

Classical Nahuatl Locatives in Typological Perspectives*

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Abstract

Classical Nahuatl is notable in that locatives do not specify their spatial semantic roles (*path neutrality*). That is, a single form can equally denote the Goal, the Source, the Location, etc. In this paper, I examine the characteristics of Classical Nahuatl spatial expressions in the semantic-typological perspectives and discuss their implications on typology. Firstly, I compare the spatial description system of Classical Nahuatl with that of Yucatec Maya reported by Bohnermeyer and his co-authors, which they argue to be a “radically V-framed” system, and point out that the former is not an instance of “radically V-framed” one. Secondly, I argue that the characteristics of the Classical Nahuatl spatial description system can be properly captured by interpreting it as a *class-locative* as opposed to *relation-locative* one. Finally, I suggest the possibility of applying this language-internal analysis to the spatial description systems of other languages.

1. Introduction

The purpose of this paper is to examine the characteristics of Classical Nahuatl locatives in the light of the semantic typology initiated by Talmy (1991, 2000) and to discuss their typological implications.

1.1. About the language and the data

Nahuatl (*náhuatl*) or Aztec is a language or a group of languages belonging to the Uto-Aztecan family. The term *Classical Nahuatl* (*náhuatl clásico*) typically refers to an old dialect of Nahuatl which was spoken in the Valley of Mexico when the Spaniards arrived in the early sixteenth century. Today, most information on the dialect comes from

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the written materials and the grammatical descriptions inherited from the sixteenth and seventeenth centuries.

The Classical Nahuatl examples cited in this paper mainly come from early colonial texts such as the *Florentine Codex* (Sahagún 1953–1981), *Cantares mexicanos* (Bierhorst 1985), and the historical works by Chimalpahin (Chimalpahin Quauhtlehuanitzin 1997). To present Classical Nahuatl examples, I adopt the improved traditional orthography used by Andrews (2003) and Karttunen (1992) and give simplified glosses with irrelevant grammatical features omitted. “*” in Classical Nahuatl examples marks presumably or assertedly impossible sentences. Examples from other languages are cited with the original glosses except for those from Nakagawa & Nakamoto (2004), which does not give word-by-word glosses.

1.2. The scope of this paper

In this paper, I discuss the characteristics of Classical Nahuatl spatial locatives, especially ones which serve as the arguments of motion verbs, and the encoding pattern in the Classical Nahuatl spatial description system.

Traditionally, the term *locative* may either refer to: (I) an expression with a particular semantic role, namely the place inside of which an event occurs (“inessive” according to Hagège’s (2010) terminology); or (II) a class or type of expression which is used principally to denote a space. Besides, Andrews (2003) uses this term to refer to a subcategory of (II), namely a spatial expression which denotes a particular point or stretch of space, as opposed to “directional”. Following Launey (1979, 1994), I reserve the term *locative* for the sense of (II).

As Launey (1979:55) points out, Classical Nahuatl locatives such as so-called postpositional phrases are generally not specified semantically as to the direction or the existence/non-existence of the movement. This is exemplified in (1), where the Source phrase of (1a) and the Goal phrase of (1b) are formally identical.

- (1) a. In in ōmpa tlahtohcātito in Tōllān.
 IN this there.LOC 3SGS.be.ruler.PURP.PRET IN PN.LOC
 ‘This one went there, Tula, to become the ruler.’
 (Chimalpahin Quauhtlehuanitzin 1997:160)
- b. Auh niman ic huālpēuhqueh in ōmpa Tōllān ...
 and then then 3PLS.CISL.begin.PRET IN there.LOC PN.LOC
 ‘And then they left that place, Tula, and ...’
 (Kirchhoff et al. 1976:135)

In this respect, Bohnemeyer’s notion of “radical V-framing” (Bohnemeyer & Stolz 2006, Pérez Báez & Bohnemeyer 2008; see Section 3.1.2) is of great significance in characterizing the spatial description system of Classical Nahuatl. Based primarily on the data from Yucatec Maya and Juchitán Zapotec, their studies reveal that there are languages

where Ground phrases do not encode Path (*path neutrality*, Bohmeyer & Stolz 2006). This type of languages are attested worldwide, though they are statistically less common (Pantcheva 2010). Although they do not mention Classical Nahuatl, Classical Nahuatl undoubtedly constitutes the path-neutral type.

However, there is a problem in interpreting the Classical Nahuatl spatial description system as “radically V-framed”. In Classical Nahuatl, non-grammatical clues such as the location of the speaker (or the speaker’s viewpoint) on one hand, and the spatial relationship between the speaker and the location denoted on the other hand, play an important role in the interpretation of locatives as well as grammatical clues such as the lexical meaning of the verb and the directional prefix attached to the verb stem. In this sense, the core schemas of Classical Nahuatl spatial expressions are not uniformly “framed” in a particular part of the clause.

In this paper, I attempt to distinguish path neutrality from “radical V-framing” so that the former can properly involve Nahuatl-type languages. Specifically, I argue that path neutrality arises not necessarily from V-framing; in Classical Nahuatl, the information of the semantic relations between the Ground phrases and the verb is distributed in both grammatical and non-grammatical levels. I also point out that Nahuatl-type languages make use of noun class and THING–PLACE distinction to encode the semantic relations between the Ground phrase and the verb.

1.3. THING, PLACE, and thing nominals

I take the terms *THING* and *PLACE* from Jackendoff (1983, 1990). According to Jackendoff (1983), a *THING* is a conceptual constituent which denotes an object and *identifies* an entity, while a *PLACE* is one which denotes a space and *locates* an entity. I use these terms basically in the same way as in Jackendoff (1983, 1990) except for the following two points. First, I use the term *THING(S)* to refer to any conceptual constituents which correspond to the nominal expressions which are grammatically treated as objects, while Jackendoff (1983, 1990) seems to limit it to concrete objects. Second, by the term *PLACE* I refer to both Jackendoff’s *PLACE* and *DIRECTION*, for Classical Nahuatl does not syntactically distinguish them. To avoid confusion with Talmy’s semantic elements such as Path, Ground, Goal, and Source, I adopt the capital letter notation used in Jackendoff (1983) to refer to the conceptual constituents.

I also define the term *thing nominals*. Thing nominals are a class of nominal expressions whose denotations are typically THINGS, as opposed to locatives introduced in the next section. Examples of thing nominals include the subjects and the objects of verbs, the subjects and the predicates of non-locative predicative/equational clauses, the possessors of nominals, etc.

2. Overview of Classical Nahuatl locatives

In this section, I sketch the outline of Classical Nahuatl locatives. Firstly, I briefly introduce the notion of locatives in Classical Nahuatl. Secondly, I give some examples of locative expressions. Finally, I illustrate two grammatical characteristics particular to locatives, which I call respectively *path neutrality* (Bohnemeyer & Stolz 2006) and *locativity concord*.

2.1. Basic characteristics of locatives

This section introduces the notion of locatives in Classical Nahuatl. The information presented here mainly comes from Carochi (1645), Andrews (2003), and Launey (1979, 1994) among others.

Locatives are a class of expressions which typically denote space and time. Locatives are in principle distinct from thing nominals both morphologically and syntactically. In the present paper, I limit my discussion to spatial locatives, whose denotations are PLACES.

Morphologically, they differ from thing nominals in two ways. Firstly, they usually have particular locative endings, which are to be listed in Section 2.2 below. Secondly, they coherently lack absolutive/possessive state¹ suffixes, hence they do not show absolutive–possessive alternation. Examples of both thing nominals and locatives in absolutive state and possessive state with *n(o)-* (ISGP) ‘my’ are given in Table 1 below.

Table 1: Examples of absolutive–possessive alternation in thing nominals and locatives

	Stem	Absolutive state	Possessive state
Thing	<i>nacaz-</i> ‘ear’	<i>nacaz-tli</i> ‘ear’	<i>no-nacaz-Ø</i> ‘my ear’
	<i>cal-</i> ‘house’	<i>cal-li</i> ‘house’	<i>no-cal-Ø</i> ‘my house’
Locative	<i>nacaz-co-</i> ‘at the ear’	<i>nacaz-co</i> ‘at the ear’	<i>no-nacaz-co</i> ‘at my ear’
	<i>cal-pan-</i> ‘at the house’	<i>cal-pan</i> ‘at the house’	<i>no-cal-pan</i> ‘at my house’

This absence of state alternation may be related to the fact that some suffixed thing-nominal forms in Classical Nahuatl lack overt state suffixes (Hiroto Uchihara, p.c.), e.g. *cal-eh-Ø* (house-PD-Ø) ‘house owner’ and *ilama-tzin-Ø* (old.woman-HON-Ø) ‘old women (plural, honorific)’. However, this does not fully account for the absence of state

¹Classical Nahuatl free-form thing nominals inflect for *state*; that is, nominals have different suffixes depending on whether they take possessive prefixes or not. When a noun takes a possessive prefix such as *n(o)-* (ISGP) ‘my’ and *m(o)-* (2SGP) ‘your’, the noun also obligatorily takes a *possessive state* suffix (regularly *-Ø/-uh/-hui* for singular and *-huān* for animate plural); when it does not, the noun takes an *absolutive state* suffix (regularly *-tl/-tli/-li/-in* for singular and *-tin/-meh/-h* for animate plural). There are particular lexical items for both thing nominals and locatives which lack either the absolutive or the possessive form.

alternation in locatives, for it is not generally prohibited for suffixed nominals to take state suffixes. For instance, in such forms as *pil-tōn-tli* (child-DIM-ABS) ‘child (diminutive)’ and *ilama-tzin-tli* (old.woman-HON-ABS) ‘old woman (singular, honorific)’, suffixed forms serve as the hosts of a state suffix.

A locative can be a nominal modifier, an argument of a motion verb, or a verbal modifier, etc. In this respect, Classical Nahuatl locatives look like the spatial prepositional phrases in English and Spanish. *Nicān* ‘here’ in (2) and (3) is a locative.

- (2) *nicān* *tlācah*
 here.LOC people
 ‘people here, indigenous people’ (Sahagún 1953–1981:I, 11)
- (3) *Ca nicān* *nitēmiqui*, *nicochihtlēhua*.²
 CI here.LOC 1SGS.dream 1SGS.sleep.dreaming
 ‘Here I dream, I have a dream while sleeping.’ (Sahagún 1953–1981:VI, 61)

A locative can also be the subject or the predicate of a predicative/equational clause. In (4)–(6), the italicized expressions are all locatives.

- (4) *Ahmō nicān* *in nochān?*
 NEG here.LOC IN 1SGP.home.LOC
 ‘Isn’t my home here?’ (Carochi 1645:f. 115v)
- (5) *Āyāxcān* *in tlālticpac*.
 difficult.place.LOC IN earth.LOC
 ‘The world is a difficult place.’ (Sahagún 1953–1981:VI, 93)
- (6) *Nōhuiyān* *īnemiyan:* *mictlān*, *tlālticpac*, *ilhuicac*.
 everywhere.LOC 3SGP.live.LD.LOC realm.of.dead.LOC earth.LOC sky.LOC
 ‘His home is everywhere: in the realm of the dead, on the earth, and in the sky.’
 (Sahagún 1953–1981:I, 5)

It is therefore appropriate to assume that the main function of locativity in Classical Nahuatl is not to mark the syntactic status of the locatives as modifiers; rather, above all, it marks their referential status as a PLACE. Despite their morphological diversity, all locatives in principle share the syntactic distribution summarized here.

2.2. Examples of spatial locatives

In this section is given a practical, simplified list of locatives, since it is beyond the scope of this paper to give an exhaustive or theoretically classified list of locative forms.

Locatives include so-called postpositional phrases, locative derivational forms, some lexical spatial expressions, place names, and placename-like expressions. Besides these elemental locative forms, Classical Nahuatl has various composite locative forms and marginal locative-like expressions.

²(3) contains two juxtaposed verbs with similar meanings. This is the stylistic characteristics of traditional Nahuatl prose (León-Portilla 1985), and is abundantly attested in the early texts.

2.2.1. So-called postpositions

So-called postpositions are attached to noun stems to form locatives, e.g. *cal-pan* (house-PLL) ‘at/to/from the house’; *n-īx-co* (3SGP-face-PLL) ‘at/to/from my face, in front of me’; *cuauh-tzālan* (tree-between) ‘in/to/from between the trees’. Some of them can appear with possessive prefixes, e.g. *ī-pan* (3SGP-PLL) ‘at/to/from him/her/it’; *tē-tloc* (UHP-besides) ‘at/to/from someone’s side’. So-called postpositions are frequently combined with each other to form composite expressions, e.g. *-tloc-pa* (besides-DIL) ‘to/from the direction of ...’s side’; *-nāl-co-pa* (other.side-DIL) ‘to/from the direction of the other side of’; *-pan-tzin-co* (PLL-HON-PLL) ‘at/to/from (honorific)’.

It has been the subject of controversy whether they are real postpositions. Andrews (2003) characterizes them as a subtype of nouns, namely a kind of “relational nounstems”, either compounded with their complement noun stems or preceded by possessive prefixes.

(I) Place locative: those which denote a particular place

- (a) Those with relatively abstract meanings: *-c(o)*, *-pan*, *-tlān*, *-tlān* ‘at/in/on/to/from’³
- (b) Those with relatively concrete, more specific meanings: *-tloc* ‘besides’; *-tech* ‘from, adjacent to’; *-tzālan* ‘among, between’; *-tlah* ‘in the abundance of’; *-nāl* ‘at/to/from the other side of’

(II) Direction locative: those which denote a direction or a vague location

-pa ‘to/from the direction of, to/from around’, *-huīc* ‘to/from the direction of’⁴

2.2.2. Locative derivational forms

In this paper, the term *locative derivational forms* refers to the deverbal and deadjectival⁵ locatives. The distinction between so-called postpositions and locative derivational suffixes is not clear. Locative derivational suffix *-cān* is more postposition-like in that it can be attached to adjectival nouns as well as verb stems.

- (I) *-yān*⁶ ‘place where something is habitually done’ (Karttunen 1992): *no-cochi-yān* (1SGP-sleep-LD.LOC) ‘my sleeping place’; *ī-nemi-yān* (3SGP-live-LD.LOC) ‘his/her dwelling place’

³These four forms differ in the syntactic distribution and the spatial relations they mark (Andrews 2003:454–492), but it is not clear what exactly are the latter differences.

⁴*-pa* usually follows another locative form while *-huīc* can be attached a noun stem. The semantic difference between *-pa* and *-huīc* is not clear, both of them denoting directionality or vagueness of location. These two elements constitute a composite form *-huīc-pa*.

⁵Classical Nahuatl is supposed not to have adjectives as a distinct formal category. Most modern grammars such as Andrews (2003) and Launey (1994) treat as adjectival nouns the so-called adjectives such as *cualli* ‘good’, *huēi* ‘large’, *tetic* ‘hard’, and *iztāc* ‘white’.

⁶Andrews (2003) analyzes *-yān* and *-cān* and identifies a general locative nounstem *-n-*. In this paper, however, I tentatively follow Karttunen’s (1992) practical analysis.

- (II) *-cān* (general locative derivational suffix): *ī-pēuh-cān* (3SGP-begin-LD.LOC) ‘the place where it begins’; *miyec-cān* (many-LD.LOC) ‘many places’; *tē-chohchōctih-cān* (UHO-weep.CAUS-LD.LOC) ‘the place which makes one weep, lamentable place’; *ī-tōcāyō-cān ...*⁷ (3SGP-name-LD.LOC ...) ‘the place whose name is ...’

2.2.3. Lexical locatives

The term *lexical locatives* here refers to the locatives which cannot be analyzed as locativized forms of other nominals, i.e. those which do not contain noun stems. Most spatial lexical locatives are deictic or pronominal expressions such as ‘here’, ‘there’, ‘somewhere’, and ‘where?’. Some of them contain locative endings such as *-cān* in *nī-cān* and *on-cān*. Some lexical locatives can be combined with so-called postpositions, e.g. *cām-pa* ‘where? in what direction?’

nī-cān ‘here’; *on-cān* ‘there (middle)’; *ōm-pa* ‘there (distal)’; *nē-pa* ‘there’; *cān* ‘where?’; *can-ah*⁸ ‘somewhere’

2.2.4. Place names and placename-like expressions

In Classical Nahuatl, place names and placename-like expressions always appear in locative forms. Native place names and placename-like expressions listed here usually have particular locative endings such as *-c(o)*, *-pan*, *-tlān*, *-ti-tlān*, *-cān*, etc. Some of them are phonologically identical to so-called postpositions or locative derivational suffixes. Although place names and placename-like expressions are highly lexicalized and their locative endings usually do not alternate with other locative endings, the distinction between them and other locative forms is not clear. Most native place names are etymologically transparent and can readily be analyzed as locativized forms of common nouns.

(I) Place names

Mēxihco ‘Mexico’⁹; *Ācapōlco* ‘Acapulco’; *Ehcatepēc* ‘Ecatepec’; *Xālāpan* ‘Xalapa’; *Mazātlān* ‘Mazatlán’; *Cuauhtitlan* ‘Cuauhtitlán’

(II) Placename-like expressions

tlālticpac ‘the earth, the world’; *ilhuicac* ‘the sky, heaven’; *Ānāhuac* ‘seashore, the Valley of Mexico’; *mictlān* ‘the realm of the dead, hell’

⁷This example is exceptional among the derived locatives with the suffix *-cān* in that the source stem (*tōcāyō-* ‘name’) and the resulting locative (*ī-tōcāyō-cān* ‘the place whose name is ...’) are referentially different.

⁸*Can-ah* ‘somewhere’ can be analyzed as the combination of *cān* ‘where?’ and the indefinite pronoun forming suffix *-ah*. *-ah* is attached to an interrogative item to form an indefinite pronoun. When accompanied by *-ah*, the vowel of the host is shortened, e.g. *ac-ah* ‘someone’ out of *āc* ‘who?’.

⁹In the period of Classical Nahuatl, the toponym *Mēxihco* only referred to the city of Mexico, but not to the geographic area corresponding to the present-day country of Mexico.

2.3. Path neutrality

Classical Nahuatl locatives are remarkable in that their spatial semantic roles are not fully specified by the locative forms themselves. That is, various spatial roles such as Location, Goal, or Source can be and usually are encoded by the same locative form (Andrews 2003:445–446, Launey 1979:55). Following Bohmeyer & Stolz (2006:283), I tentatively term these characteristics *path neutrality*. Consequently, the spatial role of a locative is disambiguated by virtue of other clues such as the lexical meaning of the verb, the translocative/cislocative¹⁰ directional prefix attached to the verb stem, the spatial relationship between the speaker and the location which the locative denotes, etc. Consider (7)–(9), where a single form *Mēxihco* ‘(the city of) Mexico’ bears different spatial roles.

- (7) in īc quimihcalqueh Mēxihcah in Españoles in nicān
 IN when 3PLS.3PLO.fight.PRET Aztecs IN Spaniards IN here.LOC
Mēxihco
 PN.LOC
 ‘When the Aztecs fought with the Spaniards here in Mexico, ...’
 (Sahagún 1953–1981:XII, 57)
- (8) in ihcuāc cholohqueh *Mēxihco*
 IN when 3PLS.escape.PRET PN.LOC
 ‘When they escaped from Mexico, ...’ (Sahagún 1953–1981:XII, 71)
- (9) in quēn in ītīlanhuān Motēuczōma huālmocuepqueh in
 IN how IN 3SGP.messengers PROP 3PLP.CISL.return.PRET IN
 nicān *Mēxihco*
 here.LOC PN.LOC
 ‘how Moteuczōma’s messengers came back here to Mexico’
 (Sahagún 1953–1981:XII, 17)

Path neutrality is not limited to particular lexical items, nor is it the specificity of certain groups of locatives. Arguably all types of spatial locatives presented in Section 2.2 share this feature. So-called spatial postpositions, for example, consistently do not mark the spatial role, be they place locatives (e.g. *-c(o)*, *-pan*, *-tloc*, *-nāl*) or direction locatives (e.g. *-pa*, *huīc*). Thus, *-c(o)* means ‘at/to/from’, *-pa* means ‘to/from the direction of’, *-tzālan* means ‘in/to/from between’, and so on.

The only apparent exception is *-tech*, which frequently marks the source or origin.

- (10) in tlahtōlli in huel īnyōllō *īn-tech* quīzaya
 IN word IN well 3PLP.heart 3PLP-TECH.LOC 3SGS.exit.IMPF
 ‘the words that used to come from their very hearts’
 (Sahagún 1953–1981:VI, 1)

¹⁰I borrow from Iroquoian linguistics the terms *translocative* and *cislocative* to refer to Nahuatl directional prefixes *on-* ‘thither’ and *huāl-* ‘hither’ respectively.

- (11) *in totēucyōhuān in īn-tech-pa timoquīxtih*
 IN 1PLP.lords IN 3PLP-TECH-DIL.LOC 2SGS.exit.HON.PRET
 ‘our lords you (honorific) descended from’ (Sahagún 1953–1981:VI, 97)

However, *-tech* is not a real exception to the path neutrality. According to Carochi (1645:f. 19v–20r), *-tech* prototypically means ‘adjacent to, besides’.

- (12) *Mo-tech pohui īn.*
 2SGP-TECH.LOC 3SGS.belong this
 ‘This belongs to you.’ (Carochi 1645:f. 19v)

It is possible, therefore, that *-tech* is also underspecified with regard to the spatial role despite its frequent use in Source phrases. In most examples, the Source reading of *-tech* seems to be actually motivated by the verb *quīz(a)* ‘exit’, which assigns the Source role to the locative with which it is combined (Gabriela Pérez Báez, p.c.).

In summary, as Launey (1979:55) points out, path neutrality is the characteristics of the spatial description system of Classical Nahuatl itself, but not that of particular lexical items.

2.4. Locativity concord

Another peculiarity of Classical Nahuatl locatives is their syntactic behavior. According to Launey (1979, 1994), Classical Nahuatl locatives have a different syntactic distribution from that of thing nominals and are subject to the following constraints (summarized by the present author). First, a locative cannot be the subject or the object of a verbal clause. Second, when a locative is the subject or the predicate of a predicative/equational clause, the subject and the predicate should both be locative. Examples (4)–(6) cited above are completely obedient to this second constraint. Informally speaking, Classical Nahuatl locatives generally cannot appear in the environment where thing nominals appear and can be apposed or equated only with other locatives. In the present paper, I tentatively call these constraints *locativity concord*.

The first constraint which constitutes locativity concord is illustrated in (13)–(17). (13) is a typical transitive sentence where both the subject ‘I’ (encoded by the subject prefix *n(i)-*) and the object *nocuentax* ‘my rosary’ are thing nominals. In (14), the object (*in*) *Mēxihco* ‘Mexico’ is a locative, hence the ungrammaticality according to Launey’s (1979) account. This disagreement of locativity can presumably be avoided either by intransitivizing the sentence as in (15)¹¹ or (16), or by adding a thing-nominal head to the object as in (17). In (15), the original transitive verb (*i*)*tta* is intransitivized by means of the unspecified nonhuman object prefix *tla-* and constitutes a totally intransitive form *tlatta* ‘see something’; in (16), on the other hand, a lexical intransitive verb *tlachiy(a)*¹² is

¹¹I could not find a classical-period example corresponding to (15), possibly because *tlatta* ‘see something’ is mainly used in the idiomatic phrase *ahquēn tlatta* ‘do not respect anything; be shameless’.

¹²The intransitive verb *tlachiy(a)* ‘to see something, to look’ is a semi-idiomatic combination of the unspecified nonhuman object prefix *tla-* and the transitive verb *chiy(a)* ‘await’.

Cross-linguistically, one can easily find phenomena similar to Classical Nahuatl locativity concord. In many languages with adpositions or oblique case marking, locative forms are often excluded from some syntactic positions which are typically occupied by thing nominals. In Spanish and Japanese, for example, some adpositional phrases cannot be the subject.¹⁵

- (21) ? En la cama es un buen lugar para dormir.
 in the bed is a good place for to.sleep
 ‘In the bed is a good place to sleep.’ (Yumi Mimura, p.c.)
- (22) * Kono heya-de-wa beNkyoo-ni tyoodoi.
 this room-at-TOP study-for suitable
 ‘This room is suitable for study.’

However, Classical Nahuatl differs from such languages as Spanish and Japanese in an important way; in Classical Nahuatl, the inconsistency of the type exemplified in (19) can be avoided by locativizing the predicate as in (20), whereas in Spanish and Japanese such an operation is absolutely impossible.

- (23) * En la cama es *en un buen lugar* para dormir.
 in the bed is in a good place for to.sleep
- (24) * Kono heya-de-wa beNkyoo-ni tyoodoi-de(-da).
 this room-at-TOP study-for suitable-at(-is)

The preceding sections gave a general overview of Classical Nahuatl locatives. Section 2.1 sketched the basic syntactic distribution of locatives. Section 2.2 listed various types of locatives. Section 2.3 and 2.4 introduced two specific characteristics of locatives, namely path neutrality and locativity concord.

3. Typological characterization of Classical Nahuatl spatial expressions

In this section, I discuss the features of the Classical Nahuatl spatial description system in semantic-typological perspectives and propose two typological axes to classify it. The first one is a semantic one which distinguishes the *distributive framing* in Classical Nahuatl from “radical V-framing”. The second one is a formal one which identifies two ways to encode spatial relations, namely *class locativity* and *relation locativity*. In what follows, I limit my discussion to those locatives which serve as arguments of motion verbs.

¹⁵This phenomenon is technically complicated. In both languages, for instance, adpositional phrases in nominal predicate position are generally acceptable. Moreover, at least in some variants of Spanish, such sentences as *Delante de la salida del tren normal es un buen lugar para quedar con alguien* ‘In front of the exit of the local train [station] is a good place to meet someone’ sound natural (Yumi Mimura, p.c.).

3.1. Radical V-framing vs. distributive framing

In this section, I propose to distinguish Nahuatl-type spatial description systems from “radically V-framed” ones. Firstly, I introduce Talmy’s semantic-typological framework and its application to path-neutral languages by Bohmeyer and his co-authors, and argue that the Classical Nahuatl spatial description system cannot be interpreted as a “radical V-framed” one. Secondly, I argue that the Classical Nahuatl spatial description system is a *distributively framed* one in that they are not literally “V-framed”; that is, their spatial roles are not entirely encoded in the verb.

3.1.1. The position of locative arguments in Talmy’s typology

The well-known typology of V(verb)-framed and S(satellite)-framed languages proposed by Talmy (1991, 2000) clarifies that the way in which the “core schema” of the framing event is encoded in the sentence differs from language to language. In some languages, core schemas are mapped onto *satellites* such as verbal affixes and particles; in other languages, they are lexically incorporated into the verb root.

Before discussing the position of Classical Nahuatl locatives in Talmy’s semantic-typological framework, it is necessary to emphasize that Classical Nahuatl locatives are rigorously not satellites. Talmy (1991, 2000) defines the *satellite* as excluding adpositional phrases and oblique noun phrases.

“[T]he satellite to the verb ... is the grammatical category of any constituent other than a nominal or prepositional-phrase complement that is in a sister relation to the verb root.”

(Talmy 2000:222)

This exclusion of adpositional/oblique phrases presumably reflects the research focus of Talmy (1991, 2000), which is primarily on the lexical, language-specific patterns of event integration. Persisting in this definition, Classical Nahuatl locative arguments would be excluded from satellites, since locative arguments of motion verbs behave quite similarly to the adpositional arguments in other languages as shown in Section 2.1. In the present paper, I follow this definition and maintain that Classical Nahuatl locative arguments are not satellites.

However, there are some reasons which justify treating Classical Nahuatl locative arguments, or adpositional/oblique arguments cross-linguistically, as involved in the core schema encoding. Talmy (2000:218) defines a core schema as “either the association function alone or the association function together with the ground entity” that “most determines its [a particular framing event’s] particular character and that distinguishes it from other framing events”. Cross-linguistically, especially in the case of motion events, this function is often performed by adpositional/oblique arguments. Since the V-framed and S-framed languages are defined with respect to the encoding pattern

of core schema, it is more constructive to take into account the adpositional/oblique arguments of motion verbs. Besides, Matsumoto (2003) proposes to reinterpret Talmy's classification as "head-framed languages" vs. "nonhead-framed languages" and argues that also adpositional/oblique arguments can be dealt with by Talmy's framework. In the present paper, therefore, I speak of "V-framing" of the semantic relation between Ground phrases and the verbs both language-internally and cross-linguistically.

3.1.2. "Radical V-framing" in Yucatec Maya

The notion of "radical V-framing" proposed by Bohnemeyer & Stolz (2006) and Pérez Báez & Bohnemeyer (2008) is a key concept in analyzing Classical Nahuatl locatives in Talmy's framework. Their idea comes from the fact that the Ground phrases do not encode Path in Yucatec Maya (Bohnemeyer & Stolz 2006, Bohnemeyer 2007, Pérez Báez & Bohnemeyer 2008). The following examples are cited from Bohnemeyer & Stolz (2006)¹⁶.

(25) Yucatec (Bohnemeyer & Stolz 2006:283)

- a. Tu'x k'-a bin?
where IMPF-A.2 go
'Where are you going?'
- b. Tu'x a tàal-e'x?
where A.2 come-2.PL
'Where are you coming from?'

(26) Yucatec (Bohnemeyer & Stolz 2006:298)

- a. Le-kàaro-o' ti'=yàan ich/ti' le-kàaha-o'.
DET=cart=DET PREP=EXIST(B3SG) in/PREP DET=box=D2
'The cart, it is in the box.'
- b. Le-kàaro-o' h-òok ich/ti' le-kàaha-o'.
DET=cart=DET PRV-enter(B3SG) in/PREP DET=box=D2
'The cart, it entered (lit. in) the box.'
- c. Le-kàaro-o' h-hòok' ich/ti' le-kàaha-o'.
DET=cart=DET PRV-exit(B3SG) in/PREP DET=box=D2
'The cart, it exited (lit. in) the box.'

They argue that Yucatec Maya shows a "radically V-framed" pattern in that the spatial roles of Ground phrases are disambiguated by the "inherently directed motion" verbs such as 'go', 'come', 'enter', etc. Bohnemeyer (2003) justifies this disambiguating process by means of the "argument uniqueness constraint" (AUC) which requires that Path argument roles and Ground phrases be in one-to-one correspondences.

¹⁶(25a) and (25b) are originally taken from Blair & Vermont-Salas (1965–1967).

3.1.3. Is Classical Nahuatl “radically V-framed”?

In this section, I examine the characteristics of the Classical Nahuatl system in the framework introduced in the last section and argue that it is not actually “radically V-framed”. Instead, I propose to characterize it as a *distributively framed* one.

The data from Yucatec Maya presented by Bohmeyer and his co-authors are apparently in full parallelism with the path-neutral expressions in Classical Nahuatl exemplified in (1) and (7)–(9), though they do not mention Classical Nahuatl. As stated in Section 2.3, Classical Nahuatl locatives do not contain any information which specifies its spatial role.

However, there are two problems in assuming that the Classical Nahuatl spatial description system is “radically V-framed”. The first one is a more superficial one that there are cases where satellites, namely the cislocative directional prefix *huāl-* ‘hither’, and possibly the translocative directional prefix *on-* ‘thither’ too, play an important role in encoding Path. This is observed above all with the verb root *yā*¹⁷ ‘go’, but is attested with other verbs as well.

- (27) a. in īc *∅-yahqueh* Tlaxcallān, in ōmpa
 IN when 3PLS-go.PRET PN.LOC IN there.LOC
 ihīyōcuītoh, ...
 3PLS.reflesh.PURP.PRET
 ‘When they went to Tlaxcala in order to take a rest there, ...’
 (Chimalpahin Quauhtlehuanitzin 1997:158)
- b. Ca ōmpa in Mēxihco *ti-huāl-lahqueh*.
 CI there.LOC IN PN.LOC 1PLS-CISL-go.PRET
 ‘We came from there, Mexico.’ (Sahagún 1953–1981:XII, 5)
- (28) a. Oncān *ō-∅-panohqueh* Cōātl-Īcamac.
 there.LOC PREC-3PLP-cross.PRET PN.LOC
 ‘They crossed [the land] to Coatlicamac.’ (Crapo & Glass-Coffin 2005:13)
- b. Auh in Aztēcah in īc *∅-huāl-panohqueh* in Aztlān, ...¹⁸
 and IN Aztecs IN when 3PLP-CISL-cross.PRET IN PN.LOC
 ‘And when the Aztecs came crossing [the water] from Aztlan, ...’
 (Lehmann et al. 1981:110)

The second problem is a more fundamental one that the Path information seems to be distributed in both grammatical and non-grammatical levels in Classical Nahuatl. There are many cases where the grammar itself does not encode enough information to disambiguate the spatial role of a locative. An identical combination of a verb root,

¹⁷The form *-yahqueh* in (27a) is the plural preterit indicative form of *yā* ‘go’. The alternative form *-lahqueh* is the result of assimilation to the final // of the cislocative prefix *huāl-*. Andrews (2003) treats the combination *huāl-lā* ‘come’ (*huāl-* ‘hither’ + *yā* ‘go’) as a lexical fusion, for this type of assimilation is idiosyncratic in Classical Nahuatl.

¹⁸The original text of this example contains an extra *n*: *Auh yn asteca, ynic hualpanoque yn n aztlan*.

satellite, and Ground phrase sometimes results in different interpretations of Path. The pair of (29) and (30) exemplifies this phenomenon. (29) and (30) have the same verb root and the same directional prefix in common, but still differ in the interpretation of the spatial role of the locative *Mēxihco* ‘Mexico’. This difference in the interpretation of a locative lies in the spatial relationship between the speaker’s viewpoint and the location in question. In (29), *Mēxihco* is the Goal of the deictic verb *huāl-lā* ‘to come’ because the author’s viewpoint is located in Mexico.¹⁹ In (30), on the contrary, *Mēxihco* is interpreted as the Source because the speaker stays far from Mexico.²⁰

- (29) In īn Ø-*huāl-lahqueh* *Mēxihco* in òmextin.
 IN this 3PLS-CISL-go.PRET PN.LOC IN two
 ‘These two persons came to Mexico.’

(Chimalpahin Quauhtlehuanitzin 1997:118)

- (30) In tlā nelli òmpa *ō-an-huāl-lahqueh* *Mēxihco*, ...
 IN if real there.LOC PREC-2PLS-CISL-go.PRET PN.LOC
 ‘If it’s true that you came from there, Mexico, ...’ (Sahagún 1953–1981:XII, 6)

Launey (1979:55-56) points out that the appositive use of deictic expressions *nicān* ‘here’ and *òmpa* ‘there (distal)’ (and certainly *oncān* ‘there (middle)’, although Launey (1979) does not mention it) serves to disambiguate the spatial role of locatives. To illustrate this, Launey (1994:55) provides the pair of (31a) and (31b). *Huītz* ‘come’ is a deictic verb whose Goal is necessarily the deictic center, so *nicān Mēxihco* ‘here Mexico’ in (31a) and *òmpa Mēxihco* ‘there Mexico’ should be interpreted respectively as the Goal and the Source. Without such deictic information, the sentence would be ambiguous as in (31c).

- (31) a. *Nicān* *Mēxihco* huītz.
 here.LOC PN.LOC 3SGS.come
 ‘He comes here to Mexico.’ (Launey 1979:55)
- b. *Òmpa* *Mēxihco* huītz.
 there.LOC PN.LOC 3SGS.come
 ‘He comes from there, Mexico.’ (Launey 1979:55)
- c. *Mēxihco* huītz.
 PN.LOC 3SGS.come
 ‘He comes to/from Mexico.’ (Launey 1979:55)

It is important to note that the deictic center is not always the speaker in Classical Nahuatl as in English. (32) shows that even a place considerably distant from the speaker can serve as the deictic center.

¹⁹(29) is taken from the chronicle which focuses on the history of the city of Mexico, whose author is a Mexican indigenous historian who did his work mainly in Mexico City.

²⁰(30) is from the words which the Spaniards headed by Hernán Cortés said to the Aztec messengers immediately after the Spaniards landed on the coast far from the city of Mexico.

- (32) ... cē cihuātl nicān titlācah in quihuāluīcac, in
 one woman here.LOC 1PLS.people IN 3SGS.3PLO.CISL.carry.PRET IN
 huālnāhuatlahtohtiyah. ... In ōmpa ātēncō achto
 3SGS.CISL.serve.as.interpreter.go.PRET IN there.LOC seashore.LOC first
 cānacoh.
 3PLS.3SGO.seize.PURP.PRET
 ‘... an indigenous woman who led them [the Spaniards] hither, headed hither
 serving as an interpreter ... They [the Spaniards] came there, on the coast, to took
 her for the first time.’ (Sahagún 1953–1981:XII, 25)

(32) is an example taken from a series of narratives about the Spaniards’ conquest of Mexico. It says that the Spaniards accompanied an indigenous woman as their guide and interpreter on their way to the city of Mexico. The Spaniards came from the sea and took her in a village near the seashore where they landed. The speaker’s viewpoint is located at the city of Mexico, as shown by the cislocative prefix *huāl-* ‘hither’ in the first sentence. Here, the locative *ātēncō* ‘coast, seashore’ coreferenced with *ōmpa* ‘there (distal)’ serves as Goal whereas the verb *cānacoh* ‘they came to took her’ contains the inbound purposive verbal ending *-co*. Similarly to the cislocative prefix *huāl-* ‘hither’ and the verb *huītz* ‘come’, the purposive *-co* indicates that the action denoted by the verb includes the motion towards the deictic center. This is possible because the deictic center is flexible in this language. In (32), the coast where the Spaniards got her is the deictic center. It is located distant from the speaker, but is still mentally closer than the place from which they sailed.

Thus, the Classical Nahuatl spatial description system relies on both grammatical and non-grammatical clues. Given such characteristics, it is more appropriate to assume that the spatial description system of Classical Nahuatl is not a “radically V-framed” one, but rather a *distributively framed* one. This is reminiscent of the “distributed spatial semantics” proposed by Sinha & Kuteva (1995) in the analysis of various languages including Dutch, English, Ewe, Tzeltal, and others, but it seems that the Classical Nahuatl spatial description system is less construction-dependent than the examples presented in Sinha & Kuteva (1995) and depends more on the extralinguistic information, namely the deictic context.

This does not mean that Classical Nahuatl verbs and satellites do not encode the Path information, much less that Classical Nahuatl is not a V-framed language. In Classical Nahuatl, many motion verbs unambiguously determine the spatial role of their locative argument. As far as I have observed, the locative arguments of *ahci* ‘arrive’, *aqu(i)* ‘enter’, and *calaqu(i)* ‘enter’ are always Goal while those of *quīz(a)* ‘exit’ and *ēhua* ‘depart’ are usually Source. In this respect, the behavior of Classical Nahuatl motion verbs corresponds to the analysis of Yucatec motion verbs provided by Bohmeyer and his co-authors.

However, the data from Classical Nahuatl demonstrate that “radical V-framing” cannot always explain path neutrality. Despite its apparent similarity to “radical

V-framing” systems, the Classical Nahuatl spatial description system employs a different strategy in disambiguating the relation between the Ground phrase and the verb. In Classical Nahuatl, Path is simply underspecified instead of being encoded in some particular part in the sentence.

It is unquestionable that a language is an absolutely functional system, but it is only totally the case. A particular semantic notion can be or cannot be encoded in a particular linguistic level. The semantic-typological approach initiated by Talmy (1991, 2000) is a powerful framework which enables one to discuss *where* or *how* a particular semantic notion is encoded in linguistic expressions, but the data from Classical Nahuatl imply that one should also ask in which level it is specified. In other words, one should consider *whether* it is grammatically encoded at all.

3.2. Class locativity and relation locativity

In the following sections, I propose another typological axis to characterize the Classical Nahuatl spatial description system. The main idea of this section is that Classical Nahuatl employs noun class to encode the semantic relations between locatives and the verbs.

First, following the analyses of some Nahuatlists, I argue that Classical Nahuatl locatives are a subclass of nouns. Second, I propose to characterize the Classical Nahuatl spatial description system as a *class-locative* system, which encodes the semantic relation by means of noun class and THING–PLACE distinction, and attempt to account for the path neutrality in Classical Nahuatl by *class locativity*.

3.2.1. The nominal nature of locatives

In this section, I confirm the point made by the others that Classical Nahuatl locatives are a class of nouns.

Many modern works have argued that Classical Nahuatl locatives are a subgroup of nouns at least in some respects (Andrews 2003:445–446, Launey 1994:60–61, Lockhart 2001:20). At least most locative suffixes and so-called postpositions can be unproblematically interpreted as bound noun stems. So-called postpositions take possessive prefixes rather than object prefixes, as in *no-pan* (1SGP-PLL) ‘at/to/from me’ and *ī-tloc* (3PLP-besides) ‘at/to/from his/her/its side’; the order of a locative marker and the noun stem combined with it is the same as that of a compound head and a modifier; some so-called postpositions historically stem from nouns; some locative expressions have the thing-nominal counterparts with the same stem as illustrated in Table 2.

Besides these points already mentioned, the assumption that locatives are a class of nouns explains various phenomena concerning to spatial expressions.

The first such phenomenon is the syntactic continuity between locatives and thing nominals. In addition to the affinity between locatives and thing nominals summarized above, these two categories behave interchangeably in a limited number of examples.

Table 2: Examples of locatives with thing-nominal counterparts with the locative endings

Locative form	Thing-nominal form (absolutive)
<i>-tzālan</i> ‘between’	<i>tzālan-tli</i> ‘passageway’
<i>-tzīn-tlan</i> ‘under’ (lit. ‘at the buttocks’)	<i>tzīn-tlan-tli</i> ‘buttocks, base’
<i>teō-pan</i> ‘temple, church’	<i>teō-pan-tli</i> ‘temple, church’
<i>ā-nāl</i> ‘beyond the water’	<i>ā-nāl-li</i> ‘far shore’
<i>tlālticpa-c</i> ‘earth’	<i>tlālticpa-c-tli</i> ‘earth’
<i>mic-tlān</i> ‘realm of the dead’	<i>mic-tlān-tli</i> ‘realm of the dead’

(33)–(35) exemplify such rare cases, where locatives behave like thing nominals.

- (33) Aoc īc yez in *Mēxihco*.
no.more when 3SGS.be.FUT IN PN.LOC
‘Mexico will no longer exist.’ (Sahagún 1953–1981:XII, 34)
- (34) in quēn in Motēuczōma quicāuh in *huēi tēcpan*
IN how IN PROP 3SGS.3SGO.leave.PRET IN big palace.LOC
‘how Moteuczoma left the great palace’ (Sahagún 1953–1981:XII, 27)
- (35) *īnāhuac Tepēyacac*
3SGP.near.LOC PN.LOC
‘near Tepeyacac’ (Sousa et al. 1998:72)

The locatives (*in*) *Mēxihco* ‘Mexico’ and (*in*) *huēi tēcpan* ‘great palace’ in (33) and (34) serve as the subject and the object of verbal clauses respectively as if they were thing nominals. In (34), the verb *cāhu(a)* ‘leave, abandon’ is a transitive verb and takes an object prefix, here *qu(i)-* (3SGO). Since the original text has no thing nominal to be cross-referenced with *qu(i)-*, the only possible construal seems to be that it is coreferential with the locative *huēi tēcpan* ‘the great palace’. Similarly, in (35), a locative place name *Tepēyacac* ‘Tepeyacac’ is cross-referenced with the possessor prefix of another locative *īnāhuac* ‘near it, its neighborhood’, which usually takes a thing nominal as the possessor.

There are also cases where thing nominals serve as locatives (Launey 1994:86–87).²¹ In (36), the locative modifier (*cen-*)*tlālli* is in absolutive-state form, which is usually used for thing nominals as in (37).

- (36) In pōctli *cen-tlālli* momana.
IN smoke one-land.LOC 3SGS.spread
‘The smoke spreads all around.’ (Sahagún 1953–1981:XII, 40)²²
- (37) Xiuhtōntli *tlālli* ī-īx-co mani.
grass.DIM land 3SGP-face-PLL.LOC 3SGS.lie

²¹Launey (1994) calls this type of expressions “pseudo-locatifs”.

²²I took this example from Launey (1994:86).

‘It’s [a kind of] grass which grows on the land’s surface.’

(Sahagún 1953–1981:XI, 131)

Although it is not clear why such sentences are attested at all, (33)–(37) show that the boundary between locatives and thing nominals is not always clear. This continuity can be better captured by considering locatives as a subgroup of nouns.

The nominal nature of locatives can also account for the locativity concord. As I pointed out in Section 2.1, the main function of the locativity in Classical Nahuatl is to mark the referential status of the expression as a PLACE. Following Croft’s (1988, 2003) classification, Classical Nahuatl locatives are more “indexical” as opposed to “relational” in that they mark their own nominal category rather than their relation to the verb. Therefore, if one treats Classical Nahuatl locatives as nouns, locativity turns out to be like the noun class or gender in other languages. This nature of locativity interacts with locativity concord. Both language-internally and cross-linguistically, there seems to be a tendency that the more the relation of an oblique expression to the predicate is specified, the less it is tolerant to the thing-nominal use. Within Classical Nahuatl, non-spatial, non-temporal so-called postpositions such as *-huān* ‘with, in the company of’ and *-teuh* ‘in the manner of’, which mark more fixed semantic roles, do not seem to permit a concordal operation analogous to (20). Cross-linguistically, as shown in the Spanish and Japanese examples (21)–(24), the expressions which overtly mark their relation to the predicate are sometimes excluded from some syntactic environments which are typically occupied by thing nominals. Therefore, locativity concord can be justified by assuming locativity as an indexical feature like noun class or gender, and characterizing locativity concord as corresponding to gender agreement in other languages.

3.2.2. Classical Nahuatl as a class-locative language

In this section, I account for the path neutrality in Classical Nahuatl in terms of *class locativity*. First, I analyze the Classical Nahuatl spatial description system and argue that it can be characterized as a *class-locative* system, as opposed to *relation-locative* ones in English and other languages. To encode the semantic relation between the Ground phrase and the verb, English makes use of prepositions, that is, the NP-external elements which mark the syntactic relation between their complement NP and the verb. In contrast, Classical Nahuatl assigns this function to noun class, an NP-internal feature whose primary function is to mark the status of the NP as a PLACE. This distinction corresponds to Bresnan’s (1991) classification of “locative case” vs. “locative gender”. Second, I hypothesize that a class-locative system are path neutral by definition. I adopt the notation used in Jackendoff (1983)²³ and pick up English as the representative of relation-locative languages. Since adpositional phrases and oblique case-marked nominals syntactically

²³Labels in capital letters stand for conceptual constituents. To avoid confusion, I also use capital letters for the subscribed labels.

behave in a similar way cross-linguistically (Asbury et al. 2006), they are uniformly termed *P phrases* in the discussion below.

According to Jackendoff (1983:163), the semantic structure of a simple locative P phrase is assumed to be like (38).

(38) [PATH ([PLACE ([THING]))]]

The representation in (38) is not sufficient, however, when the P phrase serves as a Ground phrase. No constituent in (38) justifies the status of the whole phrase as an oblique constituent. Therefore, it will be convenient to assume that a P phrase contains a functional element which marks its syntactic status as an oblique phrase when it serves as a Ground phrase. In this paper, I label this functional element *OBL-FUNCT*. In the present paper, I hypothesize that the locatives in Nahuatl-type languages and the P phrases in English-type languages uniformly have the underlying structure represented in (39).

(39) [OBL-FUNCT ([PATH ([PLACE ([THING]))])]]

The difference between English-type languages and Nahuatl-type languages lies in which formal element plays the primary role in marking locativity. In English-type language, P²⁴ plays the central role in forming a locative expression. In English, for example, single, typically monomorphemic prepositions such as *to* and *from* integrate OBL-FUNCT, PATH, and PLACE as illustrated in (40)–(41).

(40) *to Mexico*
 [OBL-FUNCT ([PATH TO ([PLACE AT ([THING MEXICO]))])]]
to

(41) *from Mexico*
 [OBL-FUNCT ([PATH FROM ([PLACE AT ([THING MEXICO]))])]]
from

Yucatec prepositional phrases headed by *ti'* or *ich* exemplified in (26) seem to show similar patterns. The only difference is that the PATH information is not encoded by P in Yucatec.

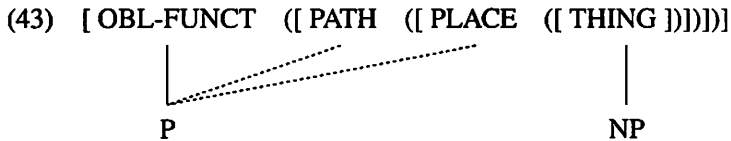
(42) *ich/ti' le=kàaha=o'* 'in/into/out of the box'
 [OBL-FUNCT ([PATH * ([PLACE AT ([THING BOX]))])]]
ich/ti'

In both languages, locativity is marked by P. Since P is an element outside of NP whose primary function is to mark the syntactic relation between its complement NP and the verb, the semantic relation between the THING and the verb can be said to be encoded

²⁴The term *P* is taken from Asbury et al. (2006). P includes adpositions, case particles, oblique cases, and other oblique, space-denoting elements with nominal complements.

isomorphically to the syntactic relation between them. I adopt the term *relation-locative strategy* to refer to this encoding pattern.

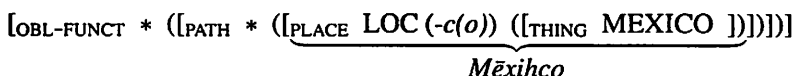
The semantic conflation patterns of English and Yucatec Ground phrases can be abstracted as (43). In (43), the semantic structure is represented in the upper line and the corresponding formal structure in the lower line. The lines between conceptual and formal elements stand for the linking between them. The solid and dashed lines stand for the primary and non-primary linkings respectively.



In English, THING and OBL-FUNCT have particular corresponding forms which canonically encode them, while PATH and PLACE are incorporated into the marker of OBL-FUNCT, namely P. THING realizes as a full NP in English. In this respect, it can be said that the primary function of NP in a Ground phrase is to encode THING. Similarly, it can be assumed that the primary function of P is to mark the syntactic relation between its complement NP and the verb, for both locative and non-locative PPs in English-type languages are oblique by nature. I shall mark these primary linkings by solid lines. PATH and PLACE, on the contrary, do not have particular markers and are incorporated in P. I shall mark these non-canonical linkings by dashed lines. Also the path-neutral languages with Ps such as Yucatec are assumed to share the conflation pattern of (43). In such languages, PATH is not specified by P, but is still *reserved* for P; that is, even in such languages, only P can introduce a Ground phrase.

In contrast, Classical Nahuatl employs a different strategy. In Classical Nahuatl, the semantic relation between the Ground phrase and the verb is partly encoded in the noun class feature which distinguishes locatives from thing nominals. Unlike English, OBL-FUNCT and PATH are formally not specified within locative forms themselves; locatives can appear in non-oblique environments as in (4)–(6) and (20), and they are path-neutral by nature (see Section 2.3). Instead of specifying OBL-FUNCT and PATH overtly, Classical Nahuatl relies on the nominal features; since Classical Nahuatl has a rigid distinction between THING and PLACE (which is shown by locativity concord: see Section 2.4), an expression with the PLACE feature combined with a verb should be interpreted as the Ground. I shall term this strategy a *class-locative* one.

(44) *Mēxihco* ‘at/to/from Mexico’



(45) *cal-pan* ‘at/to/from the house’

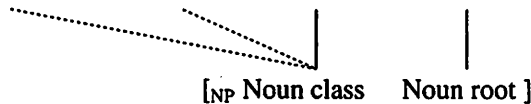
[OBL-FUNCT * ([PATH * ([PLACE LOC (-pan) ([THING HOUSE])])))]
cal-pan

(46) *nicān* ‘here; to/from here’

[OBL-FUNCT * ([PATH * ([PLACE LOC (-cān) ([THING THIS LOCATION])])))]
nicān

This pattern is illustrated in (47). In Classical Nahuatl Ground phrases, THING and PLACE is encoded by the noun root and the locative marker respectively. OBL-FUNCT and PATH are underspecified in Classical Nahuatl, for this language does not have particular markers which encode them. This does not mean, however, that Classical Nahuatl allows any constituent to denote OBL-FUNCT and PATH. In Classical Nahuatl, OBL-FUNCT and PATH are limited to locatives. That is, in Classical Nahuatl, no expression can denote PATH without a locative marker and only locative and other types of relational expressions can be oblique. OBL-FUNCT and PATH are *reserved* for locatives in Classical Nahuatl in that no other expressions can encode them.

(47) [OBL-FUNCT ([PATH ([PLACE ([THING])))])]



This strategy seems to explain the path neutrality in Classical Nahuatl. As illustrated above, the class-locative strategy makes use of noun class to constitute a Ground phrase. Noun class is an NP-internal nominal feature which only denotes the characteristics of the noun which contains it. In other words, noun class canonically cannot say anything outside the NP (an *indexical* notion in Croft’s (1988, 2003) terminology). OBL-FUNCT and PATH, on the other hand, are NP-external notions in that they denote the relation between the NP and the verb. They must be specified in terms of the relationship outside the NP (a *relational* notion in Croft’s (1988, 2003) terminology). Therefore, in a class-locative system, Path cannot be encoded in the Ground phrase. Assuming the classification between relation-locative and class-locative systems, the path neutrality in Nahuatl-type languages can be properly accounted for.

Not all languages with locative noun class and THING–PLACE distinction employ the class-locative strategy. Ainu has the rigid distinction between thing nominals and place nominals (Refsing 1986, Tamura 1988, 2000, Nakagawa & Nakamoto 2004), but it clearly shows a relation-locative pattern. In Ainu, only place nominals can directly take spatial postpositions. When thing nominals take special postpositions, they should be locativized by means of a locative particle *or*. In (48), *uni* ‘house’ and *kim* ‘mountain’ are place nominals while *cise* ‘house’ and *nupuri* ‘mountain’ are thing nominals.

(48) Ainu (Nakagawa & Nakamoto 2004:110)

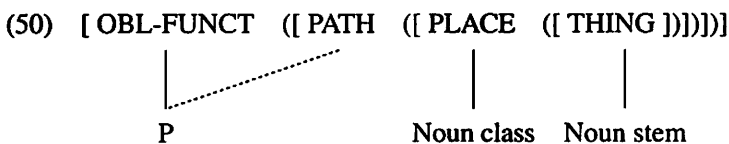
- a. uni ta
house(place) at/in
'at home'
- b. kim ta
mountain(place) at/in
'at the mountain'
- c. cise or ta
house(thing) LOC at/in
'at home'
- d. nupuri or ta
mountain(thing) LOC at/in
'at the mountain'

However, the spatial description system of Ainu constitutes the relation-locative type. As illustrated in (49a)–(49c), Ainu has spatial postpositions which at least distinguish Source and non-Source.

(49) Ainu (Tamura 2000:130–132)

- a. Tan kotan ta sírpópke.
this village at/in conditions-be-warm
'It's warm at this village.'
- b. K-úni un ek.
1P-SING-NOM-house at/in come
'[Someone] came to my house.'
- c. A-kor mosir wa Rosiya mosir un tumi
INDEFNOM-have land/country from Russia land/country towards war
epaye.
go-to-PL
'[Someone] from our land went to war in Russia.'

This means that Ainu sometimes encodes PATH and PLACE separately. In Ainu, PATH is marked by P (postpositions) and PLACE is encoded by noun class. This pattern can be illustrated as (50). The data from Ainu show that the existence of locative noun class does not always result in class locativity.



3.3. Implications for typology

In this section, I suggest that the data from Classical Nahuatl have certain implications on the semantic typology of spatial expressions.

The “radical V-framing” analysis of Bohnemeyer and his co-authors is stimulating in that it provides a framework to characterize path-neutral languages in their own right. However, as pointed out in Section 3.1 and 3.2, it is useful to introduce at least two other axes in order to capture the characteristics of various path-neutral languages, namely the one of “radically V-framed” vs. distributedly framed systems and the one of class-locative vs. relation-locative systems.

It seems that Mohawk, for example, can be analyzed more properly as a distributively framed language than as a “radically V-framed” language. Mohawk disambiguates the spatial role of a Ground phrase by virtue of the directional prefixes as in Classical Nahuatl. (51a) and (51b) correspond to the Classical Nahuatl examples (29) and (30) respectively in that the same combination of the verb and the directional prefix result in different interpretations of the spatial roles of the Ground phrase. Mohawk would be characterized as a “radical V-framed” language in the framework of Bohnemeyer and his co-authors, but actually it shows a distributively framed pattern at least in some aspects.

(51) Mohawk (Bonvillain 1973:176, 194)

- a. Kvhnekwá nu-t-à:-s-e?
 here partitive-CISL-aorist-2SG-come
 ‘You came over here.’
- b. Telutó: nu-t-à:-l-e?
 Toronto partitive-CISL-aorist-3SGS.masculine-come
 ‘He came (here) from Toronto.’

On the contrary, many Sub-Saharan African languages are reported to employ the true “radical V-framed” strategy (Gaines 2002, Creissels 2006). According to Creissels (2006), in a path-neutral language Tswana (Setswana), the distinction between Source and Goal is often encoded in the root of the verb. In some cases, more than one verbs are used in a sentence in order to disambiguate the spatial roles of the Ground phrases as in (52c).

(52) Tswana (Creissels 2006:23)

- a. Monna o dule motse-ng.
 1man S3:1 leave.PFT 3village-LOC
 ‘The man left the village.’
- b. Monna o ile noke-ng.
 1man S3:1 leave.PFT 9river-LOC
 ‘The man went to the river.’
- c. Monna o dule motse-ng a ya noke-ng.
 1man S3:1 leave.PFT 3village-LOC S3:1.SEQ go 9river-LOC

‘The man went from the village to the river.’

These examples suggest that the two types of path neutrality, namely the distributively framed one and the “radically V-framed” one, show different patterns despite their apparent similarity. It is therefore useful to distinguish these two types in analyzing path neutrality.

Also the typology of class-locative vs. relation-locative languages can be applied cross-linguistically.²⁵ Bresnan’s (1991) analysis suggests that Chewa (Chichewa) has a class-locative pattern. The Chewa spatial description system shows both path neutrality and class locativity. In Chewa, locative forms are made by adding locative prefixes *pa-*, *m(u)-*, and *ku-*, all of which do not specify the direction and the existence/non-existence of the motion (Watkins 1937:188). In addition, these locative prefixes also work like prepositions (Bentley & Kulemeka 2001:25–26). According to Bresnan (1991) and Mchombo (2004), so-called prepositional phrases in Chewa are not really prepositionals, for they appear in various syntactic environments such as the subject and object positions of the sentences. Given these characteristics, Bresnan (1991) argues that Chewa locatives are gender classes designated by noun phrases. Similar characteristics are observed in many other Bantu languages (Nurse & Philippson 2003b:7, Schadeberg 2003:82, Nobuko Yoneda, p.c.).

3.4. Summary

In this section, I discussed the typological characteristics of Classical Nahuatl locatives and proposed two typological axes to characterize it. Section 3.1 distinguished the Classical Nahuatl spatial description system from the “radical V-framed” ones and characterized the former as a distributively framed one. Section 3.2 analyzed the encoding pattern of Classical Nahuatl locatives and pointed out that Classical Nahuatl employs a class-locative strategy instead of a relation-locative one. Section 3.3 discussed the typological implications of the analyses presented in Section 3.1 and Section 3.2.

4. Conclusion

In this paper, I discussed the typological features of the Classical Nahuatl spatial description system and their implications on typology. In Section 2, I gave an overview of Classical Nahuatl locatives and introduced two peculiarities they show, namely path neutrality and locativity concord. In Section 3.1 and Section 3.2, I attempted to characterize the Classical Nahuatl spatial description system from a typological point of view. First, I compared the Classical Nahuatl spatial description system with a “radically V-framed” one of Yucatec and concluded that the former is not a “radically

²⁵It is possible that Mohawk also constitutes the class-locative type, since the place names realize as locatives with nominal suffixes in Mohawk (Bonvillain 1981). Moreover, Baker (1996:405–410) argues that the postpositions in Mohawk incorporate their complements in the same way as compounds.

V-framed” system, but a distributively framed system, since Classical Nahuatl relies on both grammatical and non-grammatical clues to disambiguate the spatial semantic roles of Ground phrases. Second, I argued that Classical Nahuatl differs from such languages as English and Yucatec in that it makes use of noun class to encode the spatial semantic relation. I hypothesized that in a Ground phrase in Classical Nahuatl, noun class (locativity) incorporates both OBL-FUNCT and PATH besides PLACE. More exactly, OBL-FUNCT and PATH are formally not specified by the locative marker, but their encoding is *reserved* for locatives; that is, only locatives can constitute Ground phrases. Third, I argued that path neutrality necessarily results from class locativity. In Section 3.3, I discussed the possibility of applying these ideas to other languages citing the examples of Mohawk, Tswana, and Chewa.

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古典ナワトル語の場所詞に関する類型論的考察

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キーワード: ナワトル語、場所詞、移動表現、空間表現、意味類型論

古典ナワトル語には、場所詞が空間意味役割を特定しない (*path neutrality*) という特質がある。したがって、同じ形式が動作の着点を表すこともあれば、起点や位置を表すこともある。本稿では、こうした古典ナワトル語の空間表現の性質を意味類型論的観点から考察し、その類型論的帰結について論じる。まず、古典ナワトル語の空間表現体系を、Bohnemeyer らが “radically V-framed” であると主張しているユカテク語の空間表現体系と比較し、前者が “radical V-framed” な体系の例にあたらないことを指摘する。続いて、古典ナワトル語の空間表現体系を *class-locative* な体系と解釈することで、その特徴を適切にとらえることができると主張する。最後に、この言語内的分析がほかの言語の分析に応用できる可能性について論じる。

(ささき・みつや)