Comparing Brazilian Sign Language and Ancient Greek: Middle voice, Pausanias and Computer Linguistics

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This paper aims to show a description both syntactically and semantically of the Ancient Greek middle verbs an its equivalences in translation to the Brazilian Sign Language (BLS). Based on i) how subject affectedness, fundamental feature of the Greek middle voice, can be identified in BLS?; ii) how do the semantic roles of the middle voice verbs organize themselves in BLS linguistic system?; and iii) what are the syntactic features of these verbs in BLS?; this work starts from an Ancient Greek corpus, book I of Pausanias, "Description of Greece, from the selection of the middle verbs forms found within the text and the organization of the allocated terms and the active voice form, to solve issues about syntax and semantics of the middle verbs in Greek. By using computational tools, we explore AntConc and the Computer Linguistics methods to collect and analyze the Greek verbs in order to compare to the BLS occurrences. This research is part of a bigger work involving a trilingual translation, Greek – Portuguese – BLS, of Pausanias, presented on the online platform Ugarit. The main reason is to fulfill an existent blank on the descriptive and comparative linguistic works in BLS, expand the research in Greek and computation, bring the Greek culture to the Brazilian deaf people community as well as covering the absence of a Portuguese translation of Pausanias.

Keywords: *Brazilian Sign Language; Ancient Greek: Middle Voice: Description; Pausanias.*

Introduction

The importance and contributions from the Greek world are unquestionable and recognized by the scientific community. Philosophy, Linguistics, Literature, Archeology, Pedagogy, among other areas, are heirs of a huge amount of materials that were discussed and studied by scientific works all over the world, specially the Western world. Likewise, Brazilian academic groups agree that studying the ancient cultures means to us our cultural genesis, in other words, it's somehow a way to find and understand more about ourselves.

In Brazil, we usually consider all works in Classics as a contribution due the lack of courses in this area, which are restricted to few public universities. Even graduate students often deal with few professional opportunities for a Greek or Latin professor, for example. Within such scenario, few Greek texts have a Portuguese translation, like Pausanias's *Description of Greece,* which is an extensive work that presents us a narrative that blends the empirical observation of the author as well as historical and mythological discussions about the story of

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Ancient Greece. Such material cannot be accessed in Portuguese, leaving the major and monolingual population unable to access its content.

In this way, working with Ancient Greek nowadays frequently demands building up interdisciplinary studies, like comparative approaches and the usage of new digital and technological computer upcoming tools. Based on that, what are the scientific chances to unite Ancient Greek and Brazilian Sign Language into a comparative work using technology? That was the main motivational question that started the researches that will be discussed in this paper.

Over the past few years, the Brazilian Sign Language, LIBRAS, in Portuguese, and from now on in this paper, BLS, became an official language of the country in 2002 and it has been widely and socially projected among citizens about its importance. Nevertheless, the BLS is not a reality at Brazilian schools or universities, despite the over 10 million deaf people leaving in the country and once it is not a reality among the so-called listener population, few cultural materials, like Greek texts, are accessible to deaf people. Besides, the academic works on BLS are still focused on bilingual and literacy of deaf individuals, few of them dedicate to linguistic aspects or comparison between other languages. All this considered, to bring a comparative linguistic analysis on Greek and BLS using Pausanias as corpus is a first step to open the doors for deaf people to meet this content.

In the meanwhile, the digital technological evolutions come up to us in such speed that to follow them reflects not only something claimed by professional environments but also as new important paths to find new results within scientific researches. Even though it is considered a recent science compared to others, Linguistics consolidated itself as a scientific field, starting hundreds of years ago from Ferdinand Saussure's work, and the profusion of research works developed so far offered different strands of knowledge. Whether it's lexicography, sociolinguistics, phonetics, phonology or semantics, the digital inclusion within these areas allowed a huge advance and the possibility of the researcher to visualize new work horizons. Based on that, to ally the use of technological tools for a linguistic study that goes deep into an ancient language and a sign language purposes a social, productive and innovative research strand that can be helpful in order to fulfill research blanks so far not fulfilled by previous works.

The Ancient Greek Middle Voice – Brief Linguistic Review

The middle voice is a particular feature of the Ancient Greek language, common to other old languages, but not morphologically marked in most of modern ones. In Portuguese, for example, the middle voice was replaced by the reflexive voice and its original meaning can only be semantically discussed or identified. In this section, considering the scope of this paper, we will present a few historical perspectives about the middle voice, but we will prioritize the definition of the middle in ancient Greek that we use to classify its occurrences in Pausanias as well as to compare to its equivalences in the Brazilian Sign Language.

Firstly, the studies about the middle voice show different approaches throughout the years and authors. There are works using a modern language as corpus, others that compare middle and reflexive systems among different languages and some of them bring new linguistic concepts to review the middle voice previous researches. This particular mechanism of the verb can be found in passive constructions, reflexive meanings and both transitive and intransitive verbs. Considering that, the middle voice fomented the curiosity of many researches that tried to establish its prototypic use and meaning. One of the first studies about this subject comes from Kühner and Gerth (1898: 100), who affirm that:

> "The medial form designates a speech of act which departs from the subject and returns to himself. This speech activity can be limited to the subject, like in βουλεύομαι, *I advise myself,* λούομαι, *I wash myself,* or to an object on its sphere (…) like in ἐκοψάμεν τήν κεφαλήν, *I hit my head*, κατεστρεψάμην τήν γῆν, *I subjugate the territory(…).*" (Kühner and Gerth 1898: 100).

This definition differs a lot specially from later authors. However, there are similarities to contemporary theories about the middle voice like the Starting point/Initiator (*ausgeth*, in the original) and Endpoint (*zurückgeth*) in the action chain. The authors deal with the middle voice in its restricted sense, in other words, they exclude the so-called middle-passive category, which occurs in Ancient Greek. Many studies utilize the middle construction to designate an alternative pair in which one derived member designates a generic situation like a *patient* subject and *implicit* agent. Among the linguistic studies from the 21st Century about verb voices, some formulations are listed below:

a. "The middle voice denotes that the subject is, somehow, involved or interested in the verb action." (Gildersleeve 1911: 64);

b. "Verbs (...) that have the position in the sphere of the subject in which the subject appears to be participant or implied." (Brugmann 1903: 104)

c. "In the active voice, the verbs denote a process that is accomplished from a subject and without it; in the middle, which is the *diathesis,* the verb indicates a process in which the subject is the focus; the subject is inside the process." (Benveniste 1966: 172)

d. "In Indo-European and in Greek, the middle endings indicate that the subject is interested in the process in a personal way." (Meillet 1937: 244).

e. "The implications of the middle (when opposed to the active) are that the action or state affects the verb subject or its interests." (Lyons 1969: 373)

Based on those definitions, it is clear that Gildersleeve (1911: 64) and Meillet (1937: 244) focus on the interest of the subject within a sentence; in the meanwhile, Brugmann (1903: 104) and Benveniste (1966: 172) refer to the notion that the subject participates and it is internal to the process. The definition of Lyons (1996: 373) uses the verb affectedness in a broader sense, broad enough to be applied to all the meaning of the middle voice and it's the closest definition to

the more recent ones, once it deals with the passive and the reflexive meanings. On the other hand, Meillet (1937: 244) is more commonly used by the grammar and learning methods, evidencing the subject affectedness, which is a feature of the middle voice but not the only one and sometimes not a very clear one. This is the same thought that Humbert (1964: 65) shows us when saying that within the middle voice "the action accomplished has to the subject eyes a personal signification, which means that the action refers to the subject itself or to what constitutes his own sphere".

The main theoretical pillar of our research is based on the functional-cognitive theory, based on Langacker (1987, 2000: 120) cognitive model, according to which the middle voice can be defined as the usage of the verb where the subject somehow suffers the effect of the event. This effect can be of physical nature, mental, direct or indirect. This is what is represented by the Figure 1.

Figure 1. *Langacker Cognitive Model for the Middle Voice*
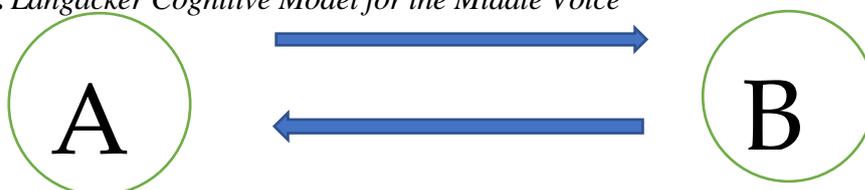
The narrows indicate the process expressed by the verb and, in this case, it shows the *subject affectedness,* main feature of the middle voice. The action that departs from A somehow had effect in itself; in other words, A was affected by the process and it's this affectedness that distinguishes it from the other verb voices: active and passive. Except from the middle-passive, all middle constructions can be represented by this model, thus we call it the prototypical model. Another important study and definition came from Kemmer (1993: 211) who affirms that even though the middle uses can be diverse, it's the relative distinction of the participants the main semantic property.

"Relative distinction of the events can be though as the degree in whish different schematical aspects of a situation are separated and seen as distinct by the speaker, who can choose emphasize or not the resolution that a particular event is seen, in order to emphasize its internal structure (syntax) to a bigger or smaller extension" (Kemmer 1993: 211).

This property, according to the author, englobes the notion of subject affectedness and hence the middle voice can be displayed in a gradual scale of two extremes, between two participants event and events of one participant. For Kemmer, the fundamental notions to interpret the semantics of the middle voice are *Initiator* and *Endpoint,* whereas the transitive sentence is the basic conceptual model to understand these notions that are general semantic roles and incorporate many others more specific. *Initiator* brings the roles that involve a conception of "starting point", just like *agent, experiencer and mental source. Endpoint* brings more concrete semantic roles, grammatically speaking.

As mentioned before, the ancient Greek grammars point out the existence of three verbal voices within the language, all morphologically marked: active, passive and middle. Compared to modern languages, specially to the Romance languages, the first two operate with similar mechanisms, while the middle is still restricted to the classic ones. It's frequent that an ancient Greek student, in the beginning of the course, associates the middle voice to the reflexive voice, especially if his is Brazilian. Nevertheless, when he starts to meet the Greek texts and all the middle voice variation and usages, he finds himself dealing with the blanks of the equivalences in his native language.

The Greek middle voice is characterized by the subject affectedness. In other words, in a sentence the subject is somehow affected by the action or process expressed by the verb. Based on this definition, one of the most complete works on the Middle voice belongs to J. Allan (2003), which is based on cognitive and semantic concepts, a corpus-based approach, and the thesis that the middle voice is a complex network category. He considers the types of the middle voice involved in a semantic and polysemic relation with similarities and differences. His eleven classifications are listed below:

Passive Middle	Spontaneous Process Middle
Mental Process Middle	Body Motion Middle
Collective Motion Middle	Reciprocal Middle
Direct Reflexive Middle	Perceptive Middle
Mental Activity Middle	Speech Act Middle
Indirect Reflexive Middle	

In our previous research work about the Middle voice in Pseudo-Apollodorus' *Library,* we narrowed down these groups to seven categories and they are the ones we consider in this paper for our analysis, which are:

Processes	Mental Process Middle
Reflexive Middle	Displacement Middle
Reciprocal Middle	Perceptive Middle
Speech Act	

Two considerations have to be made. Firstly, the reduction of Allan's categories is a way to facilitate the classification of the Greek middle verbs from our corpus, once some groups hosts features from minor ones. Still, Allan's work shall remain as a reference within the linguistic studies about the Greek Middle voice. Secondly, all the categories we exposed must be evaluated from the semantic role of the sentence subject, which are *agent, experiencer, recipient, patient and beneficiary.* As mentioned before, once the middle voice is morphologically marked, it's possible to list its occurrences on a text, but this task comes with a few obstacles. After the recognition of the endings of the verbs, there is an ambiguity problem; sometimes a Greek verb form can belong to more than one time, mode or voice. For instance, middle and passive share the same endings for present, imperfect, perfect and plus perfect and are distinguished only in future and aorist forms. Consequently, when we face one verb ending, the first step is to verify if we are dealing with a passive or middle form. Besides, active and middle

can share the same forms, i.e, εὐστοχῆσαι; it can correspond to the third person of the optative active aorist; to the infinitive active aorist or the second singular person of the middle imperative aorist. Once this problem is set, it's necessary to analyze the context in which the sentence is, in order to solve the ambiguity problem. After identified it's a middle form, the context analysis is made classifying it in one of the groups we defined. Our first example brings the verb ἠμφιέσατο, *to dress yourself,* which has no ambiguity form, in other words, it cannot be thought as an active form instead of middle.

"Ex.1) [...] καὶ χειρωσάμενος τὸν λέοντα τὴν μὲν δορὰν **ἠμφιέσατο** [...] - (Apol. *Biblio.* 2.4.10) - After defeating the lion, he **dressed himself** with the skin [...] "

After we understood the context and once it's an action that the subject performs on himself, it's a Reflexive Middle. With all content all the middle voice presented, we shall talk about the Brazilian Sing Language structure in order to compare to the Greek verbs.

LIBRAS - Brazilian Sign Language (BLS)

It was during 1960 when the Sign Language conquered language status, but still nowadays many people think about it as a code or a universal system of communication or even an amount of gestures that try to imitate an oral language. Among researches and the scientific community, it is proved that the Sign Languages can be normally compared in complexity and expressivity to any oral language and everything, like literature, linguistics, philosophy or psychology can be discussed. A sign language is so defined because it is composed by linguistic levels: phonological, morphological, syntactic and semantic; for example, what we call *word* or *lexical item* in a oral language is called *sign* in a sign language.

Just like every language in the word, a sign language suffers variation; in Brazil, once it's a huge country, same meanings have different signs all over the national territory. Moreover, the sing language increases its vocabulary with new signs introduced according to the cultural and technological changes; in other words, the deaf people community will come up with news signs as long they are needed. However, just like we mentioned, once the BLS is not taught at schools or known by the majority of the listener population, deaf individuals are restricted to small social and cultural bubbles, leaving them far away from the academic community and different areas of knowledge, such as Ancient Greek.

LIBRAS, Brazilian Sing Language, or BLS, is the mother language of Brazilian deaf people. Its signs are formed from the combination of the movement of the hands with a certain format and place, which can be part of the body or in front of it. These hand articulations can be compared to phonemes, sometimes to morphemes, and are called parameters, which are five in BLS. These parameters will be used to check if the Greek middle voice semantic feature, subject

affectedness, can be found in BLS. In order to understand it, we shall present them briefly.

Hand Configuration

We call hand configuration the form of the hands when performing a sign. In BLS, they represent 64 possibilities and are made by the dominant hand (right or left, depending on the person) or by both when demanded by a sign. They represent the graphemes in Portuguese and some words have the same hand configuration, like, in Portuguese, *to learn, Saturday and spray deodorant,* from left to right, respectively, on Figure 3.

Figure 3. *Hand configuration in BLS*

Mão "s"   Aprender   Sábado   Desodorante-spray

Point or Articulation

We call point of articulation the place where the dominant hand is set, which can be touching a part of the body or in a neutral and vertical space (from the middle of the body to the head). In Figure 4, first line, from left to right, *to work*, *to play* and *to flert*; second line, from left to right, *to forget*, *to learn* and *to memorize*.

Figure 4. *Point or Articulation in BLS*

Espaço-neutro   Trabalhar   Brincar   Paquerar

Na testa   Esquecer   Aprender   Decorar

Movement

The signs may have movement or not and it can also vary in intensity, depending on the meaning the emitter wants to express. For example, *to laugh, to cry* and *to meet*, first line of Figure 5, from left to right. Signs that have no movement can be *to knee, to seat* or *to stand,* second line from left to right in Figure 5. Finally, when the movement intensity changes the meaning, we can cite *beautiful* and *very beautiful,* just as in Figure 6.

Figure 5. *Movement in BLS*


Figure 6. *Beautiful in BLS*

Note that in the last one, the emitter has to repeat the move in order to show the emphasis of the adjective. This intensity is one of the possibilities that the middle voice semantics will appear in the BLS, but we shall discuss it later.

Orientation/Direction

All signs performed with any of the previous parameters have a direction. For example, *to go* and *to come; to go up* and *to go down* (all first line from left to right in Figure 7); *to ascend* and *to erase; to open the door* and *to close the door* (second line, from left to right in Figure 7). The direction is also one possibility for the subject affectedness, once in can indicate the emitter is affected by a verb that he/she expresses.

Figure 7. *Orientation in BLS*
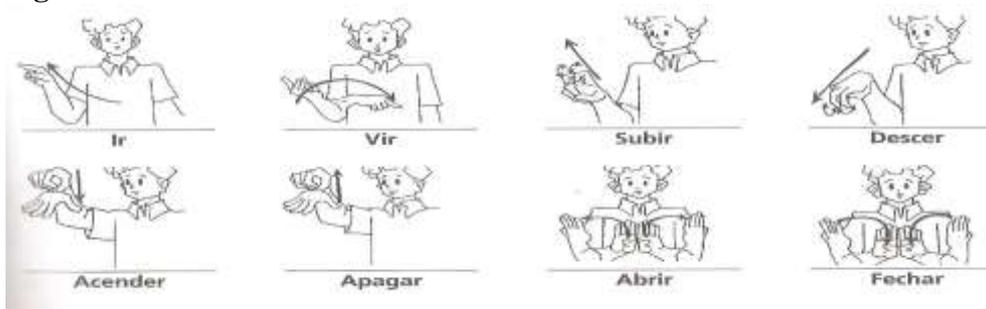
Face or Body Expression

It's very common for someone who does not know BLS to ask about the expressions, or face masks, performed by the deaf person or interpreter. Many signs have as a distinctive feature in the face or body expression, just like in the words *happy* and *sad.* Some signs are made only with the cheek, like *to have sex* or *thief* (all first line of Figure 8, from left to right). At last, in some signs the face expressions complement the manual traces, like in *helicopter* or *motorcycle,* second line of Figure 8 from left to right.

Figure 8. *Face or Expression in BLS*

After this brief exposition of how the BLS parameters build up the meaning of the signs, the main question of this paper shall be brought back: can the subject affectedness of the Greek middle voice be identified, in any level, in one of these parameters? That will be discussed after a brief presentation of the methodology we used.

Antconc, Corpus Linguistics and Computer Tools for Linguistic Researches

Corpus linguistics, as a methodological resource, has tools that allow the description of several linguistic aspects and, therefore, it permits us to expand the scientific horizons of the researches. As Berber-Sardinha (2000: 3) points out:

"Corpus Linguistics deals with the collection and exploitation of corpora or set of textual linguistic data that have been carefully collected for the purpose of searching for a language or linguistic variety. As such, it engages in the exploration of language through empirical evidence, extracted through a computer" (Berber-Sardinha 2000: 3).

The author thinks about language as a probabilistic system that must be studied in an empirical approach, based on the assumption that the theoretical possibilities, such as the categories used in the classification of linguistic traits, do not coincide with the frequency of occurrences. In this descriptive research, corpus linguistics seems to fit the objectives we propose. Through the resources associated with corpus linguistics, such as automatic listing of lexical items in

alphabetical, frequency and final order, it was possible to carry out the following steps: a) to identify and map the occurrences of middle-passive in the proposed corpus, selected by the chosen computational programs; b) to make the concordances, analyze the co-text, the collocations and clusters of the forms found and to compare them with the theoretically defined classifications as the average voice, observing the semantic field of the medial in the corpus; c) to raise the phrasal patterns, or syntagmatic units using the verbs in the form and in the sense of the average voice, based on the frequency of their occurrence.

Regarding the use of computational tools, we made a word list in order to find the middle voice verbs in our corpus. The software selected for the task was Antconc, in version 3.2.0, available for free on the web. First, we used the file in *txt* format; with the file opened, we selected the option to create a word list, still activating the criterion of separating all the words by its termination (Sort by word end). That is shown in Figure 9.

Figure 9. *The AntConc Interface*
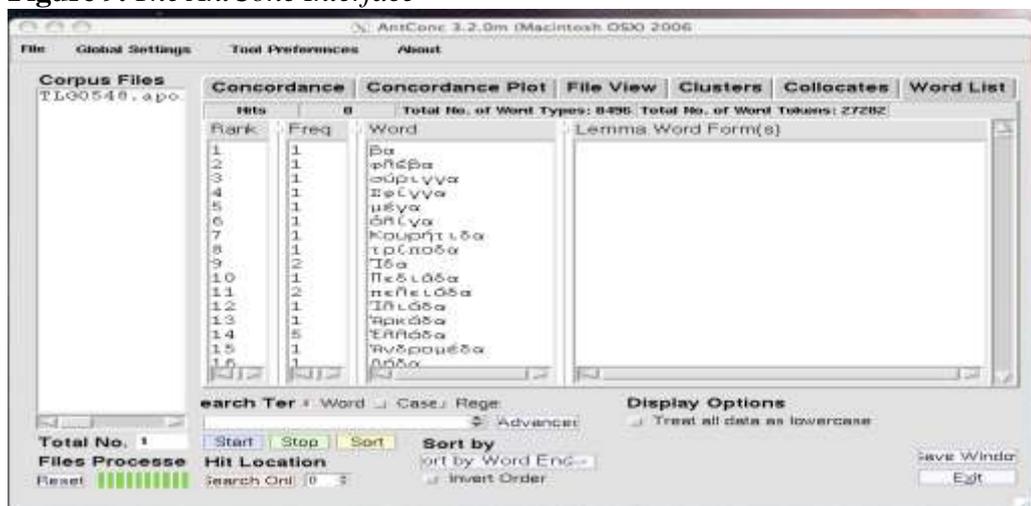
Since the middle voice in Greek is morphologically marked, it becomes possible, from this list with word endings, to find its occurrences in the selected text, but this leads to the ambiguity problem we mentioned previously. Therefore, it was important to list all the possible verb forms as below:

MIDDLE PRESENT
-ομαι -σει -εται -όμεθα -εσθε -ονται

MIDDLE FUTURE
-σομαι -σει -σεται -σόμεθα -σεσθε -σονται

MIDDLE AORIST
-σαμην -σω -σατο -σαμεθα -σασθε -σαντο

MIDDLE IMPERFECT
-ομην -ου -ετο -ομεθα -εσθε -οντο

After we checked the context and the middle forms were identified, the comparative analysis could be started.

Comparing BLS and Ancient Greek – The Subject Affectedness

After discussing the theoretical approach of the middle voice and some linguistic issues about the BLS, it is time to bring them together in order to recognize the semantic aspect of the middle voice in BLS. The comparative process of the Greek Middle voice and its translation to the Brazilian Sign Language followed these steps: a) gathering the amount of middle occurrences in Pausanias Book 1 and its classification; b) checking how many tokens/types exist among those occurrences; c) checking in how many BLS translations of these types subject affectedness could be identified.

Table 1. *Comparison of the Greek Middle Voice and its Translation to the Brazilian Sign Language*

Middle Group	Tokens	Types	Results
Process	398	71	32%
Mental Process	83	24	7%
Displacement	228	54	19%
Reciprocal	43	11	3,5%
Perceptive	36	07	3%
Act of speech	65	43	5,2%
Reflexive	399	84	32%

It's important to mention that we have considered the deponent verbs in Greek, i.e., verbs that only occur in a middle form. Besides, even thought we have analyzed every occurrence, here we will demonstrate a few examples of each category.

Process

The middle process points out a subject that is patient or experiencer of the verb process. In this group we find verbs like γίγνομαι *to become*; τρέφομαι *to grow up*; ἀπόλλυμι *to die*. In BLS translations, the emitter marks the subject affectedness in two moments: marking that he is involved in the process and showing that the process comes from someone else to him.

"Κλεομένει δὲ παῖδες **γίνονται** πρεσβύτερος μὲν Ἀκρότατος, νεώτερος δὲ Κλεώνυμος – Cleomenes had two sons, the elder being Acrotatus and the younger Cleonymus […]" (Paus. *At*. 1.13.5)

One thing is important: the subject of the sentence is παῖδες, but in the translation it changes to the dative word κλεομένει, due to syntax equivalences. But note that in BLS, there is a difference when *I give birth to a child* and someone else does. In the first example, the emitter will point out, repeatedly, that he is the responsible for that and because of that the affectedness can be identified.

Mental Process

In the mental process middle, the subject experiences a mental affectedness and, therefore, he is an experiencer of the verb. The mental process group also shows subject affectedness specially in the face or body expression in BLS. In this case, once the mental process is directly involved to him, he shows his involvement, which does not happen when he talks about someone else.

"τοῦ δὲ τρίτου τῶν τοίχων ἡ γραφὴ μὴ **πυθομένοις** ἃ λέγουσιν οὐσαφής ἐστι [...] (Paus. *At*. 1.17.3) - The painting on the third wall is not intelligible to those unfamiliar with the traditions […]"

In this case, showing the mental process verb is common in BLS through the face expression. The emitter will mark that he does not really know anything about that.

Displacement

In the displacement middle, the subject moves from a place to another, individually or collectively. The only group of no subject affectedness identification is the displacement middle. The displacement indication in BLS is more concerned about orientation, position from where to where, than pointing out an affectedness.

"ὁ δέ οἱ παῖς Ἀγαθοκλῆς **συστρατευόμενος** τότε πρῶτον ὑπὸ τῶν ετῶν ἑάλω (Pau. *At*. 1.6.6) - […] but his son Agathocles, who was serving with him then for the first time, was taken prisoner by the Getae […]"

Subject affectedness cannot be clearly identified in this example and among others.

Reciprocal

The reciprocal middle shows a subject that is responsible for the verb process which somehow comes back to him. The reciprocal middle is marked in all cases in BLS by the movement of the hands. The signs show that these processes involve both participants in a reciprocal act.

"ἐπανήκων δὲ Λακεδαιμονίους ὑπερβαλέσθαι φαίη τὴν ἔξοδον, εἶναι γὰρ δὴ νόμον αὐτοῖς μὴ πρότερον **μαχουμένους** ἐξιέναι πρὶν ἢ πλήρη τὸν κύκλον τῆς σελήνης γενέσθαι [...] (Paus. *At*. 1.28.4) - On his return, he said that the Lacedacmonians had postponed their departure because it was their custom not to go out to fight before the moon was full."

Note that in BLS, the emitter will repeatedly point out the verb process is related to him and a second person. If the verb is *to fight,* the emitter will check that this fight is between him and someone else all the time.

Perceptive

The perceptive middle is a kind of verb voice where the subjects perceives something by the senses. The perceptive middle is the least marked group of all middle forms. It is only marked by the subject point out he is the one smelling or seeing, for example.

> **"[...] θεασάμενος** δὲ ἢ πεπυσμένος ἐμνημόνευσεν ἂν πολύ γε πρότερον ἐμοὶ δοκεῖν ἢ Πυγμαίων τε ἀνδρῶν καὶ γεράνων μάχης. (Pau. *At.* 1.12.4) - but if he had seen or heard about it, he would, in my opinion, have been much more likely to speak of it than of the battle between the dwarf-men and cranes."

It's important to mention that when the perception is totally related to the emitter, in BLS the face or body expression will be intensely marked and that is evident when compared to a sentence in which he talks about someone else being affected by the sense and the face expression is neutral.

Act of Speech

The Act of Speech middle is a construction where the subject is involved in the act of speech. It is totally marked by the face or body expression. Mourning or accusing in Greek, for example, when translated to BLS will be surely marked by an emitter using his expressions of anger or sadness.

> "ἐσελθοῦσι δέ εἰσι βωμοί, Ποσειδῶνος, ἐφ᾽ οὗ καὶ Ἐρεχθεῖ θύουσιν ἔκ του **μαντεύματος** [...] (Pau. At. 1.26.5) - Inside the entrance are altars, one to Poseidon, on which in obedience to an oracle they sacrifice also to Erechtheus […]"

The act of speech verbs will be used by the emitter in BLS with the face or body expression marking his relation to the verb process. For example, when accusing someone, the face expression will automatically join the sign of *to accuse* in order to check the emitter involvement in the process.

Reflexive

The middle reflexive is the biggest group of middle classes in our corpus and it shows a subject that can be experiencer, beneficiary or, less frequent, recipient. It has the subject affectedness constantly marked in BLS. It is showed by two forms:

firstly, the sign direction will point out the verb process is being performed on the subject; secondly, the speaker will constantly show that he is responsible for the process and is directed involved in it.

"τὰς μὲν δὴ πολλὰς Φίλιππος τῶν πόλεων εἷλεν, Ἀθηναίοις δὲ λόγῳ **συνθέμενος** ἔργῳ σφᾶς μάλιστα ἐκάκωσε [...] (Pau. *At*. 1.25.3) - Most of their cities Philip captured; with Athens he nominally came to terms, but really imposed the severest penalties upon her […]"

The reflexive is a very common occurrence in BLS and it can also be seen, for example, during religious texts. If the blessing is over the emitter, his hand will turn to himself. Otherwise, it points out to another person. It the reflexive construction is marked by an expression; it follows the paradigms of other middle groups.

To sum up, over our analysis, we can get to three situations:

a. the semantic feature subject affectedness is also marked in BLS translated verbs by face expression, over 80% of the cases, showing the emitter is affected by the verb process, just like in the perceptive or the reflexive;
b. the subject affectedness is marked in BLS by the orientation, repeating movement to show the emitter is affected and this represents the second most probable case;
c. the BLS verb translation shows no middle semantic feature over its parameters, which only happened in the displacement Greek group and they are the minority.

Conclusion

In this paper, we discussed about the possibility of the Greek middle voice semantic feature, subject affectedness, be recognized or identified in its translation to the Brazilian Sign Language. After settling a theoretical path throughout the linguistic studies about the middle voice and pointing out how the Brazilian Sign Language build up the signs and meanings based on four aspects: hand configuration, point of articulation, orientation and face or body expression. Once showed our methodological tool, the AntConc software, to collect the examples, we compared both languages and reached the results that subject affectedness can be identified in, at least, one of the elements of meanings in BLS, the expression of face or body was the most recurrent, followed by the orientation of the signs. Finally, only in one case of middle verbs the subject affectedness is not clearly marked, the Greek displacement one.

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