USE OF LEXICAL VERB FORMS IN PERSONAL EXPERIENCE NARRATIVES IN CHILEAN SIGN LANGUAGE

USO DE FORMAS VERBAIS LEXICAIS EM NARRATIVAS DE EXPERIÊNCIAS PESSOAIS EM LÍNGUA DE SINAIS CHILENA

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Abstract: *Verb signs are considered as key resources for articulating any kind of discourse in all languages, either signed or spoken. Accordingly, this study aims to describe Lexical Verb Forms (LVF) in narrative discourse produced by Deaf students, users of Chilean Sign Language (LSCh). Our corpus, formed by 42 narratives, was annotated and analyzed by a team of Deaf and hearing researchers. Three types of LVF were found, which are also described in other sign languages: plain, directional and spatial verbs. We observed that the theme of the narrative was more influential in the type of verbs used than the narrative section and its discursive function. These findings contribute to the linguistic description of LSCh and its social value, as well as to inform education professionals' formation, both teachers of LSCh as L1 and teachers of written Spanish as L2.*
Keywords: *Chilean sign language. verbs; narrative structure. corpus. lexical verb forms.*

Resumo: *Em todas as línguas sejam de sinais, sejam orais, reconhece-se que os signos linguísticos verbais são recursos fundamentais para a construção de qualquer tipo de discurso. Baseado nisto, esta pesquisa busca descrever as formas verbais lexicais (doravante FVL) presentes nos discursos narrativos produzidos por estudantes surdos usuários de Língua de Sinais Chilena (doravante, LSCh). O corpus é composto de 42 narrativas e foi anotado e analisado por uma equipe de pesquisadores surdos e ouvintes. Além disto, foram identificados três tipos de FVL, que também aparecem em outras línguas de sinais, e correspondem a verbos simples, direcionais e espaciais. Observou-se que o uso dos diferentes tipos de FLV é motivado principalmente pelo tópico que o sinalizante narra, mais do que as partes e funções da estrutura narrativa. Esses achados contribuem para a descrição linguística da LSCh e sua avaliação como língua, mas também para promover a formação dos profissionais no ensino de LSCh como L1 e do espanhol escrito como L2.*
Palavras-chave: *língua de sinais chilena. verbos. estrutura narrativa. corpus. formas verbais lexicais.*

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Introduction

Research about different sign languages (SL) demonstrate that these languages display the same grammar constraints and linguistic principles which can be found in oral languages (Liddell, 2003). However, they also use resources which are specific to the visuospatial modality in order to express the language structure (Sandler and Lillo-Martin, 2006). One good example of these modality-specific features are the different resources upon which Deaf signers can convey verbal processes: verb forms (Otárola, Álvarez and Manghi, 2017), role-shifting (Cormier, Smith and Zwets, 2013), and classifiers (Benedicto, Cvejanov and Quer, 2007). Each of these allows the narrators to express the actions performed by participants in Sign Language narratives (Morgan, 2005; Acuña, Adamo, Cabrera and Lissi, 2012).

This article will focus on one of these resources: verb forms, since they have been largely studied in other sign languages (Padden,1988; De Beuzeville, Johnston and Schembri, 2009) and, not so long ago, some grammar studies have started describing them in Chilean Sign Language (LSCh) (Adamo, Cabrera, Lattapiat and Acuña, 1999; Saldías, 2015; Otárola et al, 2017). We will refer to them as *verb forms* in an attempt to address a common issue in morphological studies on Sign Languages —the risk of studying their linguistic systems by comparing them to that of oral languages so as to look for the shared linguistic universals. In this regard, Quadros and Karnopp (2004) state that the use of spoken language nomenclature might make it difficult (or, in their own words, be a "straitjacket") to identify the inherent resources of sign languages.

If we are to address verb forms and modality-specific features, it is necessary to refer to verb agreement. As a core feature, grammatical agreement in SL should be governed by the same universal principles than spoken languages. Generally speaking, verb agreement is produced by modifying the lexical verb form according to its dependency with the arguments to which it is related (Schembri, Cormier and Fenlon, 2018). At the same time, it can be expected that SLs have also idiosyncratic manifestations of agreement marking, articulated upon the specific resources of the visual-spatial modality (Barberà, 2012).

As in other SLs, in Chilean Sign Language (LSCh) "the verb category represents a word class enabling a great amount of inflectional processes for identifying meanings, which is achieved thanks to the use of three-dimensional space and the changes in their formational units" (Adamo, Cabrera, Lattapiat and Acuña, 1999:338. Our translation).

Due to the spatial nature of sign languages, verb agreement is constructed in the space upon the articulation of the sign, the eye-gaze directed to the object and/or the head tilted toward the subject (Bahan, 1996). Thus, signers can establish a relation between a referent and an infinite number of potential locations in the signing space (each of which is called a 'locus'), and they can orient Lexical Verb Forms or pronominal signs to these locations in order to refer to their referents. As explained by Barberà, "The spatial location that is associated with a referent is discourse-determined, rather than lexically specified. That is, it is considered that there is nothing in the lexical specifications that will determine to which location an index sign will be directed" (Barberà, 2012:60).

Additionally, the traditional verb classification in Sign Languages (Padden, 1988) stands out due to the appearing absence of verbs with copulative value, such as SER[1] (BE), ESTAR (BE) or TENER (HAVE[2]) in Spanish gloss. These verbs, referred to as 'copulative verbs' by some authors (Crespo, 1993; Sánchez, 2015), seem not to be present in the Chilean sign language as lexical signs, that is, they are not produced as manual signs (Otárola et al, 2017).

For some authors, the copulative function is subsumed into the noun or adjective sign, since sentences can be modified by adverbs despite there is no verb sign (Herrero and Salazar, 2006). For other researchers, in turn, that kind of constructions called copulative or equative sentences in spoken languages are present in sign languages as topic-comment constructions, which are marked mainly by non-manual markers (Jantunen, 2007).

For this study, we recognize the preliminary work of Otárola, Álvarez and Manghi (2017),

1 In this article, we use words in small capital letters to refer to signs in our examples, according to the linguistic conventions regarding sign languages (Valli & Lucas, 2000).

2 In Spanish, we use the combination 'tener' + noun (such as "hunger", "sadness" or other states) with the same meaning of 'be' + adjective (as in "I am hungry/sad/etc.").

in which they highlight the presence of both *Lexical Verb Forms* and *Non Lexical Verb Forms* in narrative texts. We propose, in this study, to call all the verbs with manual articulation Lexical Verb Forms, while those that do not present manual articulation Non Lexical Verb Forms (NLVF), which articulated upon the co-deployment of non-manual movements, especially involving eyes movements, mouth movements, facial expressions and head movements, according to the findings of the aforementioned study. These non-manual movements appear in simultaneous coordination with manually articulated nouns, adjectives and some adverbs, and allow the signers to convey the verb idea in their texts. In this article, we will focus on the presence of Lexical Verb Forms (LVF) found in our corpus of personal experience narratives.

In this context, the objective of this article is to describe, from both a discursive and a grammatical point of view, the presence and distribution of LVFs in narrative texts produced by Deaf signers in Chilean Sign Language. Personal experience narratives were chosen for this study because we believe is a kind of narrative which allows a more natural articulation of the language and, therefore, an effective linguistic description of its features. Additionally, previous studies' description of narrative sections in this kind of narratives (Otárola & Crespo, 2016; Otárola, 2017) enables the analysis of the distribution of the different LVF among such sections, deepening our description and understanding of these discourses. First, we will review some theoretical models about the type of LVFs in sign languages and the study of narrative discourse. Then, the methods of our research will be explained. The results will be presented to show the distribution of the three different types of LVFs within the narratives, observing their distribution between the different themes and narrative sections. Finally, some conclusions and discussion will be proposed in order to deepen our understanding of the studied phenomenon.

Types of Lexical Verb Forms

According to what has been reported for American Sign Language (ASL) (Padden, 1988) and later studies on other sign languages (Schembri et al, 2018; Cruz-Aldrete, 2009; De Beuzeville, Johnston and Schembri, 2009), LVF classification is based on how they are articulated in the space. Following Padden (1986), three LVF types have been identified: *Plain verbs, Agreeing verbs and Spatial verbs*. Meir (2002) offers a semantic explanation for the types based on the process they express —*Agreeing verbs* represent transfer processes, *Spatial verbs* represent movement processes and *Plain verbs* are negatively defined as those not representing transfer nor movement processes. Yet, she also reminds us that this definition is a generalization and there could be exceptions, such as LVFs denoting transfer which behave as Plain LVFs instead of Agreeing LVFs (such as BUY and STEAL in ASL). In the following paragraphs, we will review the verb types.

First, Plain LVFs, also called Simple LVFs (Crespo, 1993; Morales-Lopez, Boldú-Menasanch, Alonso-Rodriguez, Gras-Ferrer, and Rodríguez-González, 2005; Mathur and Rathmann, 2010) are not morphologically inflected for person (Padden, 1988, Meir, 2002; Sandler and Lillo-Martin, 2006). In other words, the way in which they are articulated does not change regardless the subject or object with which it is coordinated. While the form of the sign does not change for Plain LVFs, it has been reported that this type of LVFs appear along with auxiliary verbs or non-manual markers to express their person agreement in some sign languages (Steinbach, 2011). This kind of verbs, nonetheless, can be inflected to express aspect in LSCh by modifying the movement of the sign or by adding a non-manual marker, as noted by Saldías (2015).

The second type of LVFs, referred to as Agreeing LVFs by some authors (Sandler & Lillo-Martin, 2006) and Inflecting (Padden, 1986) or Directional LVFs by others (Cokely & Baker-Shenk, 1991; Johnston & De Beuzeville, 2014), are complex signs, which use the signing space to express both thematic structure and person and number agreement (Padden, 1988; Meir, 2002; Sandler and Lillo-Martin, 2006). On the one hand, these LVFs express agreement through the directionality of the movement of the sign —the sign moves from an initial position matching the locus of the argument with the thematic role of source, to a final position associated to the locus of the argument with the thematic role of goal. On the other hand, the signer's

body acts as reference to determine the grammatical person of the subject and object of the visuospatial clause. Thus, the signer's body represents the first person, the space located in front of him or her represents the second person and the space located at his or her sides represents the third person (Sandler and Lillo-Martin, 2006; Barberà, 2014). Likewise, when marking a plural person, the verbal sign is articulated with an additional movement in its segmental structure, signaling multiple points in the signed space or moving the sign as an arc, something that has been studied in pronominal forms (Quadros and Becker, 2004). Moreover, in a recent study, a set of this kind of verb has been reported to use the space and the signer's body to indicate proximity to or distance from the participants involved in the predicate (El Khouri, Carneiro & Cruz, 2018). In this article, we followed Cokely & Baker-Shenk (1991) and Johnston (2016), and opted for the denomination Directional LVFs, since it conveys both the particular way of manual articulation of the sign and the spatial agreement with the participants of the process.

Given the features of this LVF type, both the syntactic and semantic points of view are crucial to understand its behavior, since there is a set of Directional LVFs called Backward LVFs (Padden, 1988) which, unlike "regular" Directional LVFs, move from Object to Subject, such as the LVFs TAKE or GRAB in ASL (Meir, 2002). Hence, the semantic point of view is vital to understand the movement feature (since all the LVFs move from the thematic role of source to the thematic role of goal) and the syntactic point of view is needed to understand the palm orientation feature (which always agrees with the syntactic role of indirect object).

Finally, the third type of LVFs are Spatial LVFs, also referred to as Locative LVFs (Crespo, 1993). They use the space to articulate their agreement, but they agree with locative arguments instead of referential ones. This type of LVF depicts the location, trajectory or path of an entity in space, moving from the source of the trajectory to the goal. Unlike Directional LVFs, where the signing space is divided so as to represent the grammatical person, slight differences in the space bear a meaning in this kind of LVFs, since they represent locations and trajectories. In these LVFs, the signer's body is used as a point of reference to represent either proportionally or directly the location and movement of an entity (Meir, Padden, Aronoff & Sandler, 2006).

The three explained LVF types have also been reported in previous research on Chilean Sign Language (Adamo, Cabrera, Lattapiat and Acuña, 1999; Acuña, Adamo and Cabrera, 2009). Additionally, different aspects of Chilean Sign Language (LSCh) have been studied in the last decades in order to describe the language system and its use (Saldías, 2015; Otárola & Crespo; 2016), including the study of the development of the narrative ability (Acuña, Adamo, Cabrera and Lissi, 2012). Therefore, this research aims to continue these studies, analyzing the use of the three LVF types within the context of the narrative sections of personal experience narratives signed by a group of Deaf students.

Narrative discourse

In this article, narratives will be regarded as discourse practices used mainly to interact with others by building potential meanings arising from such interaction. The narrative refers to an event of interest, previously unknown to the addressees (Berman & Slobin, 1994; Earis & Cormier, 2013). They are also an act of linguistic interaction, in this case between a signing narrator and a Deaf interlocutor, where a great variety of resources from a visual and spatial linguistic system are deployed and articulated: manual and non-manual signs, facial and bodily expressions, which are features in each Sign Language (Cruz-Aldrete, 2009; Smith & Cormier, 2014).

Narration is a linguistic practice characterized by being complex and autonomous, as well as by allowing the subjects to describe significant events, reflecting their worldview, their values and their way of thinking and feeling. In sum, narrations reflect their culture (Talmy, 2000). Similarly, Bruner (2012) states that narratives enable giving meaning to experience, because they are a way of thinking which allows us to arrange and construe a reality for others, expressing purposes, actions performed by participants and their consequences.

The study of narrative discourse has been approached from different theoretical and methodological perspectives. For our analysis, we considered, on the one hand, both the linguistic-discursive perspective by Jean Michel Adam (1997) and the sociolinguistic perspective by Labov and Waletzky (1967), originally used for studying oral language narratives. On the other hand, regarding SLs studies, we followed Mulrooney's research (2009), which focused on studying discursive productions developed with linguistic resources from visual-spatial systems that reflect particular features of the Deaf communities' discursive practices.

The second study (Labov & Waletzky, 1967) dealt specifically with personal experience narratives. This study and, later, Labov (2007) describe, from a sociolinguistic approach, narrative structures based on personal experience stories. As a result, they established a correlation between the social features of the narrators and the structure of their narratives. In other words, there is a relation between their social features and how they recapitulated their experience by embodying the available resources of their language, organizing the facts temporally and selecting the linguistic devices capable of accurately conveying the represented event (Otárola, 2016). Thus, personal experience narratives are a type of text representing the cognitive, social and cultural processes of a narrator.

Thirdly, and following Labov & Walesky's (1967) method, Mulrooney (2009) described personal experience narratives in ASL. This sociolinguistic methodological approach enables describing the main resources of ASL, as well as recognizing the cultural manifestations of Deaf communities reflected in their discursive practices. In order to study the personal experience narratives from a structural dimension, she proposes six sections within these texts.

Lastly and regarding LSCh, Otárola (2016) defines the narrative text as a partially autonomous entity with an internal organization; a web of hierarchical relations forming a single whole constituted by parts which are capable of being observed individually. The sections proposed by Mulrooney (2009) were adapted in Otárola & Crespo (2016) to describe the narrative structures of 54 personal experience narratives produced by Deaf school students in Chilean Sign Language. Their analysis identified five sections: Introduction, Main Events, Resolution, Evaluation and Coda. These sections are described in Table 1 below. Among these, only the Main events section was present in all the narratives, which signals its centrality for narrative texts.

Table 1. Description of narrative sections identified by Otárola & Crespo (2016)

SECTION	DESCRIPTION
INTRODUCTION	It marks the beginning of the new story, introducing the subject matter covered by the narrative and identifying the participants and/or location.
MAIN EVENTS	It develops the information previously introduced, stating and describing aspects such as the actions of the participants, the contexts in which the facts occur and the related objects, among others.
SOLUTION	It develops one or two events as a reaction or solution to the facts narrated in the Main events section.
EVALUATION	It contains statements on the experience expressing the value of the previously detailed events.
CODA	It marks the end of the narrative.

Methods

In order to describe the LVFs in the narratives in LSCh, it is necessary to recognize the need for methods of analysis which are consistent with the visual-spatial modality of this language, as well as with the features of its users. That is to say, research should adopt procedures which reveal the particular features of this language rather than comparing it to oral languages and which consider that the age of the participants is not necessarily related to the years of immersion in sign language.

Consequently, the objective of the present research is to describe, both from a discursive and a grammatical point of view, the LVFs in the narrative texts in Chilean Sign Language produced by Deaf signers. The study was performed by an intercultural research team formed by both Deaf and hearing researchers. This particular composition enables a deeper analysis of the specific features of sign language and, more importantly, the promotion of Deaf people as researchers and fundamental guides for sign language research processes (Harris, Holmes & Mertens, 2009). Thus, the Deaf researchers of this team actively participated in the design, decision making, analysis and monitoring of the study from beginning to end.

For accomplishing the objective of the study, a predominantly qualitative method was adopted. First, we intended to elicit the data from ecologically valid situations (Schembri, 2010) allowing us to elicit spontaneous linguistic resources or, at least, as naturalistic as possible. Secondly, the research design was descriptive. During the analysis phase, each of the LVFs in the narratives was annotated and analyzed to describe how are they articulated and what their function is within the corpus.

Finally, aiming at complementing the descriptive analysis of the first stages of this research, some quantitative tools were applied to explore the frequency of occurrence of the lexical verb forms in signed texts. These analysis tasks were used for identifying certain preferences of the signers when they built their stories and developed narrative sections, which are consistent with the text as a whole.

Our small-scale linguistic corpus (Barberà, 2012), composed by 42 narrative texts in LSCh, was collected based on the case study technique (Hartley, 1994) and, particularly, on multiple case study (Stake, 2010). This corpus has a total duration of 2,131 seconds, with an average of 45 seconds per narrative. The descriptions of the different types of LVF and the analysis of their function within the corpus, texts and narrative sections were developed based on the corpus formed by three narratives signed by 14 Deaf narrators, related to the themes of Birthday, Santa Claus and Deafness.

As for the signers who produced the texts, 18 narratives were produced by 8th grade students (14 to 16 years-old), while the 24 remaining narratives were produced by primary school students, particularly from 3rd to 5th grade (9 to 13 years-old) (Otárola, 2016). This study included only young signers because Chile has implemented inter-cultural bilingual education for Deaf children for just 10 years. This is the kind of educational setting that allow Deaf students to be immersed in the language and use it in a variety of situations. The previous oralist or oral-influenced models could have an impact in terms of interference from Spanish, which would be a problem for this first approach to describing lexical verb forms in LSCh. As Table 2 below summarizes, 8 of the signers were female (coded with an initial F), while the remaining 6 were male signers (coded with an initial M). Their ages of acquisition ranged from native signers (F10 & M17) to 6 (F02), with the majority being between 1 and 4 years-old. Each of the participants and their representatives (parents or legal tutors) signed informed consents.

Participants were included according to the following criteria: a) Having more than 7 years of immersion in LSCh (Schembri, 2010; Morgan, 2005); b) Having a hearing loss range superior to 70 dB (Clark, 1981) without other related diagnoses; and c) Being fluent signers of LSCh. The participants and their characteristics are presented in Table 2.

Table 2. Summary of participants (corpus Otárola, 2016).

Participant (code)	F02	M03	M04	F05	M09	F10	M16	M17	F18	M19	F25	F26	F27	F28
School year	8th	8th	8th	8th	8th	8th	5th	5th	5th	5th	4th	3rd	3rd	3rd
Age (years, months)	14	14,1	14,6	15	16,4	14,7	12,9	11,5	12	13,3	13	9,9	11	9,3
Years of immersion in LSCh	8	12	11	13	13	14,7	8	11,5	9	10	8	7	8	8

The texts that compose our corpus were elicited through a narrative task, following the model proposed by Labov and Waletzky (1967) and modified for studies of sign language discourse by Mulrooney (2009). This activity was guided by a Deaf interlocutor, known by the students. The participants were grouped in groups of three or four, usually classmates, in order to warrant appropriate conditions for a natural conversation. In this situation of "simulated conversation", each of the students was asked to narrate three situations they had lived by answering the following questions:

1- When did you discover that Santa Claus was not real?

2- Which was your favorite birthday?

3- When did you discover that you are a deaf person?

The narratives were video-recorded in a familiar location for the participants, in appropriate conditions for maximizing the quality and scope of the elicited data (Schembri, 2010). We used two cameras: one in front of the participants, to capture a close shot in order to record non-manual movements, eye gaze and manual signs; the other was used to capture a wide shot, so as to record the interaction between the participants, their profile and the use of the space when narrating. Students were sit in armless chairs to avoid interferences during the narration process, such as placing their elbows in the chair arms while signing.

Current research about narrative discourse (Becker, 2009; Cormier, Smith & Zwets, 2013; Sánchez, 2015) use different techniques to address the need for describing a type of speech in which resources are used simultaneously. In this study, we used ELAN software, developed by the Max Planck Institute for Psycholinguistics, which enables the possibility of creating personalized levels of analyses, especially useful for an audiovisual corpus.

Data analysis

To make the description of the lexical verb forms in our corpus from a discursive and grammatical perspective, this process had to be carried out in three stages. In the first stage, the codification and analysis of the discursive sections composing the 42 narrative texts was made (Mulrooney, 2009). Following the studies of Otárola (2016) on Chilean Sign Language (LSCh), we searched for the presence of the narrative sections of: Introduction, Main events, Resolution, Evaluation and Coda.

In a second stage, LVFs were annotated and analyzed, identifying: form of the lexical verb, grammatical person, hand of articulation of the sign (right hand, DM or left hand, MIZ), non-manual markers (MNM) and type of LVF (Plain LVF), V_PL, Directional LVFs, V_DIR and spatial LVFs, V_ESP).

Then, in a third stage, a quantitative analysis was carried out to complement our previous descriptions. In this stage, the frequency of the LVFs was observed in four levels:

1- The frequency of LVFs in the corpus in general.

2- The frequency of use of the LVFs in each narrative theme (Birthday, Santa Claus and Deafness).

3- The proportion of LVFs within each narrative section.

4- And finally, the LFVs used in each narrative section of each discursive theme.

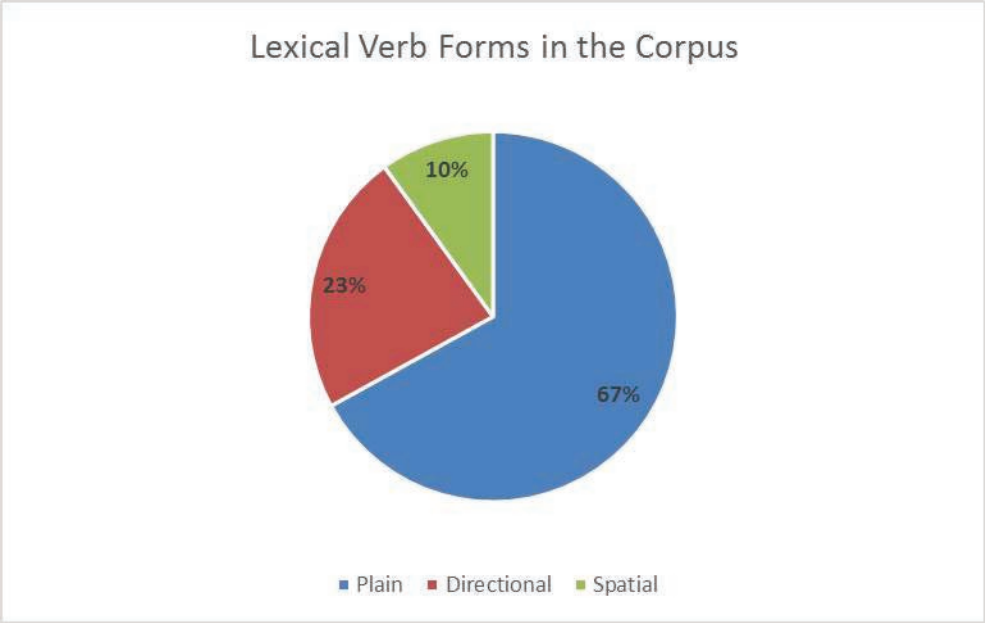
We will present each of these analyses in the next section, alongside with the description of the articulation of the identified LVF types.

Results

LVF Types Used in the General Corpus

1052 Lexical Verb Forms were identified within the corpus, which are distributed in the following way according to LVFs types:

Graphic 1. LVF type distribution in the corpus



As shown by Graphic 1, the most used LVFs are Plain, representing 67% of the total amount of LVFs. Their strong presence can be related to the fact that they are not inflectional and, therefore, they are easier to articulate. Figure 1 below displays two examples of this kind of LVF from the corpus:

Figure 1. Examples of the Plain LVF PENSAR (THINK)

	
Example A: **02V – V_PL** **1-PENSAR**	Example B: **19S – V_PL** **3-PENSAR**
I was thinking, expecting Santa Claus to pass by tomorrow.	**My mother thought** that I was a hearing child.

The previous examples correspond to one of the most used Plain LVFs in the corpus: PENSAR (THINK, which was identified 50 times). As it can be seen, examples A and B show how the LVF PENSAR maintains the same form of articulation regardless the participant performing the action. In Example A, the participant is represented in the first-person singular, while in Example B, the participant is expressed in the third-person singular. In both cases, the sign is realized without inflection, despite the change in the participant or subject of the clause. Also, co-deployment of other non-manual resources can be appreciated. These non-manuals convey information, for example, about the verb tense. In these two particular examples, the Deaf researchers of our team noted that the movement of eyes in examples A and B indicates that the action was performed in the past. As Figures 2 and 3 below show, both LVF are co-deployed with half-closed eyes, but different facial expressions. Non-manual marking of tense has not

yet been found nor specifically investigated in this language. Further research would be needed to describe the potential function of half-closed eyes as a tense marker.

Figure 2. Example A close-up and ELAN annotation lines

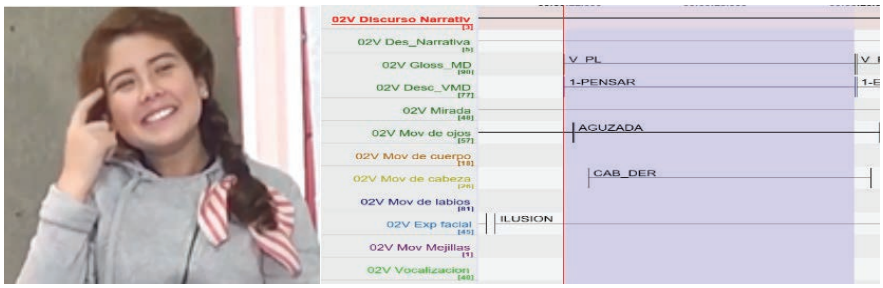


Figure 3. Example B close-up and ELAN annotation lines

The second most used LVFs, in a much smaller proportion than Plain LVFs, are Directional LVFs, with 23%. The most frequent verbs in this category are DECIR (TELL, which appeared 41 times) and MIRAR (SEE, identified 75 times), illustrated in Figure 4 below:

Figure 4. Examples of the Directional LVF DECIR (TELL)

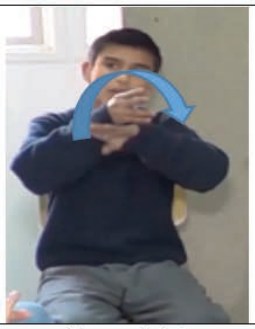
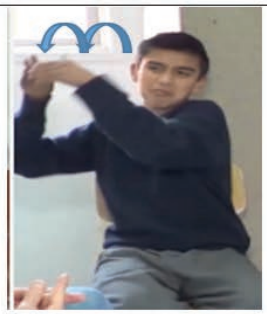
	
Example C: **09V – V_DIR** **1-DECIR-3**	Example D: **18C – V_DIR** **3-DECIR-1**
I told her that I have seen him, I already knew	**My dad told me** that he wanted to go to the Mall

The vectors drawn as arrows in the pictures in Figure 4 show the path expressing person agreement, as well as the occurring transfer process in the signing space. In Example C, the Directional LVF expresses the agreement by moving from the argument with the thematic role of source (the subject, in the first person) to the argument with thematic role of goal (the object, in the third person). In Example D, in turn, this movement is reversed, moving from a third-person subject to a first-person object. The orientation of the palm can also be recognized in the examples —in both examples, the palm faces the object of the visuospatial clause.

The least used Lexical Verb Forms in the corpus are Spatial LVFs, with a proportion of

only 10% of the identified LVFs in the corpus. Within this category, IR (GO, 39 instances) and VENIR (COME, 19 instances) were identified as the most frequently used LVFs of this type. The LVFs identified under this category are consistent with the descriptions of Spatial LVFs in the literature, since their agreement is manifested in the use of space with locative arguments (see Figure 5 below).

Figure 5. Examples of the Spatial LVFs IR (GO)

		
Example E: **04C – V_ESP** **1-IR** I **went to** my cousin's house.	Example F: **04C – V_ESP** **3-IR** Meanwhile, my classmates **went to** my house	Example G: **04C – V_ESP** **1-IR** I **went from** my cousin's house **to** my house.

As shown by examples E, F and G, it is interesting to note the locative argument agreement by following the movement's trajectory. In this sense, the directionality of the movement is different in each example and, at the same time, the articulation of the LVF signals the initial and the final position of the moving entity. Additionally, each example makes evident how the body is used as a locative point of reference.

LVF Types and Narrative Themes

The percentage distribution of LVF is similar among the three narrative themes of the texts produced by the signers, as shown in *Table 3* below. As it can be observed, the three narrative themes display almost the exact proportion of the LVF types than the general corpus. The only and slight exception are the Birthday Narratives, where there is a small difference in Spatial LVFs, which appear in a bigger proportion (14%, compared to 10% in the other narratives) in relation to the other narrative themes at the expense of Plain LVFs (63%).

Table 3. Percentage distribution of Lexical Verb Forms

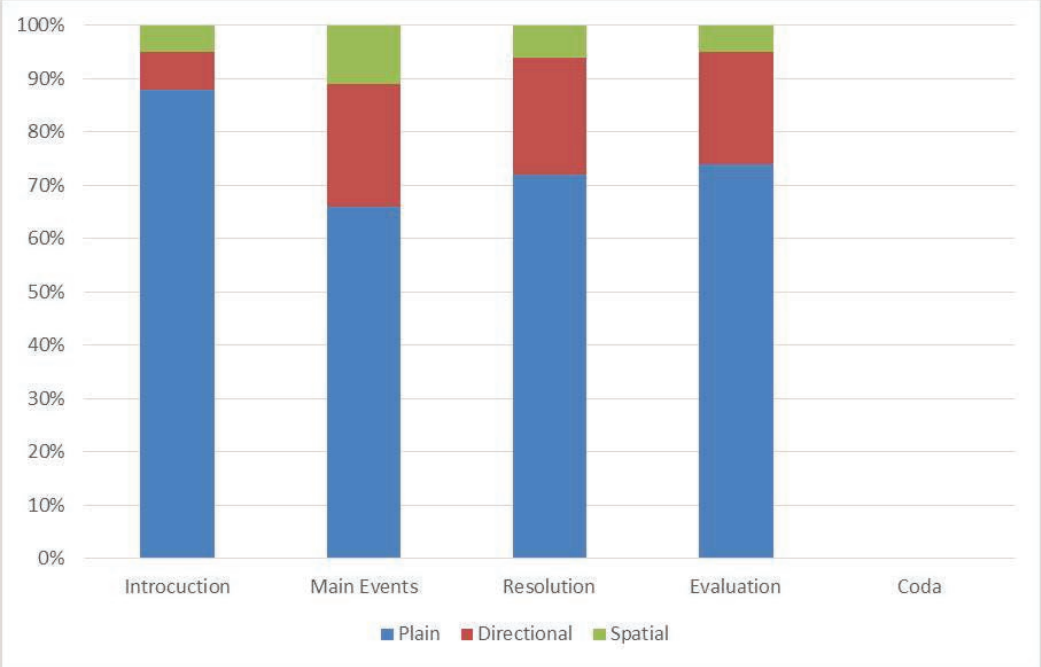
Themes	Birthday Narratives	Santa Claus Narratives	Deafness Narratives
Total LVFs identified per Theme	349	287	416
Plain LVFs	63%	67%	66%
Directional LVFs	23%	23%	24%
Spatial LVFs	14%	10%	10%

This equivalence in the proportions of the LVFs both in the general corpus and within each one of the narrative themes suggests that, at least when analyzing them in general, the different narratives articulate the LVFs in similar ways to build the stories. Therefore, narrative themes do not appear to have an impact in the general distribution of LVF types.

LVF Types Used in the Different Narrative Sections of the Corpus

In this section, we will review the proportion in which the signers use the three types of LVF between the narrative sections, thus exploring the relation between the LVF types and the discursive function of each section regardless the narrative theme. First, we must mention the frequency of LVFs within each narrative section: 40 LFVs were marked in the Introductions (3.8%), 888 in the Main events sections (84.4%), 86 in the Resolutions (8.2%), 38 in the Evaluations (3.6%) and no LVFs were found in the Codas (see graph 2).

Graphic 2: LVF Distribution in the different Narrative Sections.



As it can be observed, the analysis of LVF type proportions throughout the narrative sections of the corpus displays a similar proportion to that displayed when analyzing the corpus in general, with some variations. The marked great presence of Plain LVFs (88%) in the Introductions could be related to the fact that this section has the aim of initiating the narrative and providing relevant information about the story (participants, time, theme) without giving greater details. As no information about the actions and relations among participants throughout time is provided, Directional and Spatial LVFs might be dispensable.

Nevertheless, this trend is somewhat reverted in the remaining sections with LVFs, where Directional and Spatial LVFs are present in a slightly greater proportion due to the importance of participants' actions in those sections, following what has been described in the Introduction.

As for the Main events section, it contains the greatest number of LVFs in relation to the remaining narrative sections, which is also true for each LVF type. This could be explained by the crucial function of this section, namely, detailing the actions of participants, the context in which the facts occur and the related objects.

Finally, regarding to the Coda, the absence of LVF and the consideration of other studies on LSCh (Otárola *et al*, 2018) suggest that there are other modality-specific resources operating within the Coda, such as non-lexical verb forms. Figure 6 below shows a common marking of the Coda in our corpus–resting hands.

Figure 6. Resting Hands as Coda

LVF Types Used in the Different Narrative Sections of Each Narrative Theme

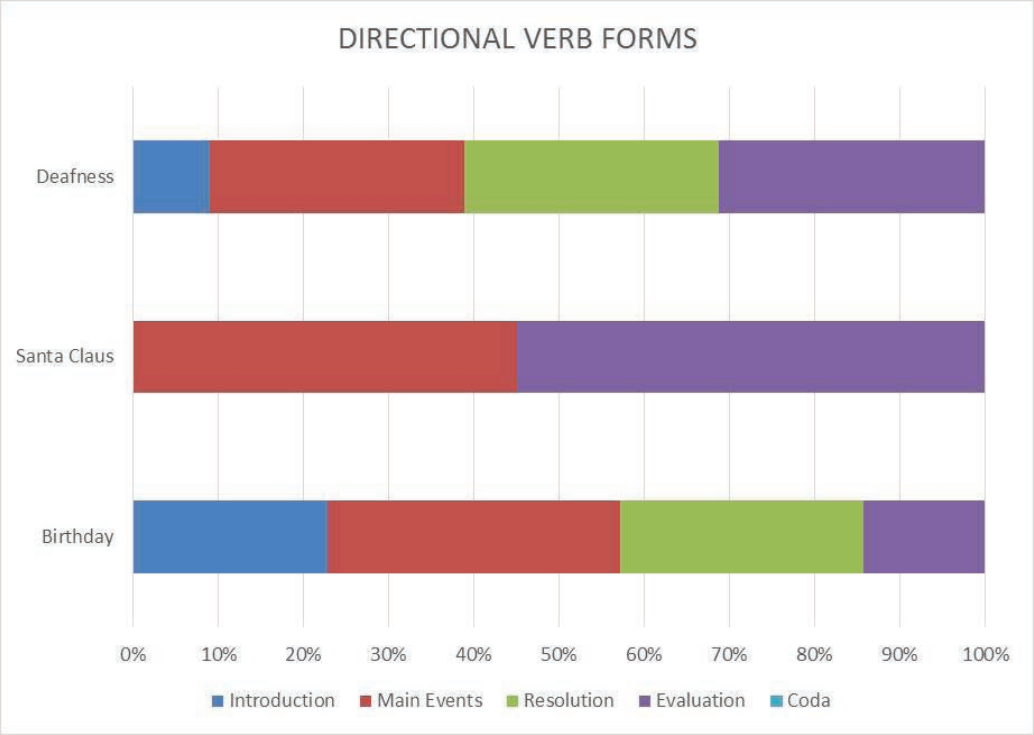
In this section, we will present the distribution of each lexical verb type across the narrative sections based on the theme of the narrative.

If we focus on Plain verb forms, they are presented in relatively similar proportion between the narrative sections across themes. For example, between 25% and 31% of Plain verb forms of each theme are present in the Introductions. Nevertheless, there is some variance in the concentration of these type of LVFs in the articulation of Evaluation sections: while in the Birthday narratives Plain verbs in the Evaluation represented the 30% of all these verbs in the theme, in the Santa Claus and Deafness narratives they comprised only 21% and 22% of the total of their type in the respective themes.

We believe that the rather homogeneous presence of Plain verb forms across narrative sections is explained, first, due to their easier articulation in terms of construing predicates. Plain verb forms do not change their articulation regardless of the arguments they select, making their articulation easier than other verb types. Examples of signs of these type in our corpus are the lexical verb forms NO-SABER (NOT-KNOW), PENSAR (THINK), SEÑAR (SIGN) and NO-ENTENDER (NOT-UNDERSTAND). Secondly, as Otárola, Gutiérrez & Bertini (2020) explain from the framework of Systemic Functional Linguistics, Plain verb forms can convey a variety of processes such as material (HACER), behavioral (LLORAR), mental (NO-SABER) and verbal (SEÑAR). Thus, Plain verb forms appear to be not just preferred by signers, but, as a category, they cover a wide range of meanings.

The distribution of the two remaining lexical verb types, Directional and Spatial, is quite different, though. As Graphic 3 and 4 below display, there is a visible variation in their distribution in the different narrative sections based on the narrative theme.

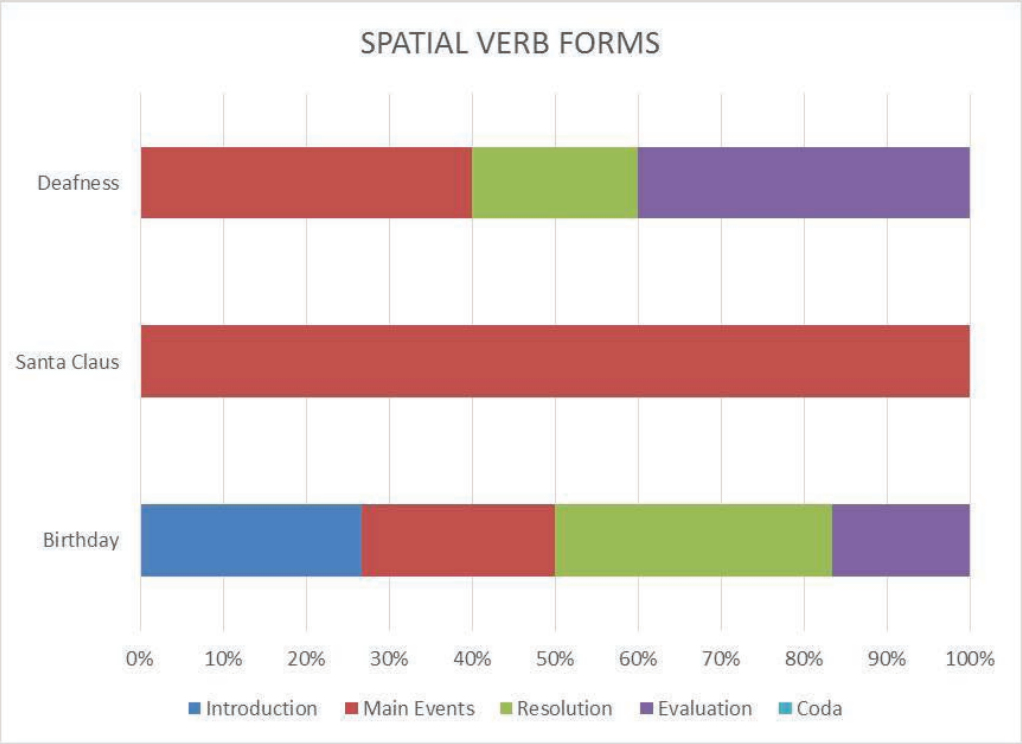
Graphic 3: Distribution of Directional verb forms across narrative sections based on theme.



As for Directional verb forms, they are present in all the four narrative sections of the Deafness and Birthday narratives, but only in two of them (Main events and Evaluation) in the Santa Claus narratives. Among the former two, Directional verb forms are more concentrated in the Introduction in the Birthday narratives (23%) than they are in the Deafness narratives (9%). The Introduction section is where the narrators present the background information of the subsequently succession of events. In the Deafness narratives, for example, the most frequent lexical verb form used in the Introductions was the sign VISITAR (VISIT), because the events narrated later were generally based on that kind of situations.

Additionally, it is worth mentioning the high concentration of Directional verb forms in the Evaluation sections of the Santa Clause narratives (55%), far more important than their presence in the same narrative section in the Deafness (31%) and Birthday (14%) themes. In the corpus, Directional verb forms such as DESILUSIONAR (DISAPPOINT), ENSEÑAR (TEACH) and COMUNICAR (COMMUNICATE) were found functioning as key resources in the Evaluation sections.

Graphic 4: Distribution of Spatial verb forms across narrative sections based on theme.



Lastly, Spatial verb forms are present in almost all the sections of the Birthday narratives (except for the Coda), with a higher concentration in the Resolution section (33%) in comparison with the rest of the narrative sections. Surprisingly, all of the verb forms of this type in the Santa Claus narratives are in the Main Events section. Common signs of this type in our corpus are VENIR (COME), IR (GO) and LLEGAR (ARRIVE). In the remaining themes, it is interesting to note the difference of concentration of this type of verb in the Evaluation sections, with those in the Deafness narratives concentrating more lexical verbs of this type (40%) than those in the Birthday narratives (17%). We believe that these difference is related to the events described in the Deafness narratives, in which the movement of the participants from one location to another (e.g., arriving to a Deaf school or going to the doctor) leads them to the subject matter of the narrative, i.e. realizing that one is deaf.

Conclusions and discussion

The work presented in this article has enabled the description of the LVFs present in narrative texts produced by Deaf signers, experienced users of Chilean Sign Language. The analysis of the corpus helped to describe the presence and form of articulation of the three lexical verb form types in the narrative discourse: *Plain verbs*, *Directional verbs* and *Spatial verbs*. These three types behave, in this kind of discourse, in a similar way to what has been reported for other sign languages in the world (Cokely & Baker-Shenk, 1991; Sandler & Lillo-Martin, 2006) and for Chilean Sign Language as well (Adamo *et al*. 1999; Otárola, 2016). As noted before, Plain verb forms are the most used forms in all the narratives and narrative sections. While we have related this fact to its easier articulation and wide range of semantic meanings, further research will need to help us to understand if this is phenomenon which is specific to narrative genres or if it is related to a wider tendency of this sign language. The traditional categorization of verb types used in this article also was found to be more rigid to what we expected, since some LVFs traditionally described as Directional were found in non-inflected forms in the corpus (such as DECIR), while others, traditionally described as Plain, such as DISCUTIR, were found to be inflected in space to represent the relative location. Not only additional research is necessary to assess the effect of co-deployment with other modality-specific resources such

as Role-Shifting, but a discussion on the limits of this widely range categorization of verb forms.

As for the narrative theme, the similar distribution observed when analyzing the narratives by theme might suggest that the subject matter covered by a text is not a relevant factor for LFV type distribution in this kind of genre, at least when texts are regarded as a whole (Bruner, 2012). A different kind of corpus will be needed to evaluate if this tendency is displayed among themes in other text genres too, e.g. argumentative ones.

The analysis of the narrative sections of the general corpus, in turn, shows that LVF types are present in slightly different proportions among sections, which appears to be related to the function of a given narrative section. This is a general trend which can be observed when considering the narrative sections of each of the three themes, but there is also variance, which suggests that the subject matter could have an impact in the how LVF types are distributed within each narrative section.

This might be reinforced by the particular amount of LVFs found in specific sections of the different narrative themes —for instance, the narratives themes which could have been organized as a problem solution narrative (like the Santa Claus and Deafness narratives) might have Resolution sections with greater amount of LVFs; similarly, the Evaluation section of the Deafness narratives concentrates a greater proportion of LVFs than the same section in the other narrative themes. Since in the Evaluation section the signers value and relate the narrated events to their personal experience, personal motivation might be a factor impacting in the amount of LVFs in particular narrative sections.

Moreover, the use of a new nomenclature, like “Lexical Verb Form”, developed in order to describe a particular linguistic resource of this language, makes it possible to value such resources from the perspective of the *form* as the basic articulation feature of the visuospatial modality. This enables the possibility of deepening our understanding of this kind of resources from the particularities of its language rather than in comparison to the verb resources of spoken languages.

Our work was limited to narrative texts and, therefore, the distribution of LVF types could be subject to this type of textual sequence. We believe that future research could also explore other discursive genres (such as argumentative or descriptive genres) and themes, in order to compare the way in which signers include and/or distribute LVFs in different type of texts.

As for the marked lack of LVFs in the Codas, it is necessary to remind that this does not imply necessarily a lack of verbal processes, but only of those verb forms defined as lexical, that is to say, those articulated manually. Thus, NLVFs, articulated upon the co-deployment of non-manual resources, might give account for the verb construction in these closing narrative sections. The importance of non-manual resources has motivated extensive research (Puupponen, 2018), so as to describe the variety of functions they perform within texts. Consequently, we consider that future research on LSCh, both about isolated resources and discursive analysis, should consider the importance of including non-manual markers in their analysis as core resources in visuospatial languages.

In sum, this study helped to highlight the existence of linguistic resources identified in other sign languages which are the implication of linguistic universals present in any other language. Consequently, LSCh has its own linguistic features, which imply the same properties found in every language.

As for methodological issues, it is worth mentioning the potential interference of Spanish (or other related spoken languages, depending on the languages in contact with the sign language being studied) in the annotation process and subsequent analysis. For instance, in our analysis, some signs appeared coded with Spanish synonyms or words with similar meanings, such as VER (SEE) and MIRAR (LOOK) or VOLVER (COME-BACK) and LLEGAR (ARRIVE); or even the same Spanish word, in the case of BUSCAR, which is the same gloss for two different signs, with the meanings of “to search” and “to pick-up (somebody)”, respectively.

The latter reflects the challenges to be addressed by researchers who study a language with annotations in another language, especially one with a different modality. These potential difficulties confirm that it is crucial to actively include Deaf researchers during the analysis

process, as well as for monitoring the general development of studies regarding their native language. Joint work between Deaf and hearing researchers promotes the understanding of language and enables the development of actual formative environments for future Deaf linguists.

Lastly, the findings of this study contribute to the description of Chilean Sign Language (LSCh) in its discursive and grammatical levels, particularly in relation to the articulation of verb processes. Thus, the reported results could enrich both national and international linguistic research about the system of visuospatial languages. Consequently, they can actually contribute to training Deaf and hearing professional, to teaching LSCh as L1 and Chilean Spanish as L2, to training LSCh interpreters and translators and other professionals who use LSCh as their means of communication or for sharing knowledge at different educational levels.

References

ACUÑA, Ximena; ADAMO, Dora; CABRERA, Irene. **Diccionario Bilingüe Lengua de Señas Chilena-Español.** Santiago: Gobierno de Chile –MINEDUC, 2009.

ACUÑA, Ximena; ADAMO, Dora; CABRERA, Irene; LISSI, María R. **Estudio descriptivo del desarrollo de la competencia narrativa en LS Chilena**. Revista Onomazein, n26, p.193-219, 2012. Available in: https://www.redalyc.org/articulo.oa?id=134525391007

ADAM, Jean-Michel. **Les textes: types et prototypes. Récit, description, argumentation, explication et dialogue.** Paris: Nathan, 1997.

ADAMO, Dora; CABRERA, Irene; LATTAPIAT, Pamela; ACUÑA, Ximena. **Verbo de concordancia en la lengua de señas chilena**. Revista Onomazein, n.4, p335-344, 1999.

BAHAN, Benjamin. ***Non-Manual Realization of Agreement in American Sign Language*.** PhD dissertation. Boston University.1996

BARBERÀ, Gemma. **The meaning of space in Catalan Sign Language (LSC)**. PhD dissertation. Universidad Pompeu Fabra, Barcelona, Spain, 2012

BARBERÀ, Gemma. **Use and Functions of Spatial Planes in Catalan Sign Language (LSC) Discourse**. *Sign Language Studies*, v14, n.2, p.147-174, 2014. Available in: https://www.jstor.org/stable/26190868

BECKER, Claudia. **Narrative competences of deaf children in German Sign Language**. Sign Language & Linguistics, v.12, n.2, p. 113-160, 2009.

BENEDICTO, Elena; CVEJANOV, Sandra; QUER, Josep. **Valency in classifier predicates: A syntactic analysis**. Lingua, v.117, n.7, p. 1202-1215, 2007. Available in: https://doi.org/10.1016/j.lingua.2005.06.012

BERMAN, Ruth; SLOBIN, Dan. Narrative Structure. In Ruth Berman & Dan Slobin (eds.), **Relating events in narrative: A crosslinguistic developmental study**. Hillsdale, New Jersey: Lawrence Erlbaum Associates, 1994. p. 39-84.

BRUNER, Jerome. **Realidad mental y mundos posibles. Los actos de la imaginación que dan sentido a la experiencia.** Barcelona: Gedisa, 2012

COKELY, Dennis; BAKER-SHENK, Charlotte. **American Sign Language: a student Text.** Washington DC: Gallaudet University Press.1991.

CORMIER, Kearsy; SMITH, Sandra; ZWETS, Martine. **Framing constructed action in British Sign Language narratives.** Journal of pragmatics, v. 55, p. 119-139, 2013. Avalilable in: https://doi.org/10.1016/j.pragma.2013.06.002

CRESPO, Nina. **Diccionario de Lengua de Señas, Córdoba.** Córdoba, Argentina: Grupo de investigación de lenguaje de señas, 1993.

CRUZ- ALDRETE, Miroslava. **La narración**. Estudios de lingüística del español n.28, p. 983-1064, 2009.

DE QUADROS, Ronice Müller; KARNOPP, Lodenir Becker. **Língua de sinais brasileira: estudos lingüísticos**. Artmed Editora, 2009.

DE BEUZEVILLEA, Louise; JOHNSTON, Trevor; SCHEMBRI, Adam. **The use of space with indicating verbs in Auslan. A corpus-based investigation**. Sign Language & Linguistics v.12, n. 1, p. 53-82, 2009. Available in: https://doi.org/10.1075/sll.12.1.03deb

EARIS, Helen; CORMIER, Kearsy. **Point of view in British Sign Language and spoken English narrative discourse: the example of "The Tortoise and the Hare".** Language and Cognition, v. 5, n.4, p. 313-343, 2013. Available in: https://doi.org/10.1515/langcog-2013-0021

EL KHOURI, José Ishac Brandão; CARNEIRO, Bruno Gonçalves; DA CRUZ, Aline. **Verbos de indicação na Libras: possíveis evidências de distanciamento**. Porto das Letras, v. 3, n. 1, p. 88-100, 2017. Available in: https://sistemas.uft.edu.br/periodicos/index.php/portodasletras/article/view/4858

HERRERO-BLANCO, Angel; SALAZAR, Ventura. 2006. Aeilewaei. **Cópula y predicaciones no verbales en la LSE**. Presentación en la Conferencia CONGRESO NACIONAL DE LENGUA DE SIGNOS ESPAÑOLA, 2002, Alicante, Spain. Published in video by the Biblioteca Virtual Miguel de Cervantes.

HARRIS, Raychelle; HOLMES, Heidi M.; MERTENS, Donna M. **Research ethics in sign language communities.** Sign Language Studies, v. 9, n. 2, p. 104-131, 2009. Available in: https://www.jstor.org/stable/26190667
JANTUNEN, Tommi. **The equative sentence in finnish sign language**. Sign Language & Linguistics, v. 10, n. 2, p. 113-143, 2007. Available in: https://doi.org/10.1075/sll.10.2.04jan

JOHNSTON, Trevor; DE BEUZEVILLE, L. **Auslan corpus annotation guidelines**. Centre for Language Sciences, Department of Linguistics, Macquarie University, 2014.

LABOV, William. **Sociolinguística: uma entrevista com William Labov**. Revista Virtual de Estudos da Linguagem–ReVEL, v. 5, n.09, 2007.

LABOV, William. & WALETZKY, Joshua. **Narrative analysis oral versions of personal experience**. In J. Helm (Ed.), *Essays in the verbal and visual arts* (pp. 12-44). Seatle: University of Washington Press, 1967

MATHUR, Gaurav; RATHMANN, Christian. Two types of nonconcatenative morphology in signed languages. In MATHUR, Gaurav; NAPOLI, Donna Jo (ed.). **Deaf around the world: The impact of language**. Oxford: Oxford University Press, 2010, p. 54-82.

MEIR, Irit. **A cross-modality perspective on verb agreement**. Natural Language & Linguistic Theory, v. 20, n. 2, p. 413-450, 2002. Available in: https://doi.org/10.1023/A:1015041113514

MEIR, Irit; PADDEN, Carol; ARONOFF, Mark; SANDLER, Wendy. Re-thinking sign language verb classes: The body as subject. In De Quadros, Ronice (ed.), **Sign Languages: spinning and unraveling the past, present and future**. TISLR9, forty five papers and three posters from the 9th. *THEORETICAL ISSUES IN SIGN LANGUAGE RESEARCH CONFERENCE, Florianopolis, Brazil, December 2006* (pp. 365-387). Petrópolis and Rio de Janeiro: Editora Arara Azul.

Morgan, Gary. 2005. The development of narrative skills in British Sign Language. In B. Schick, M. Marschark & P. Spencer (eds.), **Advances in the sign language development of deaf children.** Oxford: Oxford University Press.2005, p. 314-343.

MULROONEY, Kristin Jean. **Extraordinary from the ordinary: Personal experience narratives in American Sign Language**. Gallaudet University Press, 2009.

OTÁROLA, Fabiola. **Elementos discursivos que conforman la narración en Lengua de Señas Chilena.** PhD dissertation. Chile: Pontificia Universidad Católica de Valparaíso, 2016.

OTÁROLA, Fabiola; CRESPO, Nina. **Características de las estructuras narrativas en relatos de experiencia personal de estudiantes sordos bilingües en lengua de señas chilena.** Lengua y Habla, n. 20, p. 47-71, 2016.

OTÁROLA, Fabiola; ÁLVAREZ, Martín; MANGHI, Dominique. **Formas Verbales Léxicas en narraciones de experiencia personal en Lengua de Señas Chilena.** Paper presented at the conference XXII CONGRESO INTERNACIONAL DE LA SOCIEDAD CHILENA DE LINGÜÍSTICA. El Lenguaje en el Siglo XXI. Universidad Católica del Maule, Chile, November, 2017

OTÁROLA, Fabiola; GÚTIERREZ, Rosa María; BERTINI, Claudia. **Metafunción ideacional en Lengua de Señas Chilena: Formas verbales léxicas como procesos**. Estudios Filológicos 65, p. 169-194, 2020. http://dx.doi.org/10.4067/S0071-17132020000100169.

PADDEN, Carol. Verbs and Role Shifting in ASL. In Carol Padden (Ed.), **Proceedings of the Fourth National Symposium on Sign Language Research and Teaching** (pp. 45–57). National Association of the Deaf, Silver Spring: Maryland, 1986.

PADDEN, Carol. **Interaction of Morphology and Syntax in American Sign Language.** New York: Garland Publishing, 1988.

SALDÍAS, Pablo. **Análisis descriptivo de la categoría gramatical de aspecto en la lengua de señas chilena.** Tesis de grado para optar al grado de Licenciado de lengua y literatura hispánica, con mención en lingüística. Santiago de Chile: Universidad de Chile, 2015

SÁNCHEZ, Jordina. **El discurs signat i escrit de l'alumnat sord signant: implicacions en la modalitat educativa bilingüe**. PhD dissertation, Universidad Autónoma de Barcelona, Barcelona, España, 2015.

SANDLER, Wendy; LILLO-MARTIN, Diane. **Sign language and linguistic universals.** Cambridge University Press, 2006.

SCHEMBRI, Adam. Documenting sign languages. In Peter Austin (ed.), **Language documentation and description** London: School of African and Oriental Studies, 2010, p.105-143.

SCHEMBRI, Adam; CORMIER, Kearsy; FENLON, Jordan. **Indicating verbs as typologically unique constructions: Reconsidering verb 'agreement'in sign languages**. Glossa: a journal of general linguistics, v. 3, n. 1, 2018. Available in: http://doi.org/10.5334/gjgl.468

STAKE, Robert E. **Investigación con estudio de casos.** Ediciones Morata, 2010.

STEINBACH, Markus. **What do agreement auxiliaries reveal about the grammar of sign language agreement?.** Theoretical Linguistics, v. 37, n. 3-4, p. 209-221, 2011.

TALMY, Leonard. **Toward a Cognitive Semantics.** London: A Bradford Book, 2000.

VALLI, Clayton; LUCAS, Ceil. **Linguistics of American sign language: an introduction.** Washington, D.C.: Gallaudet University Press, 2000

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