

Diagnosing Prepositions: Decomposing Path in White Hmong

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1 Introduction

In White Hmong (Hmong-Mien), the class of “path predicates” have been described as having a mix of verbal and prepositional properties (Clark 1978, Jarkey 2015, Johnston forthcoming).

These appear in four main environments, given in (1–4): as the main verb of the clause, the complement of a manner-of-motion verb, the complement of a transfer verb, or the head of an outer locative.¹

(1) *Main verb:*

kuv **mus** tajlaj
1SG **go** market
‘I went to the market.’

(2) *Complement to manner-of-motion verb:*

kuv khiav [**mus** tajlaj]
1SG run **to** market
‘I ran to the market.’

(3) *Complement to transfer verb:*

kuv txib Sua [**mus** tajlaj]
1SG dispatch Shoua **to** market
‘I sent Shoua to the market.’

(4) *Outer locative:*

kuv yuav nyob qhov.no [**mus** txog thaum kuv yuav tau kuv ib tsev] tso
1SG IRR dwell here **to** up.to time 1SG IRR get 1SG one house first
‘I will live here until I get my own house.’

(Jarkey 2015)

In this paper, I instead claim that path predicates in Hmong are genuinely cross-categorial: they can spell out both verbal and prepositional heads.

¹All uncited examples are from elicitation with speakers of White Hmong. Thank you to Ka Lee-Paine and Sy Moua for providing many, many judgments. Thank you to Marie-Thérèse Jaspersen, Bee Vang-Moua, and Neng Vang for discussion and additional examples. Any errors are my own.

- Path predicates lexicalize a span at the boundary of the verbal domain and (prepositional) path domain.
- This span minimally includes one path head.²
- This span may include *v*, giving rise to examples like (1). (In (2–4), *v* is not included.)

2 Background

Hmong path predicates can be divided into at least four sub-types, according to the type of path they describe:

Route	Source	Goal	Transition
<i>hla</i> ‘cross, pass’	<i>tawm</i> ‘leave’	<i>mus</i> ‘go’	<i>txog</i> ‘arrive’
<i>raws</i> ‘follow, pursue’	<i>thim</i> ‘retreat’	<i>tuaj</i> ‘come’	<i>txij</i> ‘reach, extend’
<i>nyab</i> ‘rise’	<i>sawv</i> ‘get up’	<i>los</i> ‘come (home)’	<i>cuag</i> ‘reach, catch up to’
<i>nce</i> ‘ascend’	<i>dim</i> ‘get away’		<i>nto</i> ‘reach (a high place)’
<i>nqis/nqes</i> ‘descend’	<i>poob</i> ‘fall’		<i>?rau</i> ‘put in, insert’
<i>ncig</i> ‘go around, circle’	<i>lawm</i> ‘leave’		
<i>taug</i> ‘follow (a path)’			
<i>lawv</i> ‘follow’			

(Jarkey 2015, Johnston forthcoming)

In prior literature on Hmong, path predicates have been treated as verbs, which can participate in simple structures like (1) or form serial verb constructions as in (2–3). Examples like (4), in contrast, are treated as genuine prepositions and assumed to be derived by some synchronically-active process (Clark 1978, Jarkey 2015).

There are reasons to doubt this treatment. For one, this incorrectly predicts homophonous V–P sequences, as in (5), to be well-formed—and the diagnostics presented in Section 3 cast further doubt.

- (5) *kuv **mus mus** tajlaj
 1SG go to market
 Intended: ‘I went to the market.’

3 Diagnostics

In this section, I review several diagnostics for verbal/prepositional status that are potentially applicable to Hmong. These include:

- The ability to directly predicate an external argument (Baker 2003)
- Semantic contribution: property of events vs. property of paths
- “Verb-framed” vs. “satellite-framed” typological features (Talmy 1985, Snyder 2001, Folli & Harley

²Though this head varies; Route, Source, Goal, and Transition sub-types, as identified in Section 2, spell out different heads.

2016)

- Does the predicate in question select for or spell out the path-denoting head?
- Constraints on the structure of complex predicates: causal/temporal order vs. Route > Source > Goal order (Pantcheva 2011)

3.1 Predication of external argument

The ability to directly predicate an external argument (without, for example, combining with an additional Pred head) is claimed to be unique to verbs (Baker 2003).

This diagnostic is not fully conclusive:

- The path predicate in (1) appears verbal: it clearly takes the sentential subject as its external argument.
- The path predicate in (4) appears prepositional: it must be understood to modify the event as a whole.
- The path predicates in (2) and (3) may or may not take an external argument, depending on what assumptions one makes about the underlying structure.

3.2 Variable semantic contribution

The semantic contributions of verbs and prepositions differ on a fundamental level.

- Verbs describe properties of events, which can include qualitative or conceptual information about the type of event.
- Prepositions describe properties of paths, which convey only a geometric configuration only.
 - Following Zwarts (2005), a path is an ordered set of points in space. A property of paths may characterize a set of paths which share, for example, a particular orientation, ordering, or part-whole structure, but it cannot contribute the same sort of conceptual information as a property of events.

This contrast appears to be reflected in the meanings of path predicates, which vary depending on the environment in which they occur. For example, *dim* is variously translated as ‘escape’, ‘get away’, or ‘from’.

- (6) [**dim** qhov rooj txog phab.ntsa], cov neeg sawv ntsug
 from CLF door up.to wall CLF.PL person stand upright
 ‘From the door to the (back) wall, people were standing.’

This appears to correlate with syntactic environment: more highly specified in examples like (1), less so in those like (2–4).

Despite this trend, several possible confounds exist, which make this data behavior ultimately inconclusive.

These include:

- The effect of context on translations.
- Supplying “standard” meanings even when they are not the most appropriate.
- Difficulty in constructing contexts that clearly differentiate the two sense.

3.3 Verb-framed vs. satellite-framed

Hmong shows a number of features consistent with so-called “satellite-framed” languages (Talmy 1985)—that is, languages in which motion can be encoded by the (usually non-verbal) complement of the main verb, rather than by the verb itself. These features include resultatives, verb–particle constructions, double-object constructions, created result constructions, and productive noun–noun compounding (Snyder 2001, Folli & Harley 2016). With the possible exception of double-object constructions, all of these features appear to be found in Hmong.

- (7) a. Resultatives:
 nws **tsoo** lub tais **tawg**
 3SG smash CLF bowl break
 ‘He smashed the bowl and it broke.’
- b. Verb–particle constructions:
 nws **pov** cov khob **tseg**
 3SG throw CLF.PL cup abandon
 ‘He threw the cups away.’
- c. Created result constructions:
 nws xaws daim ntaub ua (daim) tiab
 3SG sew CLF cloth into (CLF) skirt
 ‘She sewed the cloth into a skirt.’
- d. Noun–noun compounds: (Ratliff 1992)
 ciab-mu dab-npuas qab-pag tub-qhe
 wax-bee trough-pig bottom-lake boy-servant
 ‘beeswax’ ‘pig trough’ ‘lake bottom’ ‘male servant’

Taken together, these features suggest that Hmong is a satellite-framed language. This is consistent with the view that the path predicates in examples (2–3) are not verbal—though this is likewise inconclusive.

3.4 Selection vs. Exponence

A surprising pattern of behavior is observed with Source predicates in Hmong: Source predicates do not have an inherent Source meaning.

- (8) kuv **tawm** tsev
 1SG leave home
 #‘I left home.’
 ‘I left for home.’

To derive a Source interpretation, they must be followed by an overt Goal predicate.

- (9) kuv **tawm** tsev **mus** tajlaj
 1SG leave home go market
 ‘I left home for the market.’
 #‘I left for home and went to the market.’

Source interpretations of path predicates are **configurational**, not inherent.

If these path predicates are verbs, this is surprising: we are forced to conclude that the type of complement a verb selects (or the interpretation it assigns to that complement) is somehow determined by the subsequent adjunction (or conjunction) of a second verb.

And this differs from the behavior of other classes of verbs in Hmong, such as verbs of *obtaining*, which can simply assign a Source role:

- (10) tus tub.sab txeeb [kuv cov nyiaj] [ntawm kuv tes] (Jarkey 2015)
 1SG robber snatch 1SG CLF.PL money DEM 1SG hand
 ‘The robber snatched my money from my hand.’

This behavior is less surprising for prepositions, which often build Source interpretations from Goal interpretations compositionally (Pantcheva 2011).

3.5 Route > Source > Goal

In Hmong, internally-complex path descriptions have obligatory Route > Source > Goal order (Jarkey 2015).

- (11) cov Hmoob khiav [**hla** dej Na.Koom **dim** hauv Nplog-teb **mus** Thai-teb]
 CLF.PL Hmong run across water Mekong from inside Laos to Thailand
 ‘The Hmong fled [across the Mekong River from Laos to Thailand].’

This is consistent with Pantcheva’s (2011) decomposition of PathP.³ The same ordering is built into the (prepositional) **path spine**.

- (12) [RouteP [SourceP [GoalP [PlaceP ...]]]]

In contrast, compositional analyses of the verbal domain generally place their component parts in **causal/temporal** order (for example, Ramchand (2008) proposes three phrases, *initiation*, *process*, and *result*, such that *init* causes *proc* causes *result*). This ordering is reflected in other complex predicates in Hmong—those that, like (13), are formed within the verbal domain (Jarkey 2015, Johnston forthcoming).

³This work further articulates the structure of the prepositional phrase, following Jackendoff’s (1983) division of the prepositional phrase into a dynamic PathP dominating a static PlaceP.

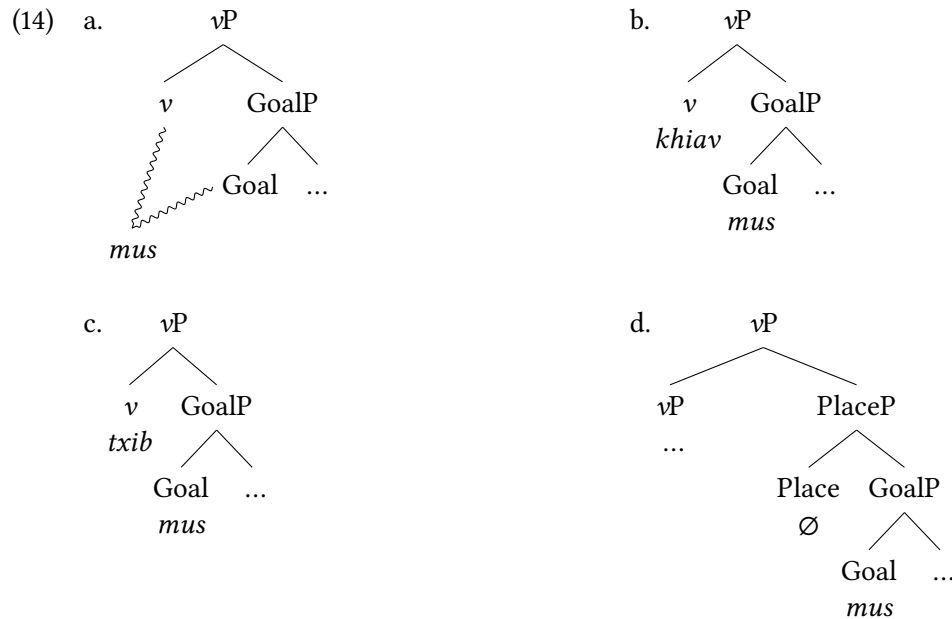
- (13) kuv **nrhiav** **pom** lub pob
 1SG find see CLF ball
 ‘I found the ball.’

(Johnston forthcoming)

4 Analysis

Hmong path predicates are genuinely cross-categorical, with mixed verbal and prepositional properties from spanning (e.g. Svenonius 2016) across the boundary between the verbal and prepositional domains.

- In (1), the predicate spans *v* and a path head, as in (14a).
- In (2–4), spanning is bled (i) by another predicate in *v*, as in (14b–c), or (ii) when in adjunct position, as in (14d).
- All four environments involve a similar underlying prepositional syntax.



- Different sub-types spell out different path heads (see Jackendoff 1983, Pantcheva 2011).

- (15) [_{RouteP} hla [_{SourceP} dim [_{GoalP} mus ...]]]

These predicates are **necessarily prepositional** and **sometimes also verbal**.

5 Discussion

Similar behavior is attested in other languages (e.g. Oceanic “verbal prepositions” Durie 1988), and variation in the heads spanned is claimed to give rise to cross-linguistic variation in the properties of directed motion verbs (Son & Svenonius 2008).

(16) Son & Svenonius (2008)

Korean	{Proc Dir Path}	Place	DP
Malayalam	{Proc Dir}	Path	Place DP
English	Proc Dir Path	Place	DP

This shows the utility of spanning and of the decompositional prepositional phrase even in highly isolating languages.

This approach also has an important complications: it seems to require treating P as a lexical category alongside N, V, A, (contra Baker 2003), with semantic variation linked to category.

The Hmong data also present some additional complications:

- Decomposition of PP: Source–Goal relationship in Hmong is more privileged than Route–Source or Route–Goal (and also better documented cross-linguistically; Pantcheva 2011).
- Route is special—unlike Source, it does not require any additional path heads (see also Ramchand 2012).
- Productivity: all 14 Source, Goal, and Transition predicates found in (1–3); only 9 attested in (4).
- Diachronic (in)stability? Durie (1988) claims that similar “verbal prepositions” in Oceanic represent an intermediate stage in the diachronic derivation of prepositions from verbs. (The situation in Hmong has been stable since at least Clark 1978)

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