The role of directionals in positional and locative constructions in Chuj*

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Abstract: Positional roots are a class of roots in Mayan languages characterized by its special morphological composition. Unlike other root classes, such as verbs and adjectives, positionals in Chuj need to be derived into stems and will often require the addition of a "directional" or a reduplicative process in order to appear as non-verbal predicates. These directionals are also found within locative constructions, which in Chuj differ from existential expressions strictly because of the directional's presence. The goal of this paper is to explore the semantic contribution of directionals in both positional and locative constructions and I argue that in both of these cases directionals contribute stage-level meaning. In order to justify this claim, I make reference to the contrast between two different positional constructions (one that I argue denotes stage-level properties and another which I present as an individual-level predicate) as well as the contrast between existentials and locatives.

Keywords: directionals, positionals, locatives, semantics, morphology, Maya

1 Introduction

Chuj is a Mayan language belonging to the Q'anjobalan branch of the Mayan language family and it is spoken by approximately 70,000 people in Guatemala (Piedrasanta 2009). Similarly to other Mayan languages, Chuj has different lexical root classes for elements such as nouns, verbs, and adjectives. However, there is an additional class of roots, that despite being common within the Mayan language family, may not be as common (cross-linguistically) as the others. This is the class of positional roots, which is one of the three main focuses of the present analysis. The second important point is the group of 'directionals', which acquired this label due to their ability to bring about specification of location and direction. The third important concept is that of locatives, which are another type of non-verbal predicates featuring directionals. In essence, this paper provides an analysis of the relationship between directionals and both positional and locative expressions (see examples (1) and (2), respectively) in Chuj.[1]

(1) a.   Ch'ob'-an **ek'**   s-ti'.
          open-STAT DIR.pass A3s-mouth
          'His mouth is open.'   *stage-level positional construction*

[1] Abbreviations used in glosses: A – SET A/ergative ; B – SET B/absolutive; CLF – classifier; DET – determiner; DIR – directional; DIV – derived intransitive verb; DIV – derived intransitive verb; DTV – derived transitive verb; EXT – existential; INCH – inchoative; ITSF – intensifier; IPFV – imperfective; PFV – perfective; P – plural; PREP – preposition; S – singular; STAT – stative suffix.

b. Ch'ob'-an ch'ob'-an lum chen.
    open-STAT open-STAT CLF pot
    'The pot is open. (The shape of the pot is open.)'

                                              individual-level positional construction

(2) a. Ay **ek'**   nok' tz'i' t'a pat.
         EXT DIR.pass CLF dog PREP house
         'The dogs are in the house.'   *locative construction*

     b. Ay nok' tz'i' t'a pat.
         EXT CLF dog PREP house
         'There are dogs in the house.'   *existential construction*

When observing the examples presented above, it is important to note the presence (and absence) of the directional *ek'*. While the sentences in (1) show positional constructions as characterized by the positional root *ch'ob'*, 'open', the sentences in (2) show a locative and an existential construction, respectively. Although we are dealing with two different sets of expressions, they are both similar in two critical respects. First, both stage-level positionals and locatives require a directional — in this case *ek'* — to be considered grammatical as well as felicitous. Second, both (1a) and (2a) (as opposed to their counterparts in (1b) and (2b)) have a stage-level interpretation, which I propose is a result of the presence of the directional, as will hopefully become evident throughout this paper.

The paper is organized as follows. In Section 2.1, I distinguish between stage- and individual-level properties as they have been noted in English and briefly note how Chuj differs from English in terms of this distinction. Some background information on the structure of roots and stems in Chuj is provided in Section 2.2, which then leads to a discussion on positional roots and non-verbal predicates in Sections 2.3 and 2.4, respectively. In Section 2.5, directionals are introduced along with some contrastive points between intransitive roots and their corresponding directionals. In Section 3, I introduce the morphological and semantic difference between two types of positional constructions. Section 4 deals with the difference between existential and locative expressions among the world's languages and shows how this distinction is expressed in Chuj. I finally conclude in Section 5 with the key points and ideas presented in the paper as well as some avenues for future research.

2 Background

2.1 Stage-level vs. individual-level distinction

This section outlines the basic and key elements of the stage-level vs. individual-level distinction by making reference to work by Carlson (1977) and Milsark (1974), among others.

In simple terms, the stage-level vs. individual-level distinction refers to the division that exists between characterizations of a transient nature and those of a more permanent or classificatory nature (Carlson 1977, as discussed in Camacho 2012). Previous work on this distinction in English includes Milsark (1974), Milsark (1977) and Higginbotham and Ramchand (1997), and has explored questions such as why the sentences in (3) and (4) below are inconsistent in terms of grammaticality.

(3)   There are many children **sick**.

(4)   *There are many children **tall**.   (Higginbotham and Ramchand 1997)

The fact that the sentence in (3) above is grammatical while the one in (4) is not, serves as evidence that English differentiates between stage- and individual-level characteristics. It is important to note that the two sentences shown above may resemble one another on the surface but their underlying structure is different. More specifically, both sentences are making reference to the same entity (many children), while qualifying it in terms of a particular characteristic through the use of an adjective. However, while the adjective in (3) makes reference to a transient property, namely one that denotes a more impermanent state like that of being sick, the adjective in (4) denotes a more 'individual' or permanent property like that of being tall. In other words, there are specific types of constructions where it is ungrammatical to use individual-level as opposed to stage-level predicates. A more detailed discussion of two types of constructions permitting only stage- rather than individual-level predicates is provided in Section 3.1.

Interestingly, in Chuj this distinction is quite consistently marked by the presence or absence of a directional, as will become clear in Sections 3 and 4. For now, we turn to roots and stems, as they are essential concepts for a better understanding of the different types of predicates that there are in Chuj.

2.2   Roots and stems in Chuj

Roots in Chuj have been found to have a CVC structure for the most part, although the structure of some nominal and adjectival roots may vary. Coon (2017) makes reference to four main types of roots in Chuj, namely those of transitive, intransitive, positional, and nominal roots. Some of these roots are shown in Table 1 below (see also Haviland 1994 on Tzotzil as well as Lois 2011 on Yucatecan languages).

Table 1: Examples of transitive, intransitive, positional and nominal roots in Chuj

√TV	√ITV	√POS	√NOM
xik 'chop'	*b'at* 'go'	*chot* 'crouched'	*pat* 'house'
chonh 'sell'	*way* 'sleep'	*chek'* 'leaning'	*ixim* 'corn'
chel 'hug'	*k'ey* 'ascend'	*lich'* 'extended'	*winak* 'man'

As shown in Table 1, CVC root structure is prevalent in transitive, intransitive, and positional root classes, with only a few exceptions among the nominal and adjectival root classes. It is also important to mention that root class does not correspond directly to surface lexical stem category and the former can be diagnosed based on the morphology needed to form surface stems (Coon 2017). For example, it is possible for transitive roots to appear in intransitive stem forms (see (5b) below) and for intransitive roots to appear within transitive stems (see (5a) below), but they require special morphology to do so.[2] Although transitive and intransitive roots appear directly in transitive and intransitive stems, respectively, positional roots need special morphology, which differentiates them from other root classes.

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[2] For a more elaborate description of the difference between roots and stems, refer to Coon (2017).

(5) a. CHUJ TRANSITIVE STEM

   TAM-SET B-SET A-$\sqrt{\text{TV}}$-*V'* (Coon 2017)

   b. CHUJ INTRANSITIVE STEM

   TAM-SET B-$\sqrt{\text{ITV}}$-*i* (Coon 2017)

In the next section, we turn specifically to positional roots and demonstrate how they differ from other types of roots.

2.3 Positionals

Positionals are a special root class in Mayan languages that deal with physical shape, texture, size, quantity, and/or the distribution of objects (see e.g., Bohnemeyer and Brown 2007; England 1988; Gómez 2010; Kaufman 1990; Knowles 1983; Martin 1977; Norman 1973). This class of roots may be observed within verbal (see (6) below) or non-verbal predicates (Section 2.4), but they are characterized by their need for special morphology and they are further differentiated from other root classes since they often undergo derivational processes (mostly reduplication) that occur with no other class (Hopkins 2012).

(6) **Positional roots in verbal stems**

   a. Tz-ko-**lich'**-b'-ej   ko-k'apak.
   IPFV-A1P-hanging-INCH-DTV A1P-clothing
   'We hang our clothing.'   *positional root within transitive stem* (Coon 2017)

   b. Ix-onh-**k'ox**-n-aj-i.
   PFV-B1P-seated-STAT-DIV-IV
   'We sat down.'   *positional root within intransitive stem* (Coon 2017)

Another common place to find positional roots is within non-verbal predicates. In this case, the positional root must be accompanied by the stative suffix *-an*. However, this is not sufficient to form a predicate — in many cases, a 'directional', as in the example below, is required:

(7) Ch'ob'-an **ek'**   s-ti'.
   open-STAT DIR.pass A3s-mouth
   'His mouth is open.'   *repeated from (1a)*

Before we return to positional constructions and observe how they vary in terms of morphology and semantics, it is essential that we introduce non-verbal predicates. These constructions serve as evidence for the fact that positional roots function very differently in terms of morphology from other types of roots, such as adjectival and nominal roots.

2.4 Non-verbal predicates

Non-verbal predicates in Chuj are typically stative and differ from verbal predicates, like those described in the previous section, in two critical ways. First, non-verbal predicates will never appear with TAM marking and second, they are never observed to occur with a status suffix. Both of these facts can be seen in the following examples:

(8) Te-**kontenta** ix Malin.
 ɪᴛsғ-happy ᴄʟғ María
 'María is very happy.' *adjectival construction*

(9) **Ix** hin.
 woman ʙ1s
 'I am a woman.' *nominal construction*

As suggested by the adjective in (8), this particular sentence represents an adjectival predicate. On the other hand, the sentence in (9) is an example of a nominal predicate. While (8) consists of an adjective *kontenta* 'happy' and a simple subject, the sentence in (9) is composed of a bare noun and its corresponding person/number marker. Although these two constructions differ in terms of their general nature, they are both examples of non-verbal predicates, and thus, have no overt copulas, ᴛᴀᴍ marking, or status suffixes.

If we now compare the examples in (8) and (9) to those in (10) and (11) below, we can clearly see the morphological difference between positional roots and other types of roots:

(10) [Nhoj-an **em**] nok' tz'i'.
 crouched-sᴛᴀᴛ ᴅɪʀ.down ᴄʟғ dog
 'The dog is crouched down.' *positional construction*

(11) [Nhoj-an nhoj-an] nok' tz'i'.
 crouched-sᴛᴀᴛ crouched-sᴛᴀᴛ ᴄʟғ dog
 'The dog is crouched down (permanently).' *positional construction*

These examples are relevant because they show two important elements that are true of all positional roots. First, in (10) we have a positional root *nhoj*, 'crouched', followed by the stative suffix *-an* and a directional *em*, 'down.' In addition, the positional construction in (11) is also made up of a positional root and the stative suffix *-an*, but it is different from (10) because (i) the stem is being reduplicated and (ii) no directional is present. Putting aside the differences between these two types of constructions for the time being, what matters is the fact that positional constructions need either a directional or reduplication in order to be grammatical. It is because of this that the two examples below are ungrammatical:

(12) *****Nhoj** em nok' tz'i'.
 crouched ᴅɪʀ.down ᴄʟғ dog
 Intended: 'The dog is crouched down.'

(13) *****Nhoj**-an nok' tz'i'.
 crouched-sᴛᴀᴛ ᴄʟғ dog
 Intended: 'The dog is crouched down.'

In short, unlike other types of roots such as adjectival or nominal roots, positional roots need both a stative suffix and either a directional or a reduplicative process to form non-verbal predicates. We will return to the difference between these two positional constructions in Section 3, but for the time being we turn our attention to directionals.

2.5 Directionals

Directionals are derived from intransitive verbs of directional motion and are often seen accompanying stative predicates (Hopkins 2012). They can appear in a wide range of contexts, including both verbal and non-verbal predicates and, as their name suggests, they are most generally markers of direction that are not only used to specify an object or action's direction, but its location as well. Work by Mateo Toledo (2004) on the language of Q'anjob'al presents a more detailed and encompassing analysis of directionals in relation to their morphosyntactic and semantic characteristics within single clauses, through their interaction with lexical information, and their interaction with each other. Table 2 shows the list of intransitive roots along with their corresponding directionals in Chuj.

Table 2: Intransitive roots and their corresponding directionals in Chuj

Root	Intransitive	Directional
b'at	to go (away)	'away'
em	to descend	'down'
ek'	to pass by	'pass'
el	to leave	'out'
hul	to come	'toward'
och	to enter	'in'
kan	to stay	'stable'
kot	to draw near	'nearing'
k'e'	to ascend	'up'
k'och	to arrive	'arriving'

All of the intransitive roots shown above can appear within verbal predicates such as those in the examples below:

(14) a. Ix-in-**el**-i.
  PFV-B1s-leave-ITV
  'I left.'   *intransitive verb* el *'to leave'*

   b. Ix-in-b'ey   **el**   t'a   pat.
  PFV-B1s-walk DIR.out PREP house
  'I walked out of the house.'   *directional* el *'out'*

(15) a. Ix-in-**k'e'**-i.
  PFV-B1s-ascend-ITV
  'I ascended/went up.'   *Intransitive verb* k'e' *'to ascend'*

   b. Ix-s-jul   **k'e'**   nok'   pelota.
  PFV-A3s-throw DIR.up CLF   ball
  'He was throwing the ball up.'   *directional* k'e' *'up'*

Here, directionals are observed in two different contexts. In both (14a) and (15a), the intransitive roots are being used within simple intransitive verbal constructions. However, although the sentences in (14b) and (15b) show the same intransitive roots being used, in both of these cases, the

directional merely serves the function of specifying the direction in which the main verb is being performed.

In the next section I formally introduce the role that directionals play within positional constructions and tie it to the stage- vs. individual-level contrast that was discussed earlier in the paper.

3   Directionals within positional constructions

As was briefly mentioned earlier, positionals are a special root class in Mayan languages that show distinct derivational and syntactic properties and, according to Martin (1977), they are found in most, if not all, of the languages within the Mayan family. Because of their unique and productive nature, postional roots have become an increasingly studied area of Mayan languages, as shown by the work of Norman (1973), Knowles (1983), England (1988), Kaufman (1990), Bohnemeyer and Brown (2007), and Gómez (2010), among others. More recent work on the semantics of positional roots includes Tummons (2010) and Henderson (2017) and focuses on the gradability aspect of positionals and the way in which this gradability relates to the derivational requirements of the root class. More specifically, Henderson (2017) classifies positionals as 'measure functions' and claims that their derivational and gradability characteristics are some of the main properties that differentiate the class of positionals from that of adjectives and other lexical elements.

In Chuj, positional roots can be derived into non-verbal predicates through the addition of the stative suffix -*an*. However, it is impossible for the resulting stem to be used without any other type of morphological modification and thus the derived stem is often followed by a directional, as can be observed in the example below:

(16)   [Nhoj-*an*   **em**   ] nok tz'i'.
　　　　 crouched-STAT DIR.down   CLF dog
　　　 'The dog is crouched down.'

Expressions such as the one in (16) are common and they usually make reference to the temporary position, size, location, or distribution of a particular entity. I propose that the temporary aspect of the combination between a positional stem and a directional particle suggests the expression is in fact a type of stage-level predicate. This idea can be further strengthened by analyzing (17), which deals with a reduplicative process that most positional roots permit:

(17)   [Nhoj-an   nhoj-an   ] nok tz'i'.
　　　　 crouched-STAT crouched-STAT CLF dog
　　　 'The dog is crouched down (permanently).' (due to a malformation)

What is most important in the above example is the fact that the reduplication of the positional stem results in an individual-level reading of the example in (16). More specifically, while the sentence in (16) describes the dog's temporary state of being crouched down, the sentence in (17) is only felicitous in a context where the dog is permanently shaped in a way that makes it look like it is crouched down. Essentially, the meaning of these two positional constructions contrasts simply because of the positional's derivation rather than a change in the positional root itself.

In order to better appreciate the distinction between stage- and individual-level positionals, we can turn to examples (18) through (20).

(18) a.   [Ch'uy-an   **ek'**   ] s-ti'.
           twisted-STAT DIR.pass   A3s-mouth
           'His mouth is twisted.' (he is making a particular face, purposefully)

      b.   [Ch'uy-an   ch'uy-an   ] s-ti'.
           twisted-STAT twisted-STAT   A3s-mouth
           'His mouth is twisted.' (because of a malformation or injury, it is permanently twisted)

(19) a.   [Ch'ob'-an **ek'**   ] s-ti'.
           open-STAT DIR.pass   A3s-mouth
           'His mouth is open.'

      b.   [Ch'ob'-an ch'ob'-an] lum chen.
           open-STAT open-STAT   CLF pot
           'The pot is open.' (the shape of the pot is open; with a deep hole)

(20) a.   [Chik-an   **em**   ] ix   ix.
           bowed-STAT DIR.down   CLF woman
           'The woman is bowed down (with a bowed head).'

      b.   [Chik-an   chik-an   ] te   te'.
           bowed-STAT bowed-STAT   CLF tree
           'The tree is doubled over.' (due to being dry or having fallen down)

In the sentences in (18), we are dealing with one single entity (someone's mouth) that is being attributed the same property (being in a 'twisted' position) in either a stage-level or in an individual-level manner. However, examples (19) and (20) are somewhat different. In (19), for example, the stage-level reading of the positional *ch'ob'an* 'open' is attributed to someone's mouth. On the contrary, the individual-level reading of this same positional in (19b) is used to describe the mere nature of an object that is 'open', such as a pot, which is essentially an open hole. Similarly, while the woman referred to in (20a) is described as being in a temporary 'bowed down' position, the tree in (20b) is described as being permanently doubled over. In short, I take the productivity of the above types of positional constructions as well as the clear contrast between the two, to show that, through the addition of a directional particle or the stem's reduplication, positionals can express either stage-level or individual-level states. In the next section, we will further compare these two positional constructions, specifically in relation to their behaviour in two tests.

3.1   Additional evidence for the SLP/ILP distinction in positional constructions

Following Maienborn (2016), it is possible to show that in Chuj, the presence of a directional within a positional construction contrasts with that of reduplication of the positional stem in respect to (i) its ability to combine with locative modifiers and (ii) its ability to serve as a complement of a perception verb (Henderson, Elias, Royer, and Coon 2018). Both of these tests are used by Maienborn (2016) to draw a distinction between stage- and individual-level predicates for the former will always pass both tests while the latter will not. This can be observed in the following examples:

(21) **Combination with locative modifiers** (Henderson et al. 2018; Maienborn 2016)

    a.   [Nhoj-an   **em**   ] nok tz'i' s-ti'   te' pat.
          crouched-STAT DIR.down CLF dog A3s-mouth CLF house
          'The dog is crouched down in front of the house.'

    b.   *[Nhoj-an   nhoj-an   ] nok tz'i' s-ti'   te' pat.
          crouched-STAT crouched-STAT CLF dog A3s-mouth CLF house
          Intended: 'The dog is crouched down in front of the house.'

(22) **Complements of perception verbs** (Henderson et al. 2018; Higginbotham 1983; Maienborn 2016)

    a.   Ix-w-il   [ch'ob'-an ek'   ] s-ti'.
          PFV-A1s-see   open-STAT DIR.pass   A3s-mouth
          'I saw his/her mouth (being) open.'

    b.   *Ix-w-il   [ch'ob'-an ch'ob'-an] lum chen.
          PFV-A1s-see   open-STAT open-STAT   CLF pot
          Intended: 'I saw the pot (being) open.'

As observed in examples (21a) and (22a), positional constructions featuring directionals allow for both the introduction of a locative modifier and can become the complement of perception verbs. On the contrary, positional constructions where the stem is reduplicated result in ungrammaticality for both of these tests. In short, both locative modifier and perception verb tests serve as further evidence for the stage-level/individual-level distinction in positional constructions in Chuj.

    In the following section, we introduce existential and locative constructions and show how, once again, directionals are used to mark an essential distinction in the Chuj language.

4   Existentials vs. locatives

It is common for languages around the world to make use of word order when differentiating between existential and locative constructions (Freeze 1992). However, Chuj deviates from this very common pattern since it uses directionals to distinguish locatives from existentials. This section presents an analysis of the relationship between existential and locative constructions as encountered in various languages around the world (including languages within the Mayan family) and later illustrates how Chuj is unique in this aspect.

4.1   Cross-linguistic data

The relationship between existentials and locatives has been explored by Freeze (1992) in a variety of languages including Indo-European languages like Russian (23) and Hindi, Austronesian languages like Chamorro and Tagalog, and Finnic languages like Finnish (24). Interestingly, these languages all differ in terms of word order, with languages like Hindi being verb-final and languages like Tagalog being verb-initial. Still, Freeze proposes a universal paradigm in which the same 'building blocks', namely the theme, verb, and locative within a construction are simply reordered to represent (i) the predicate locative, (ii) the existential, and (iii) the 'have' predication. For the purpose of this paper, I do not go into detail on the last one of these three constructions.

(23) **Locative and existential constructions in Russian** (Freeze 1992)

    a.   kniga   byla na stole.
           book.NOM.FEM was on table.LOC
           'The book was on the table.'   *Theme Verb Locative*

    b.   na stole   byla kniga.
           on table.LOC was book.NOM.FEM
           'There was a book on the table.'   *Locative Verb Theme*

(24) **Locative and existential constructions in Finnish** (Freeze 1992)

    a.   mies   on huonee-ssa.
           man.NOM is room-INESSIVE
           'The man is in the room.'   *Theme Verb Locative*

    b.   huonee-ssa   on mies.
           room-INESSIVE is man.NOM
           'There is a man in the room.'   *Locative Verb Theme*

As discussed earlier, in order to differentiate between locative (23a and 24a) and existential (23b and 24b) constructions, a reordering of the set of 'building blocks' is needed. By looking at the sentences in (23a) and (24a), one can see that the theme argument (*kniga* 'book' in Russian or *mies* 'man' in Finnish) appears before the verb, while the locative (*na stole* 'on the table' in Russian or *huonee-ssa* 'in the room' in Finnish) is placed after it. On the other hand, the sentences in (23b) and (24b) rearrange the order of these three elements, resulting in the locative preceding the verb, and the theme following it. Thus, it is clear that the word order contrast is what distinguishes existential constructions from locatives in language groups like the ones just discussed. However, this pattern is also observed in the Mayan language of Ch'ol, as noted by Coon (2010).

4.2   Other Mayan languages: Ch'ol

Similarly to languages like Russian and Finnish, the Mayan language of Ch'ol resorts to word order when differentiating between existential and locative constructions:

(25) **Existential and locative constructions in Ch'ol**[3] (Coon 2010)

    a.   **Añ** wiñik tyi   otyoty.
           EXT man   PREP house
           'There's a man in the house.'   *existential construction*

    b.   **Añ** tyi   otyoty wiñik.
           EXT PREP house   man
           'The man is in the house.'   *locative construction*

As shown in the above examples, Ch'ol has an existential/locative copula *añ* that is used for existentials, locatives, and possessives (Coon 2010). If one compares the examples in (25) to those in

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[3] Definiteness is also relevant in this particular case since only the theme noun in a locative construction can be definite. More specifically, determiners and proper names are permitted in locative constructions like (25b) but not in existential constructions like (25a).

(23) and (24), it is clear that the reordering pattern is the same across the three languages. However, despite the similarities between these languages and the fact that Ch'ol and Chuj both belong to the same language family, the word order pattern does not extend to Chuj, as will become clear next.

4.3 Chuj

Similarly to Ch'ol, Chuj has an existential verb *ay*, that is needed in both existential and locative constructions. This verb does not take any tense or aspect marking and it is inflected for subject like any non-verbal predicate, namely with SET B morphology (Hopkins 2012). We now consider the following two examples, which show an existential and a locative construction in Chuj, respectively:

(26) Ay heb' ix   ix   t'a   pat.
      EXT PL   CLF woman PREP house
      'There are women in the house.'

(27) Ay **ek**'   heb' ix   ix   t'a   pat.
      EXT DIR.pass PL   CLF woman PREP house
      'The women are in the house.'

First, note that unlike all of the previous examples in this section, the sentences in (26) and (27) have the same word order. In fact, both the existential and the locative constructions in Chuj are the same in every respect, except for one: the presence of the directional particle '*ek*'. Furthermore, when it comes to the underlying sense of an existential construction, additional work is needed in order to better identify the level of permanency that existentials provide in comparison to locatives. In other words, to what extent do existential constructions allow for a more permanent (i.e., individual-level) state of existence than locatives, which are more connected to transient (i.e., stage-level) states? Perhaps an even better example of the directional's stage-level contribution to an existential construction is the following pair of sentences:

(28) a. Ay hin t'a   pat.
          EXT B1S PREP house
          'I live in my house.'

     b. Ay hin **ek**'   t'a   pat.
          EXT B1S DIR.pass PREP house
          'I am in my house.'

Here, we can better compare the individual-level aspect of a more permanent state such as that of 'living' in one's house with the stage-level aspect of simply 'being' in the house at any particular point in time. This further suggests that, in fact, the directional is contributing stage-level meaning to locatives in Chuj, just as it does in the positional constructions in Section 3.

5 Conclusions

Over the course of this paper, positional and locative constructions have been explored and analyzed in relation to the presence or absence of directionals. I have showed that non-verbal predicates can

be derived from positional roots through the use of the stative suffix *-an* and one of two different morphological processes. First, I described the positional construction composed of a positional stem (of the form POS-*an*) and a directional. I then showed how this construction differs in terms of morphology and semantics from another positional construction where the full positional stem is reduplicated (of the form POS-*an* POS-*an*). More specifically, I have argued that it is the directional's presence in the first type of positional construction that contributes stage-level meaning to positional constructions, whereas stem reduplication results in an individual-level reading of these constructions. I later introduced two different tests, as established by Maienborn (2016), which allow us to see the difference between stage-level and individual-level positionals more clearly. In addition to exploring the role of directionals within positional constructions, I have provided a morphological and semantic comparison between existential and locative constructions in Chuj, while also making reference to other languages such as Russian and Finnish, as discussed by Freeze (1992), and Ch'ol, as discussed by Coon (2010). By comparing existential to locative constructions, I emphasized the parallelism that exists between locative and stage-level predicates, suggesting again that the directional particle that is required in locative constructions contributes stage-level meaning to an otherwise existential expression.

While some of the basic morphological and semantic differences between stage-level and individual-level positionals, and between existentials and locatives have been discussed, further research is needed to better understand several concepts. First, the reduplicative process discussed in this paper is only one of several reduplication processes that occur within the class of positional roots in Chuj. Moreover, the work on locatives that is presented in this paper is mostly preliminary and needs to be further analyzed and extended in order to officially account for the relationship between stage-level positionals and locative constructions in Chuj. In short, although work remains to be done, there is strong evidence to suggest that directionals contribute stage-level meaning to both positional and locative constructions in Chuj.

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