Comparatives in San Sebastián del Monte Mixtec: A Mixed Construction
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1. Introduction: conjoined comparatives and “degree languages”

This paper presents novel data on conjoined comparatives from San Sebastián del Monte Mixtec (ISO 639-3: mks), an Otomanguean language, which is part of the Mixtec language family, Otomanguean stock, spoken in Oaxaca, Mexico. San Sebastián del Monte Mixtec (henceforth SSM) presents three different comparative structures, conjoined comparatives, particle comparatives and locative comparatives. In all these kinds of comparatives a comparative marker ga is used and gradable predicates are present.

Work by Davis and Mellesmoen (2019) on òayʔàjùəm has shed light on the fact that the availability of a conjoined comparative construction is not sufficient for identifying a non-gradable predicate language ([−DSP]). I support Davis and Mellesmoen’s (2019) observation with data from SSM.

In this paper I focus on conjoined comparatives in SSM, demonstrating that SSM is a gradable predicate language and that ga functions as a comparative marker in comparative constructions. I will conclude by offering a preliminary analysis for conjoined comparatives co-occurring with gradable predicates.

2. Comparatives in San Sebastián del Monte Mixtec

SSM is a tonal language (three tones) and it has a VSO word order, though other word orders are available depending on information structure (focus and topic).

(1) a. Sísi tìnà xìtà.2
    Sísi tinà xità
    eat.CONT dog tortilla
    ‘El perro come la tortilla.’
    ‘The dog eats the tortilla.’

The element which is in focus or in topic position needs to be to the left of the verb.

(2) a. $\text{SFOCUS VO}$

\[ \text{Lupi tâ´vi vàso.} \]
\[ \text{Lupi tâ´vi vàso} \]
\[ \text{Lupi break.COMP glass} \]
\[ \text{‘LUPI rompió el vaso.’} \]
\[ \text{‘As for Lupi, she broke the glass.’} \]

b. $\text{STOPIC VSO}$

\[ \text{Lupi tâ´vi ſá vàso.} \]
\[ \text{Lupi tâ´vi=řá vàso} \]
\[ \text{Lupi break.COMP=3SG.F glass} \]
\[ \text{‘Lupi, la que rompió el vaso.’} \]

Adjectives can function as predicates (3), in which case they occur before the subject, as with verbal predicates. In these cases, no copula occurs with them.

(3) $\text{Jikó Tyutyì.}$

\[ \text{jikó Chuchi} \]
\[ \text{tall Chuchi} \]
\[ \text{‘Chuchi es alto.’} \]
\[ \text{‘Chuchi is tall.’} \]

SSM can express comparatives with three distinct constructions, all of which use the comparative marker $\text{ga}$. In all three examples, the comparative marker is cliticized to the predicate (‘tall’) and precedes the clitic pronoun. These three constructions express the same idea, but they are distinct in the way they are formed.

SSM presents two kinds of monoclausal comparatives, a locative comparative and a particle comparative. Both (4) and (5) are monoclausal comparatives, where the standard of comparison (‘you’) is introduced by two different standard markers (the locative $\text{nòò}$ and the particle $\text{ja}$).

(4) $\text{Yù´ú jikó ka i nòò mèe ní.}$

\[ \text{yù´ú jikó=ga=i nòò mèe=ní} \]
\[ \text{1SG.IND tall.CONT=GA=1SG on BASE=2SG.HON} \]
\[ \text{‘Yo soy más alto que usted.’} \]
\[ \text{‘I am taller than you.’} \]

Locative comparative

(5) $\text{Yù´ú jikó ka i ja mèe ní.}$

\[ \text{yù´ú jikó=ga=i ja mèe=ní} \]
\[ \text{1SG.IND tall.CONT=GA=1SG than BASE=2SG.HON} \]
\[ \text{‘Yo soy más alto que usted.’} \]
\[ \text{‘I am taller than you.’} \]

Particle comparative

SSM also presents a conjoined comparative construction, which is not monoclausal. (6) is an example of a conjoined comparative in SSM, a clause and a phrase are conjoined, although no conjunction appears. The clause ends with the first-person singular pronoun, while the phrase in the second conjunct starts with the negation $\text{òònjiví}$.

(6) $\text{Yù´ú jikó ka i, òònjiví mèe ní.}$

\[ \text{yù´ú jikó=ga=i òònjiví mèe=ní} \]
\[ \text{1SG.IND tall.CONT=GA=1SG NEG BASE=2SG.HON} \]
\[ \text{‘Yo soy más alto que usted.’} \]
\[ \text{‘I am taller than you.’} \]

Conjoined comparative

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3 Although from the translation it seems that we are dealing with a contrastive topic, this is not the case. I use this kind of translation (“as for…”) to indicate that the preverbal element is a topic.

4 To simplify things, I am going to translate each comparative as an English particle comparative, even when the subject of the comparative is in focus or topic.
2.1. San Sebastián del Monte Mixtec Conjoined Comparatives

Conjoined comparatives are comparatives which use two conjoined clauses to associate the target of comparison and the standard of comparison (Stassen 1985). The two clauses can be prosodically separated and thus are reported orthographically with a comma in between, or they can be coordinated by a conjunction (e.g. ‘and’). Moreover, conjoined comparatives in the second conjunct can either use an antonym of the predicate used in the first conjunct, as in (7), or they can use negation instead, as in (8).

(7) ũxa̱l Tony, titul Laura.
    tall Tony small Laura
    ‘Tony is taller than Laura.’ (Literally: ‘Tony is tall, Laura is small.’)  
?ayʔajuθəm (Davis & Mellesmoen 2019:47)

(8) Ina na namo herea, una na dia namo.
    this is good more that is not good
    ‘This is better than that.’ Motu (Stassen 1985:186)

Like other conjoined comparative constructions, SSM uses a prosodic break between the two clauses (represented with a comma in writing, but produced with a pause orally); the same break is not available in the other two comparative constructions available in SSM (which are monoclausal). Furthermore, the second clause has a focus negation (ðɔŋjìvì), which negates the subject, the direct object or the indirect object of what is understood as the clause. The prosodic break and the negation in the second conjunct, are what characterize the comparative construction in (9)–(11) as being a conjoined comparative.

(9) Sìsi kà i tako, ðɔŋjìvì mèe nì.
    sìsi=gà=i tako ðɔŋjìvì mèe=nì
    eat.CONT=GA=1SG taco NEG BASE=2SG.HON
    ‘Comí más tacos que usted.’
    ‘I ate more tacos than you.’

(10) Kási kuà̀ akà tìna ndìka, ðɔŋjìvì tìkuaá.
    kási-kuà̀=ga tìna ndìka ðɔŋjìvì tìkuaá
    eat.CONT=much=GA dog banana NEG orange
    ‘El perro está comiendo más bananas que naranjas.’
    ‘The dog is eating more bananas than oranges.’

(11) Tandà a ka i lètrá Liya, ðɔŋjìvì Tyutyi.
    tandà=a=gà=ì lètrá Liya ðɔŋjìvì Chuchi
    send.CONT=GA=1SG letter Liya NEG Chuchi
    ‘Estoy enviando más letras a Liya que a Chuchi.’
    ‘I am sending more letters to Liya than to Chuchi.’

The negation used in the conjoined comparative is the same negation used to negate DPs in a disjunction; it contrasts them with a DP in the first conjunct.

5 This sentence is ambiguous between the meaning offered above and ‘I am sending more letters to Liya than Chuchi is sending.’ One of the consultants suggested that we could disambiguate the two meanings by using the locative comparative.
(12) Context: Someone asks me if I ate the last apples in the kitchen.

Sàsì tikuàá, òònjìví manzaná.

‘sì tikuàá òònjìví manzaná
eat.COMP=1SG orange NEG apple
‘Comí naranjas, no manzanas.’
‘I ate oranges, [but] not apples.’

The contrastive nature is evident when we look at the truth conditions; (12) is true just in case I ate oranges, and not when I ate apples. Thus, I take òònjìví to function as a contrastive negation in its reverse form (McCawley 1991).

(13) Mary ate not apples but oranges.
(14) Mary ate oranges, not apples.

A sentence which uses òònjìví in SSM can be associated with a reverse contrastive negation in English, where oranges and apples are alternatives for one another (McCawley 1991). Thus, similarly to English contrastive negation, I propose that stripping reduces the second conjunct to a remnant DP that has been fronted, and everything else in the second conjunct is elided, as in (15). The fronting of the remnant DP is due to focus. In fact, we can find focused elements fronted independently in SSM, as I have shown in (2).

(15) a. [[sàs=ì tikuàá] [[òònjìví manzaná]]
   [[sàs=ì] [[òònjìví manzaná]]
   eat.COMP=1SG orange eat.COMP=1SG NEG apple

b. [[sàs=ì tikuàá] [[òònjìví manzaná] sàs=ì]]
   [[òònjìví manzaná] sàs=ì]
   [[sàs=ì] tikuàá]
   [[òònjìví manzaná] sàs=ì]
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   [[sàs=ì] tikuàá]
   [[òònjìví manzaná] sàs=ì]
   [[òònjìví manzaná] sàs=ì]
A consequence of having contextual comparatives as in (18) is that we can exclude the idea that adjectives in SSM are comparative in their meaning, unlike Japanese for example (Oda 2008).

However, as demonstrated by Deal and Hohaus (2019), the presence of the comparative marker alone does not mean that we are dealing with a degreeful language. In the following sections I will present empirical evidence for the argument that indeed the conjoined comparative in SSM has a gradable predicate.

3. The proposal: conjoined comparatives can have gradable predicates


(19) \[ \text{tall} = \lambda d. \lambda x. \text{tall}(x) \geq d \]

In (19), \( x \) is an individual, tall is a measure function relating \( x \) to \( d \), and \( d \) is a degree on the scale of height. However, not every language lexicalizes a degree argument in scalar predicates, and thus Beck et al. (2009) created a parameter to indicate whether scalar predicates in a given language lexicalize a degree argument. This parameter is the Degree Semantics Parameter (Beck et al. 2009).

(20) **Degree Semantics Parameter** [±DSP] (Beck et al. 2009: 19): A language {does/does not} have gradable predicates (type \( \langle d, \langle e,t \rangle \rangle \) and related), i.e. lexical items that introduce degree arguments.

If a language does have a gradable predicate, then it will be [+DSP]; when it does not have a gradable predicate, then it will be [-DSP]. A language that is [-DSP] would have scalar predicates lexicalized as context-sensitive vague predicates.

(21) \[ \text{tall}^c = \lambda x. x \text{ counts as tall with respect to } c \]

In (21), \( x \) is an individual, who counts as ‘tall’ in a context \( c \). Languages of this kind are for example Motu (Beck et al. 2009), Warlpiri (Bowler 2016) and Washo (Bochnak 2015).

Going back to the relationship between the presence of a comparative marker and the positive setting of the degree semantics parameter, Deal and Hohaus (2019) rightfully point out that it is perfectly possible to provide a meaning for a comparative marker to not make reference to degree arguments. An example of such a morpheme is actually the same English comparative marker \( (er) \) (Klein 1980, 1982), which is able, for example, to manipulate the contextual value with respect to which the predicate is determined.

(22) \[ \langle \text{Chuchi is taller than See} \rangle^c = 1 \text{ iff there is a context } c^{'} \text{ such that Chuchi counts as tall with respect to } c^{'} \text{ and See does not count as tall with respect to } c^{'} \].

If I assume that the comparative in SSM is a Klein-style comparative, as in (22), then in a conjoined comparative like the one in SSM, there is going to be a context \( c \) which contains two individuals, Chuchi and See. If Chuchi and See are different in height, there is going to be a way to assign Chuchi but not See the positive extension of the predicate tall. Thus, the mere possibility of a comparative marker is not sufficient to determine that a language has non-vague predicates. Deal and Hohaus (2019) point out that even with the crisp judgement test, as in (23), it is still possible to assign the positive extension of the gradable predicate to one individual, but not to the other (von Stechow 1984).
(23) Context: I am 180cm tall and you are 179cm tall.

Yù ‘ù jikó kà i, òònjìví mèe ní.

‘Yo soy más alto que usted.’

I am taller than you.’

To check whether predicates in SSM are indeed gradable I use differential comparatives as a test for [DSP], as proposed by Deal and Hohaus (2019). As they pointed out, when we use differentials, we cannot possibly use the same rhetoric applied for the crisp judgement test. This is also a reason for why von Stechow (1984) rebuked a Klein-style analysis for English comparatives, as in English we can have differential comparatives. As Deal and Hohaus (2019) conclude in their paper, although the absence of differential comparatives can be associated with either positive or negative [DSP] value, the presence of differential comparatives can only be associated with the positive [DSP] status.

The differential measure phrase test is reported in (24) and the vague quantificational differential comparatives are also grammatical as reported in (25)–(26).

(24) Jikó Liya iin metro kà, òònjìví Lupe.

‘Liya es un metro más alta que Lupe.’

‘Liya is one meter taller than Lupe.’

(25) Jìì tyáá kà inì, òònjìví Liya.

‘Yo estoy un poco más feliz que Liya.’

‘I am a little happier than Liya.’

(26) Yù ‘ù jikó kuà’ à kà i, òònjìví mèe ní.

‘Yo soy mucho más alta que usted.’

‘I am much taller than you.’

Based on this test, I conclude that SSM conjoined comparative is capable of hosting a differential measure phrase as well, and therefore that SSM is a language with gradable predicates ([+DSP]).

As follows from this discussion, SSM has a conjoined comparative construction and it has a positive setting of the [DSP] parameter. Therefore, at a typological level, we can confirm that conjoined comparatives are not a diagnostic for the [+/DSP] parameter, as proposed by Davis and Mellesmoen (2019).

4. Analysis of conjoined comparatives in SSM

As I reported in Section 2, SSM presents contextual comparatives (also known as incomplete comparatives, Sheldon 1945). Context comparatives only have the clause with the comparative marker, and they do not have an overt standard of comparison.

(27) Yù ‘ù jikó kà i.

‘Yo soy más alta.’

‘I am taller.’
In (27), there is an implied completion to the comparative meaning, as previously indicated by Sheldon (1945) in English (28).

(28)  {Come out onto the porch.} It’s cooler here.  (Schwarzschild 2008:89)

In (28), the implied completion is “than inside” and it is made clearer by the preceding sentence. In SSM the same is also true: the implied completion is inserted in the contexts I give before uttering (27) in Mixtec, both of which are correct (29)–(30).

(29)  Context 1: There is a group of tall people, all with different levels of tallness (I offered a drawing with a number equivalent to the height of each person). Can I say (27)?

(30)  Context 2: Chuchi and I are both basketball players, I am 198 cm tall and Chuchi is 190 cm tall. Can I say (27)?

In (27), there is an individual, or a set of individuals, who are salient in the discourse, whom I am taller than. The context must be referred to by ga. Thus, a quantificational determiner (in our case ga — a degree quantifier) has an argument index whose value is determined by the pragmatics derived from the discourse (and I will add/clarify by the shared knowledge of the speakers) (von Fintel 1994, Schwarzschild 2010). Moreover, as I proposed earlier, the predicates in SSM are gradable (31) and ga functions as a comparative marker in comparatives (32).

(31)  \[ \text{jikò} = \lambda d. \lambda x. \text{HEIGHT}(x) \geq d \]

(32)  \[ \text{gaC} = \lambda R \langle d, \langle e, t \rangle \rangle. \lambda x. \text{MAX}(\lambda d. R(x)(d) = 1) \geq \text{MAX}(\lambda d. \exists x \in C[R(x)(d)]) \]

In (31), Jikò is a gradable predicate, d is a variable over degrees, x is a variable over individuals, and HEIGHT is a measure function relating x to d, a degree on the scale of height (Cresswell 1976, von Stechow 1984, Heim 1985, 2000, Kennedy & McNally 2005, among others). In (32), I report the semantics for the comparative marker in SSM, which is what usually we would use for the incomplete comparative’s operators (Hohaus 2015).

(33)  Jikó kà Liya.
    Jikó=gà Liya
tall.CONT=GA Liya
    ‘Liya es más alta.’
    ‘Liya is taller.’

A comparative like (33) would mean ‘The maximal degree d such that Liya is d-tall exceeds some contextually provided height degree.’

(34)  \[ \text{[Liya [tall, \langle d, \langle e, t \rangle \rangle] comparison-ga]} \] = iff
    \[ \lambda R \langle d, \langle e, t \rangle \rangle. [\lambda x. \text{MAX}(\lambda d. R(d)(x) = 1)] = c \] (\( \lambda d. \lambda x. \text{HEIGHT}(x) \geq d \)) (L) = 1
    iff \text{MAX}(\lambda d. \text{HEIGHT}(L) \geq d) > c

Therefore, we are going to assume that there is a set of possibilities, and that in the comparative there is a set of two.

While the English than-clause specifies a standard of comparison directly, the second conjunct in SSM conjoined comparatives negates an alternative of the first clause (where the DP in the second clause takes the place of one of the DPs in the first clause).

(35)  Jikó kà Liya, òònjìví Tyutyi.
    Jikó=gà Liya òònjìví Chuchi
tall.CONT=GA Liya NEG Chuchi
    ‘Liya es más alta que Chuchi.’
    ‘Liya is taller than Chuchi.’
The second conjunct is formed by a contrastive negation which coordinates it with the first conjunct. The standard DP is moved to the left periphery of the clause and the rest of the clause can be elided under stripping, as it occurs with without stripping.

5. Conclusion and open questions

I have demonstrated that SSM is a [+DSP] language, and that it has coordination and a comparative marker. The first conjunct is an incomplete comparative, while the second conjunct negates one of the alternatives of the first clause.

The coordinate nature of the comparative does not inform us as to whether the language is necessarily [-DSP] or whether the second conjunct functions as an actual standard phrase; SSM reinforced the idea that we need to use established comparative tests before classifying a language.

Whether SSM has undergone a shift from being [-DSP] to being [+DSP], similarly to Samoan (Hohaus 2018), is at this point pure speculation, but I will include this question to highlight the idea that the historical perspective might also be able to add to the typological understanding. It is evident that the language is changing quickly as the usage of the particle comparative started only with the new generations, before which it did not exist.

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<th>Table 1: Relation between use of comparatives and age of the speaker</th>
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The particle comparative would be the one construction that we would expect to use gradable predicates and not vague predicates. It will be worthwhile to explore this point in the future, with both careful synchronic and diachronic comparison, in order to test this hypothesis.

As work done on ʔayʔaʔi tom (Davis and Mellesmoen 2019), Samoan (Hohaus 2015, 2018), Washo (Bochnak 2013), Warlpiri (Bowler 2016) and Nez Perce (Deal and Hohaus 2019) among others, has shown, to better inform our understanding of comparatives, we need to look to more understudied languages. Conjoined comparatives make up for 26 of the 110 languages of the world surveyed by Stassen (1985), yet more work on the syntax-semantics interface of this kind of comparative is necessary.

References


