

Tongue protrusion as a negation strategy: new data from a small sign language in Brazil (Tiros/MG)

[Protrusão da língua como estratégia de negação: novos dados de uma língua gestual minoritária no Brasil (Tiros/MG)]

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In C. Morgado, A. M. Brito, A. Mineiro, J. A. Costa, M. Moita, V. Anachoreta & I. Oliveira (Eds.). *Portuguese Sign Language and other sign languages: Studies on morphosyntax, semantics and lexicon* (69-81). CLUP/FLUP; InED/ESE-P.PORTO; FCSE/UCP. <https://doi.org/10.21747/978-989-9193-50-5/pora4>.

¹ Part of the research that led to the results presented here was funded by FAPESP São Paulo Research Foundation (Process 2022/05962-4).

ABSTRACT: In this paper, we focus on the analysis of tongue protrusion (TP) as a non-manual negation strategy found in Tiros Sign Language (TSL), a small sign language used in a micro-community of 21 individuals (10 deaf and 11 hearing) in the countryside of the state of Minas Gerais (MG), Brazil. One of our co-authors, a native Brazilian Sign Language (Libras) deaf signer and researcher, observed that TP was fairly used in Tiros SL, including uses as a negation non-manual particle. As TP is also found in other SLs of the world [Kata Kolok (Lutzenberger, Pfau & de Vos, 2022), Hong Kong Sign Language - HKSL (Gan, 2019), Turkish Sign Language - TID (Makaroğlu, 2021) and British Sign Language - BSL (Lewin & Schembri, 2011)], although not always expressing negation, we aim at providing new data of this feature from a newly described SL of Brazil.

KEYWORDS: Tiros Sign Language; negation strategies; non-manual markers; emergent sign languages.

RESUMO: Neste artigo, analisamos a protrusão da língua (PL) como uma estratégia de negação não manual que se encontra na língua de sinais de Tiros (LST), uma língua de sinais usada numa microcomunidade de 21 indivíduos (10 surdos e 11 ouvintes) na zona rural do estado de Minas Gerais (MG). Um dos co-autores, que é investigador e sinalizador surdo da Língua Brasileira de Sinais (Libras), notou que a PL é usada frequentemente na LST como partícula negativa. Como a PL é usada noutras línguas de sinais do mundo [na Kata Kolok (Lutzenberger, Pfau & de Vos, 2022), na Língua de Sinais de Hong Kong - HKSL (Gan, 2019), na Língua de Sinais Turca - TID (Makaroğlu, 2021) e na Língua de Sinais Britânica - BSL (Lewin & Schembri, 2011)], nem sempre exprimindo negação, o nosso objetivo é trazer novos dados deste traço a partir de uma língua de sinais usada no Brasil e só recentemente descrita.

PALAVRAS-CHAVE: Língua de Sinais de Tiros; estratégias de negação; marcadores não-manuais; línguas de sinais emergentes.

Introduction

This chapter aims to bring new data on tongue protrusion (hereafter, TP) as a negation strategy codified in Tiros Sign Language (hereafter, TSL), a small sign language in Brazil. TP can be considered a typologically rare type of non-manual marking, and it is used by deaf people in Tiros, which differs from what is observed in Brazilian hearing non-manual gestures and from Brazilian Sign Language (Libras) users. So, from the typological point of view, this description adds to the general mapping of this feature worldwide, trying to unveil possible relations between the distribution of these items in the different deaf communities around the globe.

In the next section, we will describe the demographics and the geography of the deaf community in Tiros, offering our reader a general view of deaf life and how it may relate to the linguistic features found in TSL. In section 2, we provide a brief overview of how negation is encoded in the world's sign languages and bring the relevant descriptions of the theme in the literature. Then, we proceed to an exposition about using TP as a less common negation non-manual marker (NMM) found in the SLs worldwide.

These sections are followed by our Methodology, where we describe the data we collected and the treatment they received. We eventually show our results and analysis, followed by our conclusions.

1. Deaf micro-community of Tiros (Minas Gerais/Brazil)

Tiros is a city in the countryside of Minas Gerais, southeast Brazil, neighbor to São Paulo state (figure 1 below), with a population of around 7,500. The city's economy is mainly agriculture, livestock, and civil construction. The deaf participants of our research are primarily involved in agriculture and dairy production. Official data from government institutions does not account for a native sign language in the area.

FIGURE 1 - The upper left corner shows the location of the state of MG and the central reddish area shows the city of Tiros in the countryside



(Source: https://www.familysearch.org/pt/wiki/Tiros,_Minas_Gerais,_Brasil_-_Genealogia)

We became aware of the community's existence through the contact of our first author, a deaf professor, with his deaf colleagues who reported about their family not having contact with Libras and developing what they consider their way of communication. TSL was created based on two different family cores, and they reported the existence of three generations of signers, deaf and hearing people, who employed it daily to give an account of the most different tasks, like cooking, working, raising kids, and teaching recipes.

Almost thirty years ago, some deaf residents of Tiros moved to Uberlândia, a bigger city in the surrounding area. As expected, this move had a linguistic impact on the system once the ones who moved started having contact with deaf signers who use Libras and, through contact, monolingual TSL deaf started to incorporate Libras into their linguistic knowledge.

Despite the contact with Libras, the existence of TSL did not get threatened. The language is still used during family meetings, mainly when those who moved to Uberlândia return to Tiros and meet the ones who stayed there, showing little knowledge of the Libras. Hearing relatives of deaf people only have contact with Libras using mobile phones and social media, which differs from the exposure patterns observed in acquisitional settings. Our first author, a native signer of Libras, could not communicate with the deaf people who live in Tiros and hearing members of the community using Libras because they do not have enough proficiency in the

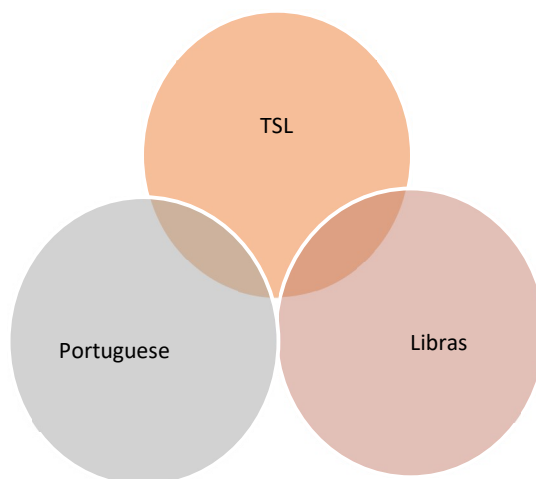
language. So, TSL is not only the sole sign language used by the deaf members of the family that remain living in Tiros but also a kind of *lingua franca* that allows deaf and hearing individuals to engage in daily communication.

We collected data from 23 TSL users, of whom 10 are deaf, and 13 are hearing. Nowadays, four deaf people still live in Tiros: two women from their original families and their husbands, who have no previous contact with TSL. The oldest deaf person from Tiros, a women in her eightys, now lives in Brasília (the capital of Brazil) with her son and daughter. She has not interacted much with the local deaf community in Brasília, but she often contacts family members through online video calls.

The other five deaf people in Uberlândia have frequent contact with the local community using virtual communication (video calls).

The actual linguistic scenario for the TSL micro-community is a complex multilingual context, as Figure 2 below illustrates.

FIGURE 2 - Multilingual context of the Deaf Micro Community in Tiros (MG) and their intersections



(Source: Authors own elaboration)

As shown in the graph above, we assume that the languages in contact within this community are mostly TSL and Libras. Secondly, TSL and Portuguese, be it because of the schooling process for deaf individuals or bilingual hearing people (TSL/Portuguese). Still, the general intersection and contact between Libras and

Portuguese found in the whole country is not perceived in this community specifically².

2. Negation in Sign Languages

We know that, compared to spoken languages, sign languages are only in the beginning as a research field, with a considerable part of these studies focused on SL grammar and use of the body (See Pfau, Steinbach & Woll, 2012, for an overview). Among other topics, negation is an issue that has received a fair amount of attention within SL linguistics literature.

It is straightforward and noticeable that when different SLs employ a negation item, it usually recruits similar parts of the body, e.g., headshake and index-finger-waving-no. Still, it is interesting that some SLs employ distinct mechanisms to encode the negated information. For example, the one we explore here in this chapter, namely, the tongue protrusion (TP).

Almost all known sign languages of the world show, although variable, consistency in negation is expressed through manuals and/or non-manual elements. Arrotéia (2005) and Lourenço and Quadros (2020) assert that in Libras (Brazilian Sign Language), negation can be marked by non-manual features like head-shake and facial expressions and manually by the use of an up-right index finger waving laterally. The same stands for Italian Sign Language LIS (Geraci, 2005), as seen in the example (1) below. In this example, the suprasegmental non-manual marking spreads only over the realization of the manual sign NON (no). Sign languages differ in whether they allow the concomitant spreading of the non-manual marking only over the negative particle or through the verb phrase and arguments.

____headshake

(1) PAOLO CONTRACT SIGN NON

English: *Paolo didn't sign the contract.*

² TSL signers do not use fingerspelling and none of their names incorporate letters as we can usually find in deaf communities who have deeper contact with the surrounding spoken language.

Pfau and Quer (2002) explain that DGS (German Sign Language) employs split negation, which means that negation is marked by two negative elements (manual and non-manual items) occupying different positions in the same sentence, like the correlated French pattern (*ne-pas*); however, it does not imply the information is being negated twice or that the sums of the two negative elements will turn the sentence into positive again.

Zeshan (2004; 2006) offers a typological account of negation regarding the obligatoriness of the manual and non-manual elements. There are two main tendencies for negation marking through SLs: the 'manual dominant languages' are the ones for which the manual negative sign is obligatory to negate the sentence (cannot be dropped), whereas the 'non-manual dominant languages' are the ones to which the manual negation item is optional. Negation can be encoded solely by the use of a non-manual marking.

A more recent analysis and proposal is Makaroğlu's (2021). Using a frequency-based classification, the author proposes, besides other conclusions, that TID (Turkish Sign Language) is a hybrid negating sign language as negation can be marked not only using manual or a non-manual element but also with a combination of manual and non-manual elements. The author also states that "negative modal CANNOT is lexically specified with side tongue protrusion" (Makaroğlu, 2021:137). Lutzenberg, Pfau and de Vos (2022) also claim that Kata Kolok³ cannot be classified as a manual or non-manual dominant system. They report that in Kata Kolog, negation can also be marked by TP, which does not appear in co-speech gestures of hearing non-signers in Bali. The authors claim that TP may have been grammaticalized not from a familiar local gesture but that the source might have been adapted from a common human trait, namely, protruding the tongue to express disgust, disapproval, etc.

³ Kata Kolok is a village sign language which is used in two neighboring villages in northern Bali, Indonesia.

3. Less common non-manual negators

As we saw in the last section, sign languages resort to similar articulators and strategies when encoding negation. However, it is also noteworthy that signers employ fewer common mechanisms when producing a negative sentence, which are also found in spontaneous utterances. The example in (2) is such a case wherein TID (Makaroğlu, 2021), the puffed cheeks (pc, in the gloss) can also encode negation. Morphosyntactically, the example also shows the degree of independence between the two non-manual morphemes found in the sentence because while 'pc' is articulated by the lower face, 'brows raise' is articulated by the upper face. Also, the stacked non-manual features maintain their semantic independence, as one meaning (pc) does not interfere with the meaning of the other (br), and the result is always a negated sentence, proving it is the only source for negation within this utterance.

(2)



----- SHOPPING -----

----- TAKE -----

pc+

br

SHOPPING TAKE

English: *I haven't bought anything.*

(Source: Makaroğlu, 2021)

The following example in (3) shows that Kata Kolok (Lutzenberger, Pfau & de Vos, 2022) employs TP as a negative marker. In this sentence, as we explained in the theoretical references in the previous section, TP spreads over the verb phrase and an adjunct but not on the subject argument.



SIGN-NAME

FISHING

GOOD

SIGN-NAME A

_____tp

FISHING GOOD

English: *A did not catch anything.*

(Source: Lutzenberger; Pfau & de Vos, 2022)

Despite its similarity across humans, we also found that the gesture of protruding the tongue may vary in its forms. We also bring evidence that it may not mean precisely the same in all SLs in which it is found, as we see in the examples below.



Kata Kolok (negation)

HKSL (question marker)

TID (negation)

(Lutzenberger, Pfau & de Vos, 2022)

(Gan, 2019)

(Makaroğlu, 2021)

Although all the examples above share the movement of the protruding tongue, they differ in whether the tongue comes out of the mouth or not or whether it carries an explicit negative content or not, as the example of Hong Kong Sign Language (HKSL) seems to be a counterexample. These instances of use open a range of possibilities for future investigations to explain the nature of this gesture, whether it is correlated with a singular culture or not, and the reasons for its random spreading through SLs in the world, as it has been investigated for the so-called PALM-UP gesture (Cooperrider, Abner & Goldin-Meadow, 2018). We expect to contribute to this discussion at the end of our analysis.

It is noteworthy that, in the example above, both headshake and TP are used within the same negative sentence. In contrast, the headshake spreads over the non-manual negative particle, and tongue protrusion spreads over the verb phrase TO-FIGHT, changing its polarity. Further studies need to be carried out to identify what type of negation we are dealing with once this language allows multiple negative non-manuals to happen in the same sentence, interacting with the negative inherent content of the manual negator NO.

The example below in (6) confirms that TP is a sufficient non-manual negator in TSL, as it can negate the sentence even without a manual negator and without the use of headshake. Moreover, it scopes over the covert copular predicate that renders the information that her son is rarely at home because he travels a lot.

(6)



_____tp

IX-3 A-LOT TRAVEL, IX-house

English: *He travels a lot, he is never at home.*

(Source: Authors own elaboration)

One final observation about TP in TSL is that it appears integrated into an adverbial function. In (7), the TP spreads over the adverbial manual sign SMALL, adding an intensified reading. We can also see in the sequence of the frames in the sentence below tongue protrusion being realized to express other meanings that remain to be investigated in depth, namely, the concomitant use of indefinite and pointing gestures.

(7)



___tp _____/vovo/

COME-HERE SMALL IX-3, GRANDMOTHER

English: *Come here, she is very small, my granddaughter.*

(Source: Authors own elaboration)

Conclusion

As we saw in the analysis above, negation can be marked non-manually using the headshake and employing TP, as well as using the manual sign NO (index-finger) in TSL. Therefore, it seems that TSL may not fit into the traditional typological proposal for negation in SLs (Zeshan, 2006), but it instead points to an existing diversity that can be better captured under a type-token frequency analysis (Bybee, 2003; Makaroğlu, 2021), where we see gradients of use instead of a consistent use where SLs would have to choose between one way or another to demonstrate negation strictly. We found certain instances in which signers employ piled strategies among the ones available to their system based on evaluating their grammatical or pragmatical efficiency.

One possible explanation for using TP as a negation strategy in TSL could refer to the social meaning of the action of protruding the tongue, which in Brazilian culture can be associated with adverse behaviors like impoliteness, repulsion, disgust, and rejection. Interestingly, TP has not been incorporated as a non-manual negation in Libras. Still, it does appear in TSL, Kata Kolok and TID, historically and culturally unrelated SLs. As we still do not have a clear explanation for this fact, as Schuit, Baker and Pfau (2011) highlight, when “[...] sign language linguistics broadens its scope to new and small SLs, typological studies are also enhanced”.

Although more research about negation in TSL is needed, the data we have analyzed so far can bring more evidence about using TP as a negation strategy in

sign languages and the distinct grammaticalization directions that TP can follow within different languages.

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