verbs are inflected for three aspects - potential, continuative, and completive - they claim that the verbs of motion and arrival occur only in potential and completive forms. The focus is thus on the initiation of the action, with the verb in potential form if the action has not yet been initiated, and in completive once it has been. Analysis of the entire domain as "momentary" is one of the aspects of K&M's analysis which is challenged by Speck and Pickett (hereafter S&P), who claim that while the domain of arrival is conceived of as momentary by speakers of Otomanguan languages, the domain of motion is not. As we will see, the data from Chalcatongo Mixtec strongly support S&P's claim.

The concepts "Base" and "PLA" will be discussed in some detail below, and then the data on Diuxi Mixtec, Texmelucan Zapotec, and Chalcatongo Mixtec will be presented. Discussion of the alternative analyses will then follow.

#### Base<sup>4</sup>

K&M's definition of "Base" is as follows:

It is sufficient to think of "Base" as the place to which the Agent of an action returns at the end of the day or at the end of a trip - his home, his hometown, his home district, etc. - the size and precise location in space of the Base being a function of the order of magnitude of the trip in question (p. 42).

K&M point out that the notion of Base is semantically related to the more general idea of "repetition" of action in Mixtec. This claim is supported by morphological identity in the coding of the two concepts. The verbal prefix na- is used (semi-productively) to indicate repetition of action, and also appears in the domain of motion and arrival to indicate Base as Goal, as the following Chalcatongo Mixtec examples show:<sup>5</sup>

- (1a) sá?á - Do it!  
 (1b) na-sá?á - Do it again!
- (2a) kata-rí - I sing  
 (2b) na-kata-rí - I sing again<sup>6</sup>

- (3) ʒɪ̃ haa tãʔa-ri beʔe-rò  
 tomorrow arrive(P) father-1Sg house-2Sg  
 Tomorrow my father will arrive at your house
- (4) ʒɪ̃ nã-haa-nãʔ  
 tomorrow REP-arrive(P)-1Sg(Polite)  
 Tomorrow I'll be home

The verbs *haà* (Arrive at neutral Goal away from PLA) and *na-haa* (Arrive at Base away from PLA) are the clearest examples in Chalcatongo Mixtec of the link between Repetitive *na-* and the morpheme which indicates Base. The only other verb of motion in this dialect for which Base is specified is *noʔò* (Go to Base and return toward PLA), for which it is possible to hypothesize that the prefix *na-* has undergone some process of phonological change, leaving only the initial consonant *n-* as a reflex. Certain of the Diuxi Mixtec verbs involving Base show a similar phonological reshaping, as in:

Go to non-Base and return: hɪʔɪ  
 Go to Base and return: nũʔũ  
 Come to non-Base and return: kiʒi  
 Come to Base and return: ndiʒi

There are various extended uses of the verbs involving Base which further support the idea that Base presupposes repeated return. For example:

- (5) seʔe-ri noʔò skʷela ʒɪ̃-ka semãná  
 son-1Sg go(P) school one-ADD week  
 My son will go back to school next week  
 (Chalcatongo Mixtec)

The conditions for appropriate use of such a sentence (one which includes a verb incorporating Base into its definition) do not require that the son live at school, only that he go there regularly. S&P point out that it is possible for an Agent to establish a temporary Base for a single excursion, as well. As long as the motion described by the verb involves a return to a designated and non-arbitrary starting point, that starting point may be considered a Base.

A final point to be made about Base actually involves clarification of what both sets of authors have called "non-Base." Reference to Base has been set in opposition to reference to non-Base as the characteristic which distinguishes various pairs of lexical items. The relationship between the two categories is not an opposition, however. The type of Goal which has been called "non-Base" is actually an unmarked

category which encompasses the meaning of the marked category, Base. It is perfectly acceptable in Chalcatongo Mixtec, for example, to say:

- (6) kɪʔɪ-ri beʔe-rɪ  
 go(P)-1Sg house-1Sg  
 I will go to my house

Example (6) has the verb which was previously defined as Go to non-Base in it, yet one's home is always, by definition, one's Base.

It is not clear from K&M, nor from S&P, whether "non-Base" can encompass "Base" in Diuxi Mixtec and Texmelucan Zapotec as it can in Chalcatongo Mixtec, or whether in those languages the distinction is more rigid. Therefore, I will continue to use the term "non-Base" when referring to verbs in the other languages. The reader should bear in mind, however, that this is likely to be something of a misnomer.<sup>8</sup>

#### PLA

The prototypical use of most of the verbs of motion and arrival to be described involves reference to PLA (the place at which the Speaker and Hearer are located) as either the Source or Goal of the movement. For the sake of simplicity, in the descriptions that follow that situation will be assumed. Yet it is certainly possible to use these verbs under a range of other conditions, as noted by both K&M and S&P. In this section I will enumerate their observations on variation in reference point, and discuss a more general theoretical viewpoint from which we can describe these cases.

First, K&M mention the use of a verb of motion in a situation where PLA and Source are not identical. Their example involves a case in which the Source of the motion lies between PLA and Goal, and the motion is away from both PLA and Source. They point out that the same verb is used to describe this situation as would be used to describe the more normal case in which PLA and Source are identical.

This case is unproblematic. Consider English, in which Go (unlike Come) is a verb with fairly simple conditions for use. Fillmore (1970) summarizes appropriate use of this verb as follows: "go... indicate[s] motion toward a location which is distinct from the speaker's location at coding time" (p.54). This condition seems to hold for Mixtec as well as for English. It stipulates nothing about identity of Source and PLA, and therefore a situation like the one described above does not deviate significantly from the typical case.

S&P discuss three other cases in which PLA is not the basic point of reference. The first is a situation in which there is no single PLA, due to the fact that the Speaker and the Addressee are separated by some distance (this includes the use of a verb of motion in correspondence). In such cases in Texmelucan Zapotec, the verb Come is used to indicate

motion toward whichever participant is at Goal, regardless of the PLA of the Speaker (or writer). Thus, in Texmelucan Zapotec we might find the following dialogue:

Mother: gyeeda (Come!)  
 Child: bi yapã (Already I am coming!)

In a situation like this, both participants speak as if they were located at the same place: the Goal.

This is the reverse of what K&M report for Diuxi Mixtec, and of what I have found in Chalcatongo Mixtec as well. In these languages, each speaker considers him or herself at PLA:

Mother: ʃã?a ʒã?a (Come here!)  
 Child: bina ʃũ?ni k<sup>W</sup>a-hàà-na  
 (Right now I am arriving there!)

This example is from Chalcatongo Mixtec, but K&M report the same question-answer formula in Diuxi Mixtec. My consultant indicated that an imperative like "Come!" can never be answered with a verb of motion, no matter what direction with respect to PLA it designates. I think this difference between Zapotec and Mixtec is simply a matter of conventionalization of response, rather than an indication of any deep difference in reference to deictic categories.

The second case that S&P mention is that in which Come is used for motion towards the location of a participant in the discourse at a past or future time. Following is a Texmelucan Zapotec example that S&P give, and then a similar example from Chalcatongo Mixtec:<sup>9</sup>

(7) lagu wankid ru yũ? yã seba rlezã ru  
 Why didn't you come to my house? I earlier was  
 waiting for you.  
 (PLA = Speaker's house)

(8) ʒĩã kii-rõ be?e-ri  
 tomorrow come(P)-2Sg house-1Sg  
 Come to my house tomorrow  
 (PLA = Speaker's house)

Finally, S&P discuss the use of a verb of motion in conjunction with a verb of seeing. They claim that the Agent of the action always comes to the Observer of the motion. For example:

(9) Karp bzak yu yap na  
 Policarpo saw us coming (towards him)

These three cases are not the random examples of assignment of reference point that such a list might make them seem. All three situations have in common that they involve the Speaker taking the point of view of another participant in the discourse (or the point of view of him or herself at another time). A similar phenomenon in English has been the subject of discussion by Fillmore (1970, 1972). For example, in "How to Know Whether You're Coming or Going" (1972) he describes an English case much like S&P's second Zapotec case in terms of "some sort of affiliation between the place taken as the Goal of the movement and one of the participants in the communication act" (p. 373).

In The Santa Cruz Lectures on Deixis (1970), Fillmore develops the following hypothesis concerning the appropriateness conditions for use of the verbs Come and Bring:

Come and bring indicate motion toward the location of either the speaker or the addressee at either coding time or reference time, or toward the location of the home base of either the speaker or the hearer at reference time... Come and bring also indicate motion at reference time which is in the company of either the speaker or the addressee... [and] also indicate, in discourse in which neither speaker nor addressee figures as a character, motion toward a place taken as the subject of the narrative, toward the location of the central character at reference time, or toward the place which is the central character's home base at reference time (pp. 61, 66, 67).

This principle is the relevant generalization for the individual cases involving Come presented by S&P, and summarized above. While Fillmore makes no claim as to the universality of this principle (and indeed, points out that it would not be accurate for certain other languages), it is in fact appropriate for the languages discussed in this paper.

PLA, then, will be cited as the basic reference point for most of the verbs to be considered in the remainder of this paper, but it must be remembered that this is a simplification of an extremely complex factor in the description of the domain of motion and arrival.

#### Diuxi Mixtec

The Diuxi Mixtec verbs of motion and arrival are described by K&M as follows:

kiʃi: Move to non-Base toward PLA and return away from PLA

vaʃi: Move to non-Base toward PLA



ndiʃi: Move to Base toward PLA

ʃeʔe: Move to non-Base away from PLA and return toward PLA

hiʔi: Move to non-Base away from PLA

nuʔu: Move to Base away from PLA

kiʃe: Arrive at non-Base toward PLA

nʃe: Arrive at Base toward PLA

ʃe: Arrive at non-Base away from PLA

naʃe: Arrive at Base away from PLA

Various apparent irregularities in these data form the basis for S&P's suggestions for reanalysis. These are enumerated below.

(a) kiʃi can be interpreted iteratively, as well as non-iteratively.

(b) vaʃi occurs only with completive aspect. In situations in which one would expect to find a potential form of this verb, speakers use kiʃi (which differs only in that it is "round trip" whereas vaʃi is "one-way").

(c) ʃeʔe is analyzed as occurring in both potential and completive aspects, yet K&M observe that the "potential" form can only be interpreted iteratively. ʃeʔe is replaced by hiʔi in situations which call for potential aspect. Note that in the case of kiʃi and vaʃi the "round trip" verb replaces the "one-way" verb, while in the case of ʃeʔe and hiʔi the "one-way" verb takes the place of the "round trip" one.

(d) hiʔi has a suppletive completive form, hwʃʃ. K&M state that the first person hwʃʃ-da is "most appropriate to the leave-taking situation where the speaker has just begun to leave for his destination" (K&M 1975: 40). That is, under K&M's momentary verb analysis of this data, as the speaker walks out the door he or she says, I went (or, I'm gone), rather than something corresponding to I am going.

(e) ndiʃi, nuʔu, and the four verbs of arrival all exhibit fairly regular behavior with respect to their potential and completive forms, as well as in their aspectual uses. The minor irregularities certain of these six verbs show will not concern us here.

#### Texmelucan Zapotec

S&P present an analysis of six Texmelucan Zapotec verbs: two each for Go, Come, and Arrive. They are defined in terms of the same

orientation features that K&M use (PLA, Goal, and Base). The three pairs are crucially differentiated in the following manner:

(a) Go and Come are distinguished by direction with respect to PLA.

(b) Go/Come and Arrive are distinguished by their relation to Goal. That is, Go and Come are defined as "round trip", and the use of one of these verbs with completive aspect indicates that the Agent has reached the Goal and returned again. In contrast, Arrive is defined as indicating "one-way" motion, and completive aspect signals only that the Agent has reached the Goal.

(c) The two members of each pair of verbs are distinguished with respect to direction in relation to Base.

An important difference between these verbs and the analysis of Mixtec presented by K&M is that Texmelucan Zapotec verbs of motion are not momentary verbs. They may be inflected for five aspects, including progressive. (Arrive, however, is a momentary verb, and may not take progressive aspect).

The Texmelucan Zapotec verbs are presented below.<sup>10</sup>

Go-1: Move to Base away from PLA and return toward PLA

Go-2: Move to non-Base away from PLA and return toward PLA

Come-1: Move to Base toward PLA and return away from PLA

Come-2: Move to non-Base toward PLA and return away from PLA

Arrive-1: Arrive at Base (irrespective of PLA)

Arrive-2: Arrive at non-Base (irrespective of PLA)

#### A Reanalysis of the Diuxi Mixtec Data

S&P sketch an alternative analysis for K&M's data which is parallel to that which they give for the Texmelucan Zapotec data. It consists of the abandonment of the momentary analysis of the verbs of motion, and a reanalysis of several lexical items into fewer sets with a greater proliferation of inflectional forms associated with each one.

What S&P suggest is that the separation of the verbs of motion in terms of "round trip" and "one-way" motion is artificial. The apparent "one-way" status of certain forms is a result of the fact that they are non-completive forms, which may not be as explicit in their characterization of the motion as "round trip" as the completive and iterative forms are.<sup>11</sup> Once the claim of momentariness is abandoned, parallel sets

may be combined into larger categories. For example, what K&M call Move to non-Base away from PLA and Move to non-Base away from PLA and return toward PLA are reanalyzed as different aspectual forms of the same verb. The basis for this reanalysis is presented below.

Table 1 (equivalent to S&P's Table 2, p. 63) contrasts the original (K&M's) analysis with the suggested reanalysis of eight forms of the Diuxi Mixtec verbs of motion.

K&M	Round Trip		One-way	
	COMPL	POT	COMPL	POT
S&P	Round trip		PROG	POT
	COMPL	ITER		
<u>Go to non-Base</u>	nʒəʔə	ʒəʔə	hwəʔə	hɪʔə
<u>Come to non-Base</u>	nkiʒi	kiʒi	vəʒi	kiʒi

Table 1

S&P point out that the possibility of such an analysis is briefly mentioned by K&M in their footnote 6 (K&M 1975: 34). K&M's reasons for rejection of this alternative are not explicitly answered by S&P, but will be below, in light of the data on Chalcatongo Mixtec presented in the next section. Instead, S&P briefly present a few independent arguments for their alternative analysis. These are summarized below.

(a) Phonological shape: given only the data presented in Table 1 for Go to non-Base, it would seem that K&M's division of these four forms into two verbs is the most reasonable analysis. Yet, as S&P point out, in other dialects of Mixtec the four forms that would appear in this row are considerably closer in phonological shape,<sup>12</sup> increasing the plausibility of the S&P analysis.

(b) Semantic and syntactic considerations:

(b-i) The description of completive aspect is not uniform across verbs under K&M's analysis. For example, nʒəʔə is used only when the action of the "round trip" verb is complete - a situation which is similar to the conditions for use of the completive form of Go-2 in Texmelucan Zapotec. However, hwəʔə, also a "completive" form, is not only used when the action is completed, but is actually described as most appropriate for use when the action has just been initiated.<sup>13</sup> S&P claim that this situation is more aptly described as "progressive."<sup>14</sup>

(b-ii) The range of uses for potential aspect is not uniform, either. ʒə?ə is labeled "potential," yet K&M state that it is always interpreted iteratively. hɪ?ɪ, on the other hand, is reported to have the full range of potential uses, but is claimed to be replaced by ʒə?ə in iterative contexts.

These points are not offered by S&P as conclusive evidence supporting their position. They only claim that they are suggestive of a need for reevaluation of the data. In the remainder of this paper, I will present new data which require an analysis like that proposed by S&P for Diuxi Mixtec, indicating that their suggestions are in fact correct. I will also give additional theoretical arguments supporting this approach.

#### Chalcatongo Mixtec

In Macaulay (1982) I presented an analysis of the Chalcatongo Mixtec verbs of motion and arrival, done along the lines of K&M's analysis for Diuxi Mixtec. There were several points about it, however, that remained unsatisfying.

The most puzzling fact (and the strongest evidence motivating a reanalysis of the data similar to that proposed by S&P) was that there is a form in Chalcatongo Mixtec, bèl, which is clearly the progressive form of the verb meaning Come to Neutral Goal:

- (10) ndə?ə-rɪ hà Juan a-bèl iʒi nɔu  
 see(R)-1Sg that Juan now-come(PROG) path face  
 I see that Juan is coming towards us now

Even in my original analysis of the Chalcatongo Mixtec data I was forced to acknowledge bèl as progressive, although doing so contradicted that preliminary analysis of the domain as "momentary." The fact that bèl is cognate with vəʒi, precisely the form S&P suggest for the "progressive" slot on their chart (see Table 1), provides strong evidence for the correctness of their approach.

Another area of unclarity involved certain uses of kʷə?ə (one of the forms meaning Go to neutral Goal), although reanalysis of it as a progressive form is not as obvious a solution as for bèl. The reason for this is that kʷə?ə is translated both with present and past tense in English:

- (11) wəʒə kʷə?ə  
 there go  
 There he goes now

- (12) kʷǎʔǎ skʷelǎ  
 go school  
 He went to school

There are two immediately apparent ways of looking at such data. On the one hand, the data are compatible with an analysis of Go as a momentary verb: the same form can be translated by progressive and completive because the two aspects are actually not distinguished. But this leaves us with a highly unsatisfactory result: we find ourselves analyzing Go as a momentary verb, while being forced to analyze Come as a non-momentary verb due to its distinct progressive form. Another possibility is to discard the momentary verb analysis altogether, and claim that the progressive and completive stems of Go are homophonous. This, however, leads to a different imbalance in the overall verbal paradigm (see Table 2): for Come the completive form consists of ni-, the usual completive morpheme, attached to the potential stem kii. But for Go, we find that affixation of ni- to the potential stem kɪʔɪ is impossible, and instead find homophony with the progressive form.

	COMPL	PROG	POT
<u>Go to non-Base</u>	kʷǎʔǎ *ni-kɪʔɪ	kʷǎʔǎ	kɪʔɪ
<u>Come to non-Base</u>	ni-kii *ni-bèl	bèl	kii

Table 2

Neither solution is satisfactory. There is, however, a third possibility. The iterative form of Go to neutral Goal, hǎʔǎ (see (13), below), may also occur inflected for completive aspect. My first analysis of this was as a completive iterative form, based on sentences like (14), below. However, further elicitation showed that the form also appears in completive non-iterative aspect (as in (15)), and should in fact be analyzed simply as the completive form of the verb. While uninflected hǎʔǎ has inherent iterative aspect, sentences like (14) have an iterative interpretation only by virtue of the accompanying iterative adverbial phrase.

- (13) Juan hǎʔǎ skʷela  
 Juan go(ITER) school  
 Juan goes to school (habitually)<sup>15</sup>

- (14) Juan ni-hã?ã martès nuŷã?u uŷi hã?a  
 Juan COMPL-go Tuesday market ten time  
 On Tuesday, Juan went to the market ten times
- (15) ni-hã?ã nundùa ikù  
 COMPL-go Oaxaca yesterday  
 He went to Oaxaca yesterday

It is important to note that the completive, as in (15), is used when a round trip has been completed. That is, it is only appropriate for use when the Agent has gone and returned. These are exactly the conditions for use of nŷã?ã, the Diuxi Mixtec counterpart of ni-hã?ã.

Bearing the above in mind, then, the Chalcatongo Mixtec verbs of motion and arrival are summarized in Table 3,<sup>16</sup> and then discussed in detail.

	COMPL	ITER	PROG	POT
<u>Go-1</u>	ni-nó?o	---	k <sup>w</sup> a-no?o	no?ò
<u>Go-2</u>	ni-hã?ã	hã?ã	k <sup>w</sup> ã?ã	kí?í
<u>Come-1</u>	---	---	---	---
<u>Come-2</u>	ni-kii	---	bèi	kii
<u>Arrive There-1</u>	ni-na-hãa			na-haà
<u>Arrive There-2</u>	ni-haà			haà
<u>Arrive Here-1</u>	(ni-ŷàà)			(ŷaa)
<u>Arrive Here-2</u>	ni-ŷàà			ŷaà

Table 3: Chalcatongo Mixtec

At this point one might ask why the category Go to neutral Goal should have an iterative form, while the parallel category Go to Base (no?ò) does not have a separate form to describe iterative motion. Why is it more likely that one would repeatedly go to a non-Base location than to one's Base? The answer lies in the fact that these are "round trip" verbs of motion. Consider the three possible situations: one could move between two neutral (non-Base) points, one could make a trip with Base as Source, or one could make a trip with Base as Goal. The first two situations can be described with the verb Go to neutral Goal. This verb entails a return to Source, and when that Source is Base we have the quite likely situation of repeated return to Base, which can be

described by the distinct iterative form. The third situation may be described with Go to neutral Goal or with Go to Base. The latter is, of course, also "round trip," and so entails a return to non-Base. An iterative form of this marked version of Go, Go to Base, would thus describe the highly unlikely situation in which the same non-Base location is the Source of repeated trips to Base. Such a form would be in a sense doubly marked, which may explain its non-occurrence.<sup>17</sup>

Examples and discussion of the verbs in Table 3 follow.

Go-1: Move to Base away from PLA and return toward PLA

no?ò (Potential):

- (16) no?ò be?e ʒiʔ  
 go-1(P) house tomorrow  
 He will go home tomorrow

ni-nò?o (Completive):

- (17) ni-nò?o be?e 1kù  
 COMPL-go-1 house yesterday  
 He went home yesterday (and has returned)

Go-1 provides certain problems for this analysis of the Chalcatongo Mixtec verbs. It is the one verb of motion which appears to be lacking an independent progressive form. There is a form which is used with this meaning, however, made up of an auxiliary form<sup>18</sup> of kʷa?à (the progressive of Go-2), plus no?ò:<sup>19</sup>

- (18) a-kʷa-no?o be?e  
 now-AUX-go-1 house  
 He's on his way home right now

Thus, Go-1 has a derived progressive, rather than no progressive form at all.

In addition, the notion "round trip" is somewhat problematic with this verb. While the completive does explicitly mean "go home and return," the potential may occur with the meaning "one-way." Perhaps this is explained by the same factor which explains the lack of an iterative form of this verb. It may simply be that the unmarked, uncompleted case is to return to Base and stay there; there is no reason to presuppose return to PLA after motion to Base.

Go-2: Move to unspecified Goal away from PLA and return toward PLA

kɪʔi (Potential):

- (19) kɪʔi sk<sup>w</sup>ela  
go-2(P) school  
He will go to school (and return)

k<sup>w</sup>ãʔã (Progressive):

- (20) wãã k<sup>w</sup>ãʔã  
there go-2(PROG)  
There he goes now

hãʔã (Iterative):

- (21) Juan hãʔã sk<sup>w</sup>ela  
Juan go-2(ITER) school  
Juan goes to school (habitually)

ni-hãʔã (Completive):

- (22) ni-hãʔã nundùà ikù  
COMPL-go-2 Oaxaca yesterday  
He went to Oaxaca yesterday (and has returned)

Come-1: The Chalcatongo Mixtec paradigm lacks a verb meaning Move to Base toward PLA (and return away from PLA).

Come-2: Move to unspecified Goal toward PLA and return away from PLA

kii (Potential):

- (23) Pedrù kii ʔãʔa  
Pedro come-2(P) here  
Pedro will come here (and leave again)

bèi (Progressive):

- (24) Pedrù bèi ʔãʔa  
Pedro come-2(PROG) here  
Pedro is coming here (and will leave again)



ni-kii (Completive):

- (25) Pedrù ni-kii be?e-ʒò  
 Pedro COMPL-come-2 house-1Pl  
 Pedro came to our house (and has left)

Note that Come-2 does not have an iterative form. Iterativity can be expressed for this verb by use of any aspect with an iterative adverbial, as in (26) and (27) below. Also note that in general there are fewer lexical items marked for motion or arrival toward PLA than there are for motion or arrival away from PLA. Furthermore, the verbs that do exist tend to have less elaborate paradigms than their opposite-direction counterparts.

- (26) tãa-ri kã-kii ndê?e rù?u kʷiʷa nù kʷiʷa  
 parent-1Sg PL-come-2(P) see(P) 1SgObj year face year  
 My parents come to visit me every year
- (27) ni-kii ʒã?a ndekiù  
 COMPL-come-2 here every day  
 He used to come here every day

Arrive There-1: Arrive at Base away from PLAna-haà (Potential):

- (28) ʒiã nã-haa-nã  
 Tomorrow REP-arrive there-2(P)-1Sg(Polite)  
 Tomorrow I'll be home

ni-na-hãa (Completive):

- (29) iku ni-na-hãa-ña  
 yesterday COMPL-REP-arrive there-2-3SgF  
 She arrived home yesterday

Arrive There-2: Arrive at unspecified Goal away from PLAhaà (Potential):

- (30) ʒiã haa tã?a-ri be?e-rò  
 Tomorrow arrive there-1(P) father-1Sg house-2Sg  
 Tomorrow my father will arrive at your house

ni-haà (Completive):

- (31) rú?u ni-haà-rí bē?e-rò iku  
 1Sg COMPL-arrive there-1-1Sg house-2Sg yesterday  
 I arrived at your house yesterday

Arrive Here-1: Arrive at Base toward PLA

There does not seem to be an independent verb of arrival with this meaning, but it is worth noting that it is possible to use a locative verb meaning to reside in situations where Arrive here-1 would be appropriate:

- (32) Juan ʒaa bē?e ʒiʒ  
 Juan reside(P) house tomorrow  
 Juan will arrive home (here) tomorrow
- (33) Juan ni-ʒàà bē?e iku-ʒiʒ  
 Juan COMPL-reside house day-before-yesterday  
 Juan arrived home (here) day before yesterday

I find the fact that this verb is phonologically quite similar to the three true verbs of arrival intriguing, but establishing any link between the domains of location and motion is beyond the scope of this paper.

Arrive Here-2: Arrive at unspecified Goal toward PLAʒaà (Potential):

- (34) ʒaà iʒi ʒa?a ʒiʒ  
 arrive here-2(P) path here tomorrow  
 He will arrive here tomorrow

ni-ʒàà (Completive):

- (35) Pedrú ni-ʒàà ʒa?a iku  
 Pedro COMPL-arrive here-2 here yesterday  
 Pedro arrived here yesterday

In Defense of This Analysis

As mentioned before, K&M briefly discuss the possibility of doing an analysis of their data such as that presented here. Their reasons for rejection of such an analysis and a reply to those reasons follow:

(a) They point out that hwã?ã, as well as nã?ã, collocate with words like ?iku (yesterday), claiming that this is incompatible with analysis of hwã?ã as progressive.

This distribution is also observed for k<sup>w</sup>ã?ã and ni-hã?ã (the corresponding Chalcatongo Mixtec forms), but does not have to be construed as evidence against analyzing k<sup>w</sup>ã?ã as the progressive. Consider the following minimal pair:

(36) k<sup>w</sup>ã?ã nùndùà ikù  
 go-2(PROG) Oaxaca yesterday  
 He went/was going to Oaxaca yesterday

(37) ni-hã?ã nundùà ikù  
 COMPL-go-2 Oaxaca yesterday  
 He went to Oaxaca yesterday

My consultant explains the difference between (36) and (37) as a matter of the Speaker's assertion concerning the completion of the round trip. (36) only says that the Agent left and is or was making the trip in question. (37) reports that the Agent went to his destination and has returned. Both situations are unambiguously placed in the past by use of the temporal adverb ikù.

There is, however, an additional difference between the two verbal forms in terms of time reference. While ni-hã?ã has completive aspect by virtue of its inflection, and so is most appropriate to a past time reference, k<sup>w</sup>ã?ã has no inherent time reference at all. The action of (36) is situated in time solely by virtue of the adverb. Collocation with words like ikù, then, does not preclude analysis of k<sup>w</sup>ã?ã (and its Diuxi Mixtec cognate hwã?ã) as a progressive form. On the contrary, such collocations simply point up the necessity for the distinction between temporal reference and aspect in analysis of the verbal systems of these languages.

(b) K&M claim that hwã?ã indicates completive aspect when it occurs in reduced form as an auxiliary verb in construction with ndiſi and nù?ù, and so must be a completive in its full form as well.

Their explanation for the existence of both hwã-nù?ù and nù?ù as synonymous completive forms of Go to Base hinges on their claim that there exists a need for disambiguation of homophonous potential and completive forms. That is, since in Diuxi Mixtec completive aspect is marked by an initial n-, a verb with an n- initial stem will have homophonous potential and completive forms. K&M believe that the form hwã-nù?ù exists solely to avoid the confusion which might arise due to this homophony.

That this explanation cannot be correct is shown by the existence of a form parallel to hwā-nú?ú in a dialect in which no such homophony is possible, i.e. in the Chalcatongo dialect. While Chalcatongo Mixtec does not have a verb with the meaning of ndiſi (and so nothing can be said about the auxiliary's interaction with that verb), it does have a verb cognate to nú?ú: no?ò. In this dialect we find the potential form no?ò alongside the regular (and distinct) completive form ni-nò?o, and, in addition, the complex form k<sup>w</sup>a-no?o. The latter is clearly not needed to disambiguate the potential and completive forms, because they are not homophonous. And in fact, use of k<sup>w</sup>a-no?o and use of the completive are appropriate under different conditions. The fact that k<sup>w</sup>a-no?o is a progressive form supports analysis of k<sup>w</sup>ā?ā as a progressive, and refutes analysis of Diuxi hwā-nú?ú as a completive form.

A final point to be made on this subject is that K&M report that the form nāſeē (Arrive there at Base), which is also ambiguous between potential and completive aspects, may not be combined with hwā- to resolve the ambiguity, despite the homophony of forms. Speakers of the language have no trouble disambiguating the temporal or aspectual reference of this form; therefore there is no reason why such trouble should arise with other forms such as ndiſi and nú?ú. Clearly, a reanalysis of the aspectual functions and uses of the Diuxi Mixtec forms hwā-ndiſi and hwā-nú?ú is needed.

(c) K&M's third argument concerns the use of a morpheme nſe- (imperfect), which usually occurs with continuative stems. They report that it occurs with hſ?ſ "in the absence of a continuative form, rather than with hwā?ā " (K&M 1975: 34). Since Chalcatongo Mixtec has no form parallel to nſe-, this will have to remain an open question at this point.

(d) K&M's final reason for rejection of the analysis of hwā?ā as a progressive form is as follows:

Our analysis provides a symmetrical system of aspects for all verbs of motion and arrival and a better basis for the interpretation of the semantic categories which distinguish the several verbs of the set from one another; namely the categories of "round trip" and "Base" (p. 34).

The system that K&M propose is symmetrical only in terms of the labels assigned to the various verbal forms. As shown above, however, their system is not internally consistent. Forms assigned to the same category are reported to have different aspectual uses. The analysis proposed in this paper avoids this inconsistency while maintaining the categories "round trip" and "Base" as criterial to the definitions of the lexical items involved. Tables 4 and 5, below, contrast the two analyses of the Diuxi Mixtec verbs and show that there is no loss of symmetry under the reanalysis proposed here (analysis of the verbs of arrival is unchanged and so is shown only in Table 4).

	COMPL	ITER	POT
<u>Go to Base</u>	(hwā-)nŭ?ŭ	---	nŭ?ŭ
<u>Go to non-Base</u>	hwā?ā	---	hŭ?ŭ
<u>Go to Base and return</u>	---	---	---
<u>Go to non-Base and return</u>	nŭ?ē	ŭ?ē	---
<u>Come to Base</u>	(hwā-)ndiŭi	---	ndiŭi
<u>Come to non-Base</u>	vāŭi	---	---
<u>Come to Base and return</u>	---	---	---
<u>Come to non-Base and return</u>	nkiŭi	---	kiŭi
<u>Arrive Here at Base</u>	nŭēē		nŭēē
<u>Arrive Here at non-Base</u>	nkiŭēē		kiŭēē
<u>Arrive There at Base</u>	nāŭēē		nāŭēē
<u>Arrive There at non-Base</u>	nŭēē		ŭēē

Table 4: Diuxi Mixtec - K&M's Analysis

	COMPL	ITER	PROG	POT
<u>Go to Base and return</u>	nŭ?ŭ	---	hwā-nŭ?ŭ	nŭ?ŭ
<u>Go to non-Base and return</u>	nŭ?ē	ŭ?ē	hwā?ā	hŭ?ŭ
<u>Come to Base and return</u>	ndiŭi	---	hwā-ndiŭi	ndiŭi
<u>Come to non-Base and return</u>	nkiŭi	---	vāŭi	kiŭi

Table 5: Diuxi Mixtec Reanalyzed

These tables show that a reanalysis of the data as suggested here does not sacrifice symmetry; on the contrary, symmetry is enhanced. This is especially noticeable in the Completive column, where removal of vāŭi and hwā?ā, as well as removal of forms with the auxiliary hwā-, have resulted in complete regularization of the column. Nor has the reanalysis caused a lessening of the usefulness of the categories "round trip" and "Base" in description of the verbs in the domain. These categories are still clearly necessary elements of the analysis.

Finally, one last point remains to be made in regard to K&M's rejection of the analysis adopted in this paper. They make a fairly minor error in their interpretation of what a multi-aspect analysis of these forms would imply, embodied in the following:

In [a multi-aspect] interpretation, hŭ?ŭ is considered

potential, indicating a motion as in progress (the Agent has left PLA and whether he reached Goal or not is not known)... (p.34, fn 6).

In fact, the potential never indicates an action in progress. It encompasses various possibilities; all of which have in common their potentiality - the state of not yet having been initiated. The situation they describe is one in which progressive aspect would be used. While this is not a major error on K&M's part, if it in some way influenced their decision to reject such an analysis, then clarification is necessary.

### Conclusion

Data on verbs of motion and arrival in three Otomanguan languages have been presented, and two alternatives for their analysis have been discussed. The major difference between the two analyses under consideration involves claims concerning incorporation of the notions "momentariness" and "round trip" into description of the items in the domain. K&M claim that both motion and arrival are conceived of as momentary by speakers of Diuxi Mixtec, and that the many forms which are found in the domain of motion are differentiated by (among other things) inclusion of the notions "one-way" and "round trip" in their definitions. S&P present relevant data on Texmelucan Zapotec in which the element "round trip" is present in the description of all motion verbs, and serves to distinguish those verbs from the verbs of arrival, which are all, necessarily, "one-way." In addition, the Texmelucan Zapotec verbs of motion are not momentary verbs, allowing for inflection with any of five aspects, including progressive. S&P argue that a similar analysis could be made of the Diuxi Mixtec data, and that such an analysis would better explain the facts presented by K&M.

Accordingly, a reexamination of the Diuxi Mixtec data has been made in this paper, in light of new data from the dialect of Mixtec spoken in the town of Chalcatongo, Oaxaca. The data presented support S&P's hypothesis that the Mixtec system is organized in a manner consistent with the analysis presented for Texmelucan Zapotec.

The primary argument from the Chalcatongo Mixtec data concerns the existence of a clear case of progressive aspect in the domain of motion. Existence of such forms strongly contradicts analysis of the domain as "momentary." The ease with which this data can be fitted into the paradigm drawn up by S&P, and the degree to which such an analysis is an improvement over the original analysis (in Macaulay (1982)) indicate that the S&P approach is also correct for Diuxi Mixtec.

Another argument for reanalysis of the Diuxi Mixtec data concerns regularization of the paradigm. As Tables 4 and 5 showed, the paradigm for the verbs of motion is more symmetrical after reanalysis. K&M argued that divergence from their approach would result in a loss of

symmetry, but this clearly is not true.

Finally, the most unsatisfying aspect of K&M's analysis is resolved after reexamination of the data. What appeared to be considerable inconsistencies among the uses of various forms grouped together in the same aspectual classes are shown to be due to simple miscategorization. For example, ʒeʔe, which K&M designate as the "potential" form of Go to non-Base and return, but which is restricted to iterative contexts, is reclassified as an iterative form. kiʒi, which under K&M's analysis doubled as the potential of vaʒi (the completive of Come to non-Base) and of nkʒi (the completive of Come to non-Base and return) becomes the potential form of a single lexical item which includes the forms vaʒi and nkʒi. Reanalysis of hwaʔe as progressive allows us to refute K&M's fallacious argument concerning its function as an auxiliary verb.

The fact that the Diuxi Mixtec data are amenable to the same analysis as is presented for both Chalcatongo Mixtec and Texmelucan Zapotec supports S&P's hypothesis that a significant generalization may be made about Otomanguan verbs of motion and arrival. While the paradigms for some of the Otomanguan languages (Chalcatongo Mixtec and Isthmus Zapotec among the ones discussed in this paper) are lacking certain lexical items or specific forms of a given lexical item, from the data that has been presented in this paper we can make a general characterization of the parameters of definition for the domain, as follows:

- (I) Verbs of motion inherently describe round trip motion; verbs of arrival refer to the endpoint of one-way motion.
- (II) Verbs of motion may be inflected for whatever aspects are appropriate to the language in question,<sup>20</sup> but verbs of arrival are momentary and may not be inflected for progressive aspect.
- (III) Verbs of motion and arrival may be defined with respect to the following categories:
  - (a) Place of Locutionary Act (PLA)
  - (b) Location of Goal
  - (c) Location of Agent's Base

The correspondence or non-correspondence of PLA and Goal dictates direction of motion. When they are identical we have Come or Arrive here and when they are distinct we have Go or Arrive there.<sup>21</sup> Base is an optional marked category of Goal. When it is specified, Goal must be the Agent's Base, but when it is unspecified, Goal may be any place, including Agent's Base.

Investigation of the historical development of such a system requires further research. I believe, however, that the data presented in this paper strongly support a general synchronic statement such as

the one above for verbs of motion and arrival in Otomanguean languages.

APPENDIX: Summary of the Data

Diuxi Mixtec (Kuiper and Merrifield (1975))

Table I (Table 4 in the text) illustrates Kuiper and Merrifield's analysis of the Diuxi Mixtec verbs of motion and arrival.

	COMPL	ITER	POT
<u>Go to Base</u>	(hwā-)nū?ū	---	nū?ū
<u>Go to non-Base</u>	hwā?ā	---	hī?ī
<u>Go to Base and return</u>	---	---	---
<u>Go to non-Base and return</u>	nšē?ē	šē?ē	---
<u>Come to Base</u>	(hwā-)ndišī	---	ndišī
<u>Come to non-Base</u>	vāšī	---	---
<u>Come to Base and return</u>	---	---	---
<u>Come to non-Base and return</u>	nkīšī	---	kišī
<u>Arrive Here at Base</u>	nšēē		nšēē
<u>Arrive Here at non-Base</u>	nkīšēē		kīšēē
<u>Arrive There at Base</u>	nāšēē		nāšēē
<u>Arrive There at non-Base</u>	nšēē		šēē

Table I: Diuxi Mixtec - K&M's Analysis

Texmelucan Zapotec (Speck and Pickett (1976))

Go-1: Move to Base away from PLA and return toward PLA

Go-2: Move to non-Base away from PLA and return toward PLA

Come-1: Move to Base toward PLA and return away from PLA

Come-2: Move to non-Base toward PLA and return away from PLA

Arrive-1: Arrive at Base (irrespective of PLA)

Arrive-2: Arrive at non-Base (irrespective of PLA)



Chalcatongo Mixtec

Table II (Table 3 in the text) shows the verbs of motion and arrival in Chalcatongo Mixtec. Examples of the verbs follow, numbered as in text.

	COMPL	ITER	PROG	POT
<u>Go-1</u>	ni-nó?o	---	k <sup>W</sup> a-no?o	no?ò
<u>Go-2</u>	ni-hā?ā	hā?ā	k <sup>W</sup> ā?ā	kī?ī
<u>Come-1</u>	---	---	---	---
<u>Come-2</u>	ni-kii	---	bèi	kii
<u>Arrive There-1</u>	ni-na-hāa			na-haà
<u>Arrive There-2</u>	ni-haà			haà
<u>Arrive Here-1</u>	(ni-ŷàà)			(ŷaa)
<u>Arrive Here-2</u>	ni-ŷàà			ŷaà

Table II: Chalcatongo Mixtec

- (16) no?ò be?e ŷīā  
 go-1(P) house tomorrow  
 He will go home tomorrow
- (17) ni-nó?o be?e ikū  
 COMPL-go-1 house yesterday  
 He went home yesterday (and has returned)
- (18) a-k<sup>W</sup>a-no?o bē?e  
 now-AUX-go-1 house  
 He's on his way home right now
- (19) kī?ī sk<sup>W</sup>ela  
 go-2(P) school  
 He will go to school (and return)
- (20) wāā k<sup>W</sup>ā?ā  
 there go-2(PROG)  
 There he goes now

- (21) Juan hã?ã sk<sup>w</sup>ela  
 Juan go-2(ITER) school  
 Juan goes to school (habitually)
- (22) ni-hã?ã nundùà ikù  
 COMPL-go-2 Oaxaca yesterday  
 He went to Oaxaca yesterday (and has returned)
- (23) Pedrù kii ʒã?a  
 Pedro come-2(P) here  
 Pedro will come here (and leave again)
- (24) Pedrù bei ʒã?a  
 Pedro come-2(PROG) here  
 Pedro is coming here (and will leave again)
- (25) Pedrù ni-kii be?é-ʒò  
 Pedro COMPL-come-2 house-1Pl  
 Pedro came to our house (and has left)
- (28) ʒiã nã-haa-nã  
 Tomorrow REP-arrive there-2(P)-1Sg(Polite)  
 Tomorrow I'll be home
- (29) iku ni-na-hãa-ña  
 yesterday COMPL-REP-arrive there-2-3SgF  
 She arrived home yesterday
- (30) ʒiã haa tã?a-ri be?e-rò  
 Tomorrow arrive there-1(P) father-1Sg house-2Sg  
 Tomorrow my father will arrive at your house
- (31) rù?u ni-haà-ri be?e-rò iku  
 1Sg COMPL-arrive there-1-1Sg house-2Sg yesterday  
 I arrived at your house yesterday
- (32) Juan ʒaa be?e ʒiã  
 Juan reside(P) house tomorrow  
 Juan will arrive home (here) tomorrow

- (33) Juan ni-ʒàà bɛʔɛ iku-ŋũũ  
 Juan COMPL-reside house day-before-yesterday  
 Juan arrived home (here) day before yesterday
- (34) ʒàà iɬi ʒaʔa ʒiʒ  
 arrive here-2(P) path here tomorrow  
 He will arrive here tomorrow
- (35) Pedrũ ni-ʒàà ʒaʔa iku  
 Pedro COMPL-arrive here-2 here yesterday  
 Pedro arrived here yesterday

Diuxi Mixtec (Reanalyzed)

Table III (Table 5 in the text) displays the verbs of motion and arrival in Diuxi Mixtec, reanalyzed along the lines proposed in this paper.

	COMPL	ITER	PROG	POT
<u>Go to Base and return</u>	nũʔũ	---	hwã-nũʔũ	nũʔũ
<u>Go to non-Base and return</u>	nʒɛʔɛ	ʒɛʔɛ	hwãʔã	hɬɬɬ
<u>Come to Base and return</u>	ndiʒi	---	hwã-ndiʒi	ndiʒi
<u>Come to non-Base and return</u>	nkɬiʒi	---	vãʒi	kiʒi
<u>Arrive Here at Base</u>	nʒɛɛ			nʒɛɛ
<u>Arrive Here at non-Base</u>	nkɬiʒɛɛ			kɬiʒɛɛ
<u>Arrive There at Base</u>	nãʒɛɛ			nãʒɛɛ
<u>Arrive There at non-Base</u>	nʒɛɛ			ʒɛɛ

Table III: Diuxi Mixtec Reanalyzed

## NOTES

1. My work on Mixtec has been funded by a Graduate Fellowship from the National Science Foundation, a grant from the Tinker Foundation and the Program in Mexican Studies of Berkeley, and the survey of California and Other Indian Languages. I would like to thank Claudia Brugman for her valuable comments on an earlier draft of this paper. While she is responsible for many of the insights contained herein, any errors in the analysis are of course my own. The Chalcatongo Mixtec data presented in this paper were provided by Nicolás Cortés, a native of Chalcatongo, Oaxaca, Mexico.

2. In addition, Velma Pickett (1976) has written a short article on this subject in *Isthmus Zapotec*, and a preliminary analysis of the data in Chalcatongo Mixtec appears in Macaulay (1982).

3. "Agent's Base" refers to any place to which a person often returns, usually his or her home. This topic will be discussed in the next section.

4. The segmental phonemes of Chalcatongo Mixtec are as follow: stops b, t, k, k<sup>w</sup>, ?; prenasalized stop nd; nasals m, n, ñ; oral resonants l, r (the latter phonetically a flap); fricatives d (symbol used for voiced interdental fricative), s, ʃ, ʒ (phonetically [ʒ] and [y], in free variation), h; affricate tʃ; continuant w, oral vowels i, ɨ (high central unrounded), u, e, o, a; nasal vowels ɪ̃, ɛ̃, ũ, and ɔ̃.

5. Abbreviations which will be used in this paper are as follow: P (or POT, in tables) - Potential, R - Realized, REP - Repetitive, ADD - Additive, Sg - Singular, Pl - Plural, PROG - Progressive, COMPL - Completive, ITER - Iterative, Aux - Auxiliary, and F - Feminine. Tones are marked as follows: high - ' , low - ` , and mid - unmarked.

6. That na- may indicate something which is somewhat more complicated than simple "repetition of action" is shown by the following examples:

- (i) kiku - To sew
- (ii) na-kiku - To mend
- (iii) skãa - To unfold
- (iv) na-skãa - To stretch

A precise analysis of the relationship between these examples, the straightforward Repetition examples, and the "Base" examples, however, is beyond the scope of this paper.

7. The high tone on the Repetitive na- in this example is due to tone sandhi, conditioned by the preceding word. It is not lexically or grammatically significant.

8. There is also some evidence that use of the verbs that specify Goal as Base may be on the decline. While Texmelucan Zapotec and Diuxi Mixtec have symmetric paradigms, the paradigm for Chalcatongo Mixtec is defective. It lacks an entry for Come to Base, and has what appears to be substitution of another item from a different domain, that of location, for Arrive at Base toward PLA (see below in text for discussion). In addition, Zelma Pickett (1976) describes another Otomanguan language, Isthmus of Tehuantepec Zapotec, which is completely lacking Base as a category in the domain of motion and arrival. Clearly in these cases the Goal is simply undefined, and can be Base or any other location.

9. Regrettably, S&P do not give glosses for their examples, and so I can not provide any more detail on the meaning of the Zapotec sentences than is provided by the English translations.

10. S&P adopt the convention of calling them, e.g., "Form-1" and "Form-2", where a "1" indicates motion towards Base, and a "2" indicates motion away from Base. They do not list the bare stems of these verbs at any point in the paper; rather, they give a table with the third person form of each stem inflected for all aspects. Because I am not a student of Zapotec, and hesitate to extrapolate from the data they give, I will follow their convention (instead of attempting to give a bare stem, as was done for Diuxi Mixtec and will be done for Chalcatongo Mixtec). The reader is referred to S&P's Table 3 (S&P 1976: 63) for data on the actual phonological form of the third person of each stem.

11. That is, use of a verb of motion in a non-completive aspect (progressive or potential) only commits the speaker to predication of movement on the part of the subject, and is vague with respect to the fact that it is "round trip" motion. Only in completive aspect is it explicit that the motion was necessarily "round trip."

12. In Ayutla Mixtec, the equivalent of nʂeʔe is ʂaʔa, while that of hwʂeʔe is kwʂeʔe (S&P 1976: 63, footnote 13). As we will see, the Chalcatongo Mixtec forms are even closer in phonological shape.

13. Cf. (d) of the section of Diuxi Mixtec above.

14. In regards to the analysis of the forms vaʂi and kiʂi, analysis of vaʂi as progressive (rather than completive) actually clarifies a pair of examples given by K&M (p. 38). These are given below, with K&M's glosses:

- (i) vaʃi daʔu - It is going to rain  
(lit. "Came rain")
- (ii) kiʃi daʔu - It is going to rain  
(lit. "Will-come rain")

K&M state that (i) is appropriate when rainclouds can be seen in the distance, and that (ii) would be used when clouds are not yet in sight. The use of vaʃi in the situation described makes a great deal more sense with reanalysis of the form as a progressive. Under this analysis, (i) would be glossed as Is coming rain.

15. The iterative aspect in Chalcatongo Mixtec includes habitual action as well.

16. S&P's naming convention for these verbs is adopted here, with a slight change. Form-1 will indicate Base as Goal, while Form-2 will indicate a neutral Goal, rather than non-Base.

17. Were this situation to arise it could of course be described by the iterative form of Go to neutral Goal, since this unmarked form may encompass situations in which Goal is Base.

18. Cliticization of disyllabic forms is extremely common in Mixtec, and various of the verbs of motion appear in clitic form as auxiliary verbs.

19. In fact, this lends further support to the analysis of kwāʔā as a progressive form.

20. By "appropriate" I mean whatever aspectual categories are generally found in the language, and possibly more. The reason for this waffling is the problem of the iterative. In Chalcatongo Mixtec, for example, the iterative shows up in no other domain than that of motion. I would like to see data from a greater number of Otomanguan languages before making the specific claim that the verbs in this domain can be inflected for the usual aspects plus the iterative.

21. This is admittedly a simplification, as discussed above.

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