

LEXICALIZING DIRECTIONAL AND NONDIRECTIONAL MOTION  
IN EMAI<sup>1</sup>

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Motion expressions in Emai, an Edoid language of Nigeria, are examined within the lexical typology of Talmy [1985]. Both directional and nondirectional motion structures involving the MANNER verb *la* 'to run' are analyzed, though only the former, syntactically expressed by verbs in continuous series, poses a particular problem for interpretation. Three hypotheses concerning the semantic composition of these serial verbs are considered and evaluated in terms of their distributional constraints. It is concluded that nondirectional motion can be lexicalized by either of two patterns [MOTION+MANNER] PATH or MOTION PATH...MANNER, while directional motion allows only the single lexicalization pattern MANNER [MOTION+PATH]. Typologically, these reflect two of the incorporation patterns Talmy has identified as characteristic in languages of the world.

0. Introduction

This paper examines lexicalization processes in Emai, an Edoid language of Bendel State, Nigeria.<sup>2</sup> It is concerned with the different patterns by which surface level morphemes realize elements common to the semantic structuring of

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<sup>2</sup>Emai constitutes one third of the Emai-Ora-Iuleha dialect cluster spoken in Owan Local Government Area of Bendel State, Nigeria. It is classified within the Kwa family as North Central Edoid by Hansford, Bendor-Samuel, and Stanford [1976].

motion situations. Narrowing analysis in this fashion reveals some of the more salient properties of structurally significant lexical items in the field of motion and, in addition, affords an opportunity to explore interrelationships between lexicalization processes and sentence structure.

In order to carry out this task, the theoretical framework of Talmy [1972, 1975, 1985] is employed. This model, arising from analysis of the motion domain in a number of unrelated natural languages, has delineated a typology of relevant lexicalization processes. As applied here they allow the specific patterns in Emai to be placed in a wider perspective, enhancing our appreciation of their potentially universal properties. A brief overview of the Talmy model follows.

### 1. Talmy's Model

Analysis could not begin without a consensus, however tentative and inexact, about what constitutes a motion event and how it is delineated at the semantic level. For Talmy [1975, 1985] a motion event is basically viewed as one object moving or located with respect to another.<sup>3</sup> At the semantic level this configuration is codified by the components FIGURE, MOTION, PATH, GROUND, and MANNER, with MOTION being further specified as either MOVE, i.e. directional motion, or BE LOCATED, i.e. nondirectional motion.

Each of these principal components, especially MOTION, PATH, and MANNER, will be briefly identified and illustrated so that their role in different patterns of lexicalization become more familiar. To achieve this goal, our attention will focus on surface level verb roots with respect to their incorporation of motion components. A priori, a number of incorporation types are possible, e.g. FIGURE+PATH, MOTION+GROUND, MOTION+PATH, etc.; but cross-linguistic evidence gathered by Talmy [1985] argues that only three predominate in natural language, each involving the element MOTION and one of the remaining components except GROUND. Two of these lexicalization patterns, MOTION+MANNER and MOTION+PATH, are relevant for the present study.

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<sup>3</sup>A similarly broad use of the term "motion" is found in Langacker [1982, 1985].

To clarify our understanding of Talmy's framework, let us consider examples in English where no incorporation takes place, the directional and nondirectional sentences below.

- (1) a. The man moved into the house.  
 b. The man was in the house.

In each of these *man* functions as the FIGURE, the moving object in the directional structure (1a) as well as the object to be located in the nondirectional (1b). The object with respect to which the FIGURE moves or is located, the GROUND, is indicated by *house*. As for PATH, which refers to the course followed or site occupied by the FIGURE, it is realized by the preposition *into* in (1a) and *in* in (1b). Finally, the component MOTION, further specified as MOVE or BE-LOCATED, indicates that reference is being made to the movement or location of an object. It is registered in the sentences of (1) by the verbs *moved* and *was*. To this point, however, our analysis is hardly more than a re-interpretation of traditional parts of speech.

A minimally specified motion event as seen above can be augmented through the expression of MANNER. As an example of how this component can be realized among surface level verb roots, consider the ensuing English constructions.

- (2) a. The man is running into the house.  
 b. The man is running in the house.

Here the functions of FIGURE and GROUND are realized, as in (1), by *man* and *house*, respectively, and similarly PATH is realized by *into* and *in*. As for the fact of MOTION, it is expressed in (2) by the verb *running*. More pertinent is this verb's incorporation of how the event takes place, i.e. running, thereby establishing a MOTION+MANNER lexicalization type. It is through such analysis that the characteristic pattern for specifying MANNER in English, Chinese, and most Indo-European languages has been identified by Talmy [1985]. As highlighted below, this pattern is not characteristic for all languages.

A second pattern allowing for the specification of MANNER is characteristic of Romance, Samoan and Semitic languages. By way of borrowing through French [Talmy 1972, 1985], it can be illustrated with the English example in

(3), where again the main verb root is the focus of attention.

(3) The man entered the house (by) running.

For ease of analysis the FIGURE and GROUND elements maintain agreement with the earlier sentences, leaving us to identify the placement of MOTION, PATH, and MANNER among surface level morphemes. Of these, MOTION and the directional PATH are incorporated in the main verb *entered*, more analytically rendered as 'move into'. Lexicalizing MOTION+PATH in the verb root, it should be noticed, contrasts with the MOTION+MANNER pattern established by (2), and as for MANNER in (3), it is specified at the surface level by the adjunct *running*. Our attention therefore rests on the verb of the main clause which does not incorporate MANNER and the adjunct which does not incorporate MOTION.

Though perhaps too briefly outlined, the preceding sentences reveal typological patterns of semantic incorporation. One pattern, e.g., *the man is running into the house*, employs a main verb incorporating both the fact of MOTION and its MANNER of occurrence, but expresses PATH through a separate lexical item, i.e. *into*. A contrasting pattern, e.g. *the man entered the house running*, relies on the coalescence of both MOTION and PATH concepts in the main clause verb root, but expresses MANNER in a separate phrase, *running*. Still a third pattern is evident among Hokan languages of California, but its non-occurrence in Emai allows us to set it aside for the present.<sup>4</sup>

## 2. MOTION in Emai

It is obvious that the entire range of sentences used to express motion in Emai cannot be examined herein. In fact, discussion will be limited to MANNER specifying constructions and attendant lexicalization patterns involving the verb *la* 'to run' as in the following.<sup>5</sup>

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<sup>4</sup>An English sentence like *it is snowing into the attic* illustrates the third pattern, where FIGURE+MOTION are incorporated in the verb root, *snow*. Its more analytic paraphrase *snow moved into the attic* lays out the semantic elements in a preincorporated fashion.

<sup>5</sup>Emai data are presented in an orthographic form along lines suggested in Schaefer (n.d.), which follows the general conventions for Edoid suggested in the *Edo Orthography Report* by using "vb" for a voiced bilabial approximant

- (4) a. ɔli ɔmɔhe la vbi oa                    'the man ran in the house'  
       the man run at house
- b. ɔli ɔmɔhe la vbi isao isi oa            'the man ran in front of the house'  
       the man run at front of house
- c. ɔli ɔmɔhe la vbi uokho isi oa           'the man ran in back of the house'  
       the man run at back of house

A factor common to the meaning of these sentences is their reference to nondirectional motion or positional location. That is, the movement of the FIGURE object, ɔmɔhe, is confined to a location defined by the GROUND, oa, i.e. the running event is confined to the inside of the house or a specified area adjacent to the house.

A second type of motion structure is illustrated in (5a) and (5c). In contrast to (4), the movement of the FIGURE object ɔmɔhe is not circumscribed by the GROUND location; rather, the FIGURE's movement is directed through space in a fashion relative to the GROUND: the movement of ɔmɔhe is directed into or out of the location specified by oa. Continuing to assign motion components to the remaining morphemes of (5a) and (5c), however, illustrates a dilemma whose solution sheds some light on the intimate relationship between lexicalization processes and grammatical structure in serial verb configurations.

- (5) a. ɔli ɔmɔhe la o vbi oa                    'the man ran into the house'<sup>6</sup>  
       the man            at house
- b. ɔli ɔmɔhe o vbi oa                    'the man entered the house'  
       the man enter at house
- c. ɔli ɔmɔhe la shɔ vbi oa re            'the man ran out of the house'  
       the man            at house
- d. ɔli ɔmɔhe shɔ vbi oa re            'the man left the house'<sup>7</sup>  
       the man leave at house

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and by marking tone only to avoid potential ambiguity.

<sup>6</sup>The blank space in the literal translation of MANNER conveying sentences is employed, since it is the goal of the present paper to determine what elements of meaning are incorporated in each of the morphemes la and o.

<sup>7</sup>The verb in this and the preceding sentence consists of the mutually dependent forms shɔ and re. They behave as a discontinuous unit.

What then is the dilemma? Basically the problem involves the semantic composition of the verb roots *la* and *o* in directional sentences expressing MANNER relative to the composition of *la* in nondirectionals of MANNER and of *o* in directionals without MANNER. In languages thus far considered by the Talmy model, a single verb root in a main clause, i.e. main verb, has consistently incorporated MOTION and one other element, either MANNER, PATH, or FIGURE. However, a Kwa language like Emai, where serial verb structures abound, raises a dilemma by not holding to the assumptions of this model, since in serial structures two verbs in a single surface level clause are used to refer to a motion event [Welmers 1973].

At first glance the dilemma appears to involve a decision as to which verb in series one should assign main verb status. Careful analysis in the past has revealed that strict adherence to the category arrangements of traditional grammar may preclude insight into the grammatical structure of serials [Bamgbose 1973, 1974; Awobuluyi 1973]. Agreeing with this criticism, the present analysis contends that a measure of insight may be gained by considering how lexicalization patterns pertaining to types of events may reveal the semantic composition of each verb in series. How then do we proceed?

For purposes of discussion, let us compare the first sentence in each of our earlier lists, (4a) and (5a). Examining the nondirectional sentence (4a) (shown as (6a) below) within the Talmy framework, one would conclude that the form *la* incorporates the elements MOTION+MANNER. Supporting this contention is the assignment of the functions FIGURE and GROUND to the forms *om̩ɔhe* and *oa*, respectively. Then to the form *vbi*, which obligatorily occurs in such locative complexes, the function of PATH is assigned. It remains, therefore, for the verb *la* to incorporate the fact of MOTION and the MANNER in which it is portrayed. This point is established more forcefully by examining (6b), which differs in meaning from (6a) to the extent that *siɔ* 'crawl' differs from *la* 'run'.

- (6) a. *ɔli om̩ɔhe la vbi oa* 'the man ran in the house'  
       the man run at house
- b. *ɔli om̩ɔhe siɔ vbi oa* 'the man crawled in the house'  
       the man crawl at house

Turning now to (5a) and others of its kind, the dilemma begins to unfold. More specifically, it involves the allocation of the elements MOTION, PATH, and MANNER among the surface level forms *la* and *o*, given MANNERless sentences like (5b) where the meaning of *o* 'to enter, more into' suggests that it lexicalizes MOTION+PATH. When *la*, particularly in view of its MOTION+MANNER composition in nondirectional sentences, is then combined with *o*, three hypotheses concerning their lexicalization of a directional motion event can be identified.

An initial interpretation, labelled Hypothesis I, is to assume that in (5a) *la* expresses the fact of MOTION and its running MANNER, as was postulated for (4a). It would remain for the form *o* to convey the directional PATH 'into', contrary to its meaning in (5b).<sup>8</sup> Assuming this to be the case, lexicalization across nondirectional and directional structures, (4a) and (5a), would consistently include the incorporation of MOTION+MANNER in *la*. This hypothesis adheres to the Talmy model and places Emai's MANNER conveying directional expressions within the typological set exemplified by English and most of Indo-European.

An alternative, Hypothesis II, advances the proposition that the element MOTION is expressed twice at the surface level, thus building on the serial nature of *la* and *o*. In this case, the form *la* would specify MOTION+MANNER and *o*, also incorporating MOTION, would specify MOTION+PATH. Such a double specification of MOTION is not consistent with Talmy's semantic coding of a motion event, though assuming a multi-clause, hence multi-main verb analysis for serial structures would lessen this inconsistency. As will be shown, a potentially favorable aspect of this hypothesis is the compositional stability of *la* across directional and nondirectional sentences and of the verb *o* across MANNER and MANNERless directional expressions.

As a final hypothesis, one might assume that *la* in (5a) specifies only

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<sup>8</sup>As for the form *vbi*, markers similar to it have been referred to elsewhere as Secondary PATHs [Schaefer 1985], and in the case of directional motion, it marks a particular type of PATH, one which other grammatical analyses identify with the terms Source and Goal.

MANNER and that the form *o* incorporates MOTION+PATH. This third analysis, Hypothesis III, differs from the previous two by not recognizing a constant semantic make up for *la* in nondirectional and directional sentences, i.e. (4a) and (5a). It also fails to recognize for the main clause a single verb root which, simultaneously, incorporates the component MOTION and functions as the main verb of that clause. The merits of each of these hypotheses will now be considered in more detail.

2.1. Hypothesis I. The first hypothesis under consideration proposes that in a directional structure like (5a) *la* specifies the fact of MOTION and its MANNER 'running', and *o* specifies PATH, 'into'. It is not difficult to recognize that under this hypothesis *la* is a verb and *o* a preposition, at least in terms of traditional parts of speech and the kind of semantic information each conveys. Schematically this first position is outlined in the following:

<i>la</i>	<i>o</i>
'by running move'	'into'
MANNER+MOTION	PATH

Hypothesis I, however, is not tenable, since the form *o* exhibits grammatical properties typical of Emai verbs. It occurs in a focus structure where a verb in its gerundive form is copied in the leftmost position of the clause and followed by the marker *li*. For example, a nonmotion verb like *e* 'to eat' in (7a) is copied in the fashion of (7b). Likewise, the form *o* in the directional structure (7c) is focused in (7d). A nonverb constituent such as the Locative marker *vbi*, however, cannot assume the gerundive copy form in (7e).

(7) a. *oli om̩ɔhe e eami*  
 the man eat meat  
 'the man ate meat'

b. *uemi li oli om̩ɔhe e eami*  
 eating F the man eat meat  
 'eating is what the man did to the meat'

- c. ɔli ɔmɔhe la o vbi oa  
 the man at house  
 'the man ran into the house'
- d. uomi li ɔli ɔmɔhe la o vbi oa  
 entering F the man at house  
 'entering is what the man did by running at the house'
- e. \*uvbimi li ɔli ɔmɔhe la o vbi oa  
 at F the man at house

A second argument for rejecting Hypothesis I lies in the potential ambiguity of negative directional structures. Negatives in Emai employ the form *i* in Third Person Singular, which precedes the verb and any of its auxiliaries and follows the grammatical subject. (8a), which is the negative corresponding to the directional sentence (7c), has three possible readings. On one interpretation, the entire proposition, both *la* and *o*, are negated, and on the other two, either *la* or *o*, but not both, are negated, as in (8b) and (8c), respectively. Since only verbs attract the negative marker *i*, the form *o* cannot be a preposition conveying only 'into'.

- (8) a. ɔli ɔmɔhe i la o vbi oa  
 the man not at house  
 'the man did not run into the house'
- b. ɔli ɔmɔhe o vbi oa bi khi ɔ i la  
 the man enter at house with that he not run  
 'the man entered the house without running'
- c. ɔli ɔmɔhe la bi khi ɔ i o vbi oa  
 the man run with that he not enter at house  
 'the man ran without entering the house'

A third argument for rejecting Hypothesis I is the occurrence of *o* as the only verb in a simple directional sentence, i.e. one where MANNER is not expressed. As we have already witnessed, alongside the MANNER specifying directional (9a) there is the MANNERless (9b). With respect to the last of these, it is important to point out that *o* does indeed behave as a verb, for it can be focused in its gerundive form, as illustrated in (9c).

- (9) a. ɔli ɔmɔhe la o vbi oa  
 the man at house  
 'the man ran into the house'
- b. ɔli ɔmɔhe o vbi oa  
 the man enter at house  
 'the man entered the house'
- c. uomi li ɔli ɔmɔhe o vbi oa  
 entering F the man enter at house  
 'entering is what the man did at the house'

A final argument leading to the rejection of Hypothesis I is the tonal identity of the two forms *la* and *o* in (9a). If Completive Aspect is referred to, both must be high, if Continuous Aspect, both low.<sup>9</sup>

Reviewing the above facts within the limitations imposed by Talmy's interpretive framework, one would conclude that the form *o* incorporates more than the PATH notion 'into'. It must incorporate semantic elements sufficient for it to assume the verb status which will permit operation of the various verb-sensitive grammatical processes. A semantic component likely to provide this condition is the concept MOTION. If this position can be maintained, the form *o* would incorporate the elements MOTION+PATH and only the semantic composition of *la* would remain to be determined. Being confined to the semantic elements advanced by Talmy, it follows that in directional structures *la* would incorporate only MANNER. There is, however, a troubling fact which delays acceptance of this conclusion and leads to Hypothesis II.

2.2. Hypothesis II. A fact pertinent to the directional structure in (10a) is that not only can form *o* be focused, as in (10b), but *la* can also be focused, as in (10c).

- (10) a. ɔli ɔmɔhe la o vbi oa  
 the man at house  
 'the man ran into the house'

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<sup>9</sup>In conjunction with the low tone of the verb or verbs in the sentence, Continuous Aspect is marked by the presence of ɔ with low tone in a position preceding the leftmost verb.

- b. uomi      li ɔli ɔmɔhe la o vbi oa  
 entering F the man            at house  
 'entering is what the man did by running at the house'
- c. ulami      li ɔli ɔmɔhe la o vbi oa  
 running F the man            at house  
 'running is how the man entered the house'

The verb-like behavior of *la* and *o* in these structures, as well as the negation structures viewed earlier in (8), leads to another possible analysis, especially within the serial verb nature of Emai. It may be that (10a) reflects a conjoined structure where *la* and *o* each incorporate a semantic component sufficient to exhibit verb status. Borrowing from Hypothesis I where MOTION was postulated as a component of *o* in order to account for its verbal properties, one could generalize this condition to *la* and have it incorporate MOTION+MANNER. Schematically this second hypothesis is outlined below:

<i>la</i>	<i>o</i>
'by running move'	'move into'
MOTION+MANNER	MOTION+PATH

Assuming a conjoined structure for (10a) there would be two underlying clauses and thus two main verbs, *la* and *o*, which are juxtaposed. An interpretation in which MOTION is expressed twice does not square with the number of semantic elements Talmy employs to delineate a single motion event. On the other hand, he sets no limitation on the number of different PATH notions which may be expressed in a single motion event, so for the sake of argument, let us assume there is no constraint on the number of times MOTION can occur.<sup>10</sup> Should this second hypothesis prove acceptable, verbs like *la* would exhibit a constant semantic composition across directional and nondirectional structures, i.e. MOTION+MANNER, as would verbs like *o* across MANNER and MANNER-less constructions, i.e. MOTION+PATH. Unfortunately, there are reasons for

<sup>10</sup>Talmy relies on sentences like *Come back down from up there*, with four consecutive PATH markers, to support his position.

rejecting this second hypothesis.

Let us consider conjoined sentences in Emai more carefully, in particular those with another set of intransitive verbs. The verbs *dia* 'sit, stay' and *vię* 'cry' occur in simple structures such as (11a) and (11b) and in structures like (11c), (11d), and (11e) where they are conjoined in various ways.

- (11) a. ọli ọmọhe dia vbi ukpa-odeę  
 the man sit at road  
 'the man sat on the road'
- b. ọli ọmọhe vię vbi ukpa-odeę  
 the man cry at road  
 'the man cried on the road'
- c. ọli ọmọhe dia vię vbi ukpa-odeę  
 the man sit cry at road  
 'the man sat and cried on the road'
- d. ọli ọmọhe dia vbi ukpa-odeę vię  
 the man sit at road cry  
 'the man sat on the road and cried'
- e. ọli ọmọhe dia vbi ukpa-odeę vię vbi ọ  
 the man sit at road cry at it  
 'the man sat on the road and cried'

These sentences will act as the basis for comparison with motion counterparts, beginning with (11c). Recall first that our directional sentence (10a) is superficially similar to (11c), with *la* corresponding to *dia* and *o* to *vię*. If a parallel grammatical structure for (10a) is assumed, then there is reason to anticipate that corresponding to (11a) and (11b) there is (12a) and (12b).

- (12) a. ọli ọmọhe la vbi oa  
 the man ran at house  
 'the man ran into the house'
- b. ọli ọmọhe o vbi oa  
 the man enter at house  
 'the man entered the house'

- c. \* $\text{ɔli ɔmɔhe la vbi oa o vbi oa}$   
 the man run at house enter at house  
 'the man ran in the house and entered the house'
- d. \* $\text{ɔli ɔmɔhe la vbi oa o}$   
 the man run at house enter  
 'the man ran at the house and entered'
- e. \* $\text{ɔli ɔmɔhe la vbi oa o vbi ɔ}$   
 the man run at house enter at it  
 'the man ran at the house and entered it'

Following this lead, it might also be expected that a more explicit conjoined structure along the lines of (12c) would occur. However, (12c) is ungrammatical. Countering this, it may be that its ungrammaticality is due to redundancy caused by the twin occurrence of *vbi oa* and that deletion of one of the Locative complements through a process of conjunction reduction would remedy the situation. As suggested by (11d), one might delete the complement following the form *o*. There is, however, no corresponding sentence from the motion domain, since in (12d) the *o* constituent cannot occur in a postcomplement position.

On the other hand, the supposed redundancy of (12c) might be remedied by a copy pronoun process along the lines of (11e). Unfortunately, the resulting directional structure in (12e) is also ungrammatical, leading one to postulate that in directional expressions *la* and *o* cannot accept identical complements. A final alternative, suggested by (11c), is to have conjunction reduction operate on the first of two identical Locative complements. But this, too, ignores a principal semantic fact about (12c): it is a contradiction so long as the two occurrences of *oa* exhibit identity of reference, for one cannot first be running inside the house and then run into that same house.

Wishing to maintain the conjunction hypothesis, we might look to other available conjoined structure types involving verbs of motion. In doing so one encounters sentences like (13).

- (13) a.  $\text{ɔli ɔmɔhe la vbi ɛvbo o vbi oa}$   
 the man run at village enter at house  
 'the man ran in the village and entered the house'

- b. ɔ̄li ɔ̄mɔ̄he la vbi ɛvbo siɔ̄ o vbi oa  
 the man run at village crawl enter at house  
 'the man ran in the village and crawled into the house'

Sentence (13a) shows that *la* can accept a locative complement and still precede *o* and its locative complement, and (13b) supports the possible dissociation of *la* and *o* in the same sentence by placing *siɔ̄* 'crawl' in collocation with *o*. The crucial aspect of (13a) which argues that its underlying form cannot be similar to that of the motion sentence (10a) is the nonidentity of the locative complements. Assuming that identity of locative complements would be a condition for the supposed conjunction reduction rule, there is no basis for positing a conjoined structure for (10a) upon which this process might act. A further argument against the conjoined clause hypothesis rests with the placement of time adverbials. If individual clauses each containing a locative complement underlie a directional sentence, then one would expect each to allow adverbials of the type *oɔ̄* 'yesterday' or *ɛɛna* 'today'. For instance, a conjoined structure with the verbs *dɛ* 'buy' and *e* 'eat', (14a), can occur with *oɔ̄* and *ɛɛna* as in (14b) or *oɔ̄* alone as in (14c).

- (14) a. ɔ̄li ɔ̄mɔ̄he dɛ ema e ɔ̄i  
 the man buy yam eat it  
 'the man bought yam and ate it'
- b. ɔ̄li ɔ̄mɔ̄he dɛ ema oɔ̄ e ɔ̄i ɛɛna  
 the man buy yam yesterday eat it today  
 'the man bought yam yesterday and ate it today'
- c. ɔ̄li ɔ̄mɔ̄he dɛ ema oɔ̄ e ɔ̄i  
 the man buy yam yesterday eat it  
 'the man bought yam yesterday and ate it'

Attempts at constructing comparable motion sentences reveal that similar adverbial placements do not occur. For example, (15a), where the adverbial *oɔ̄* is attached to a hypothetical *la* clause and *ɛɛna* to a hypothetical *o* clause, is ungrammatical. And as comparison of (15b) and (15c) suggests, the unmarked position for a time adverbial is clause final position, arguing that its placement is governed by a clause boundary. Since adverbials can not

occur between the forms *la* and *o* in a directional structure, a clause boundary, and hence a dual clause structure, does not underlie (10a).

- (15) a. \**ɔ*li *ɔ*mɔhe *la* *o*de *o* *v*bi *o*a *e*ena  
 the man run yesterday enter at house today  
 'the man ran yesterday and entered the house today'
- b. \**ɔ*li *ɔ*mɔhe *la* *o*de *o* *v*bi *o*a  
 the man run yesterday enter at house  
 'the man ran yesterday and entered the house'
- c. *ɔ*li *ɔ*mɔhe *la* *o* *v*bi *o*a *o*de  
 the man at house yesterday  
 'the man ran into the house yesterday'

A further point of note is that adverbial intrusion is not allowed in aspectual structures which appear akin to what other investigators have called "consecutives" [Hyman 1971, Welmers 1973]. The structures in question most easily translate with 'and then' in English and reflect an aspectual distinction in which the internal time sequence of an event is prolonged. For instance, the Inceptive Aspect (IA) marker *ɔ* which can precede the leftmost verb *la*, as in (16a), can also precede *o*, as in (16b), but it cannot occur in both positions (16c). If one takes such an overtly consecutive structure and examines it for adverbial intrusion, one still finds that two time adverbials cannot occur, as (16d) attests. It seems reasonable to postulate that the ungrammaticality of (16d) is due to the lack of a clause boundary attracting each of the time adverbials and that (16e), likewise, is ungrammatical, despite its explicit consecutive nature. It is only (16f), where the time adverbial *o*de is in clause final position, that is grammatical.<sup>11</sup>

- (16) a. *ɔ*li *ɔ*mɔhe *ɔ* *la* *o* *v*bi *o*a  
 the man IA at house  
 'the man went and ran into the house'

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<sup>11</sup>Adverbials may also occur in clause initial position, but only as a focus constituent marked with the form *li*.

- b. ɔ̣li ɔ̣mɔ̣he la ɔ̣ o vbi oa  
 the man run IA enter at house  
 'the man ran and then entered the house'
- c. \*ɔ̣li ɔ̣mɔ̣he ɔ̣ la ɔ̣ o vbi oa  
 the man IA run IA enter at house  
 'the man went and ran and then entered the house'
- d. \*ɔ̣li ɔ̣mɔ̣he la oɔ̣ ɔ̣ o vbi oa ēēna  
 the man run yesterday IA enter at house today  
 'the man ran yesterday and then entered the house today'
- e. \*ɔ̣li ɔ̣mɔ̣he la oɔ̣ ɔ̣ o vbi oa  
 the man run yesterday IA enter at house  
 'the man ran yesterday and then entered the house'
- f. ɔ̣li ɔ̣mɔ̣he la ɔ̣ o vbi oa oɔ̣  
 the man run IA enter at house yesterday  
 'the man ran and then entered the house yesterday'

The preceding examples suggest that the forms *la* and *o* existing in directional motion sentences cannot derive from an underlying dual clause structure, particularly one with two identical locative complements. In directionals, *la* must exist without a complement. Following up on this, it would be of interest to examine the distributional properties of *la* more fully so that a clearer perspective on its structural relationship with following constituents could be attained.

In pursuit of this goal one can ask whether *la* exhibits behavior similar to other intransitive verbs which occur with directional complements. For instance, the form *vīɛ* seen earlier occurs in (17a), which is superficially similar to the motion structure (17c). Yet, only (17a) allows the paraphrase structure (17b), where the left to right order of *vīɛ* and *o* is reversed, since (17d) with *la* and *o* similarly transposed is ungrammatical. One interpretation of this constraint is that *la* exists in a tighter structural relationship to the following MOTION+PATH constituent *o* than does *vīɛ*.

- (17) a. ɔ̣li ɔ̣mɔ̣he vīɛ o vbi oa  
 the man cry enter at house  
 'the man cried and entered the house'

- b. ɔ̌li ɔ̌mɔ̌he o vbi oa viɛ  
 the man enter at house cry  
 'the man entered the house and cried'
- c. ɔ̌li ɔ̌mɔ̌he la o vbi oa  
 the man at house  
 'the man ran into the house'
- d. \*ɔ̌li ɔ̌mɔ̌he o vbi oa la  
 the man enter at house run  
 'the man entered the house and ran'

The relatively more constrained behavior of form *la* is not absolute. It can occur in post-complement position, that is, to the right of the MOTION+PATH constituent *o*, but only when it is followed by a directional verb and its complement or a nondirectional complement, as in (18a) and (18b), respectively.

- (18) a. ɔ̌li ɔ̌mɔ̌he o vbi oa la ye aza  
 the man enter at house run move-toward inner room  
 'the man entered the house and ran toward the inner room'
- b. ɔ̌li ɔ̌mɔ̌he o vbi oa la vbi aza  
 the man enter at house run at inner room  
 'the man entered the house and ran in the inner room'

Thus, if *la* does occur to the right of the *o* complement, it also must take a complement, and, as shown earlier, the two complements cannot be identical. This holds for instances of the consecutive construction as well, e.g. (19a) relative to (19b) and (19c).

- (19) a. \*ɔ̌li ɔ̌mɔ̌he o vbi oa ɔ̌ la  
 the man enter at house IA run  
 'the man entered the house and then ran'
- b. ɔ̌li ɔ̌mɔ̌he o vbi oa ɔ̌ la ye aza  
 the man enter at house IA run move-toward inner room  
 'the man entered the house and then ran toward the inner room'
- c. ɔ̌li ɔ̌mɔ̌he o vbi oa ɔ̌ la vbi aza  
 the man enter at house IA run at inner room  
 'the man entered the house and then ran in the inner room'

Restating our point, it is not that *la* cannot accept locative complements, only that it does not do so when it precedes a MOTION+PATH verb in a directional motion clause.

Constraints on the distribution of the form *la* in directional structures become more evident when its behavior in nondirectional sentences is considered. In non-directionals an isolated *la* can assume a post-complement position. A comparison of the paraphrases (20a) and (20b), both of which are non-directional, will show this to be the case.

- (20) a. *ɔli ɔmɔhe la vbi oli oa*  
 the man run at the house  
 'the man ran in the house'
- b. *ɔli ɔmɔhe za vbi oli oa la*  
 the man be-located at the house running  
 'the man ran in the house'
- c. \**ɔli ɔmɔhe za vbi oli oa*  
 the man be-located at the house  
 'the man was at the house'
- d. \**uzami li ɔli ɔmɔhe za vbi oa la*  
 being located F the man be-located at house run  
 'being located is how the man ran in the house'
- e. \**ɔli ɔmɔhe za la vbi oa*  
 the man be-located run at house  
 'the man ran in the house'
- f. *ebe ɔli ɔmɔhe za la*  
 where the man be-located run  
 'where did the man run?'
- g. \**ebe ɔli ɔmɔhe la*  
 where the man run  
 'where did the man run?'
- h. *ɔli oa li ɔli ɔmɔhe za la*  
 the house F the man be-located run  
 'it was the house that the man ran in'

- i. \* $\text{oli oa}$      $\text{li oli om\textcircled{h}e la}$   
       the house F the man    run  
       'it was the house that the man ran in'

The form *la* in nondirectional structures can thus occur in either pre- or post-complement position. In the latter instance the form *za*, having the meaning 'be-located', occurs in initial verb position, attracting tonal distinctions of the tense/aspect system and immediately following sentence negation or auxiliary constituents. An interesting property of *za* is its failure to occur as a main verb in a MANNERless simplex sentence, like (20c), and its failure to undergo verb focusing, as in (20d). Furthermore it is not only sentences like (20b) which require the presence of *za* and result in the post-complement positioning of *la*. In nondirectional constructions where the locative constituent is questioned or focused, *za* is obligatory: the Wh-Question corresponding to (20a) must take the form (20f), not (20g), and similarly, the contrastive focus structure corresponding to (20a) must be (20h), not (20i).

Important for the present investigation is the fact that *za* never appears in directional sentences. Using (21a) as a base, *za* occurs in neither its Wh-Question counterpart, compare (21b) and (21c), nor its contrastive focus version, compare (21d) and (21e). Similarly, a paraphrase along the lines of (21f) cannot occur.

- (21) a.  $\text{oli om\textcircled{h}e la o vbi oa}$   
       the man            at house  
       'the man ran into the house'
- b. \* $\text{ebe oli om\textcircled{h}e za}$              $\text{la o}$   
       where the man    be-located  
       'where did the man run into?'
- c.  $\text{ebe oli om\textcircled{h}e la o}$   
       where the man  
       'where did the man run into?'
- d. \* $\text{oli oa}$      $\text{li oli om\textcircled{h}e za}$              $\text{la o}$   
       the house F the man    be-located  
       'it was the house that the man ran into'

- e. ɔ̀li oa    li ɔ̀li ɔ̀mɔ̀he la o  
 the house F    the man  
 'it was the house that the man ran into'
- f. \*ɔ̀li ɔ̀mɔ̀he za                    vbi oa    la o  
 the man    be-located at    house  
 'the man was at the house running into'

From the facts in (20) and (21) it is evident that constraints on the distribution of *la* in directional and nondirectional expressions vary. What appears to underlie these constraints is a difference in lexicalization pattern. In the instance of nondirectional motion, *la* may either incorporate the positional element BE-L in a MOTION+MANNER fashion, or it may retain a more analytic, nonincorporated structure, with both the MOTION(BE-L) and MANNER component manifested separately at the surface level, i.e. *za...la*. By way of contrast, the distribution of *la* in directional structures is more constrained and as suggested in the next section does not allow incorporation with any other semantic component.

2.3. Hypothesis III. The last hypothesis to be considered, alluded to throughout the preceding, attempts to do justice to the grammatical facts cited against the previous two hypotheses. Schematically this third hypothesis is presented below.

<i>la</i>	<i>o</i>
'by running'	'move into'
MANNER	MOTION+PATH

It postulates that *la* in a directional structure specifies only MANNER, lacking the MOTION element posited for the synthetic *la* of nondirectional sentences. With the assumed incorporation of MOTION+PATH in *o*, there is the ability to account for its behavior as a verb in MANNER expressions and, by extension, in MANNERless sentences. Under this third hypothesis both *la* and *o* would also be members of the same syntactic class, verb, since they act similarly with respect to the different grammatical processes illustrated earlier. Moreover, constraints on the positioning of locative complements and adverbials between these two forms suggest that a phrase rather than a clause bound-

ary lies at their juncture.

If correct, this lexicalization pattern places Emai directional expressions in the typological set of Romance languages like Spanish, as well as Samoan and Semitic. A principal difference between these languages and Emai remains, however, in that the MANNER constituent is realized by a verb positioned to the left of the MOTION+PATH verb. In fact, closer scrutiny of Talmy's typology shows that the positioning of a MANNER constituent to the left of a MOTION+PATH verb does occur in other languages. For example, Nez Perce, a polysynthetic Amerindian language of the Northwest Coast, employs such a pattern, as in (21) below, where the MANNER constituent -quqú- is positioned to the left of the MOTION+PATH verb -láhsa-. But in contrast to the Emai pattern, -quqú- itself is a prefix, not a verb.

- (21) hi-            quqú-        láhsa-e            'he galloped uphill'  
       3rd person-galloping-go up-past

It is therefore Emai's use of a verb to mark MANNER that distinguishes it from other languages in Talmy's MOTION+PATH class. To the extent that a similar pattern is evident in other Kwa languages, one might be able to specify the characteristics of this subtype and make fruitful comparisons with languages like Nez Perce. Lastly, the typological results of the present study align well with those uncovered for Tswana, a Southeastern Bantu language [Schaefer 1985], and suggest thereby that analysis of the motion field may lead to greater insight into the lexicalization patterns characteristic of Niger-Congo languages.

### 3. Summary

In the preceding, a small segment of the motion domain in Emai was analyzed in the theoretical framework of Talmy [1972, 1975, 1985]. Both directional and nondirectional structures conveying the MANNER in which a motion event occurs were investigated, though special emphasis was placed on the semantic composition of verb forms in directional expressions. Three hypotheses derived from the Talmy model were advanced and evaluated in terms of distributional constraints governing verbs in serial and nonserial constructions. On the basis of these constraints it was argued that directional and nondirection-

al expressions are characterized by different patterns of lexicalization. For directional structures, verbs in continuous series incorporate MANNER and MOTION+PATH. For nondirectional structures either a single verb incorporates MOTION+MANNER, or that verb in discontinuous series with another lexicalizes MOTION followed by MANNER.

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