Spatial Reference in Chantyal

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1. INTRODUCTION

On the surface of it, spatial reference — descriptions of where something is located or descriptions of trajectories — should be fairly simple and relatively uniform across languages.[1] After all, the basic spatial relationships [up/down, left/right, front/back, over/under, to/from, etc.] would seem to be basic to the human understanding of the world, and, further, children learn about spatial relationships before they begin speaking. On the basis of such considerations, many theorists believed that children should map their pre-established spatial categories onto those of the language they are learning, with the result that the expression of spatial relationships in different languages should involve mostly the substitution of different words for the same conceptual categories.

Empirical investigation of spatial reference in the languages of the world reveals a much more complicated picture. While there are certainly some similarities in spatial reference across languages, there are also deep differences. In this paper, I'll present a survey of various means for denoting spatial relationships in Chantyal ['tsʰʌntjɑl], a Tibeto-Burman language [Tamangic:Bodish: Bodic:Tibeto-Burman] of Nepal, in the hopes of creating a sort of typological profile for the language in this domain. The Chantyal language is spoken in the Myagdi District of Nepal by about 2000 of the 11,000 ethnic Chantyal. Other Tamangic languages include Gurung, Manange, Nar-Phu, Seke, Tamang, Thakali and perhaps some others.[2]

This paper will be organized as follows: in §2 I provide a brief discussion of spatial relator expressions, constructions which can be used to locate a figure with respect to a ground; in §3 I discuss static spatial relations and in §4 dynamic spatial relations, relating Chantyal in the process to Talmy's typology of event types; in §5 posture expressions are discussed; in §6 I provide a brief discussion of spatial deixis and in §7 an overview of frames of reference in describing spatial relations; and in §8 I provide a summary and discussion of the facts presented in the paper.

2. SPATIAL RELATOR EXPRESSIONS: We will begin our discussion of spatial reference in Chantyal with a presentation of *spatial relator expressions* — that is, constructions which

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[2] Mazaudon in many publications [*e.g.* 2003] has referred to this group as the TGMT group.

can be used to locate a figure with respect to a ground. Following Talmy (1985), I will use the following definitions for the terms 'figure' and 'ground':

(1)   FIGURE: the moving or located object
          GROUND: the reference object used to establish the position of the figure

So, for the sentence,

(2)   The cup is on the table

cup is the figure [the located object] and *table* is the ground, the reference object used to establish the position of the figure. Spatial relator expressions can have meanings that are *static* [position involving no movement] or *dynamic* [position within a path or trajectory]; if they are dynamic, they can denote the *source*, *route*, or *goal*:

(3)   STATIC: position involving no movement
               *the cup is **on** the table*
          SOURCE [DYNAMIC]: the beginning point of the path or trajectory
               *the girl ran **from** the house*
          ROUTE [DYNAMIC]: the route taken by the path or trajectory
               *the boy ran **on/along** the path*
          GOAL [DYNAMIC]: the end point of the path or trajectory
               *the girl ran **to** the school*

In all the English examples provided here, the spatial relator expression is a preposition.

          In Chantyal, spatial relator expressions can be classified into three groups: *clitics*, *compound clitics*, and *locational nominal expressions*. Clitics typically have their origins in compound clitics and locational nominal expressions,[3] and the boundaries between these classes are porous. The clitics are enclitics; compound clitics consist of more than one enclitic; and in locative nominal expressions the ground is expressed as a genitival modifier of a locative noun which may be marked with a clitic. These are illustrated in (4):

(4)   CLITIC
          tɦim-nɦari 'inside the house'
          COMPOUND CLITIC
          tɦim-nɦari-gəmsə 'out from inside the house'
          LOCATIONAL NOMINAL EXPRESSION
          tɦim-ye ar-ri 'beside the house' [house-GEN side-LOC]

An informal list of spatial relator expressions can be found in (5):

(5)
CLITICS
-(gəm)sə   'from'; used in a static sense in complex forms and in describing a figure suspended relative to the ground; used in dynamic expressions as source
-mar   'around in, around on; into [a container]'
-muwari   'up to, next to'

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[3] For example, the elements **-ri** and **-əŋ** are found in combination with other, historically independent forms. In contemporary Chantyal, grammaticalized combinations apart, **-əŋ** is used independently with five nouns in contexts where we would otherwise expect locative **-ri**, *e.g.* **kɦyam-əŋ** 'on the path', **tɦem-əŋ** '(at) home' [from **tɦim** 'house'].

-nas	'around on, draped over'
-nɦari	'enclosed within, inside'
-phyaraŋ	'over the surface of, on top of'; physical contact isn't relevant
-pɦiriŋ	'under': force dynamics [*e.g.* gravity, adhesion] aren't relevant
-ra	seems to be the generic [unmarked] positional relator translating English 'on/in' relationships, used where a more specialized encoding of the figure's relation to the ground is not merited; used also for indirect objects and high animacy direct objects [*i.e.* as an anti-dative or anti-ergative marker]
-ri	'container, storage space for'; this form is also used for geographical locations, perhaps utilizing the metaphor of places as containers
-ru	'with [comitative]'
-siŋ	'with [comitative], at the side of'

COMPOUND CLITICS

-mar-gəmsə	'from around'
-nɦari-gəmsə	'out from inside'
-pɦiriŋ-sə	'under and through'; implies a figure whose position exceeds the spatial extent of the ground in some dimension
-phyaraŋ-sə	'over across'; implies that the figure straddles or extends beyond the ground

LOCATIVE NOMINAL EXPRESSIONS[4]

-ye əntər-gəmsə	'from between'
-ye əntər-ri	'between'
-ye ar-gəmsə	'from the side of'
-ye ar-ra/-ri	'beside'
-ye chew-gəmsə	'from the side of'
-ye chew-ra/-ri	'beside'
-ye chyəwpheray	'around, surrounding'
-ye lesəŋ	'behind'
-ye lesəŋ-sə	'from behind'
-ye ligəm/liyəm	'after [time]; behind'
-ye tuppa(-ra)	'at the very top of, end of'
-ye tuppa-ŋsə	'from the top/end of'
-ye wənwən	'in front of'
-ye wənsəŋ	'in front of [location]'
-ye wənsəŋ-sə	'from in front of'

The spatial relator expressions can be classified further according to their static, source [dynamic], route [dynamic], or goal [dynamic] senses, as in (6):

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[4] **-ye** is the genitive clitic.

(6)

SOURCE	STATIC-ROUTE-GOAL
-(gǝm)sǝ 'from'	**-(gǝm)sǝ** 'from'
-nɦari-gǝmsǝ 'out from inside'	**-mar** 'around (in)'
-mar-gǝmsǝ 'from around'	**-muwari** 'up to, next to'
-phyaraŋ-sǝ 'from over/the top'	**-nas** 'around on, draped over'
-pɦiriŋ-sǝ 'from under'	**-nɦari** 'inside, into'
-ye ǝntǝr-gǝmsǝ 'from between'	**-phyaraŋ** 'over'
-ye ar-gǝmsǝ 'from the side of'	**-phyaraŋ-sǝ** 'over across'
-ye chew-gǝmsǝ 'from the side of'	**-pɦiriŋ** 'under'
-ye lesǝŋ-sǝ 'from behind'	**-pɦiriŋ-sǝ** 'under and through'
-ye tuppa-ŋsǝ 'from the top/end of'	**-ra** 'on, at, to'
-ye wǝnsǝŋ-sǝ 'from in front of'	**-ri** 'on, at, to'
	-ru 'with'[5]
	-siŋ 'with, at the side of'
	-ye ǝntǝr-ri 'between'
	-ye ar-ra/-ri 'beside'
	-ye chew-ra/-ri 'beside'
	-ye chyǝwpheray 'around, surrounding'
	-ye lesǝŋ 'behind'
	-ye ligǝm/liyǝm 'after [time]; behind'
	-ye tuppa 'at the very top of, end of'
	-ye wǝnwǝn 'in front of'
	-ye wǝnsǝŋ 'in front of [location]'

As (6) makes clear, Chantyal spatial relator expressions include only one, **-(gǝm)sǝ** 'from', with a specifically source dynamic sense: the other source dynamic forms have this form as a component. The remaining forms can have static, route, or goal interpretations depending on context: Chantyal lacks, therefore, forms like English *into, onto* which have a specifically goal dynamic sense and forms like English *along* which have a specifically route sense.

Note also that source dynamic expressions are built off of semantically appropriate static-route-goal expressions by the addition of the source morpheme **-gǝmsǝ,** except for those containing **-ra** and **-ri**, which **-gǝmsǝ** simply replaces.[6] This state of affairs reflects the fact that all three of these morphemes are both more generic in their senses and historically older in these roles than are the other purely locative morphemes illustrated in (5) and (6).

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[5] **-ru** has no goal dynamic senses.

[6] This is true except where the former have lost their independent status through reanalysis, as in **-nɦari** 'inside' [*cf* **-nɦari-gǝmsǝ**].

3. STATIC SPATIAL RELATIONSHIPS: We will now turn our attention specifically to static senses of the spatial relator expressions. A couple of sentences involving static spatial relator expressions are provided in (7):

(7)　　khore tebəl-phyaraŋ mu　　　məndir-ye ar-ra　　dɦuŋ mu
　　　　cup　table-SUPER　be.NPST　temple-GEN side-DAT tree　be.NPST
　　　　'the cup is on the table'　　　　'the tree is beside the temple'

　　　　Melissa Bowerman of the Max Planck Institute for Psycholinguistics has developed a set of seventy-one drawings, referred to as the 'Topological Relations Picture Series', designed to elicit descriptions of a variety of static locative relationships. In these drawings the figure is indicated by a distinct color [replaced by an arrow in the pictures displayed in this paper] and the language consultant is asked to answer the question 'Where is X?', where X is the highlighted figure. The results of using this device with Chantyal speakers are displayed in Figure 1, where the items employing the same spatial relator expression are grouped together, producing a set of Venn diagrams showing overlapping membership within the sets.

INSERT FIGURE 1 HERE

When displays like Figure 1 from different languages are examined together, the results can be quite fascinating — and revealing of how much languages differ in the expression of these basic relationships. Compare Figure 1 with Figure 2, where the results for Ewe and Tiriyó are displayed [from the Max Planck Institute for Psycholinguistics *Annual Report 2001*].

INSERT FIGURE 2 HERE

　　　　Underlying the diversity revealed in these figures are nonetheless certain relationships among locative markers that seem to hold true across languages. For example, for the locative relationships in Figure 3 (Bowerman & Choi 2001),

INSERT FIGURE 3 HERE

there appears to be an implication hierarchy that orders these relationships in the way they are presented in the figure: no language in Bowerman and Pederson's sample [reported in Bowerman & Choi 2001] had a locative term that represented a discontinuous set among these relationships. Chantyal, as Figure 3 shows, conforms to their predictions. Nonetheless, a good deal of variation across languages is possible within the parameters of the implicational hierarchy. For example, for the three locative relationships illustrated in Figure 4, every possible coding combination is attested.

INSERT FIGURE 4 HERE

As a [very careful] examination of Figure 1 will show, Chantyal patterns like Dutch in the way in which these relationships are coded, *i.e.* each is coded with a different spatial relator expression: <u>*on* the table</u> is coded with -**phyraŋ**, <u>*in* the bowl</u> with -**ri**, and <u>*on* the door</u> with -**ra**.

4. DYNAMIC SPATIAL RELATIONSHIPS: MOTION EVENTS

4.1 *typological dimensions:* For our discussion of dynamic spatial relationships, or motion events[7], we'll use a typology of motion events developed by Leonard Talmy [1985, 1991, 2000] as extended and elaborated by Dan Slobin [1996, 1997, 2000, 2003; Berman & Slobin 1994]. In its original form (Talmy 1985), this typology was based on the idea that motion events, across languages, could be broken down into a number of semantic components which were then combined [conflated] in characteristic ways.

(8)   COMPONENTS OF A MOTION EVENT:

Agent   Figure   Fact-of-Motion   Path   Ground   Manner/Cause

> AGENT: insigator of the action
> FIGURE: the person or thing that undergoes motion
> FACT-OF-MOTION: the basic idea that something moves; it is expressed as a verb
> PATH: expression of direction: source, route, or goal
> GROUND: the reference object used to establish the position of the figure; locations
> MANNER OR CAUSE: expressions of manner or causation with respect to the motion

In any given expression of a motion event not all of these elements need be present. For the motion event described by the sentence *the girl rolled the ball into the box*, we have the following components:

(9)   AGENT: girl
> FIGURE: ball
> MOTION: roll
> PATH *[source, route, **goal**]*: into
> GROUND: box
> MANNER: roll

Notice that *roll* is used to express both motion and manner.

Talmy's central claim was that languages could be divided into three groups depending on how these components were characteristically *conflated*, expressed as a single word or expression. The three groups were:

(10)   Manner/Cause + Fact-of-Motion
Path + Fact-of-Motion
Figure + Fact-of-Motion

English can be used to illustrate the first sort:

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[7] Much of the material in this section will appear as Noonan (to appear).

(11)

Agent	Figure	Fact-of-Motion	Path	Ground	Manner/Cause

Verb
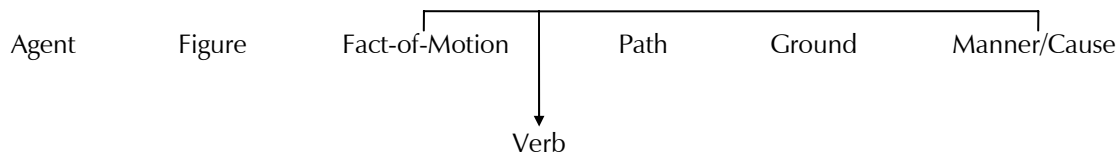
(12)a. *Location*
   The lamp <u>stood</u>/<u>lay</u>/<u>leaned</u> on the table
   b. *Motion: non-agentive*
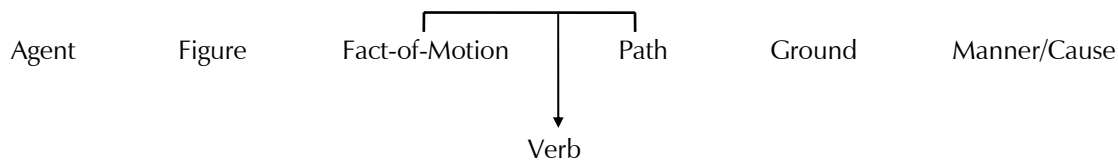   The rock <u>slid</u>/<u>rolled</u>/<u>bounced</u> down the hill
   c. *Motion: self-agentive*
   Floyd <u>ran</u>/<u>limped</u>/<u>stumbled</u> down the stairs
   d. *Motion: agentive*
   Floyd <u>slid</u>/<u>rolled</u>/<u>bounced</u> the keg down the stairs

Spanish can be used to illustrate the second type:

(13)

Agent	Figure	Fact-of-Motion	Path	Ground	Manner/Cause

Verb

(14)a. La botella <u>salió</u> de la cueva [flotando]
   'The bottle floated out of the cave'
   b. La botella <u>entró</u> a la cueva [flotando]
   'The bottle floated into the cave'
   c. El globo <u>bajó</u> por la chimenea [flotando]
   'The balloon floated down the chimney'

Atsugewi can be used to illustrate the third:

(15)

Agent	Figure	Fact-of-Motion	Path	Ground	Manner/Cause

Verb
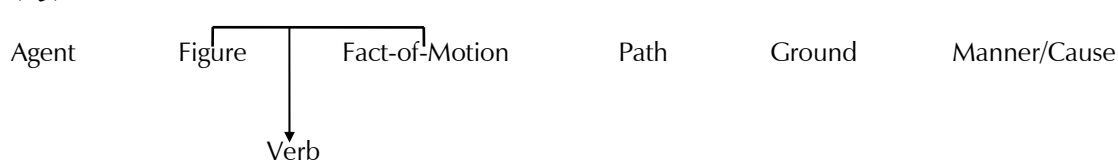
(16)   -lup-   'small, shiny spherical object moves' [*eg* round candy, eyeball, hailstone]
       -ł'-   'smallish planar object moves' [*eg* stamp, clothing patch, shingle]
       -caq-   'slimy lumpish object moves' [*eg* toad, turd]
       -swal- 'limp linear object suspended by one end moves [*eg* shirt on a clothesline,
                    hanging dead rabbit, flaccid penis]
       -qput- 'loose dry dirt moves/is located'
       -st'aq' 'runny, icky material moves [*eg* mud, manure, rotten fruit, guts, chewed
                    tobacco]

       In Talmy (1991), a much more inclusive and elaborated typology is presented.
The old three-way typology gives way to a new two-way typology which is extended
beyond motion events to include a great many other event types. In what follows, I'll

try to present a sort of schematic representation of the terms necessary for an understanding of Talmy's new typology.

 Events [or *event complexes*] can be decomposed into a set of *simplex events* on the basis of some perhaps universal principles. In certain instances, these simplex events within an event complex may be *conflated* into a *macro-event*. Within each macro-event, there is a simplex event that constitutes a *framing event* which delineates a certain type of schematic structure [these are also referred to as *domain-schematizing events*]. There are five sorts of framing events: motion, temporal contouring, change-of-state, action correlating, and realization. The relation between the framing event and the other, supporting event is given by the *supportive relation* [S-relation].

(17)   COMPLEX EVENT[SIMPLEX EVENT - SIMPLEX EVENT]

Those that can *be conflated into a Marco-event*   *Those that* can't *be conflated into a Macro-event*

[CONCEPTUAL STRUCTURE]

[(Entity) Causal Chain   [[Event]   S-relation   [Event]   ]]
  {Agent}   {framing}   {supporting}

                                 ⌐Motion   ⌐Precursion
                                  Temporal contouring   Enablement
                                  Change-of-State   Cause
                                  Action correlating   Manner
                                  Realization⌐   Concomitance
                                                               Purpose
                                                               Constitutive...⌐

                        The candle went out   because   something blew on it

        [Conflation of a Macro-event]
                                    The candle blew out

Each sort of *framing event* [or domain schematization event] has the following four structural features:

(18)   1. figural entity [generally set by context]   OBJECT
         2. ground elements   LOCATIONS
         3. activating process [two values: transition/no-transition]   MOTION
         4. relating function   PATH

Either the relating function alone or the relating function and the ground elements can be considered the *core schema* of the framing event.

 The new typology concerns the syntactic placement of the core schema [*i.e.* path or location], whether in the *verb* or in a *satellite*.

 Talmy defines a satellite as a grammatical constituent, other than a nomimal argument, that has a sister relation to the verb. This includes a wide variety of grammatical entities, including: English verb particles, verb prefixes [separable & inseparable] in

German, verb prefixes in Latin and the Slavic languages, co-verbs in Chinese and Lahu, Caddo incorporated nouns, Atsugewi polysynthetic affixes to the verb, etc. Given the definition, and given the examples of satellites mentioned [but not illustrated] in Talmy (1991:486), we can interpret Talmy's definition in two ways as illustrated below [where the linear order is irrelevant, 'X' is a satellite, and X ≠ NP]:

(19) (a)   V   (b)   VP
              /\   /\
         X   V$_{rt}$ V   X
                                                    |
                                                   V$_{rt}$
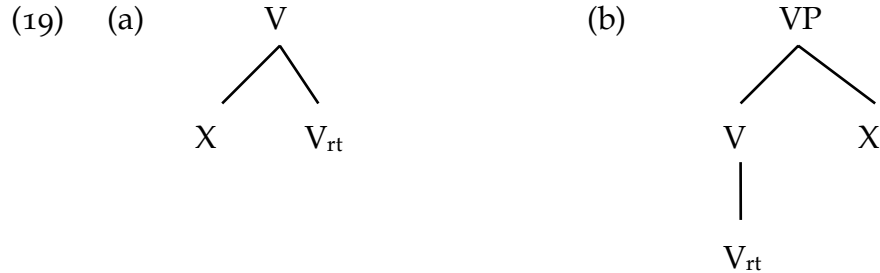
When the core schemata are mapped onto the verb, we have a *framing verb* and the language is *verb-framed*. When the core schemata are mapped onto a satellite, we have a *framing satellite* and the language is said to be *satellite-framed*.

Vis-à-vis the old typology, English and Atsugewi are satellite-framed languages; Spanish is a verb-framed language.

Satellite-framed languages typically map the *supporting event* onto the main verb, which is then called a *supporting verb*. Verb-framed languages typically map the supporting event onto a satellite or adjunct, typically a PP or an adverbial, *e.g.* the converb [*flotando*] in the Spanish example in (20).

(20)
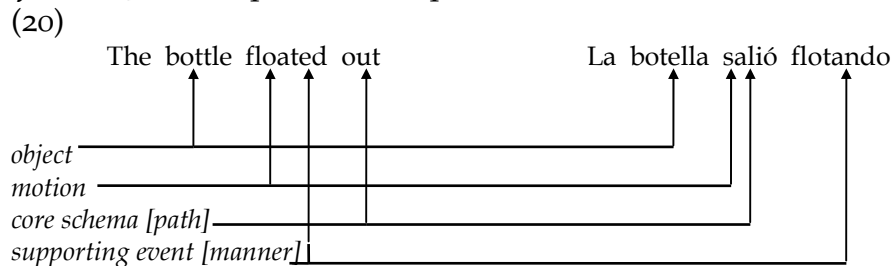
4.2 *motion events in Chantyal:* As noted earlier, Chantyal has spatial relator expressions with dynamic [*i.e.* motional] senses. These forms can be used with motion verbs to describe motion events, as in (21):

(21) **Ram kadmandu-ri   ɦya-i**
      Ram Kathmandu-LOC go-PERF
      'Ram went to Kathmandu'

In general, Chantyal fits quite well into Talmy's typology and patterns like a typical V-language (verb-framed language). We see this, for example, in sentences like (22),

(22) na-sə marak-ra latti-sə lɦi-si-rə bən la-i[8]
      I-ERG door-DAT kick-INST hit-ANT-SEQ closed do-PERF
      'I kicked the door shut'

where the supporting event [kicking] is subordinated as a sequential [anterior] converb. Contrast this with the English translation, where the supporting event is made into the main verb [*kicked*] and the core schema is a satellite [*shut*]. Similar arrangements of information, typical of V-languages, can be found for other event types:

(23) khi gɦãti-ri ɦar ɦəlji-si-rə si-i
      he throat-LOC bone get.stuck-ANT-SEQ die-PERF
      'He choked to death on a bone'
      [CHOKE = supporting event, DIE = core schema]

(24) na-sə məynbətti phur-si-rə bətti sar-ji
      I-ERG candle blow-ANT-SEQ light kill-PERF
      'I blew the candle out'
      [BLOW = supporting event; EXTINGUISH/GO OUT = core schema]

(25) na-sə kəmes khur-si-rə səffa la-i
      I-ERG shirt wash-ANT-SEQ clean do-PERF
      'I washed the shirt clean'
      [WASH = supporting event; MAKE CLEAN = core schema]

For all these sentences, S-language (satellite-framed language) English makes the supporting event the main verb, whereas in V-language Chantyal the core schema is rendered by the main verb.

Motion events are likewise rendered by sentences that, in important respects, conform to the V-language type. In these sentences the core schema, the path, is expressed by the main verb. (26) illustrates this basic pattern:

(26) bətəl kwi-phyã-phyãraŋ nacci-gəy wadar-nɦari-gəmsə tɦõ-i
      bottle water-SUPER dance-PROG cave-INES-ABL exit-PERF
      'The ball floated out of the cave'

The verb **tɦõ-** 'exit, go out' contains the core schema, namely the specification of path; the supporting event, translated in English as 'float' but expressed in Chantyal as 'dancing on water', is rendered in Chantyal as a progressive converb.

The verb *float* in the English translation of (26) conflates [*i.e.* expresses as a single word] the fact of motion and the manner in which the motion was carried out. In general, Chantyal does not favor sentences describing motion events in which manner is mapped onto the main verb. Sentences like (26) or (27)

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[8] Colloquially, this sentence would likely be rendered as

      na-sə marak-ra latti-sə lɦi-si-rə bən la-si pin-ji
      I-ERG door-DAT kick-INST kick-ANT-SEQ closed do-ANT give-PERF
      'I kicked the door shut'

where the now main verb **pin-ji** 'gave' would signal that the event was done to the door's detriment.

(27) **na-sə phurbal latti-sə lɦi-si-rə   bakəs-nɦari wõ-i**
    I-ERG ball   kick-INST hit-ANT-SEQ BOX-INES enter-PERF
    'I kicked the ball into the box'

are fully idiomatic, but sentences like (26′) or (27′) are not, even though the grammatical means to express them [a verb expressing manner and the inessive and ablative case clitics] is available to the language:

(26′) **#bətəl kwi-phyã-phyãraŋ wadar-nɦari-gəmsə nacci-i**
    bottle water-SUPER   cave-INES-ABL   dance-PERF
    'The bottle floated out of the cave'

(27′) **#na-sə phurbal latti-sə   bakəs-nɦari lɦi-i**
    I-ERG ball   kick-INST BOX-INES   hit-PERF
    'I kicked the ball into the box'

Such sentences, descriptions of motion events where the main verb expresses manner, are simply not encountered in Chantyal discourse except under special conditions described below. Chantyal characteristically places information about manner into a verb rendered as the head of a converbal clause. This is usually the case even when manner is expressed by means of the 'expressive vocabulary' — idiomatic, often reduplicated forms typically accompanied by **la-** 'do' rendered as a converb, as in (28) and (29):

(28) **bɦalu nə   dɦəŋ dɦəŋ la-gəy ni ca-ŋ   kha-i**
    bear TOPIC staggering do-PROG little this.place-LOC come-PERF
    'Bear staggered a little ways over here'

(29) **phuttə phuttə la-gəy day-muwari   ɦya-i**
    hopping   do-PROG elder.brother-ADES go-PERF
    'He hopped toward his elder brother'

Again, notice that in the English translations manner is expressed in the main verb, which functions also as a verb of motion. In Chantyal, manner expressions generally do not also express motion; instead motion is expressed with a verb which conflates motion and path [*go, come, enter, exit*, etc.] and such verbs are usually a required component in the expression of motion events. Case clitics, the locative and adessive clitics in the examples above, refine the expression of path but still require the presence of a motion verb. In this respect, Chantyal is again typical of V-languages (Slobin 1996, 2000).

     Chantyal, however, does possess a few verbs which conflate manner and motion, *e.g.* the verbs **pɦala-** 'walk' and **dugri-** 'run', and these verbs have some special properties. They differ from verbs like **lɦi-** 'hit' in that their basic meanings involve motion along a path. They do not, however, specify a path, unlike the verbs **ɦya-** 'go', **kha-** 'come', **wõ-** 'enter', and **tɦõ-** 'exit', which include the specification of path in their basic meanings. The specification of path in the basic meanings of verbs has important consequences for Chantyal grammar.

     To see how this is so, we need to re-introduce a few terminological distinctions made in §2. It was noted there that locative expressions can be divided into those that are *static* [position involving no movement] or *dynamic* [position within a path or trajectory]; if they are dynamic, they can denote the *source*, *route*, or *goal*. Among the dynamic expressions, we can distinguish source and goal from route: the former express begin-

nings and endpoints of trajectories and can, following Aske (1989), be referred to as *telic*; static and route expressions are *atelic*.

Motion verbs that do not specify path [*e.g.* 'walk', 'run'] occur freely with atelic path expressions, as in the following sentences:

(30) **mənchi tɦim-nas dugri-i**
 person house-ALL run-PERF
 'the man ran toward his house'

(31) **kyeti chana-pɦyaraŋ pɦara-i**
 girl roof-SUPER walk-PERF
 'the girl walked on the roof'

(32) **kyata kɦyam-əŋ pɦara-i**
 boy path-LOC walk-PERF
 'the boy walked on/along the path'

However, when telic [source or goal] paths are expressed, a path verb almost always occurs as the main verb with the manner+motion verb appearing as a converb:

(33) **na kadmandu-ri pɦar-gəy ɦya-i**
 I Kathmandu-LOC walk-PROG go-PERF
 'I walked to Kathmandu'

(34) **gɦwara gãw-gəmsə dugri-gəy gɦyaŋ-ri ɦya-i**
 horse village-ABL run-PROG forest-LOC go-PERF
 'the horse ran from the village to the forest'

Further, locative expressions [case clitics, locative nominals, etc.] that do not signal source paths are ambiguous out of context between static, route, and goal senses, as noted in §2. So the locative case clitic **-ri** can signal any of those senses, but goal senses are highly unlikely unless a path verb is present. Compare (35) with (36):

(35) **na kadmandu-ri pɦara-i**
 I Kathmandu-LOC walk-PERF
 'I walked in/toward Kathmandu' [**-ri** has a static or route sense]

(36) **na kadmandu-ri pɦar-gəy ɦya-i**
 I Kathmandu-LOC walk-PROG go-PERF
 'I walked to Kathmandu' [*i.e.* 'I reached Kathmandu': **-ri** has a goal sense]

Only with a path verb such as **ɦya-** 'go' can the goal sense of **-ri** be realized.

By 'path' verbs, I mean verbs which include an expression of path in their meanings. Simple path verbs, verbs whose senses include only motion and path, include **ɦya-** 'go', **kha-** 'come', **wõ-** 'enter', and **tɦõ-** 'exit'. There are two other sets of path verbs. The first of these specify both manner and path, and include verbs like 'fall' **kɦur-, təy-, pəlti-,** 'climb' **cəəri-**, and 'escape' **phutki-**. These manner+path verbs specify path ['fall' includes DOWN, 'climb' includes UP, 'escape' includes AWAY] and thus differ from manner+motion verbs like 'run', 'walk', 'fly', and 'carry' that specify manner and motion but not path. The second set include verbs which express caused motion and path, such as **kɦa-** 'bring', **kar-** 'put in', and **tɦur-** 'take out'.

Any sort of path verb can be a main verb with telic path expressions. We've seen examples of simple path verbs already; examples with manner+path verbs and caused-motion path verbs follow:

(37) MANNER+PATH
      naku cãy   dɦəli-si-wa dɦuŋ-phyãraŋ cəri-si-m
      dog AFFORMENTIONED fall-ANT-NOM tree-SUPER   climb-ANT-NPST
      'That dog has climbed on top of the fallen tree.'[X124][9]

(38) CAUSED-MOTION PATH
      bura-sə   naku-ra tebəl-phyãraŋ kar-si-m
      old.man-ERG dog-DAT table-SUPER   put-ANT-NPST
      'the old man has put the dog on the table'

In both sentences, the path phrase employs -**phyãraŋ** 'on, over, on top of' which has a goal sense in both sentences. And just as with simple path verbs, verbs of these two classes can function as the syntactic main verb with non-path verbs when telic path expressions occur:

(39) **tɦem-əŋ   sa-ye   gɦəri-ye bɦari na-i   kɦa-i**
      house-LOC earth-GEN jar-GEN   load carry-ANT bring-PERF
      '[He] carried the load of earthenware jars home'

In this example, the path verb **kɦa-** 'bring' serves as the main verb with **na-** 'carry' in an subordinate relation describing manner.

To complete the picture, it should also be noted that even route path expressions are not possible if the predicate does not include motion in its basic meaning. We've seen how route senses are possible with verbs of motion that do not specify path, such as 'run', 'walk', 'fly', 'carry', etc. If motion is not a component of the meaning of the predicate, then even route path expressions are not possible. Narasimhan (*ms*) points out that in Hindi predicates like *melt* cannot occur with an atelic path expression; Chantyal behaves in a similar fashion, as we see in (40):

(40) **#caklət   bakəs-nɦari-gəmsə pəgli-i**
       chocolate box-INES-ABL   melt-PERF
       'the chocolate melted out of the box'

One would say instead:

(41) **caklət   pəgli-gəy bakəs-nɦari-gəmsə tɦõ-i**
      chocolate melt-PROG box-INES-ABL   go.out-PERF
      'the chocolate melted out of the box'

The route path expression ['out of the box'] cannot occur with the non-motion verb 'melt' without an expressed path verb as the syntactic main verb.

We've seen ways in which Chantyal conforms to the verb-framed [V-language] typology. For motion events the core schema [the expression of path] is mapped onto the verb. The supporting event [manner] is mapped onto a converb, a subordinate adver-

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bial heading a non-finite clause. Further, verbs that express motion but do not specify path will be grammatically subordinated to a path verb if a telic path [source or goal] is specified.[10] Verbs which do not include motion in their basic meaning cannot occur with any sort of path expression unless a path verb is present and functioning as the main verb.

4.3 *deviations from the verb-framed typology:* In the last section, we saw how the expression of motion events in Chantyal generally conforms to the verb-framed typology. There are, however, several ways that Chantyal deviates from a typical verb-framed language in the expression of motion events as this typology is now understood. For discussions of this typology, see in particular the works of Dan Slobin (1996, 1997, 2000; Berman & Slobin 1994), but see Slobin (2003) for some qualifications and reevaluations).

4.3.1 *relative dearth of path verbs:* Path verbs have been defined as verbs which include an expression of path in their meanings. In principle, the path meaning element can take any of three frames of reference (Levinson 1996a, 1996b): *relative* to the position of the speaker [*i.e.* 'deictic' verbs like 'come' and 'go']; *intrinsic* to the ground element [*e.g.* 'enter', 'exit']; or *absolute,* utilizing a coordinate system based fixed bearings such as geographic coordinates ['go north', 'go east'], the direction of gravity ['ascend', 'descend'], a geographical feature ['go seaward', 'go upriver', 'go toward the mountains'], and so on.
      Of the three frames of reference possible with path verbs, Chantyal utilizes only two, relative and intrinsic, for the simple path verbs and the caused-motion path verbs. The set of simple path verbs in Chantyal consists of only five verbs: **ɦya-** 'go', **kha-** 'come', **wõ-** 'enter', **tɦõ-** 'exit', and **tɦo-** 'arrive'[11]: there are no simple path verbs with an absolute frame of reference in the native vocabulary or among the commonly used borrowed vocabulary; that is, no commonly used simple path verbs with meanings like 'ascend', 'descend', 'go north [to the high mountains]', 'go up the valley', etc. Even within the allowable frames of reference, there are few verbs: there are no native or commonly used borrowed verbs with senses like 'go away', 'follow', 'advance', 'rotate', 'leave/depart', etc.[12] Chantyal thus has is a very small set of simple path verbs for a V-language, and the small size of this set has consequences which will be discussed below. Like the simple path verbs, the caused-motion path verbs can have a relative frame of reference, *e.g.* **kɦa-** 'bring' and **pɦo-** 'take', or an intrinsic frame of reference, *e.g.* **tɦur-**

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[10] Slobin (1997) offers a refined version of Aske's analysis, utilizing the term 'boundary crossing' to describe instances that, in many V-languages, require the presence of a verb which includes a specification of path. In Chantyal, the telic/atelic distinction, where source and goal path expressions are considered telic, seems to account for the data.

[11] **tɦo-** 'arrive' can be used by itself, but it is much more common in the fixed expression **tɦo kha-** 'arrive come'. This expression is the only example of what was probably once a productive serial construction, still much used in related Nar-Phu (Noonan 2003b).

[12] There are some little used borrowings from Nepali with some of these senses, but no native terms. Of the borrowings, only the borrowings **jɦəri-** 'move down' and **gɦumi-** 'rotate' were recorded in free discourse, and of these only **jɦəri-** can be said to be in common use.

'take out' and **kar-** 'put in/on', but there are no verbs with meanings like 'bring up' or 'put up', combining the caused-motion path sense with an absolute frame of reference. This state of affairs is quite unlike that of many languages spoken in mountainous regions,[13] in particular those in Nepal, where some languages have elaborate systems of verbs with absolute frames of reference (Bickel 1997, 2000).

Manner+path verbs, on the other hand, have either intrinsic path reference ['escape'] or absolute reference ['climb', 'fall']. There are no manner+path verbs with meanings like 'climb here' versus 'climb there', employing a relative frame of reference.

In sum, there are fewer path verbs in Chantyal than one would expect from a V-language, fewer certainly than one finds with the well-studied V-languages such as the Romance languages, Turkish, Hebrew, and Japanese. This relative lack is not without consequence, as we will see in the next two sections.

4.3.2 *Extensive use of directional satellites and case clitics:* Chantyal makes extensive use of directional satellites. Directional satellites in Chantyal are a complex set of forms specifying direction and location; syntactically, they conform to Talmy's definition of satellite, typically occuring immediately before the verb complex. The directionals may be simple, formed without the prefixal demonstratives, or complex, formed with prefixal demonstratives. Some common simple directionals are:[14]

(42)   **tu-ŋ**   'up'   **mə-ŋ**   'down'
       to-r   'upward'   **ma-r**   'downward'
       ca-ŋ   'this place, over here'   **te-ŋ**   'that place, over there'
       ca-r   'in this way, direction'   **te-r**   'in that way, direction'
       phir(i)   'outside'   **kʰyam kʰyam** 'on the road/path'

The complex demonstratives are built off of simple directionals or a restricted set of combining forms together with the prefixal demonstratives.[15] Some examples follow:

(43)   **yi-tu-ŋ**   'up here'   **yi-mə-ŋ**   'down here'
       ɦə-tu-ŋ   'up there'   **ɦə-mə-ŋ**   'down there'
       wu-tu-ŋ   'up yonder'   **wu-mə-ŋ**   'down yonder'
       yi-to-r   'upward to here'   **yi-ma-r**   'downward to here'
       ɦə-to-r   'upward to there'   **ɦə-ma-r**   'downward to there'
       wu-to-r   'upward yonder'   **wu-ma-r**   'downward yonder'

(44)   *ca-ŋ*   *'this place, over here'*   *te-ŋ*   *'that place, over there'*

         yi-ca-ŋ   PROXIMAL-PROXIMAL
         ɦə-ca-ŋ   DISTAL-PROXIMAL   **ɦə-te-ŋ**   DISTAL-DISTAL
                                                  wu-te-ŋ   REMOTE-DISTAL

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[13] The Chantyal live in a very rugged, mountainous district. The base of Mt. Dhaulagiri, one of the world's highest peaks at 8167m, is only 10 to 15km from most of the Chantyal-speaking villages.

[14] Most directionals contain one of the frozen locative suffixes **-r** or **-ŋ**.

[15] Chantyal has three sets of demonstratives: the 'independent' set, the 'locative' set [represented by **ca-** and **te-** in the directionals] and the 'prefixal' set (Noonan 2001). The indepedent set also have commonly occurring locative forms, **cə-ri** 'there' and **cu-ri** 'here': since these forms take the standard casemarking clitics and function otherwise as nominals, they are not considered directional satellites.

ca-r	'in this way/direction'	***te-r***	'in that way/direction'

    yi-ca-r   PROXIMAL-PROXIMAL

    ɦə-ca-r   DISTAL-PROXIMAL   **ɦə-te-r**   DISTAL-DISTAL

                                              wu-te-r   REMOTE-DISTAL

ca-jam 'this side [of river/gorge]'   ***te-jam*** 'that side [of river/gorge]'

    yi-ca-jam PROXIMAL-PROXIMAL

    ɦə-ca-jam DISTAL-PROXIMAL   **ɦə-te-jam** DISTAL-DISTAL

                                            wu-te-jam REMOTE-DISTAL

The forms in (43) consist of the simple directionals together with one of the 'prefixal demonstratives'. In (44), forms containing the 'locative demonstratives' combine with the prefixal demonstratives. For the meaning and use of forms with two demonstratives, referred to as 'double demonstratives', see Noonan (2001).

    The directionals are commonly encountered in Chantyal discourse. They are found, as we would expect, with path verbs:

(45)   **ma-r**   **kɦa-i**   **tə**
      down-LOC bring-PERF FACT
      '[She] brought it down'

(46)   **təyla**   **na tu-ŋ**   **ɦya-wa-khi**   **nə**   **kɦi ɦare-õ**
      yesterday I   up-LOC go-NOM-COTEMP TOPIC you be.NEG-IMPF
      'When I went up yesterday, you weren't there'

(47)   **te-jam**   **ɦya-si-m**   **tane**
      that-side.of.gorge go-ANT-PRES AFFIRMATION
      '[He] has gone to that side of the gorge, right?'

They are also used to reinforce the path sense of path verbs:

(48)   **tɦokhor nə**   **cə**   **naku jɦyal-gəm**   **ma-r**   **təy-gəy**   **mu**
      now   TOPIC that dog   window-ABL down-LOC fall-PROG be.NPST
      'Now the dog is falling down from the window.' [Y35]

(49)   **cə bɦyakuta nə**   **bətəl-gəmsə phiri**   **tɦõ-wa**   **la-si-m**
      that toad   TOPIC bottle-ABL   outside exit-NOM do-ANT-PRES
      'the toad has begun to get out of the bottle.' [Y8]

In the last two examples, the directional is, in a sense, redundant since the path is already given in the meaning of the verb. Nonetheless, use of directionals is not uncommon with these verbs. It should also be noted that directionals are found with non-motional verbs, too:

(50)   **naku cãy**   **rəttuwa-ye won-səŋsə dugri-gəy tuŋ**   **kyata-ra**
      dog AFOREMENTIONED deer-GEN   front-ABL   run-PROG   up-LOC boy-DAT
      sɦya-gəy   **mu**
      look.at-PROG be.NPST
      'The dog, running in front of the deer, is looking up at the boy.' [Y108]

(51)   **cə naku-sə ajəy pəni tu-ŋ**   **dɦuŋ-ra pɦale tharo la-si-rə**
      that dog-ERG still also up-LOC tree-LOC leg   erect do-ANT-SEQ
      'That dog is still also standing erect, legs up on the tree, and' [X52]

So, directionals are used in Chantyal with a wide variety of predicate types, in many ways analogous to the way English uses verb particles.

The rich set of directionals compensates for the relative paucity of path verbs in Chantyal. There is no native path verb or commonly used borrowed path verb meaning 'ascend', but there is a readily available alternative, namely **to-r ɦya-** 'go up'.

The fact that path can be, and often is, expressed in a satellite is not typical of V-languages, but rather is a pattern characteristic of S-languages. In Chantyal, path is mapped onto the main verb, but it is frequently also mapped onto a directional satellite, an elaborated class of entities capable of conveying complex meanings. In the expression of path, therefore, Chantyal is clearly a V-language, but also exhibits this particulcar characteristic of S-languages.

In addition to the directionals discussed above, Chantyal makes use of a large number of locative case clitics as noted in §2. The case clitics are a rich and fairly elaborated set, at least by the standards of other Tamangic languages.[16] Not only is there a relatively large number of locative cases, but, as noted, it is possible to combine case affixes. An examination of the example sentences already provided will reveal many instances of nouns with locative case clitics.

Locative casemarking is obligatory with ground elements, which is to say that there are no constructions like *she exited the house*, where *house* is coded as a direct object. In Chantyal, one would have to say:

(52)   **tɦim-nɦari-gəmsə**   **tɦõ-i**
      house-INES-ABL   exit-PERF
      '[She] exited the house'

Note also that directional satellites can take locative casemarking, as we see in the following examples:

(53)   **ɦə-jə**   **kwənə-wa** **kwən-ma** **pəni** **jəmməy** **ma-r-kəm**   **nə**   **kɦa-wa**
      that-that wear-NOM cloth-PL   also all   down-LOC-ABL TOPIC bring-NOM
      pəri-m
      happen-NPST
      'Even all those clothes we wear have to be brought from down below.' [S61]

(54)   **wu-te-jam-mar-gəmsə**   **kha-i**
      yonder-that-side.of.gorge-CIRC-ABL come-PERF
      '[It] came from around that side of the gorge yonder'

The directional **ma-r-kəm** 'from down below' contains the ablative case; the directional **wu-te-jam-mar-gəmsə** 'from around that side of the gorge yonder' contains both the circumlative and the ablative cases.

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[16] There are, for example, two productive simple locatives, an ablative, an allative, a circumlative, an elative, an inessive, a superessive, a subessive, and two comitatives. Many of these are transparently recent in origin.

We have seen, then, that Chantyal has a rather elaborate system of directional satellites and casemarking morphology. This system allows for rather precise specification of path and is, at the same time, compact and convenient to use.

4.3.3 *elaboration of path:* As noted, the directionals and case clitics combine with path verbs to provide Chantyal with an elaborate system for the expression of path. This system is fully exploited in Chantyal narratives. Indeed, it can be said that Chantyals devote a good deal of attention in framing narratives to the expression of path.

In order to demonstrate this, we need some comparative data. Slobin claims that in comparing Frog Story narratives (Berman & Slobin 1994)[17] among verb-framed and satellite framed languages, significant differences can be found in the amount of information about trajectory that speakers provide, and that this difference characterizes all age groups [children to adults] in his study. For example, in comparing [satellite-framed] English with [verb-framed] Spanish, Slobin (1996:200) finds that in describing an event where a boy falls off the antlers of a deer into a pond, his Spanish and English speaking informants differed considerably in the percentage of informants who described this event with a bare verb of falling [*e.g.* 'he fell into the water'] as opposed to a more elaborated description of the trajectory [*e.g.* 'he was thrown tumbling down from the cliff into the water'].

(55)

Percentages of downard motion descriptions with bare verb [Slobin (1996:200)]

	PRESCHOOL [3-5YRS]	SCHOOL [9YRS]	ADULT
English	16	13	15
Spanish	56	54	36

In contrast, the Spanish speakers were much more likely than their English speaking counterparts to elaborate on the scene, so that while they give less information about trajectory, they give more information about the scene, producing descriptions like [p204]:

(56) *Lo tiró. Por suerte, abajo, estaba el río. El niño cayó en el agua.* '[The deer] threw him. Luckily, below, was the river. The boy fell in the water.'

The comparative figures are given in (42).

(57)

Percentage of narrators providing extended locative elaboration in describing the fall from cliff [Slobin (1996:205)]

	5 YRS	9 YRS	ADULT
English	8	8	0
Spanish	8	42	25

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[17] Frog Story narrations are a way of collecting comparable discourse data from speakers of different ages and with different native languages. People are asked to tell a story that they learn after having looked at a wordless picture book, Mercer Meyer's *Frog, Where Are You?* In this story, a boy and his dog look for an escaped pet frog.

Slobin claims that speakers of English and Spanish have different rhetorical styles, with English speakers devoting more narrative attention to elaboration of trajectory, while speakers of Spanish devote more narrative attention to elaboration of scene.

Slobin had twelve informants for each age group for each language, giving him a total of 36 informants for each language. My sample of Chantyal Frog Story narratives is much smaller: four narrations, all from adults. My informants, however, were remarkably uniform in the sort of information they provided. All narrators gave additional specification of trajectory, and all used a directional satellite [**ma-r** 'downward'] in doing so. For example:

(58)

110. **cə kyata nə cə rəttuwa-ye kəpal-gamsə phwattə phutki-si-rə**
that boy TOPIC that deer-GEN head-ABL slipping escape-ANT-SEQ
'the boy slips from the deer's head, and'

111. **wucchətti-si-rə**
be.ejected.away-ANT-SEQ
'is ejected away, and'

112. **ma-r təy-gəy mu**
down-LOC fall-PROG be.NPST
'is falling downward.' [Y110-2]

In this respect, Chantyal narrations more closely resemble those of speakers of S-languages than of speakers of V-languages.

Further evidence for this claim comes from a further examination of the 'fall from the cliff' episode in the Frog Story narratives discussed by Slobin (1997). Slobin has shown that, in comparing narratives produced by speakers of S-languages with speakers of V-languages, speakers of S-languages use more path segments to describe this sequence, averaging 3.0 in the Germanic languages and 2.8 in the Slavic languages, but 2.1 in the Romance languages and 2.0 in Hebrew (Slobin 1997:448). The Chantyal speakers in my sample averaged 4.0 path segments. A full description of the scene illustrated in (58) is provided in (59):

(59)

106. **dugri-wa durgri-wa nə la-si-rə**
run-NOM run-NOM TOPIC do-ANT-SEQ
'It [the deer] began to run and run, and'

107. **yəwta cyãji phara-ye tawko-ri tɦo kha-si-m**
one small cliff-GEN edge-LOC arrive come-ANT-NPST
'has arrived at the edge of a small cliff.'

...

109. **cəŋsə tɦokhor nə cə rəttuwa phara-ye thapla-ri**
then now TOPIC that deer cliff-GEN top.of.head-LOC
thəppə rokki-wa-khir nə
stopping.abruptly stop-NOM-COTEMP TOPIC
'Then when the deer now stops abruptly at the edge of the cliff,'

110. **cə kyata nə cə rəttuwa-ye kəpal-gamsə phwattə phutki-si-rə**
that boy TOPIC that deer-GEN head-ABL slipping escape-ANT-SEQ
'the boy slips from the deer's head, and'

111. **wucchətti-si-rə**
be.ejected.away-ANT-SEQ

'is ejected away, and'

112. **ma-r   təy-gəy   mu**
down-LOC fall-PROG be.NPST
'is falling downward.' [Y106-12]

Chantyal narrative style favors the elaboration of path statements, in a manner that goes beyond the simple exploitation of the casemarking and directional satellite morphology. We've seen that this sort of elaboration of path is more characteristic of S-languages than of V-languages.

As one further illustration of the possibilities for elaboration of path descriptions, note the following, which includes a number of clauses containing both source and goal path descriptions:

(60)
2. **ci-si-wa   pəcchim-gəmsə pəcchim-gəm chyantu-ri   kha-i**
stay-ANT-NOM west-ABL   west-ABL   Chhyantung-LOC come-ANT
'From the west where they had lived, having come to Chhyantung from the west,'

3. **ci-i**
stay-PERF
'they stayed.'

4. **chyantu-gəmsə jɦiŋkhani jɦiŋkhani-ri   kha-i**
Chhyantung-ABL Jhing Khani jhing Khani-LOC come-PERF
'From Chhyantung, Jhing Khani... we came to Jhing Khani.'

5. **nɦi-i   jɦiŋkhani-ri**
we-GEN Jhing Khani-LOC
'To our Jhing Khani.'

6. **cə-ra   te-r   jɦiŋa-sə kɦap-si-wa   bulbari-ri   ci-i**
that-TEMP that.place-LOC fly-ERG   cover-ANT-NOM garden-LOC stay-PERF
'After that, in that place, we stayed in a garden covered with flies.'

7. **bulbari-gəm jɦiŋkhani-ri   əyra   kyãla-kəy   kha-wa-khiri**
garden-ABL   Jhing Khani-LOC hunting play-PROG come-NOM-COTEMP
'When we came hunting from the garden to Jhing Khani,'

8. **jɦiŋa-sə kɦap-sy-õ   dɦaw mara-i**
fly-ERG   cover-ANT-NOM ore   see-PERF
'we saw the ore that the flies covered.' [V2-8]

Source and goal path descriptions can be found in clauses 2, 4, and 7. Again, this is not typical of V-languages (Slobin 1997, 2003), which tend to package individual path components with separate verbs, and to mention fewer path components overall.[18]

4.4 *summary and conclusions:* In this section, we've seen how Chantyal fits the basic profile of a verb-framed language, in which the core schema is mapped onto the main verb while the supporting events is mapped onto a satellite [usually a converb in Chantyal]. At the same time, for motion events, the language exhibits a number of properties generally associated with satellite-framed languages: there are relatively few path verbs, extensive [and sometimes pleonastic] use is made of directional satellites and locative case clitics, and path expressions are elaborated in ways characteristic of S-languages.

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[18] I should note, however, that none of my Chantyal Frog Story narrators produced for the cliff scene a single clause combining source and goal, such as *the boy fell down from the cliff into the pond*.

There are two related — indeed intertwined — explanations for this apparent discrepancy. The first, as noted, is that Chantyal has a convenient and elaborate system of directional satellites and case morphology available to code path. What is available and convenient is used, as Slobin (2003) discusses at some length.

Second, narrative elaboration of path seems to be interesting to Chantyals; that is, narrative styles favor path elaboration. Narratives describing journeys typically include a good deal of information about path and the establishment of landmarks. Sentences like the following are commonly encountered particularly in high involvement personal narratives, such as the one from which these examples were taken:

(61) **əə... Syãlkhərkə-wãr-gəmsə kha-wa   mənchi-õ Sakho-ye   cəwtaro**
Uh... Syalkharka-CIRC-ALB   come-NOM person-PL Sakho-GEN resting.place
ma-r-sə   dɦara-mar ləskər lagi-gəy   to-r   ɦya-wa mara-wa
down-LOC-ABL hill-CIRC   file   happen-PROG up-LOC go-NOM see-NOM
'Uh... I saw people, who came from around Syalkharka, going up around the hill in a file from down below at the Sakho resting place.' [R72]

(62) **tɦini jɦulki-wa byala-ri nə   sakho-ye dɦara-mar   thyadiri**
sun   rise-NOM   time-LOC TOPIC Sakho-GEN hill-CIRC   eldest.sister
to-r   tɦim-nas ɦya-wa mara-i-rə
up-LOC house-ALL go-NOM see-ANT-SEQ
'By the time the sun rose, I saw my eldest sister around Sakho Hill going up toward the house, and' [R87]

Some explanation for this attention to path and landmarks may derive from the fact that the Chantyals live in a very rugged, mountainous region with a huge range of micro-climates, running the gamut from semi-tropical to glaciated. Further, they travel a good deal within their region in the ordinary course of things: moving cattle to good pasture, gathering wood and other provisions in the forest, hunting, tending their scattered fields, visiting relatives in other Chantyal villages, traveling to school, going to other villages to buy and sell, and so on. Travel is thus central to their traditional way of life. Information about where the narrator was and the direction in which the narrator was moving is important for understanding other aspects of a narration in the Chantyals' varied and difficult terrain. And since the means of providing this information comes easy to hand, it is much used.

The Talmian typology of event types has provided us with an important tool for investigating lexicalization patterns and the arrangement of information into grammatical categories. A surprising outcome of research utilizing this typology has been the discovery by Slobin and his colleagues that classification of languages in terms of this typology is broadly predictive of the type and quantity of information provided in discourse. As Slobin has recently pointed out (2003), other aspects of grammar as well as culture and aesthetics must be taken into account in order to obtain a more complete account of narrative organization. While the typological classification is broadly predictive, it is not determinative. Much more work remains to be done before we can pro-

claim the birth of a new field of rhetorical typology, but some of the groundwork has already been laid.

5. POSTURE EXPRESSIONS: Posture expressions are verbs or verbal phrases which denote standing, sitting, or lying. The grammar and meaning of these expressions in Chantyal are described in detail in Noonan & Grunow-Harsta (2002), so only a few facts relating specifically to the expression of location will be discussed here.

       Posture expressions in Chantyal are not used idiomatically to express location. One does not find in Chantyal, therefore, idiomatic expressions analogous to the following English sentences:

(62)   The house stood on the edge of a cliff
       The book sat on the table
       The pieces lay on the floor

In translating all of the above, a Chantyal speaker would use a simple locative expression involving a copular verb and the relevant spatial relator expression:

(63)   **pɦara-ye**   **tawko-ri tɦim mu-õ**
       mountain-GEN edge-LOC house be-IMPF
       'The house was/stood on the edge of a cliff'

Indeed, posture expressions are used with inanimates mostly when a vertical or horizontal orientation is somehow basic to their definitions, the sorts of mental scenes they invoke. So, a posture expression might appropriately have as a subject a housebeam or a tree, but not a watch or a book. And even then, it is only expressions denoting vertical or horizontal position, *standing* and *lying*, which are potentially available for inanimates: **ci-** 'sit' can be used only with animates and only those for which reference to a sitting posture would make sense.

       It is probably worth noting in this context that Chantyal lacks simplex expressions which lexicalize *posture+manner* in verbs analogous to English 'squat', 'crouch', 'lean', and so on. Such expressions are always complex in Chantyal involving either an orientational word

(64)   **gɦowto pəri-wa**
       prone   happen-NOM
       'lean over, bend over, lie face down'

or an item in the 'expressive vocabulary' (Noonan 2003):

(65)   **kyata cakre-makre**   **la-si**   **ci-i**
       boy   sit.cross.legged do-ANT sit-PERF
       'The boy sat cross legged'

The lack of simplex verbs encoding *posture+manner* is consistent with the way the expression of manner is handled generally in the language: manner is most frequently encoded by expressive vocabulary, often with **la-** 'do' functioning as an anterior converb, as illustrated by (65).

6. SPATIAL DEIXIS — DEMONSTRATIVES: The demonstratives of Chantyal have a number of unusual features in both their endophoric and exophoric uses. These issues have been discussed in detail in Noonan (2001).

Chantyal attests a number of Bodic demonstrative etymons, but only members of three sets retain clear demonstrative senses and oppositions based on spatial deixis. The first of these are the *independent demonstratives*, which contrast a proximal **cu** with a distal **cə**. These forms may fill grammatical roles such as subject or object independently — *i.e.* they may be pronominal heads of NPs — or they may be used adnominally to determine and modify nouns.

(66) **cə**   bɦuluŋ-ye   sãyesəpət   təy   a-thãy-i
      that   leopard-GEN   noise   nothing   NEG-know-PERF
      'I wasn't aware of that leopard's noise' [I3]

(67) **cə**   garãwa   mu
      that   good   be.NPST
      'That's nice'

The second and third sets of demonstratives, the 'locative demonstratives' and the 'prefixal demonstratives' were illustrated and discussed briefly in §4.3.2.

Demonstratives have both exophoric [situational] and endophoric [discourse] senses, and since we are concerned in this paper with basic spatial reference, we will be concerned here only with exophoric [situational] senses. The independent demonstratives are frequently used in either sense. The locative demonstratives have primarily exophoric uses. The double demonstratives almost always have some endophoric meanings, but may have situational meanings as well (Noonan 2001).

As an example of the combined endophoric-exophoric uses of these forms consider the following common scenario where the speaker makes separate situational and tracking references to the same entity. In such cases, the prefixal demonstrative signals the tracking function and the demonstrative to which it is prefixed marks the situational reference. As an example of how this works, consider the dialog in (68):

(68) a.   X: dɦuŋ-ra   cəri-wa-khi   **cu korsili** pin-o
                tree-LOC   climb-NOM-COTEMP   this basket give-IMP
                'When I climb on the tree, give me this basket.'

      b.   Y: khənnə   **ɦə-cə**
                which.one   that-that
                'Which one? That one?'

      c.   X: **ɦə-cu**
                that-this
                'This one.'

In (68a), speaker X uses the independent demonstrative **cu** to identify a particular basket out of a set. Speaker Y isn't sure which one X is referring to and points to a basket while saying DISTAL-DISTAL **ɦə-cə**. X responds with DISTAL-PROXIMAL **ɦə-cu**.

The function of **ɦə-** in (68b) and (68c) is to indicate that the reference to the basket is already established in the discourse: in other words, **ɦə-** is being used in its tracking function, a species of endophoric function. **cə** in (68b) and **cu** in (68c) are being used

situationally, *i.e.* to indentify specific referents in the physical environment. In the English translation to (68b), we could have 'Is that the basket?', where *that* is exophoric [*i.e.* situational] and *the basket* is anaphoric [*i.e.* tracking]. In Chantyal expressions like ɦə-cə, the exophoric and anaphoric functions are invested in separate demonstratives, although either component could, under other circumstances, but used either exophorically or anaphorically.

In the remainder of this brief survey, we can only be concerned with some general situational uses of these forms. There are two issues that we can discuss concerning these spatial deictic forms that are relevant to our survey of spatial reference in Chantyal. The first concerns the fact that Chantyal manages to create a three-way deictic contrast — proximal, distal, remote — through the use of the prefixal demonstratives, the other two sets having only a two-way, proximal-distal, distinction. The remote prefixal demonstrative **wu-**, which indicates a reference remote from the speaker and the hearer, always has a situational [exophoric] sense. In fact the double demonstratives with **wu-** are the only ones which have exclusively situational uses, the rest having uses which range from exclusively endophoric to those which combine endophoric and exophoric senses.

The uses of the three-way proximal-distal-remote system with regard to situational uses are as follows: the proximal forms signal that the figure is saliently near to the speaker, the distal that the figure is saliently distant from the speaker, and the remote that the figure is saliently distant from both speaker and hearer. So, with regard to the proximal-distal distinction, Chantyal is a speaker anchored system; it is only with the addition of the remote form that the hearer becomes relevant. The outlines of the system are presented in (69):

(69)

```
    ┌─────────────────────────────┐
    │ saliently close to speaker  │
    └─────────────────────────────┘
         │ yes          │ no
         ▼              ▼
              ┌──────────────────────────────────────────┐
   PROXIMAL   │ saliently distant, but not remote, from  │
              │ speaker                                   │
              └──────────────────────────────────────────┘
                   │ yes            │ no
                   ▼                ▼
                         ┌───────────────────────────────────────┐
              DISTAL     │ saliently remote from speaker and hearer │
                         └───────────────────────────────────────┘
                              │ yes            │ no
                              ▼                ▼
                           REMOTE       DISTAL [DEFAULT]
```
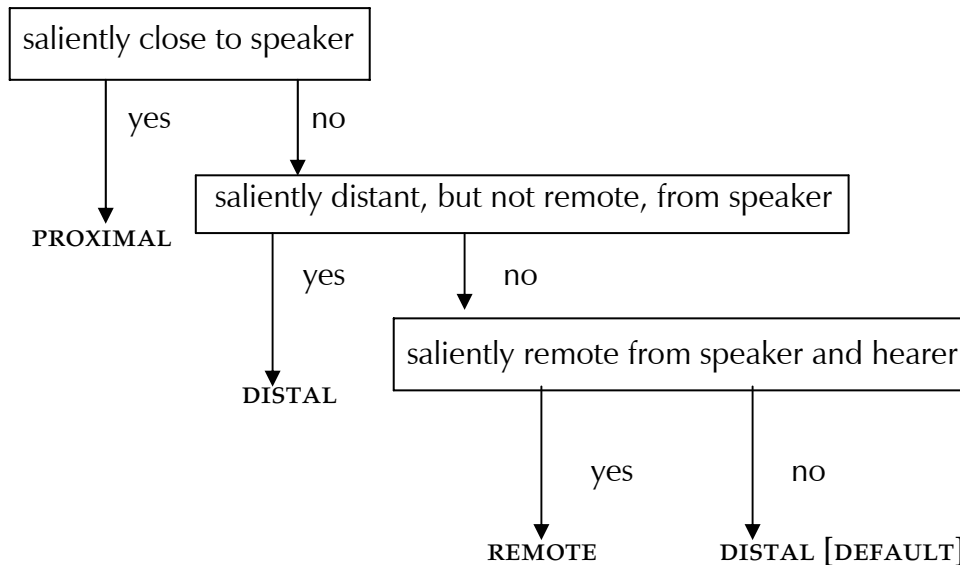
The distal member of the opposition is the default one, the one that is used when the other two more marked forms are not specified.

7. FRAMES OF REFERENCE: The expression 'frames of reference' was briefly introduced in §4.3.1: here we'll provide a somewhat fuller discussion of this notion. By frames of reference, I mean various sorts of coordinate systems that speakers of languages may use in locating objects in space. People may, and indeed do, employ more than one sort of coordinate system in ordinary speech, but it turns out that some languages may favor one, even to the exclusion of one or two of the others.

We can distinguish four sorts of frames of reference that may be used to characterize ordinary spatial descriptive usage for speakers of a language (Bickel 1997, 2000; Levinson 1996a, 1996b; Talmy 2000). In describing the relation between the man and the car in Figure 5, where 'N' refers to the cardinal direction 'north' and the hand with the pointing index finger indicates to the position of the speaker,
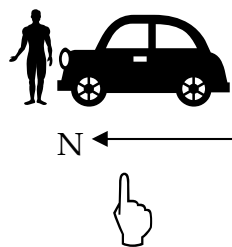
FIGURE 5

we can say:

(70)   INTRINSIC: the man is in front of the car
       RELATIVE: the man is to the left of the car
       ABSOLUTE: the man is to the north of the car
       DUAL GROUNDED: the man is level with the car

These reference points can be characterized as follows:

(71)   INTRINSIC (OR GROUND ORIENTED): The 'intrinsic' frame of reference describes the position of the figure [the man] in terms of its relationship to the ground [the car].

       RELATIVE (OR SPEAKER ORIENTED): The 'relative' frame of reference describes position as it appears from the speaker's perspective: this is relative because it is changeable if the speaker moves. [If the speaker were to move to the other side of the car, the man would then be on the right side of the car.]

       ABSOLUTE (OR FIXED-BEARINGS ORIENTED): The 'absolute' frame of reference utilizes a coordinate system based on fixed bearings: cardinal directions, motion relative to direction of gravity [upward, downward], a particular river [upriver, downriver], a particular mountain or mountain range [away from the mountain(s), toward the mountain(s)], the shoreline or the interior of an island, etc.

       DUAL GROUNDED (OR ORIENTED TO A PRIMARY AND SECONDARY GROUND): The 'dual grounded' frame of reference describes position in terms of two features functioning as grounds. The secondary ground feature can be any

other prominent feature in the environment ['the man is on the garage side of the car'], but more commonly dual-grounded status is achieved by combinations of more basic orientations, for example by expressions which combine relative and absolute frames of reference.

Languages differ in the degree to which these frames of reference come to be used in locating objects. In English, the intrinsic and relative frames of reference are the ordinary means by which speakers describe the location of some entity. An absolute frame of reference used to locate the man in Figure 5 ['the man is to the north of the car'] would be unusual in ordinary discourse.[19] In some languages, however, such absolute frames of reference are the norm, and this has the effect of biasing the choice of frame of reference in various sorts of non-linguistic conceptual tasks (Levinson 1996b).

In our earlier discussion of spatial relator expressions, we have seen that Chantyal makes extensive use of the intrinsic frame of reference, which is what the spatial relator expression encode. Chantyal also employs the relative frame of reference with demonstratives: expressions like **cu** 'this', **cə** 'that', **ɦə-tuŋ** 'up there', **yi-məŋ** 'down here', etc. employ a relative frame of reference.

The absolute frame of reference is most commonly found with the directionals **tor** 'upward' and **mar** 'downward', used frequently in the mountainous terrain in which the Chantyals live. When these forms are used without the prefixal demonstratives, they are absolute in value relative to the position of the speaker. That is, it is not just the perspective of the speaker that gives them their value, but rather features which are independent of the speaker's perspective. [Even if a speaker stands on his head, upward is still upward.] When these forms are combined with the prefixal demonstratives [**ɦə-tor** 'upward to there'], they retain an absolute value [upward is still upward], but assume also an additional relative sense. This is true also for **ca-jam** 'this side [of river/gorge]' and **te-jam** 'that side [of river/gorge]', which may also occur with the prefixal demonstratives [as shown in (44)]: such forms then have a dual grounded frame of reference.

The dual grounded frame of reference is used relatively frequently in Chantyal, at least in comparison to English. In addition to the expressions noted above, the dual grounded frame of reference is also found with the remote demonstratives since remote demonstratives [such as **wu-məŋ** 'down there yonder'] make reference to both speaker and hearer [secondary ground].

Unlike some other languages spoken in mountainous areas, Chantyal does not employ an absolute system of coordinates based on specific geographical features, even though such features are a very prominent feature in the local environment.[20] [The base

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[19] We should note that English speakers use 'up' and 'down' in reference to cardinal points ['up' is north and 'down' is south] and that among speakers whose mental maps share a common set of geographical reference points [*e.g.* a city or a larger geographical area], such designations can be truly absolute and not relative. So in Wisconsin, the northern part of the state is 'up' and the southern part of the state 'down' in an absolute sense, so that someone living in Green Bay could say of a friend 'He came up here to visit'.
[20] See, for example, Bickel's descriptions (1997, 2000) of the Belhare deictic system.

of Mt. Dhaulagiri, one of the world's highest peaks at 8167m, is only 10 to 15km from most of the Chantyal-speaking villages.] One reason for this, perhaps, is that the Chantyal have not lived in this specific region for a very long period of time (Noonan 1996) and such systems usually evolve over long periods. Nonetheless, the Chantyal make extensive use of directionals [upward, downward] in conversation and, as noted, do possess deictics which refer to position relative to ravines and rivers, prominent features of their physical environment.

8. SUMMARY

We can now summarize the set of facts about Chantyal spatial reference discussed in this paper.

(72)
1. Spatial relator expressions [constructions which can be used to locate a figure with respect to a ground] can be classified into three groups: *clitics*, *compound clitics*, and *locational nominal expressions*.
2. Chantyal spatial relator expressions include only one with a specifically source dynamic sense: the other source dynamic forms have this form as a component; the remaining forms can have static, route, or goal interpretations depending on context.
3. Static spatial relator expressions are grouped according to the situations they can be used to describe in Figure 1.
4. With regard to Talmy's (1991) typology of motion events, Chantyal fits the profile of a typical verb-framed language since core schemata [path and motion] are regularly mapped onto the main verb and supporting events [manner] are subordinated, usually as converbs.
5. Further, only 'path verbs', verbs which include an expression of path in their meanings, can occur as main verbs with telic path expressions [expressions of source or goal]; route expressions can occur with motion+manner verbs.
6. With caused motion events, Chantyal resists conflating manner and motion.
7. Nonetheless, Chantyal differs from other verb-framed languages in that:
   - there are very few path verbs relative to other verb-framed languages,
   - the language makes extensive use of directional satellites and case clitics,
   - speakers regularly elaborate path expressions and do not elaborate locational scenes.

   In all these respects, Chantyal resembles satellite-framed languages.
8. Posture expressions are not used idiomatically to express location.
9. Chantyal lacks verbs that conflate posture and manner.
10. Chantyal has three separate sets of demonstratives, two of which utilize a proximal-distal opposition, and one utilizes a proximal-distal-remote opposition.
11. These three sets of demonstratives can combine, producing 'double demonstratives'; the prefixal demonstratives can also combine with a variety of locational morphemes as well. These double demonstratives can have both situational [exophoric] and endophoric reference.

12. The proximal-distal opposition is speaker oriented; the remote includes both speaker and hearer.
13. The absolute frame of reference is used in Chantyal relatively little compared to some other languages of the Himalayas. Dual-grounded usage, however, is relatively common.

Appendix: Typological Sketch of Chantyal

Below is a brief typological profile of Chantyal morphology and syntax:
1. overwhelmingly suffixing and agglutinating; native roots are monosyllabic, but numerous borrowings from Nepali have introduced polysyllabicity
2. nouns can be inflected for number, singular & plural; marginal classifiers borrowed from Nepali
3. there are a large number of grammatical & local case enclitics; there may be multiple case clitics in a given word
4. verbs are inflected for tense, aspect, and mood; there are a large number of periphrastic TAM constructions; verbs are not inflected for person, number, noun class; there are no honorific verbs or nouns [as in the Tibetan Complex and some Tamangic languages, such as Nar-Phu]
5. word order is overwhelmingly head-final
6. overwhelmingly ergative; anti-dative marking of direct objects [*i.e.* dative case with high animacy direct objects]
7. no passive or antipassive, but there are resultative and causative constructions
8. only non-finite subordination except for complements of 'say' (Noonan *ms*a)
9. coordination of clauses is rare [morphemes borrowed from Nepali]; native pattern involves use of conjunctive participles (Noonan 1999)
10. nominalizations used for a wide variety of functions, including relative clauses (Noonan 1997)
11. zero anaphora; low referential density (Bickel 2003, Noonan *ms*b)

Abbreviations

ABL	ablative	ERG	ergative
ADES	adessive	GEN	genitive
ALL	allative	IMP	imperative
ANT	anterior	IMPF	imperfective
CIRC	circumlative	INES	inessive
COM	comitative	LOC	locative
COTEMP	cotemporal	NEG	negative
DAT	dative	NOM	nominalizer

| NPST | non-past | Q | interrogative |
PERF	perfective	SEQ	sequential converb
PL	plural	SUB	subessive
PROG	progressive converb	SUPER	superessive case

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FIGURE 1

verbal Expressions

Locational nominal Expressions

-nhari

-ri

-phiriŋ

-gomsə

-phyaraŋ

-ri, -ra, -nhari, -phiriŋ, -gomsə, -phyaraŋ

14 71 32 43 63 29
54 60 40 1 59 36 13 23 34
57 2 67 16 53 31 24
19 47 21 68 42 69 51
11 27 56 12 46 22 70
39 5 17 37 45 3 62 33
28 8 41 58 25 20
9 61 48 35 55 4
10 7 52 44 50 18
26 30 6 49 38 66 64 65 15

-yea ra/ri 6
-ye a-rra 49
-ye chew-ra 38
-ye chew-ras 66
-ye legga 64
-ye tuppa 65
-ye chyəuphersy 15
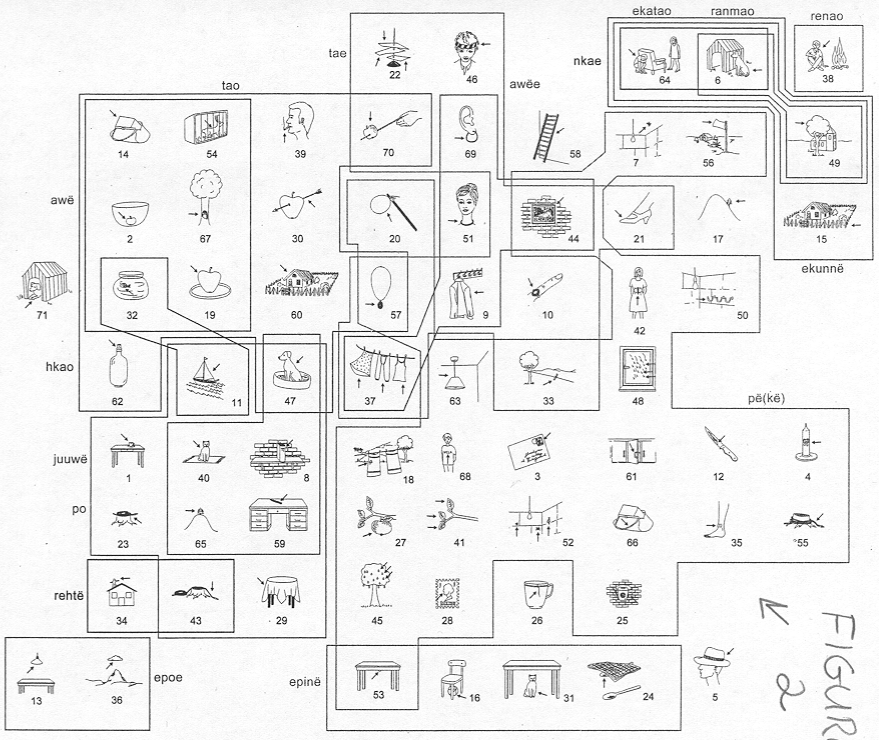
Figure 6.2: Adposition map of Tiriyó

Figure 6.1b: 'Venn Diagram' for Ewe

(no spatial postpositions)
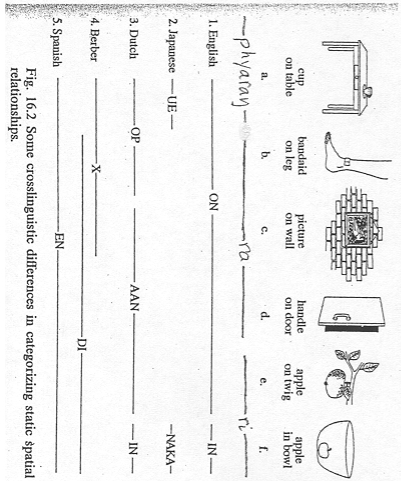
(1) Prepositions: 7 core members, 1 locative (others: allative, perlative, ablative, extend/"until": dative, com/instr) (2) Postpositions: many have evolved from, and are homophonous with, body parts. They specify the 'search domain':

dzí: "upper surface"; **nu(tí):** "outer surface"; **tame:** "apex, peak"; **me:** "containing region, of" (="confines"?); **tome:** "hollow, interior"; **xa:** "beside"; **gbɔ:** "place, vicinity"; **godo:** "outside of, other/opposite side of"; **nu:** "entrance, opening, end point"; **tó ~ ome ~ gome** (dialectal variants); "under, bottom";

Chantyal:

Phyalay

FIGURE 2

FIGURE 3

cup on table — a
bandaid on leg — b
picture on wall — c
handle on door — d
apple on twig — e
apple in bowl — f

1. English — ON — IN —
2. Japanese — UE — NAKA —
3. Dutch — OP — AAN — IN —
4. Berber — X — DI —
5. Spanish — EN —

Fig. 16.2 Some crosslinguistic differences in categorizing static spatial relationships.

Figure 4
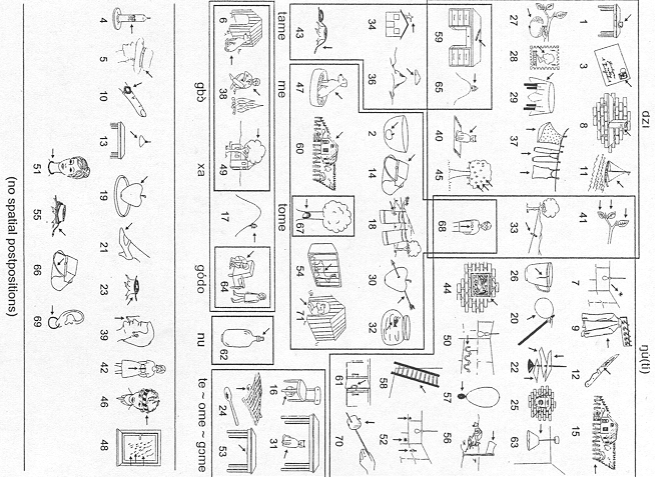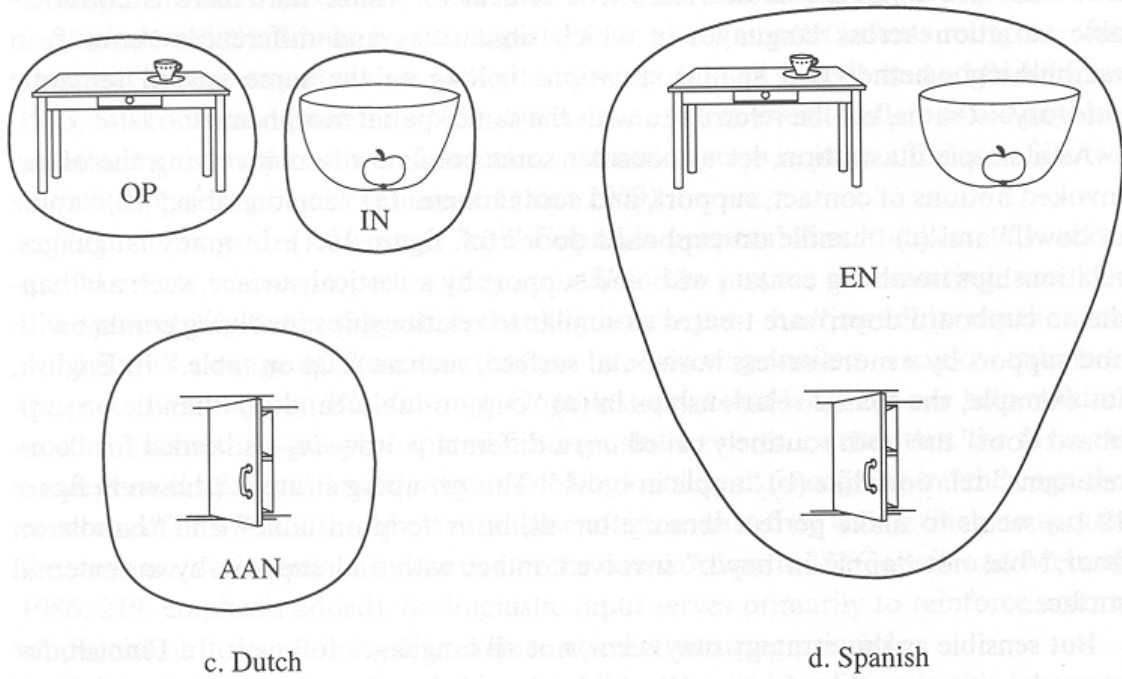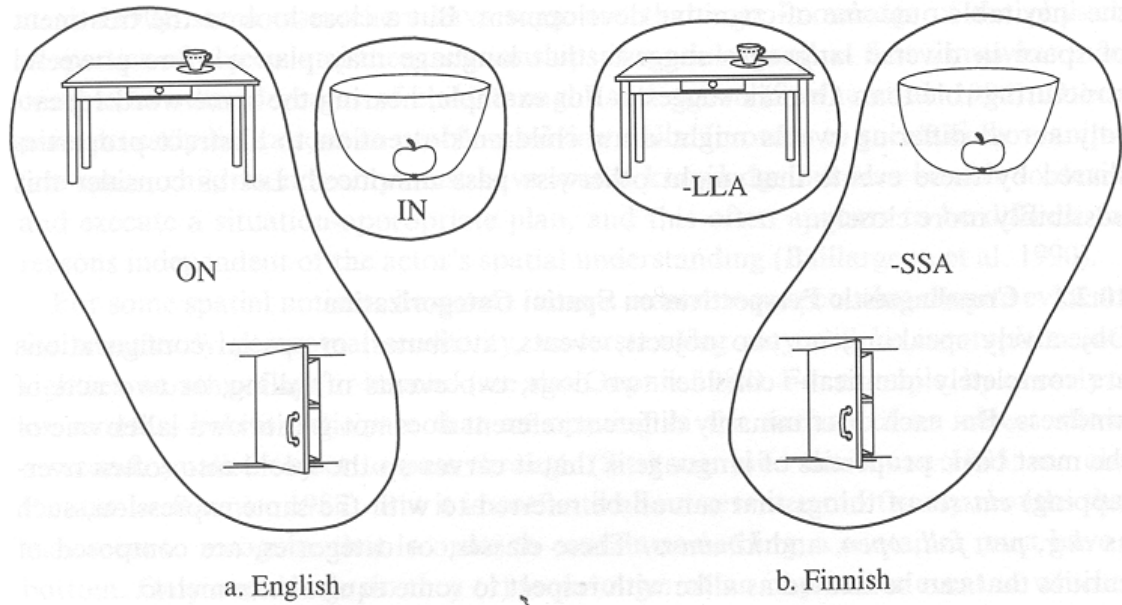

a. English

b. Finnish

c. Dutch

d. Spanish

Figure 10.1
Classification of three static spatial situations in English, Finnish, Dutch, and Spanish.