

MOTION IN TSWANA AND ITS CHARACTERISTIC LEXICALIZATION¹

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Characteristic patterns for the lexicalization of motion in Tswana, a Southeastern Bantu language, are explored. Examination of constraints governing classes of verb roots referring to motion events reveals two of the typological patterns put forward by Talmy [1984] for the lexicalization of motion in natural language. The distinguishing feature of each pattern lies in the particular semantic elements incorporated in a main clause verb root. The fact of Motion and Manner/Cause are incorporated in the verb root when lexicalizing complex location-motion events. However, when lexicalizing complex motion events of a directional nature, as well as both locational- and directional- motion events of a less complex nature, the verb root incorporates the fact of Motion and the Path which a moving object takes.

1. Introduction

In Fillmore [1978] we gain appreciation for the wide variety of semantic dimensions along which sets of lexical items may differ in their underlying structural pattern. Among these dimensions our attention rests on those which have led to discussion of so-called "characteristic" lexicalization patterns [Ullmann 1957:308]. By one recent account, a characteristic lexicalization pattern is one which exhibits three important properties [Talmy 1984]. These are that the pattern be colloquial in style, rather than literary; frequent in occurrence, rather than seldom used; and pervasive, applicable across the breadth of a selected semantic domain. Investigation of such characteristic patterns within a

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single domain has the potential to reveal language particular constraints governing the make up of lexical items in addition to constraints of a more universal nature.

Within this context, a potentially fruitful domain for investigation is that of motion. In a number of different papers dealing with the lexicon [Gruber 1965, Jackendoff 1976, Talmy 1975], there is reference to the potentially unique status of the motion domain. In Talmy [1975], for example, the position taken is that those semantic structures specifying states or changes of state are derived from structures which specify motion events, whereas the converse does not hold. In a certain sense then, motion structures may be more basic than those of state or change of state. An analysis of how verbs incorporate the salient dimensions of a motion event thus seems a natural point from which to initiate analysis of the characteristic lexicalization patterns of a language.

1.1. Talmy's analysis of motion events. A recent and evolving contribution to our perspective on the lexicalization of motion events is found in Talmy [1972, 1975, 1984]. Of particular relevance is his claim that the lexicalization of motion by natural languages falls into a limited number of types. In the following we utilize this typology to illuminate a system of constraints governing the behavior of verb root forms in Tswana, a Southeastern Bantu language, and to show how they reflect, at least for Tswana, two characteristic lexicalization patterns.

Central to Talmy's perspective is the notion of a motion event, which he defines as one object moving or located with respect to another object. This event is delineated at the semantic level by a structure consisting of the elements Figure, Motion, Path, and Ground. At the surface level, these semantic elements are realized in a limited number of ways, and below we take advantage of patterns existing in English in order to illustrate and define them.

The notion Figure refers to an object moving or located with respect to another object, and Ground refers to the object serving as a frame or reference point with respect to which the Figure moves. In the English sentence, "The boy moved toward the house," the Figure object is realized by the noun *boy* and Ground by the noun *house*. Of the remaining two elements, Motion indicates that

reference is being made to a situation containing movement. In our English sentence this is realized by the verb *moved*. Finally, Path refers to the course followed or site occupied by the Figure object relative to the Ground; it is realized by the form *toward*.

The structural unit constituted by the elements Figure, Motion, Path, and Ground can also serve to delineate a more complex motion event by having adjoined to it either of the elements Manner or Cause. These latter elements specify that an act of motion is carried out in a particular manner or fashion, or is the result of another causal event respectively. For example, though the semantic structure of *the boy moved toward the house* is quite similar to that of *the boy ran toward the house*, the latter incorporates in the verb *ran* not only the element of Motion, but the Manner, e.g. *running*, in which that motion is expressed. One can thus distinguish, as we will below, a basic verb root from one semantically more complex by reference to whether it incorporates either of the elements Cause or Manner. Basic verb roots, e.g. *move*, do not incorporate these elements while complex roots incorporate either, e.g. *run*.

With respect to the linguistic expression of a motion event in Tswana, our principle task, as outlined by Talmy [1984], becomes one of discovering which semantic element or elements are incorporated in the surface level verb root. It is conceivable that a verb root in a given language could typically incorporate combinations of elements such as Figure+Motion, Motion+Path, Motion+Cause, Motion+Manner, or Motion+Ground. Based on cross-language analyses within his framework of constructs, Talmy argues that the lexicalization of a motion event is limited to only three types. Moreover, each of these types appears in a different language or language family as characteristic [Talmy 1984]. We will illustrate two of these typological patterns below but only mention the third, since it does not bear on the Tswana data.

1.2. Talmy's typological patterns. The first typological pattern is revealed by a surface level verb root which expresses motion occurring in various manners or due to various causes. The defining feature of this type is the incorporation in the verb root of the fact of motion and either its Cause or Manner, i.e. Motion+Manner or Motion+Cause. Most branches of Indo-European, except Romance, as well as Chinese rely on this as their characteristic lexicalization pattern.

For purposes of illustration, the motion events referred to by the English sentences in (1) are offered.

- (1) a. The bottle rolled down the hill.
 b. The bottle blew down the hill.

Analyzing these sentences within Talmy's theoretical framework, we find that *bottle* specifies the Figure, *hill* the Ground, and *down* the Path, the course which the Figure object's motion follows. The verb *roll* in (1a) incorporates not only the fact that Motion has occurred but that it has occurred in a rolling, as opposed to say a sliding, Manner. In (1b) on the other hand, the verb *blew* incorporates the fact that Motion has occurred and that it is due to a Cause element of the wind blowing, rather than, for example, of the river washing.

We can tease apart the meaning constituents of these verb roots, in the fashion of Talmy, through examination of the respective paraphrase sentences in (2).

- (2) a. The bottle moved down the hill, rolling the while.
 b. The bottle moved down the hill, from the wind blowing on it.

Decomposing the meaning of the erstwhile main verb in this way reminds us that the verb *roll* incorporates both a Motion constituent (move) and a Manner constituent (rolling), and that *blow* incorporates both Motion (move) and Cause (from wind blowing on it).

In contrast to this typological pattern is one where the surface verb expresses motion along various paths. The defining feature of this type is a verb root which incorporates both the fact of Motion and its Path, i.e. Motion+Path. If Manner or Cause is expressed at the surface level, it is manifested as a dependent clausal constituent, e.g. adverbial, gerundive, or participial clause. According to Talmy [1984], this clausal constituent is stylistically awkward in some languages, with the result that accompanying discourse, rather than syntactic form, is the immediate source of information pertaining to Manner or Cause. The language families which exhibit this second pattern as characteristic include Semitic, Polynesian, and from Indo-European, Romance. Taking Spanish as an example of Romance, we can illustrate the general pattern in the following

sentences,

- (3) La botella cruzo el canal. (flotando)
 the bottle move-across the canal floating
 'the bottle floated across the canal'

Here the nominals *botella* and *canal* refer to the Figure and Ground objects respectively, while the verb root *cruzo* incorporates the fact of Motion (move) and its Path (across). As for the Manner constituent *flotando*, it is shown in parenthesis to highlight the fact that being stylistically awkward, it is deleted in Spanish. As this example indicates, Talmy's second typological pattern reveals a verb root incorporating the fact of Motion and its Path.

In the third and final lexicalization type, the surface verb expresses a kind of object or material as moving or located. The defining feature of this type is that the verb root incorporates the fact of Motion together with the Figure. Languages manifesting this pattern include the Amerindian languages Atsugewi, of Hockan stock, and Navajo. Since this pattern is not reflected in the Tswana data, we will do no more than note its existence here.²

Drawing on examples from Talmy [1984] we have seen that lexicalization patterns in the domain of motion fall into one of three types. These types, in turn, are the result of examining verb root forms for their incorporation of given semantic elements. For the purpose of review, Table 1 on the following page schematically represents the two typological patterns most relevant for this study.

²The third typological pattern discussed by Talmy [1984] is illustrated by Atsugewi. In this pattern the fact of Motion and the Figure object are incorporated in a main clause verb root. Below we see an example where the morpheme *ca* specifies Manner, *st'ag'*, Figure+Motion, and *içt'*, Path+Ground.

w: third person
 ca: from wind blowing on the Figure object
 st'ag': for runny material to move, e.g. guts
 içt': into liquid

/ w-----ca-----st'ag'-----içt'-----a /
 blow guts move into creek

'the guts blew into the creek'

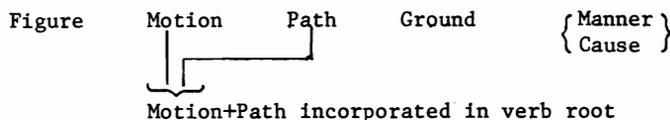
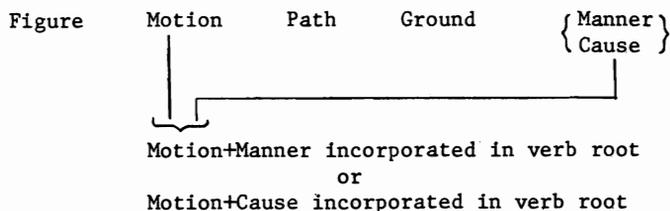


Table I. Two typological patterns for the lexicalization of motion drawn from Talmy [1984].

2. The Expression of Motion in Tswana.

Before devoting our attention to how particular verb roots are used to express a motion event in Tswana, we will sketch a general overview.³ In the first section to follow our focus is on a set of verb root forms which participate in structures specifying a complex motion event, that is, they specify either the Manner or Cause of an event. These verbs can occur in each of three categories of distributionally defined motion events, events that will be labelled location-confined, location-directed, and, simply, directional. As a motivation for these categories we offer two constraints: The Applied Extension Constraint and the Main Clause Constraint.

The Applied Extension Constraint distinguishes location-confined from location-directed motion. For the linguistic expression of location-directed motion, the applied suffix *-el-* must occur, while for location-confined motion it must not. Nonetheless, common ground between these two categories of motion emerges when viewed from the perspective of lexicalization. Both categories are lexicalized by a verb root incorporating Motion+Manner or Motion+Cause.

³The Tswana examples are here presented in line with the orthographic conventions found in Cole [1962]. The symbols which deviate most from standard phonetic symbols are *g* and *kg*, which represent voiceless velar fricative and voiceless velar affricate respectively.

The Main Clause Constraint, with respect to this same set of verbs, further suggests that locational motion, i.e. location-confined and location-directed, be distinguished from purely directional motion. This constraint reflects the fact that the verb root forms which occur in the main clause in locational structures, must, in directional structures, occur in a subordinate, participial clause. The verb root which does occur in the main clause in directional structures lexicalizes Motion+Path, with Manner being specified in the participial clause. Thus, for this first set of verb roots, not one, but two of Talmy's lexicalization patterns appear to be characteristic.

In a second section our focus is on a smaller set of verb root forms. They participate, without reference to Manner or Cause specifying elements, in structures specifying a basic as opposed to a complex motion event, and in general, neither of the constraints mentioned above applies. Instead, a form of suppletion occurs which reflects a categorization of motion events into location-directed and directional. These verbs then do not occur in structures specifying location-confined motion. In line with the notion of suppletive forms, the categories of location-directed and directional motion are lexicalized in this verb set by only one typological pattern, the same one in fact witnessed in the main clause of structures expressing complex directional motion. No new pattern is thus encountered, though we discover how one characteristic pattern is employed to lexicalize both location-directed and directional motion.

2.1. Location-confined motion with -tábóg- . To begin, our attention is directed to expressions of motion involving the verb -tábóg- meaning 'to run'. Expressions of location-confined motion with this verb, as with other verbs of its type, show a Figure object in a state of motion confined to a location, a location specified by the Ground object, e.g. *the boy is running on top of the hill*. A representative sample of sentences with -tábóg- is illustrated in Table II on page 64.

The principle typological feature illustrated in Table II is a verb root that incorporates the fact of Motion and its Manner. The remaining semantic constituents of a motion event are specified by individual lexical items. For instance in (II,1), the moving object, the Figure, is specified by *mòsímané*

- | | | | | |
|-----|---|-------------------------|----------------------------|--------------------------------|
| 1. | mò-símàné
CL 1-boy | ó-tábóg-à
he-run-IMP | fá-gòdí mò
NEARBY-top | gá-thàbà
LOC-mountain |
| | 'the boy is running on top of the mountain' | | | |
| 2. | mò-símàné
CL 1-boy | ó-tábóg-à
he-run-IMP | fá-tlàsé
NEARBY-under | gá-dì-tìhàrè
LOC-CL 8-tree |
| | 'the boy is running under the trees' | | | |
| 3. | mò-símàné
CL 1-boy | ó-tábóg-à
he-run-IMP | fá-pèlè
NEARBY-front | gá-ñ-tìò
LOC-CL 9-house |
| | 'the boy is running in front of the house' | | | |
| 4. | mò-símàné
CL 1-boy | ó-tábóg-à
he-run-IMP | fá-mòrágò
NEARBY-back | gá-ñ-tìò
LOC-CL 9-house |
| | 'the boy is running in back of the house' | | | |
| 5. | mò-símàné
CL 1-boy | ó-tábóg-à
he-run-IMP | fá-gàúfí
NEARBY-near | gá-ñ-tìò
LOC-CL 9-house |
| | 'the boy is running near the house' | | | |
| 6. | mò-símàné
CL 1-boy | ó-tábóg-à
he-run-IMP | fá-gàré
NEARBY-between | gá-dì-tìhàrè
LOC-CL 8-tree |
| | 'the boy is running between the trees' | | | |
| 7. | mò-símàné
CL 1-boy | ó-tábóg-à
he-run-IMP | fá-ñtìlé
NEARBY-outside | gá-kàgò
LOC-building |
| | 'the boy is running outside the building' | | | |
| 8. | mò-símàné
CL 1-boy | ó-tábóg-à
he-run-IMP | fá-tèngù
NEARBY-inside | gá-kàgò
LOC-building |
| | 'the boy is running inside the building' | | | |
| 9. | mò-símàné
CL 1-boy | ó-tábóg-à
he-run-IMP | màbàpì
alongside | lé-kàgò
and-building |
| | 'the boy is running alongside the building' | | | |
| 10. | mò-símàné
CL 1-boy | ó-tábóg-à
he-run-IMP | | lé-mò-rùtí
and-CL 1-teacher |
| | 'the boy is running with the teacher' | | | |

Table II. Location-confined expressions with the verb -tábóg- .

and the background against which this movement is perceived, the Ground, is specified by *thàbà*. Specifying one relationship between these two objects is the verb root *-tábóg-*, which incorporates the element Motion as well as the Manner, running, in which that motion is carried out. Last of all, the particular site, the Path, within which is confined the Figure object's motion, is specified by the form *gòdí mò*. Thus each surface level constituent realizes one of the semantic elements defining a motion event except the verb root, which in the sentences above incorporates the fact of Motion and its Manner.

In passing, it might have been noticed that various prefixes can be adjoined to the Path and Ground specifying constituents. In Table III on page 66, for instance, the marker *fá-*, indicating the relative nearness of the Ground object to the speaker, is prefixed to the constituent realizing the Path as is the marker *kwá-*, indicating a greater distance. Neither of these markers is obligatory, though the locative marker *gá-*, or in some instances, the conjunction marker *lé-*, is obligatory when adjoined to the Ground constituent. Additional details concerning these markers can be found in Cole [1955] and Cole [1962].

2.2. Locational-directed motion with *-tábóg-*. Consonant with the typological pattern illustrated by location-confined motion, is that of location-directed motion. Expressions of location-directed motion reveal a Figure object in a state of motion directed toward a location specified by the Ground object, e.g. *the boy is running to the top of the hill*. A sample of illustrative sentences constructed with the verb *-tábóg-* is shown in Table III, page 66.

As one quickly discovers, these sentences are nearly identical in form to those in Table II. In (III,1) for instance, *mòsí mǎné* functions as the Figure and *thàbà* as the Ground. The verb root *-tábóg-* incorporates both the fact of Motion and its Manner of occurrence, 'running'. And the form *gòdí mò*, at least on initial inspection, would appear to specify the Path. To this point, the sentences in Table II and III are identical in form.

Closer inspection, however, reveals a general constraint governing these expressions. That is, location-directed motion requires that the form *-è|-* be suffixed to the verb root. Let us examine the behavior of this form more carefully. For the sake of discussion, consider the two sentences in (4), with

- | | | | | |
|-----|---|--------------------------------|---------------------------------|------------------------------|
| 1. | mò-símàné
CL 1-boy | ó-tábóg-ẹ̀l-à
he-run-to-IMP | kwá-gòdímò
DISTANT-top | gá-thàbà
LOC-mountain |
| | 'the boy is running to the top of the mountain' | | | |
| 2. | mò-símàné
CL 1-boy | ó-tábóg-ẹ̀l-à
he-run-to-IMP | kwá-tlàsé
DISTANT-under | gá-thàbà
LOC-mountain |
| | 'the boy is running to the bottom of the mountain' | | | |
| 3. | mò-símàné
CL 1-boy | ó-tábóg-ẹ̀l-à
he-run-to-IMP | fá-pèlè
NEARBY-front | gá-̀h-tlò
LOC-CL 9-house |
| | 'the boy is running to the front of the house' | | | |
| 4. | mò-símàné
CL 1-boy | ó-tábóg-ẹ̀l-à
he-run-to-IMP | fá-mòrágò
NEARBY-back | gá-̀h-tlò
LOC-CL 9-house |
| | 'the boy is running to the back of the house' | | | |
| 5. | mò-símàné
CL 1-boy | ó-tábóg-ẹ̀l-à
he-run-to-IMP | fá-tlù-̀hng
NEARBY-house-LOC | |
| | 'the boy is running to the house' | | | |
| 6. | mò-símàné
CL 1-boy | ó-tábóg-ẹ̀l-à
he-run-to-IMP | mó-tlù-̀hng
INSIDE-house-LOC | |
| | 'the boy is running into the house' | | | |
| 7. | mò-símàné
CL 1-boy | ó-tábóg-ẹ̀l-à
he-run-to-IMP | fá-gàré
NEARBY-middle | gá-lè-sàká
LOC-CL 5-kraal |
| | 'the boy is running to the middle of the kraal' | | | |
| 8. | mò-símàné
CL 1-boy | ó-tábóg-ẹ̀l-à
he-run-to-IMP | kwá-̀ntlẹ̀
DISTANT-outside | gá-kàgò
LOC-building |
| | 'the boy is running to the outside of the building' | | | |
| 9. | mò-símàné
CL 1-boy | ó-tábóg-ẹ̀l-à
he-run-to-IMP | fá-tẹ̀ng
NEARBY-inside | gá-kàgò
LOC-building |
| | 'the boy is running to the inside of the building' | | | |
| 10. | mò-símàné
CL 1-boy | ó-tábóg-ẹ̀l-à
he-run-to-IMP | mòséjà
other side | gá-nòkà
LOC-river |
| | 'the boy is running to the other side of the river' | | | |
| 11. | mò-símàné
CL 1-boy | ó-tábóg-ẹ̀l-à
he-run-to-IMP | ̀ntlẹ̀ng
in the direction | yá-kàgò
LOC-building |
| | 'the boy is running in the direction of the building' | | | |

Table III. Location-directed expressions with the verb -tábóg- .

the accompanying glosses as indicated.

- (4) a. *mòsímané ó-tábóg-à gòdí mò gá-thàbà
 boy he-run-IMP top mountain
 'the boy is running to the top of the mountain'
- b. *mòsímané ó-tábóg-è|-à gòdí mò gá-thàbà
 boy he-run-to-IMP top mountain
 'the boy is running on top of the mountain'

When the form -è|- is not adjoined to the verb but the accompanying gloss conveys the notion of "to-ness", as in (4a), the sentence is judged unacceptable. Conversely, when the form -è|- is adjoined to the verb, but the gloss does not convey the notion of "to-ness", the sentence is also judged unacceptable. Hence (4b) is starred.

That the form -è|- does indeed convey the general notion of "to-ness" can be seen by examining (III,5) in the context of the remaining sentences. In (III,5) only the general directional element 'to' is conveyed, while the remaining sentences convey this meaning in addition to a more specific course of movement, i.e. top, bottom, etc. It appears, therefore, that linguistic expression of certain motion events, location-directed motion to be specific, requires the suffix -è|- , while expression of another kind of motion event, location-confined, does not.

Previous investigation of Tswana has noted the significance of the marker -è|- . Cole [1955:199] refers to it as the Applied Extension, further indicating that it has the general significance of "action carried out... with respect to some thing or place." The form -è|- and its general meaning are thus recognized in grammatical descriptions of Tswana. What we wish to highlight, nonetheless, is its obligatory occurrence with complex motion verbs and its Path specifying function in expressions of location-directed motion.

From the preceding analysis a complication arises. Having said that the form -è|- in the sentences in Table III specifies the Path element, and indeed is necessary for grammatical well-formedness, one needs to reanalyze the constituent previously identified as specifying the Path, i.e. the form gòdí mò in (III,1). This form, and others of similar grammatical standing do appear to specify the course of the Figure object's movement, which is the defining fea-

ture of a Path constituent, but they seem only to specify further the nature of that course. In light of this, we maintain that expressions of location-directed motion can employ two Path markers, the form $-\dot{\epsilon}|-$ plus one other. Thus, in (III,1) $-\dot{\epsilon}|-$ and $g\ddot{o}d\acute{i}m\grave{o}$ each constitute Path markers.

Though Path markers other than $-\dot{\epsilon}|-$ are not required for the grammatical expression of location-directed motion, there is no reason to suspect that motion expressing sentences should be confined to only one Path marker. Talmy [1984], for instance, argues that the number of Path markers specified for a single motion event has no obvious limit. He cites in this regard sentence (5), spoken by a parent to a child in a tree house, where four Path markers are specified.

(5) Come right *back down from up* there.

The examples from Tswana are not so extreme. But notice that of the two Path markers which can occur in expressions of location-directed motion, only $-\dot{\epsilon}|-$ is obligatory. In recognition of this obligatory status, we will refer to the form $-\dot{\epsilon}|-$ as a Primary Path marker. Other Path markers, e.g. $-\dot{p}\grave{e}l\grave{e}$, $-g\ddot{o}d\acute{i}m\grave{o}$, $-t\grave{l}\acute{a}s\acute{e}$, etc., which occur as separate lexical items and which also occur in expressions of location-confined motion, we will designate Secondary Path markers. Thus location-confined motion is expressed only with Path markers identified as Secondary, but location-directed motion is expressed with an obligatory Path marker identified as Primary and with an optional Secondary Path marker.

As we have seen, the principle formal difference between expressions of location-confined and location-directed motion is a constraint governing the distribution of the Primary Path marker, $-\dot{\epsilon}|-$, it being obligatory with the latter but not with the former. Despite this difference, we have discovered common ground between these two expressions of motion. That is, both manifest a verb root incorporating the fact of Motion and the Manner in which that motion occurs. It is this behavior of the verb $-t\acute{a}b\acute{o}g-$ and others to follow which leads us to maintain that for Tswana, incorporating Motion+Manner in the verb root is a characteristic lexicalization pattern.

2.3. Directional Motion with -tábóg-. A contrasting lexicalization pattern is revealed by sentences conveying directional motion. Emphasis here is not on the movement of the Figure object as directed to the Ground object, as in location-directed motion, nor on the Figure object's movement as circumscribed by a location relative to the Ground object, as in location-confined motion. Rather the movement of the Figure object is carried out with respect to a variety of directions other than that conveyed by simple "to-ness". For purposes of illustration and comparison, we will again limit ourselves to expressions involving the verb -tábóg-, taking the sentences in Table IV on page 70 as a representative sample. The question we will ask about these sentences is where among the surface level morphemes the semantic elements defining a motion event are distributed.

The sentences in Table IV reveal a significant constraint which should not escape our notice. Note, therefore, that the clausal position of -tábóg- is in contrast to the sentences shown in Tables II and III, where it occurred in the main clause. With reference to (IV,1), the verb -tábóg- occurs in a participial structure, one in fact that is not obligatory if the appropriate contextual conditions are met. The participial nature of this clause, nonetheless, is formally recorded by the subject agreement marker á-, prefixed to -tábóg-. In a nonparticipial clause, a main clause for example, the agreement marker employed for a Class 1 noun like mòsímàné would be ó-. (See Cole [1955] for further discussion). Since -tábóg- does occur in a subordinate clause, and an optional one at that, the question we need to ask is which elements of a motion event are lexicalized in the main clause and which in the subordinate.

When one analyses (IV,1) for example, it is the verb root in the main clause, -tsw-, which conveys the general notion of movement, indicated by the gloss 'move', as well as its directional nature, indicated by 'out'. Other main clause verb roots shown in Table IV differ in meaning from -tsw- primarily by the nature of their incorporated directional element. These verb roots thus lexicalize both the fact of Motion and the Path which the Figure object follows. What then does the verb root in the participial clause convey? Given the semantic elements available in Talmy [1984], the verb root -tábóg- in

1.	mò-símàné CL 1-boy	ó-tsw-à he-move out-IMP	mó-tlù-̀ng INSIDE-house-LOC	á-tábóg-à he-run-IMP
	'the boy is running out of the house'			
2.	mò-símàné CL 1-boy	ó-rá á è -à he-move through-IMP	kgòrò doorway	á-tábóg-à he-run-IMP
	'the boy is running through the doorway'			
3.	mò-símàné CL 1-boy	ó-tshé -à he-move across-IMP	lè-sàkà CL 5-kraal	á-tábóg-à he-run-IMP
	'the boy is running across the kraal'			
4.	mò-símàné CL 1-boy	ó-pótó ò g-à he-move around-IMP	pètse well	á-tábóg-à he-run-IMP
	'the boy is running around the well'			
5.	mò-símàné CL 1-boy	ó-t ó g-è -à he-move away-from-IMP	̀n-t ò CL 9-house	á-tábóg-à he-run-IMP
	'the boy is running away from the house'			
6.	mò-símàné CL 1-boy	ó-t ó -à he-move over-IMP	thàbà-nà mountain-DIM	á-tábóg-à he-run-IMP
	'the boy is running over the hill'			
7.	mò-símàné CL 1-boy	ó-pá ám-à he-move up-IMP	thàbà mountain	á-tábóg-à he-run-IMP
	'the boy is running up the mountain'			
8.	mò-símàné CL 1-boy	ó-págó ò g-à he-move down-IMP	thàbà mountain	á-tábóg-à he-run-IMP
	'the boy is running down the mountain'			

Table IV. Directional expressions with the verb -tábóg-

Table IV would appear to convey only the Manner in which the motion event occurred, a 'running' manner. To recapitulate, the verb root in the main clause specifies the Motion and Path elements of the motion event, and the verb root in the participial clause specifies only the Manner in which that event is carried out.

Pursuing our analysis further we must recognize that the linear order of the verb roots in sentence (IV,1), for example, is constrained. They cannot be inverted, as in (6) below, and still maintain a level of grammatical acceptability.

- (6) *mòsímàné ó-tábóg-à mó-tlùng á-tswà
 boy he-run-IMP INSIDE-house he-move out
 'the boy is running out of the house'

Nor is it possible to maintain grammatical acceptability by adjoining the Applied Extension to the verb in either clause, (7) and (8), or by inverting the root forms and adjoining the Applied Extension to the main verb clause, as in (9).

- (7) *mòsímàné ó-tswà mó-tlùng á-tábóg-èl-à
 boy he-run out INSIDE-house he-run-to-IMP
 'the boy is running out of the house'
- (8) *mòsímàné ó-tábóg-èl-à mó-tlùng á-tsw-à
 boy he-run-to-IMP INSIDE-house he-move out-IMP
 'the boy is running out of the house'
- (9) *mòsímàné ó-tsw-èl-à mó-tlùng á-tábóg-à
 boy he-move out-to-IMP INSIDE-house he-run-IMP
 'the boy is running out of the house'

This attempted use of the Applied Extension raises another issue. The main clause verbs in Table IV, as a rule, do not adjoin with the Applied Extension -èl-. Thus there is no base form *-ra|a|- or *-tsh- from which the main verbs in sentences (IV,2) and (IV,3) might be derived. However the verb root in (IV,5) is composed of the root -tlòg- plus the suffix -èl-. Does this square with our previous analysis of the form -èl-? Though it was used in expressions of motion directed 'to' a location in previously analyzed sentences, the appearance of -èl- in (IV,5) is not consistent with this meaning. The meaning here is motion directed 'from' rather than 'to' the location specified by the Ground object. No other sentence in Table IV refers to motion in a direction 'from' the Ground specifying object independent of other considerations. One might suspect that the verb root -tsw- in (IV,1), referring as it does to motion in a direction 'out' of the Ground object, would accept the Ap-

plied Extension. It does not, however, and this appears due to the fact that reference is not restricted to motion directed 'from' an object. That is, -tsw- refers to motion 'from' an enclosed space, i.e. 'out from inside an enclosure'. In sum, the behavior of the form -èl- is such that it is used in constructions specifying motion which is directed either 'to' or 'from' a Ground object. In no way, however, does this behavior detract from the viability of the Applied Extension Constraint or from the fact that the verb -t|òg- patterns as other main clause verb roots in expressions of directional motion involving the complex motion verb -tábóg- .

Returning to our main point, we have examined a constraint which in expressions of directional motion requires that verb roots of the type -tábóg- occur in a subordinate participial clause. In light of this constraint and the elements of a motion event specified by verb roots occurring in the main clause of directional motion sentences, we suggest that for Tswana a second lexicalization pattern is characteristic. In this second pattern, the verb root lexicalizes the elements Motion+Path. The distribution of this pattern is a complement to the other pattern we claim as characteristic. That is, the lexicalization patterns Motion+Manner and Motion+Path are in complementary distribution with respect to the general distinction between locational and directional motion. Summarizing to this point, we will maintain that two lexicalization patterns are characteristic in Tswana, the conflation of Motion+Manner, and the conflation of Motion+Path.

2.4. Motion expressions with -kíbítl- . The lexicalization patterns just surveyed are not peculiar to the verb -tábóg- . They are widespread, being found among at least the Manner specifying verbs shown in Table V on page 73. Taking the verb -kíbítl- , meaning 'to run with heavy footfall', as a further example, one finds evidence of both lexicalization patterns claimed to be characteristic. To this end, consider the sentences in Table VI on page 74, where one finds expressions of location-confined motion. Since the nominals functioning as Figure and Ground are carried over from earlier sentences with -tábóg- , analysis of these sentences should be relatively straightforward. Accordingly, in the first example of Table VI, the verb root -kíbítl- specifies the semantic elements Motion+Manner and gòdí mò the element Path.

1. gòkíbítlǎ : to run with heavy footfall
2. gògágábà : to crawl
3. gògwántà : to walk in long strides
4. gòrágògà : to bolt
5. gòshápà : to swim
6. gòkgókólògà : to roll
7. gòkókòrògà : to walk in a proud fashion
8. gògògòbà : to walk dragging the feet
9. gòtótòbà : to walk in a tottering fashion
10. gòkgópógà : to walk quickly
11. gòkókòbà : to walk gingerly
12. gòsǎ : to flee
13. gòsǎnà : to run
14. gòfófà : to fly
15. gòpálámà : to ride
16. gòtshàbà : to flee
17. gòéǎ : to flow

Table V. Additional Manner specifying verbs.

Similarly lexicalized is location-directed motion, as in Table VII on page 75. Here the elements Motion and Manner are specified in the verb root. Evidence of the Applied Extension Constraint is also observed, since the form -èǎ-, as the designator of the Primary Path, is obligatorily suffixed to the verb root.

Reflecting an expected difference in lexicalization pattern is the expression of directional motion. As examination of the sentences in Table VIII on page 76 indicates, the different reflexes of the Main Clause constraint are evident. The verb -kíbítlǎ- does not occur in the main clause, occurring only in the subordinate participial clause. The clausal status of this verb is again revealed by the concord marker á-, rather than the ó- which occurs in main clauses. As with our earlier analysis, the semantic elements defining a complex motion event are distributed across both clauses. The verb root in the

- | | | | | |
|----|---|-------------------------------|---------------------------|--------------------------------|
| 1. | mò-símàné
CL 1-boy | ó-kíbfítl-à
he-run whf-IMP | fá-gòdímò
NEARBY-top | gá-thàbà
LOC-mountain |
| | 'the boy is running with heavy footfall on top of the mountain' | | | |
| 2. | mò-símàné
CL 1-boy | ó-kíbfítl-à
he-run whf-IMP | fá-tlàsé
NEARBY-under | gá-dì-tl'hàrè
LOC-CL 8-tree |
| | 'the boy is running with heavy footfall under the trees' | | | |
| 3. | mò-símàné
CL 1-boy | ó-kíbfítl-à
he-run whf-IMP | fá-pèlè
NEARBY-front | gá-ñ-tlò
LOC-CL 9-house |
| | 'the boy is running with heavy footfall in front of the house' | | | |
| 4. | mò-símàné
CL 1-boy | ó-kíbfítl-à
he-run whf-IMP | fá-mòrágq̃
NEARBY-back | gá-ñ-tlò
LOC-CL 9-house |
| | 'the boy is running in back of the house' | | | |
| 5. | mò-símàné
CL 1-boy | ó-kíbfítl-à
he-run whf-IMP | fá-gàúfí
NEARBY-near | gá-ñ-tlò
LOC-CL 9-house |
| | 'the boy is running with heavy footfall near the house' | | | |

Table VI. Location-confined expressions with the verb -kíbfítl-

main clause incorporates the fact of Motion and the Path of that Motion. In the participial clause, the root -kíbfítl- specifies the Manner, 'running with heavy footfall', in which the motion is carried out.

In summary, the linguistic expression of a motion event with the verb -kíbfítl- reflects two characteristic lexicalization patterns: one in which the main clause verb root incorporates Motion+Manner and another in which it incorporates Motion+Path. Both of these lexicalization patterns appear to be characteristic for Tswana.

2.5. Motion Expressions with -góg-. Further support for our contention that Tswana manifests two characteristic lexicalization patterns is found with another set of verbs. These verbs, among which is included -góg- 'pull', are not examined here as extensively or in as great a number as the Manner verbs in the previous section. Nonetheless, verbs of the type -góg- reflect the system of constraints noted at the outset. Other verbs of this type include -lêr- 'to bring' and -bêlêg- 'to push'. According to one recent tradition,

- | | | | | |
|--|-----------------------|------------------------------------|-------------------------------|----------------------------|
| 1. | mò-símàné
CL 1-boy | ó-kíbítl-èl-à
he-run whf-to-IMP | kwá-gòdí mò
DISTANT-top | gá-thàbà
LOC-mountain |
| 'the boy is running with heavy footfall to the top of the mountain' | | | | |
| 2. | mò-símàné
CL 1-boy | ó-kíbítl-èl-à
he-run whf-to-IMP | kwá-tl àsé
DISTANT-under | gá-thàbà
LOC-mountain |
| 'the boy is running with heavy footfall to the bottom of the mountain' | | | | |
| 3. | mò-símàné
CL 1-boy | ó-kíbítl-èl-à
he-run whf-to-IMP | fá-pèlè
NEARBY-front | gá-ñ-tlò
LOC-CL 9-house |
| 'the boy is running with heavy footfall to the front of the house' | | | | |
| 4. | mò-símàné
CL 1-boy | ó-kíbítl-èl-à
he-run whf-to-IMP | fá-mòrágò
NEARBY-back | gá-ñ-tlò
LOC-CL 9-house |
| 'the boy is running with heavy footfall to the back of the house' | | | | |
| 5. | mò-símàné
CL 1-boy | ó-kíbítl-èl-à
he-run whf-to-IMP | fá-tlù-ñg
NEARBY-house-LOC | |
| 'the boy is running with heavy footfall to the house' | | | | |
| 6. | mò-símàné
CL 1-boy | ó-kíbítl-èl-à
he-run whf-to-IMP | mó-tlù-ñg
INSIDE-house-LOC | |
| 'the boy is running with heavy footfall into the house' | | | | |

Table VII. Location-directed expressions with the verb -kíbítl-

these verbs would be analyzed as reflecting a complex underlying structure wherein two events are causally related [Fillmore 1971:46]. That is, they require us to specify not only the semantic elements of a basic motion event, i.e. Figure, Motion, Path, and Ground, but in addition, they require specification of the element Cause.

We direct our attention now to expressions of motion with the verb -góg-. As with earlier examples, we will focus on which semantic elements are incorporated in the verb root of the main clause. We begin with expressions of location-confined motion, those in Table IX on page 77.

We first direct our notice to the fact that -góg- occurs as the verb root in the main clause. Assuming a certain familiarity with the Talmy framework by now, we discover that the Figure and Ground objects in (IX,1) are specified by

- | | | | | |
|----|--|--|---------------------------------|------------------------------|
| 1. | mò-símàné
CL 1-boy | ó-tsw-à
he-move out-IMP | mó-tlù-̀̀̀g
INSIDE-house-LOC | á-kíbítl-à
he-run whf-IMP |
| | 'the boy is running with heavy footfall out of the house' | | | |
| 2. | mò-símàné
CL 1-boy | ó-ráíáí̀̀̀l-à
he-move through-IMP | kgòrò
doorway | á-kíbítl-à
he-run whf-IMP |
| | 'the boy is running with heavy footfall through the doorway' | | | |
| 3. | mò-símàné
CL 1-boy | ó-tshéí-à
he-move across-IMP | lè-sàkà
CL 5-kraal | á-kíbítl-à
he-run whf-IMP |
| | 'the boy is running with heavy footfall across the kraal' | | | |
| 4. | mò-símàné
CL 1-boy | ó-pòtòlòg-à
he-move around-IMP | pèsè
well | á-kíbítl-à
he-run whf-IMP |
| | 'the boy is running with heavy footfall around the well' | | | |
| 5. | mò-símàné
CL 1-boy | ó-tlóg-̀̀̀l-à
he-move away-from-IMP | ̀̀̀-tlò
CL 9-house | á-kíbítl-à
he-run whf-IMP |
| | 'the boy is running with heavy footfall away from the house' | | | |
| 6. | mò-símàné
CL 1-boy | ó-tlól-à
he-move over-IMP | thàbà-nà
mountain-DIM | á-kíbítl-à
he-run whf-IMP |
| | 'the boy is running with heavy footfall over the hill' | | | |
| 7. | mò-símàné
CL 1-boy | ó-pálám-à
he-move up-IMP | thàbà
mountain | á-kíbítl-à
he-run whf-IMP |
| | 'the boy is running with heavy footfall up the mountain' | | | |
| 8. | mò-símàné
CL 1-boy | ó-págólòg-à
he-move down-IMP | thàbà
mountain | á-kíbítl-à
he-run whf-IMP |
| | 'the boy is running with heavy footfall down the mountain' | | | |

Table VIII. Directional expressions with the verb -kíbítl-

kòlólí and thàbà, respectively. The particular course which the Figure object follows with respect to the Ground, the Path, is specified by the form gòdí̀̀̀mò. And most important for our consideration, the fact of Motion and the causal event leading to that state of motion are incorporated in the main clause verb root -góg-. Expressions of location confined motion with verbs of the type -góg- thus incorporate the fact of Motion and its Cause. This

- | | | | | | |
|----|--|------------------------|----------------|--------------------------|--------------------------------|
| 1. | mò-símàné
CL 1-boy | ó-góg-á
he-pull-IMP | kòlólí
cart | fá-gòdí mò
NEARBY-top | gá-thàbà
LOC-mountain |
| | 'the boy is pulling the cart on top of the mountain' | | | | |
| 2. | mò-símàné
CL 1-boy | ó-góg-á
he-pull-IMP | kòlólí
cart | fá-tlàsé
NEARBY-under | gá-dì-tl'hàrè
LOC-CL 8-tree |
| | 'the boy is pulling the cart under the trees' | | | | |
| 3. | mò-símàné
CL 1-boy | ó-góg-á
he-pull-IMP | kòlólí
cart | fá-pèlè
NEARBY-front | gá-ñ-tlò
LOC-CL 9-house |
| | 'the boy is pulling the cart in front of the house' | | | | |
| 4. | mò-símàné
CL 1-boy | ó-góg-á
he-pull-IMP | kòlólí
cart | fá-mòrágò
NEARBY-back | gá-ñ-tlò
LOC-CL 9-house |
| | 'the boy is pulling the cart in back of the house' | | | | |
| 5. | mò-símàné
CL 1-boy | ó-góg-á
he-pull-IMP | kòlólí
cart | fá-gàúfí
NEARBY-near | gá-ñ-tlò
LOC-CL 9-house |
| | 'the boy is pulling the cart near the house' | | | | |

Table IX. Location-confined expressions with the verb -góg-

lexicalization pattern, though not identical in constituent make-up to the combination Motion+Manner, is similar in typological structure. That is, both reflect the incorporation of the Motion element with some additional element outside the structural demarcation of a basic motion event. Therefore, one can consider Motion+Manner to reflect, along with Motion+Cause, a single lexicalization type. This type, as argued above, appears to be characteristic for Tswana.

The lexicalization of Motion+Cause in the verb root is also manifest in expressions of location-directed motion. A representative sample of such sentences with the verb -góg- is presented in Table X on page 78. When these sentences are examined and compared to those in Table IX, we discover a largely similar surface level allocation of the semantic elements delineating a motion event. The primary difference between the sentences in Tables IX and X, and an expected difference, is the specification of the Path constituent. It is the Primary Path marker -è|- , as defined earlier, that is suffixed to the verb

- | | | | | | |
|----|---|-------------------------------|----------------|-----------------------------------|----------------------------|
| 1. | mò-símàné
CL 1-boy | ó-góg-è -á
he-pull-too-IMP | kòlólí
cart | kwá-gòdí mò
DISTANT-top | gá-thàbà
LOC-mountain |
| | 'the boy is pulling the cart to the top of the mountain' | | | | |
| 2. | mò-símàné
CL 1-boy | ó-góg-è -á
he-pull-to-IMP | kòlólí
cart | kwá-tlàsé
DISTANT-bottom | gá-thàbà
LOC-mountain |
| | 'the boy is pulling the cart to the bottom of the mountain' | | | | |
| 3. | mò-símàné
CL 1-boy | ó-góg-è -á
he-pull-to-IMP | kòlólí
cart | fá-pèlè
NEARBY-front | gá-ñ-tlò
LOC-CL 9-house |
| | 'the boy is pulling the cart to the front of the house' | | | | |
| 4. | mò-símàné
CL 1-boy | ó-góg-è -á
he-pull-to-IMP | kòlólí
cart | fá-mòrágò
NEARBY-back | gá-ñ-tlò
LOC-CL 9-house |
| | 'the boy is pulling the cart to the back of the house' | | | | |
| 5. | mò-símàné
CL 1-boy | ó-góg-è -á
he-pull-to-IMP | kòlólí
cart | fá-tlù-ng
NEARBY-house-LOC | |
| | 'the boy is pulling the cart to the house' | | | | |
| 6. | mò-símàné
CL 1-boy | ó-góg-è -á
he-pull-to-IMP | kòlólí
cart | mó-kàgò-ng
INSIDE-building-LOC | |
| | 'the boy is pulling the cart into the building' | | | | |

Table X. Location-directed expressions with the verb -góg-

root -góg- in each sentence in Table X but to none of the verbs in Table IX. In fact the Applied Extension Constraint is just as applicable to Cause verbs as to Manner verbs: -è|- is obligatory in expressions of location-directed motion but cannot occur in expressions of location-confined motion.

Though the operation of the Applied Extension Constraint differentiates location-directed from location-confined motion with verbs of the type -góg-, it is important to realize the essential unity of these categories of motion as far as lexicalization processes are concerned. That is, both are lexicalized by incorporating the constituents Motion+Cause in the verb root.

When our attention is directed to expressions of directional motion with the verb -góg-, we should find a pattern of lexicalization consistent with the Main Clause Constraint. Accordingly, the verb -góg- should not occur in

- | | | | | | |
|----|---|--------------------------------------|---|------------------------|-----------------|
| 1. | mò-símàné
CL 1-boy | ó-tsw-à
he-move out-IMP | mó-lè-sàké-̀ng
INSIDE-CL 5-kraal-LOC | á-góg-á
he-pull-IMP | kò ó í
cart |
| | 'the boy is pulling the cart out of the kraal' | | | | |
| 2. | mò-símàné
CL 1-boy | ó-rá á è à
he-move through-IMP | kgòrò
doorway | á-góg-á
he-pull-IMP | nà à né
calf |
| | 'the boy is pulling the calf through the doorway' | | | | |
| 3. | mò-símàné
CL 1-boy | ó-tshé à
he-move across-IMP | lè-sàká
CL 5-kraal | á-góg-á
he-pull-IMP | nà à né
calf |
| | 'the boy is pulling the calf across the kraal' | | | | |
| 4. | mò-símàné
CL 1-boy | ó-pòt ò òg-à
he-move around-IMP | pètsè
well | á-góg-á
he-pull-IMP | kò ó í
cart |
| | 'the boy is pulling the cart around the well' | | | | |
| 5. | mò-símàné
CL-1 boy | ó-t ó g-è à
he-move away-from-IMP | ̀n-t ò
CL 9-house | á-góg-á
he-pull-IMP | kò ó í
cart |
| | 'the boy is pulling the cart away from the house' | | | | |
| 6. | mò-símàné
CL 1-boy | ó-t ó à
he-move over-IMP | thàbà
mountain | á-góg-á
he-pull-IMP | kò ó í
cart |
| | 'the boy is pulling the cart over the mountain' | | | | |
| 7. | mò-símàné
CL 1-boy | ó-pá ám-à
he-move up-IMP | thàbà
mountain | á-góg-á
he-pull-IMP | kò ó í
cart |
| | 'the boy is pulling the cart up the mountain' | | | | |
| 8. | mò-símàné
CL 1-boy | ó-pá g ò òg-à
he-move down-IMP | thàbà
mountain | á-góg-á
he-pull-IMP | kò ó í
cart |
| | 'the boy is pulling the cart down the mountain' | | | | |

Table XI. Directional expressions with the verb -góg-

the main clause; rather, it should occur in a participial clause. In addition, the verb root which does occur in the main clause should lexicalize the elements Motion+Path, leaving the participial clause verb to specify only the element Cause. On examination, the sentences in Table XI above reflect these constraints. The verb -góg- in (XI,1), for example, occurs in a participial clause, marked by the concord prefix á- , and the main clause verb root -tsw-

is one of those which occurred in previous instances of directional motion. The latter verb, as we have indicated, incorporates Motion+Path, which leaves the verb root *-góg-* to specify Cause, i.e. by pushing. Hence, verbs of the type *-góg-* appear to support our contention that two lexicalization patterns are characteristic in Tswana, the lexicalization of Motion+Path, as in Table XI, and the lexicalization of Motion+Cause, as in Tables IX and X.

3. The Expression of Basic Motion Events

The final set of verbs under review manifest a more restricted range of lexicalization patterns than that previously seen. In fact, these verb roots, with one exception, lexicalize only the elements Motion and Path. To begin we will consider the verb *-tsàmày-* 'to walk'. In expressions of location-confined motion with this verb, as in Table XII on page 81, one finds the expected lexicalization pattern. The Figure and Ground elements are specified, as they were in previous instances of location-confined motion, by the nominals *mòsímàné* and *thàbà*, respectively, and the Path is specified by the separate form *gòdí mò*. Consistent with our earlier analysis, the verb root *-tsàmày-* incorporates both the fact of Motion and its Manner, 'walking'.

If one now attempts to formulate expressions of location-directed motion with *-tsàmày-*, one would expect the resulting sentence to show evidence of the Applied Extension Constraint, in line with the behavior of other Manner verbs like *-tábóg-* and *-kíbítl-*. Accordingly, the verb root *-tsàmày-*, conflating the elements Motion and Manner, should occur as a main clause verb root with the suffix *-èl-* adjoined. No such evidence exists however. There is no sentence, as in (10) below, where the form *-tsàmà-èl-à* occurs as the verb of the main clause.

- (10) **mòsímàné ó-tsàmà-èl-à gòdí mò gá-thàbà*
 boy he-walk-to-IMP top LOC-mountain
 'the boy is walking to the top of the mountain'

Instead, expressions of location-directed motion appropriate to the above gloss are constructed with another verb.

3.1. Motion expressions with *-y-*. A sample range of sentences constructed with the verb *-y-* are shown in Table XIII on page 82. As the glosses suggest,

- | | | | | |
|----|---|---------------------------|---------------------------|--------------------------------|
| 1. | mò-símàné
CL 1-boy | ó-tsámày-à
he-walk-IMP | fá-gòdí mò
NEARBY-top | gá-thàbá
LOC-mountain |
| | 'the boy is walking on top of the mountain' | | | |
| 2. | mò-símàné
CL 1-boy | ó-tsámày-à
he-walk-IMP | fá-tl'àsé
NEARBY-under | gá-dì-tl'hàrè
LOC-CL 8-tree |
| | 'the boy is walking under the trees' | | | |
| 3. | mò-símàné
CL 1-boy | ó-tsámày-à
he-walk-IMP | fá-pèlè
NEARBY-front | gá-ñ-tlò
LOC-CL 9-house |
| | 'the boy is walking in front of the trees' | | | |
| 4. | mò-símàné
CL 1-boy | ó-tsámày-à
he-walk-IMP | fá-mòrágqò
NEARBY-back | gá-ñ-tlò
LOC-CL 9-house |
| | 'the boy is walking in back of the house' | | | |
| 5. | mò-símàné
CL 1-boy | ó-tsámày-à
he-walk-IMP | fá-gàúfí
NEARBY-near | gá-ñ-tlò
LOC-CL 9-house |
| | 'the boy is walking near the nouse' | | | |

Table XII. Location-confined expressions with the verb -tsámày-

the form -y- encompasses the meaning 'walk to' and 'go to'. That is, Tswana does not appear to recognize a distinction at the lexical level between 'going' and 'walking' in expressions of location-directed motion, despite its recognition of 'walking' in expressions of location-confined motion. The verb root -y-, in fact, can only occur in expressions of location-directed motion, never in location-confined expressions, or as we will see, directional expressions. Given the sentences in Table XIII and their meaning, what should strike us as irregular, especially given our analysis of Manner and Cause verbs, is the absence of the Applied Extension -ǝ|. In the absence of this marker one would expect a sentence such as (11a) below to be interpreted as in the gloss (11b) or (11c). The verb root -y-, nonetheless, cannot be so interpreted.

- (11) a. mòsímàné ó-yà fá-gòdí mò gá-thàbà
 b. *'he is walking on top of the mountain'
 c. *'he is going on top of the mountain'

- | | | | | |
|----|--|-----------------------|-------------------------------|----------------------------|
| 1. | mò-símàné
CL 1-boy | ó-y-à
he-go to-IMP | kwá-gòdí mò
DISTANT-top | gá-thàbà
LOC-mountain |
| | 'the boy is going to the top of the mountain' | | | |
| 2. | mò-símàné
CL 1-boy | ó-y-à
he-go to-IMP | kwá-tlàsé
DISTANT-bottom | gá-thàbà
LOC-mountain |
| | 'the boy is going to the bottom of the mountain' | | | |
| 3. | mò-símàné
CL 1-boy | ó-y-à
he-go to-IMP | fá-pèlè
NEARBY-front | gá-ñ-tlò
LOC-CL 9-house |
| | 'the boy is going to the front of the house' | | | |
| 4. | mò-símàné
CL 1-boy | ó-y-à
he-go to-IMP | fá-mòrágò
NEARBY-back | gá-ñ-tlò
LOC-CL 9-house |
| | 'the boy is going to the back of the house' | | | |
| 5. | mò-símàné
CL 1-boy | ó-y-à
he-go to-IMP | fá-tlù-nè
NEARBY-house-LOC | |
| | 'the boy is going to the house' | | | |

Table XIII. Location-directed expressions with the verb -y- .

Returning to Table XIII above, we need to carefully scrutinize (XIII,1) in order to take stock of where among the surface level constituents the semantic elements of a motion event are allocated. In line with earlier analyses, the Figure and Ground objects in (XIII,1) are represented by *mòsímàné* and *thàbà*, respectively. The Path, at least on initial examination, seems to be represented by the form *gòdí mò* 'top'. It remains for the verb root -y- to specify only the fact of Motion.

A dilemma stirs in this interpretation however. First, as shown with earlier expressions of location-directed motion, the form *gòdí mò* was a Secondary Path marker, i.e. its meaning did not encompass the directional element suggested by the English gloss 'to'. Second, the verb root -y- does occur, as in (XIII,5), independent of any secondary Path marker and must itself convey the directional element glossed in English by 'to'.

One possible solution to this dilemma is to assume that the verb root -y- is composed of the semantic elements Motion+Path, these being glossed as 'move

- | | | | | |
|----|---|--------------------------|--------------------------------|----------------------------|
| 1. | mò-símàné
CL 1-boy | ó-tl-à
he-come to-IMP | fá-gòdí mò
NEARBY-top | gá-thàbà
LOC-mountain |
| | 'the boy is coming to the top of the mountain' | | | |
| 2. | mò-símàné
CL 1-boy | ó-tl-à
he-come to-IMP | fá-tl-àsé
NEARBY-bottom | gá-thàbà
LOC-mountain |
| | 'the boy is coming to the bottom of the mountain' | | | |
| 3. | mò-símàné
CL 1-boy | ó-tl-à
he-come to-IMP | fá-pèlè
NEARBY-front | gá-ñ-tlò
LOC-CL 9-house |
| | 'the boy is coming to the front of the house' | | | |
| 4. | mò-símàné
CL 1-boy | ó-tl-à
he-come to-IMP | fá-mòrágò
NEARBY-back | gá-ñ-tlò
LOC-CL 9-house |
| | 'the boy is coming to the back of the house' | | | |
| 5. | mò-símàné
CL 1-boy | ó-tl-à
he-come to-IMP | fá-tl-ù-ñg
NEARBY-house-LOC | |
| | 'the boy is coming to the house' | | | |

Table XIV. Location-directed expressions with the verb -tl- .

to'. This hypothesis nonetheless only encounters further difficulty, namely a similar semantic make up must then be ascribed to the verb -tl- . This verb, only occurring in expressions of location-directed motion, has the meaning 'to come'.

Consider briefly in Table XIV above a sample set of sentences with the verb -tl- . As we quickly discover, the surface level constituents in these sentences and those in Table XIII are identical except for the verb root. As such our analysis of where at the surface level the semantic elements delineating the referred to motion event are distributed would be similar to that for -y- . The principle difficulty of that analysis was our failure to determine where among the surface constituents the Path is specified, in particular the "to-ness" of location-directed motion.

Faced with this new dilemma, one could allow each verb, -y- and -tl- , to incorporate the fact of Motion and its Path. To avoid identity of semantic structure and still account for the different "directed" senses which each con-

veys, away from the speaker and toward the speaker respectively, one could further specify either the Motion or Path element. As a plausible solution, we propose that the Path element of the verb *-y-* be glossed as 'thither' and that of *-t|-* as 'hither'. We consider these as specifying, for the respective verbs, motion which is directed "to a point away from the speaker" and "to a point near the speaker". By postulating these admittedly complex specifications of Path, we are able to differentiate between the verbs *-y-* and *-t|-*, while at the same time accounting for the "directional" element of their meaning. In addition, by so specifying the Path for these verbs, we account for their nonoccurrence with the Path specified by the Applied Extension *-è|-*, which, as we saw, means 'to' or 'from'.

As an alternative, one might suggest that 'thither' and 'hither' are realizations of the Manner constituent. However, it is difficult to conceive either of these as a further specification of the Manner in which a motion event is carried out. For the present, therefore, we will consider each as a gloss for the different Paths specified by the verbs *-y-* and *-t|-*.

Setting aside expressions of location-directed motion, we shift our attention to directional motion. In expressions of this type, as shown in Table XV on page 85, one finds the set of verbs which occurred in the main clause of sentences expressing directional motion with *-tábóg-* and *-kíbt|-*. The only additional verb root found in Table XV is the verb *-tsén-* meaning 'to move into'. A further point to notice is that Manner or Cause is not expressed in a subordinate clause; they are not in fact expressed at all in these sentences, hence, the status of the verbs in Table XV as basic motion verbs. What is perhaps most interesting concerning these sentences is the range of the English glosses which each verb allows. In particular, each verb can be glossed with 'to move', 'to go', 'to walk', and most interestingly, 'to come'. This is a crucial point. It suggests that each verb root in Table XV refers to a type of motion which is independent of the Path notions captured by 'thither' and 'hither'. The most neutral gloss is something along the lines of the English 'to move', which does not specify a Path constituent as part of its meaning.

Beyond these points we want to take note of the larger issue which they support. These verb roots, as well as *-y-* and *-t|-*, manifest a single lex-

- | | | | |
|----|---|---|---------------------------------|
| 1. | mò-símàné
CL 1-boy | ó-tšǝ̀n-à
he-move(go, come, walk) into-IMP | mó-tlù-̀hǝ̀
INSIDE-house-LOC |
| | 'the boy is moving into the house' | | |
| 2. | mò-símàné
CL 1-boy | ó-tsw-à
he-move(go, come, walk) out-IMP | mó-tlù-̀nǝ̀
INSIDE-house-LOC |
| | 'the boy is moving out of the house' | | |
| 3. | mò-símàné
CL 1-boy | ó-rá á ǝ̀ à
he-move(go, come, walk) through-IMP | kgǝ̀rǝ̀
doorway |
| | 'the boy is moving through the doorway' | | |
| 4. | mò-símàné
CL 1-boy | ó-tshé à
he-move(go, come, walk) across-IMP | lè-sàká
CL 5-kraal |
| | 'the boy is moving across the kraal' | | |
| 5. | mò-símàné
CL 1-boy | ó-pǝ̀tǝ̀lǝ̀g-à
he-move(go, come, walk) around-IMP | pǝ̀tsè
well |
| | 'the boy is moving around the well' | | |
| 6. | mò-símàné
CL 1-boy | ó-tlǝ̀g-ǝ̀ à
he-move(go, come, walk) away-from-IMP | ̀n-tlǝ̀
CL 9-house |
| | 'the boy is moving away from the house' | | |
| 7. | mò-símàné
CL 1-boy | ó-tlǝ̀ à
he-move(go, come, walk) over-IMP | thàbà-nà
mountain-DIM |
| | 'the boy is moving over the hill' | | |
| 8. | mò-símàné
CL 1-boy | ó-pá ám-à
he-move(go, come, walk) up-IMP | thàbà
mountain |
| | 'the boy is moving up the mountain' | | |
| 9. | mò-símàné
CL 1-boy | ó-pá gǝ̀lǝ̀g-à
he-move(go, come, walk) down-IMP | thàbà
mountain |
| | 'the boy is moving down the mountain' | | |

Table XV. Directional expressions.

icalization pattern. Each incorporates in the verb root the fact of Motion and its Path, a pattern of incorporation we maintain is characteristic for Tswana. In other words each of these verb roots incorporates the meaning 'move' plus

some additional Path specifier, e.g. 'thither', 'out', etc. It is within the confines of this semantic specification that verb roots encoding basic motion events manifest what appears to be a suppletion process.

4. Summary

Briefly restating our basic position, we have discovered that Tswana verbs of motion manifest two characteristic lexicalization patterns, each a reflection of a typological pattern articulated by Talmy [1984]. In two of three categories of complex motion events, the verb root incorporates the fact of Motion and its Manner/Cause, the Path being expressed either by a form affixed to the verb root in cases of location-directed motion or by a distinct lexical item in cases of location-confined motion. In the other characteristic pattern, the verb root incorporates both the fact of Motion and its Path. This pattern characterizes the lexicalization of all categories of basic motion events and combines, with a Manner/Cause verb in a participial clause, to express the directional category of complex motion events.

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