

## CHAPTER 8

# Clause-Initial Vs in Sign Languages: Scene-Setters

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### 8.1 INTRODUCTION

Linguists often talk about the skeletal organization of a clause as involving three major elements: S, V, and sometimes O, where often that organization is taken as a major typological classifier (Greenberg 1963, and many since). With that terminology, this chapter concerns the semantics of clauses that have V as their first articulated major element in the sign languages of Brazil (Libras), Australia (Auslan), Britain (BSL), the Netherlands (Nederlandse Gebarentaal or NGT), and Sweden (Svenskt teckenspråk or STS).

We will show that clauses in which the predicate and all its arguments are separately and manually expressed begin with the V only under well-circumscribed semantic conditions. We argue that the findings here are due to the iconic nature of sign languages and, thus, should hold of sign languages in general.

### 8.2 GENERAL CAVEATS

Talking about clauses in sign languages is problematic because sign linguists have not settled on consistent syntactic criteria for determining what counts as a clause or a complete sentence (Crasborn 2007; Jartunen 2008). Complications arise especially when there is repetition of elements, particularly repetition of predicates (Fischer and Janis 1990; Kegl 1990; Matsuoka 1997, 1999; Bø 2010). We do, however, use the term *clause* in this chapter, where we rely on two factors in the analysis of our data. First, we rely on the semantic

notions of predicate and its constellation of arguments, regardless of repetitions of arguments, as is commonly done by others in recent years (Napoli and Sutton-Spence 2014; Börstell et al. 2016; Kimmelman and Pfau 2016). Second, we rely on those nonmanual markers that have been shown to be reliable indicators of prosodic structure aligning with syntactic structure, including blinks, certain changes in facial expression, gaze, head tilts, and body leans (Fenlon et al. 2007), as well as large gestural manual motions such as hand clasps (Nicodemus 2007).

Likewise, talking about subjects and objects with respect to sign languages can be problematic; in fact, many works on sign languages use the term *subject* for an agent argument and *object* for any other argument, despite the fact that there may be ways in which (at least) subjects can be distinguished syntactically in that language (as in American Sign Language, see Padden 1981). Fortunately, the only status that matters in our study is whether a lexical item is an argument of the predicate, so we do not labor over the distinction between S and O.

Finally, talking about Vs is problematic. In general in sign languages the matter of identifying morphological categories is laborious and, often, equivocal, since it is based on theoretical proposals that may find only slight purchase in a given sign language. As an example, let us consider a well-studied morphological matter in American Sign Language (ASL); the movement parameter of a sign that is a N is distinguished from that of the corresponding V (if there is one) in a few ways (Supalla and Newport 1978). For one, the movement path of the N is shorter than that of the V. For another, the speed of the movement of the N is greater than that of the V. And, finally, the movement of the N is repeated while that of the V is not. However, while the movement parameter is the most salient of phonological parameters in lexical recognition of signs in isolation (Emmorey 1995), in conversation length of movement path, speed, and repetition all can change—typically with the path shortening, the speed increasing, and repetition being lost under varying conditions (Wilbur and Schick 1987; Pizzio 2011; Napoli, Sanders, and Wright 2014 and see references within). While the works cited here regarding the morphological distinction between N and V regard ASL and Libras, complicating issues regarding identification of morphological categories in sign conversations arise in sign language after sign language, and none of the languages in the present study is an exception. However, what is really at issue for our research is the order of the predicate with respect to its arguments, regardless of the morphological category of that predicate. Once, again, however, we adopt the standard terminology in studies on word order, here using V to mean the predicate of its clause. In this way our results can be compared to studies of word order in spoken languages.

### 8.3 DATA TO BE CONSIDERED

There are various instances in which a V can come first in its clause in a sign language. For example, it may occur because some arguments are not manually expressed separately from the V or because the V is not a predicate. We list those instances here and give examples in Appendix A.

First, a V can be the first articulated element when one or more of its arguments is an empty category. For example, a first person subject in a statement or a second person subject in a question or in an imperative are quite often not articulated, both in main clauses and embedded clauses (where this behavior in embedded clauses distinguishes sign languages from many spoken languages that have multiple empty categories, including Japanese and Korean; see, for example, Hasegawa 2009). Additionally, once a conversation is ongoing, it is common not to mention a third person subject if there is no change in subject from the previous utterance or the subject is obvious from context, including pragmatic context (for ASL, McIntire 1980; Padden 1988; Lillo-Martin 1986a, 1986b; for Libras, Quadros 1995; for British Sign Language, Sutton-Spence and Woll 1999; Morgan, Barrière, and Woll 2006; for Italian Sign Language, Bertone and Cardinaletti 2011; for NGT, Coerts 2000; and many others, as well as many spoken languages). It is also common not to mention an object if there is no change from the previous utterance or the object is obvious from context; Quer and Rosselló (2013), for example, go so far as to claim that Catalan Sign Language is an unrestricted argument-drop language, and the types of phenomena they point out can be found in numerous other sign languages, including the ones in the present study.

Second, the V can come first when it has one argument or more built into its phonological form (Wilbur 2003; Neidle et al. 2000; Meir et al. 2007), as often happens with so-called agreement verbs (for Libras, Lillo-Martin, Quadros, and Mathur 1998; Quadros and Lillo-Martin 2010; for other sign languages, Padden 1988; Meir et al. 2007; among many), with role-shift (Bahan 1996), and with classifier predicates (Supalla 1986; Morgan and Woll 2007; among many).

Third, the semantic analysis of sentences of an equational sort (similar to sentences in spoken languages that often have copular verbs, such as English *The prince is a frog*; *Our focus today is Greek mythology*; *His sign name is GV*) has been central to debates in philosophy and linguistics since classical antiquity with respect to whether one term is predicated of the other and, if so, which (Heggie 1988; den Dikken and O'Neill 2017). We find persuasive arguments by Mikkelsen (2002, 2004) that sentences like these are specificational, rather than predicational; thus the first constituent in such sentences is not a V (in the extended sense of "V" used in this chapter), after all, so we do not consider them further.

Besides these instances, there are sentences that start with a V where the V is repeated later. Those present a puzzle. Very few such examples arose in the language data we looked at, (see Appendix B) but we mention the possibility of the existence of VOV and VSV structures to alert others who might come across pertinent examples in their own investigations.

Additionally, in sign languages, it is common to assign a spatial index to a referent and subsequently point to that spot to indicate that referent (Johnston 2013), where ‘pointing’ can involve finger, gaze, lip, chin, head-tilt, body-shift, and maybe others. Of these various ways of pointing, only the use of a finger is a manual articulation. In earlier work (Napoli and Sutton-Spence 2014), we found that including all manual articulations of an argument in a discussion of word order leads to important insights. Thus in the analysis of our data, we include arguments that are articulated solely by finger pointing, but not by nonmanual modes of pointing. However, it is important to note that a finger-pointed subject argument (regardless of person) can occur cliticized to the end of a wide range of predicate types in some sign languages. For example, in BSL, *DON’T-KNOW-HE TIME LECTURE*<sup>1</sup> (where we have put a hyphen between *KNOW* and *HE* to indicate the pronoun is a clitic) is an acceptable utterance to mean ‘He doesn’t know the time of the lecture.’ However, placing a lexical subject in the position *HE* occupies is odd. That the finger-pointed subject is, in fact, a clitic is confirmed by the fact that nothing can intervene between the V and the subject and by the fact that the phonotactic properties of *KNOW-HE* indicate that it is phonologically a single lexical item. Examples in which a subject is cliticized to the end of a predicate should be analyzed as having the subject articulated within the predicate. We did not, in fact, find clitic subject pronouns in our data—so we did not exclude any examples from consideration on this basis. Again, we mention this possibility solely as a caution to others looking at the phenomenon of V-initial clauses in other sign languages.

Further, a great amount of information in sign languages is conveyed via nonmanual articulators. Of particular interest to us, information about the certainty or uncertainty of a proposition (i.e., modality of the proposition) may be expressed through widening or narrowing the eyes, bunching the eyebrows, downturn of the lips, and so on (for Italian Sign Language, see Gianfreda, Volterra, and Zuczkowski 2014; for Libras, see Ferreira Brito 1990).

1. We adopt the convention of using small capitals for signs. Further, we render all examples in English glosses. Glossing in the ambient spoken language of the sign language can offer important information about articulation if signers mouth that spoken language as they sign. Since our focus is purely on the order of elements, mouthing is not pertinent. In the interests of ease for our readers, then, we present all our examples in English. For examples in sign languages whose ambient spoken language is not English we offer a gloss in the ambient spoken language in Appendix C.

These nonmanuals typically are coincidental with manual articulations, rendering moot discussion of their order with respect to the relevant manual articulations.

Finally, sign language utterances often start with a topic (Janzen 1990), which can have a variety of functions, including aboutness and scene-setting (Sze 2009), and which is identifiable from a combination of manual and non-manual cues (Liddell 1980; Nespors and Sandler 1999; Sandler 2010; Crasborn and van der Kooij 2013). Topics in sign languages can be base-generated or the result of fronting (Aarons 1994; Kimmelman and Pfau 2016). In our corpus, however, there were no instances of clauses that began with a V that was (part of) a topic (i.e., nothing similar to what is found in spoken languages, such as German; see Lee-Schoenfeld and Hogoboom 2019). Our findings, then, are limited to nontopic Vs (and VPs), and we make no claims about Vs that are (part of) topics.

From this point on, we focus on structures in which, when we say a clause is V-initial, we mean that the predicate comes first and it does not have any arguments phonologically encoded within it, does not have any empty-category arguments, and does have, at the least, a separately and manually articulated subject.

#### 8.4 OTHER WORK ON WORD ORDER AND OUR HYPOTHESIS

In earlier work (Napoli and Sutton-Spence 2014), we surveyed data from articles and books on forty-two sign languages with respect to the issue of word order of S, V, and O, looking only at sentences in which S and/or O are articulated independently of the predicate. We argued there that pressures of visualization converge to make SOV and SVO the unmarked orders in sign languages. In fact, the most common sentence type has only one new and independently articulated argument, and it precedes the predicate. If there is both an S and an O in a clause, then the S comes first; so the only real question is whether the O precedes the V (yielding SOV) or follows (yielding SVO). We argue that the reason for at least one argument (the S) preceding the V is that sign languages align articulation with mental visualization, just as people do in studies of gesture (Goldin-Meadow et al. 2008; Gibson et al. 2013; Hall, Mayberry, and Ferreira 2013). When we think of an event in which falling takes place, for example, we cannot visualize the action without first visualizing the faller.<sup>2</sup> Since sign languages are largely iconic—where the articulation itself brings up visual images—there is a stronger pressure for them to align

2. In our experience, this is true even with a topicalized clause, such as *WOMAN FALL HAPPEN NEVER*, where *WOMAN FALL* has all the markings of a topic. That is, we do not expect to find the order *FALL WOMAN HAPPEN NEVER*. However, no such examples occurred in our corpus and we know of no study on this matter in any sign language.

articulation with mental visualization than for spoken languages; the goal of clear communication calls for this alignment when it is possible.

With respect to *Libras*, a recent study shows that a relevant factor in whether the O precedes or follows the predicate is whether the predicate is extensional (in which case the O is articulated before the predicate that affects it) or intensional (in which case the O is articulated after the predicate that effects/creates it) (Napoli, Sutton-Spence, and Quadros 2017). Exceptions to this generalization by and large involve sentences that begin with a nominal that is large enough to be considered a location for the event (like a tower or a house) rather than an argument of the event (like a pizza or a sock). Here again, sign languages align articulation with mental representation—that is, we need to have a sock on hand before we can hang it up to dry, but we simply do not have that sock on hand before we knit it—so *sock* comes before *HANG-UP* in one sentence but after *KNIT* in another sentence.<sup>3</sup> And, again, we find the same factors affecting order in studies on gesture (Schouwstra 2012; Schouwstra and de Swart 2014).

If the studies just mentioned are on the right path, V-initial clauses in sign languages, where all the arguments of that V are separately and manually expressed, should be special semantically, and, thus, highly infrequent—which they appear to be. Napoli and Sutton-Spence (2014) report that some of the studies in their survey explicitly noted that such V-initial clauses do not occur, and Minoura (2008: 49) went so far as to predict that there should be no V-initial clauses in any sign language, based on an idea proposed to her in personal correspondence with Susan Fischer.

Napoli and Sutton-Spence found that, indeed, V-initial clauses of any sort in the forty-two sign languages examined were few, with some languages exhibiting none in the reported data (and, as noted, some article authors explicitly claiming none). Those they did find seemed to be limited to predicates that present or introduce a new argument; that is, they adhere to the given-new contract that many spoken languages adhere to (Clark and Haviland 1977; Birner and Ward 2009). We give examples revealed in that article, as well as new ones from Egyptian Sign Language, in a work produced since then: Fan (2014).<sup>4</sup> Clause-initial Vs include explicit verbs of existence, seen in (1) (where *EXIST-2* indicates one of a few verbs meaning ‘exist’ in that language, and the “1” after *GIFT* indicates that the verb agrees with a first person object), the presentational verb *HAPPEN* seen in (2), the presentational use of *HAVE* (which is also found in many spoken languages, such as in the English sentence *New York has skyscrapers*; for sign languages see Kristoffersen 2003;

3. That corpus, like the corpus used in the present study, presented no examples of a V that was (part of) a topic.

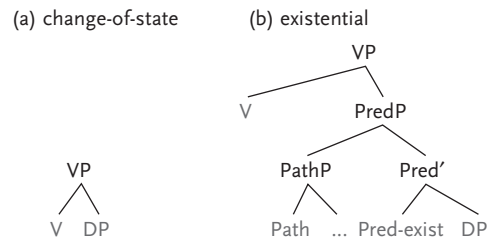
4. Here and elsewhere we use the glossing of our sources, which are not always consistent with each other. Hence we explain glossing details each time a distinct one comes up.

Johnston et al. 2007; Zeshan and Perniss 2008) seen in (3), and the verb *SEEM* seen in (4) (where the line + *neg* above the sign glosses indicates that the nonmanuals are expressing negation).

- (1) IF EXIST-2 MONEY EXTRA GIFT1 SODA  
 'If there's money left over, (you) gift me a soda.'  
 (from Egyptian Sign Language; Asdaa' 2006: 354–356, cited in Fan 2014: 12)
- (2) HAPPEN ONE MZUNGU COME KENYA.  
 'It happened one European came to Kenya.'  
 (from Kenyan Sign Language; Jefwa 2009: 167)
- (3) HAVE CAR I.  
 'I have a car.'  
 (from Swedish Sign Language; Bergman and Wallin 1985: 219)
- (4) \_\_\_\_\_ neg  
 SEEM ix<sub>i</sub> NEG-ix<sub>i</sub>  
 'Did it seem to be him or not him?'  
 (from Egyptian Sign Language; Asdaa' 2006: 520, 527, cited in Fan 2014: 65)

These and other examples like them might feel familiar to linguists of spoken languages. That is, some have noticed that the class of intransitive verbs called unaccusatives fall into (at least) two types: change-of-state (such as verbs meaning 'break', 'freeze', 'melt') and appearance/motion/existence (such as verbs meaning 'appear', 'come', 'arrive') (Kural 2002, Harves 2002, Deal 2009, Irwin 2012). These latter verbs have been dubbed existential unaccusatives (Irwin 2018). Change-of-state unaccusatives in English often participate in the causative-inchoative alternation (*The beautiful vase broke/ The child broke the beautiful vase*) and cannot occur in *there*-insertion sentences (*\*There broke a beautiful vase*); existential unaccusatives do not participate in the causative-inchoative alternation (*A boisterous bunch of kids arrived/\*The bus arrived a boisterous bunch of kids*) and can occur in *there* sentences (*There arrived a boisterous bunch of kids*).<sup>5</sup> Irwin (2012, 2018) argues for distinct structures, where change-of-state verbs take a simple nominal complement, but

5. The determination of unaccusativity varies by language and, even within a language, can be an issue of tendency rather than categorical determination; that is, there are unaccusative mismatches in the sense of Levin and Rappaport (1989). The English verb *die*, for example, has some properties of unaccusatives and some of unergatives (Dąbrowska 2016); see also discussion of the English verb *disappear*, for which transitive uses are increasingly attested (Levin and Rappaport Hovav 1995). For a recent analysis that discusses the role of perspective in *there* sentences with verbs like these, see Irwin (2018, 41ff) on the Stowell-Gueron Generalization.



**Figure 8.1.**  
Two types of unaccusatives in spoken languages.

existential verbs take a small clause complement, as in Figure 8.1 (adapted from Irwin 2018).

The discourse function of existential unaccusatives is to establish (or re-establish) a discourse referent for subsequent reference; in other words, they are presentational (McCloskey 2014), exactly as Napoli and Sutton-Spence (2014) suggested that clause-initial Vs in sign languages are. Importantly, the existential unaccusatives take clausal arguments (here small clauses), just as, in standard analyses, verbs of appearance like the raising predicate *seem* do (taking an internal argument only).

The only examples Napoli and Sutton-Spence found of clause-initial Vs that did not have this semantic profile were from Malagasy Sign Language (Minoura 2008: 52 ff.), and Minoura suggested this order might be the result of influence from written Malagasy.<sup>6</sup> We give an example in (5).

- (5) SCATTER TRUCK ROCK.  
'The truck scatters rocks.'  
(from Malagasy Sign Language; Minoura 2008: 52)

We are unfamiliar with Malagasy Sign Language. However, on the basis of the sign languages we have familiarity with, we think it is possible that there is not a single lexical item for 'scatter' but, instead, a range of options in which the phonological form is affected by what is scattered and, possibly, by the scatterer and the manner of scattering. For example, signing that a person is scattering rose petals wherever she chooses and with just one hand may well use a distinct verb from that used in signing that a truck is dumping rocks that scatter outward by the laws of physics. So the articulation of the verb

6. The influence of written text upon sign language word order has been noted by others for various sign languages (for ASL, Fischer 1975; for NGT, Bogaerde and Baker 1994; for French Sign Language, DeLange et al. 2004; for Croatian Sign Language, Milkovic, Bradaric-Joncic, and Wilbur 2007; for Chinese Sign Language, Yau 2008; for Polish Sign Language, Wojda 2010).



itself may carry information about one or more of its arguments, despite the fact that the transcription does not reveal that (and see Hoiting and Slobin 2003 for remarks on how transcription can skew the interpretation of data). If that is the case in (5), this example (and others like it) would not be pertinent to this section of our study. However, the question still remains why both TRUCK and ROCK are fully articulated following the initial V. One would want to analyze (5) in its context in order to understand if there were discourse factors pertinent to word order here. Without that context, we can hazard nothing more. We therefore continue with the proposal of Napoli and Sutton-Spence that predicates in clause-initial position function to present or introduce a new argument into the discourse.

Exactly how existential predicates establish a referent is important for the analysis of sign languages. As Borschev and Partee (1998) note, existence is always relative to a location. Further, locations can be metaphorically extended (Jackendoff 1972, 1990) to include "being in some state," "occurring in some spatiotemporal region," "being in someone's possession," and "being in the speaker's (or an observer's) perceptual field" (Padučeva 1992, 1997—cited in Partee et al. 2011). Partee et al. (2011) argue that existential predicates have at least two arguments semantically: THING and LOC(ation), where the LOC might be explicitly or implicitly understood. They propose the principle of Perspective Structure (143):

Perspective Structure: An "existence/location situation" may be structured as either centered on the THING or centered on the LOCation. We use the term "Perspectival Center" for the chosen participant.

Many studies have shown for a variety of sign languages that, for arguments of a predicate, larger more immobile objects tend to precede smaller more mobile ones (where we are appealing to properties of the referents of the signs, not to articulatory properties of the signs themselves) (Volterra et al. 1984; Coerts 1994; Kristoffersen 2003). This observation throws additional light on the phenomenon of clause-initial Vs as scene-setters. This order of elements is often subsumed under the figure-ground principle (Happ and Verköper 2006, and see Leeson and Saeed 2012), where we see an example in (6) (the subscript "i" represents a spatial index):

- (6) WALL<sub>i</sub> JACKET I HANG-ON<sub>i</sub>.  
 'I hang up the jacket on the wall.'  
 (from German Sign Language; Leuninger; 2000: 238, translation from Plaza-Pust 2008: 85)

In (6), the wall is the location of the action, and, as such, the mention of it sets up a visual context for what is to follow. Similar examples in Libras

are discussed in Napoli, Sutton-Spence, and Quadros (2017). In fact, many sign languages have what are called 'split sentences' (Volterra et al. 1984; Boyes-Braem et al. 1990; Coerts 1994), made of two clauses, in which the first functions to set up a visual context for the event of the second clause. Likewise, clefting (Wilbur 1994) is common in sign languages, as are initial topic structures (as noted earlier, although no relevant examples of either of these structures occurred in our corpus).

In sum, there appears to be a strong tendency to use initial position in sign languages as a scene-setter. That makes sense; these initial Vs set up a broad understanding of how we are to interpret the event that we are about to visualize. Thus the word order aligns with the cognitive process of visualization.

This evidence led us to come up with our hypothesis about clause-initial Vs (importantly, where the arguments of the V are separately and manually expressed), which we repeat here for clarity.

**Scene-setter Hypothesis for Sign Languages: If a clause begins with a V, the V serves as a scene-setter**

Existential and presentational predicates (as in (1)–(3)) are therefore allowed in clause-initial position; their visualization does not require a referential argument to start with and they introduce a referential argument. Likewise, a predicate that sets up a modality (such as *SEEM* in (4))—whether epistemic or deontic—might well appear in clause-initial position, since it introduces a following event argument. In fact, we expect a wider range of possible clause-initial Vs now, including existentials and modals, but also intensional Vs that take a clause (small or not) as their argument. That is, we propose that clause-initial Vs can introduce not just a participant in an event, but the whole world of an event.

Vs that do not have these semantic characteristics could, conceivably, occur in clause-initial position if the V is to be interpreted as setting the scene in some unusual way. For example, one might want to stress the extraordinary nature of a given event, using an initial V to set up expectations that then get thwarted. In that regard, we informally asked signers of ASL whether they would allow either *JUMP ON-COUCH CHILD* OR *JUMP ON-COUCH HORSE*. They found both odd, but the sentence with the horse was better because it came as such a surprise. In fact, some suggested a pause before signing *HORSE*, to give a sense of 'ta da!' And some signers offered us instances of clause-initial Vs where the order seemed to be suppressing information for effect (as in 'and then walked in ... her husband!').

## 8.5 DATA SETS

Our examples are drawn from five sign languages, selected for accessibility (with respect to our knowledge of the languages in which they were glossed) and from two genres: interviews and narratives.

With respect to Libras: A national corpus of language data is being established for Libras right now. The videos in the corpus consist of conversations between an interviewer and an interviewee. The interviews open with asking name and name sign and discussions about what it was like growing up deaf, after which point the topics of conversation vary, and there was no particular goal in gathering the data other than general linguistic analysis. We arbitrarily selected four interviews, all conducted by a single female interviewer, where the interviewees were two female and two male adult signers of varying ages, all native signers. These interviews were annotated and analyzed with ELAN by Benício Bruno, a student researcher in the department of Brazilian sign Language at the Federal University of Santa Catarina in Florianopolis, Brazil. Both authors then viewed all sentences and discussed their analysis.

With respect to the narrative genres, we chose the story of “The boy who cried wolf” for Auslan, BSL, NGT, and STS. The Auslan story is part of the Endangered Languages Archive at the SOAS University of London and the stories in BSL, NGT, and STS are in the Max Planck Language Archive. All come from larger corpora which include videos of deaf signers retelling Aesop’s fables. The signers are both men and women, of varying ages, using a variety of dialects. All videos are presented on the websites with annotations using ELAN. We arbitrarily looked at one rendering in each of these four languages, two by adult men, two by adult women, all native signers.

All these corpora offer an appropriate testing ground, since our hypothesis calls for looking at sentences in context. Further, the Libras videos show us informative dialogue, while the Auslan, BSL, NGT, and STS videos show us narrative monologue, allowing us to explore whether the difference in interview versus monologue is pertinent. While the important unit for us is clauses, we kept track of full sentence boundaries in case that information would reveal differences between interviews and narratives.

## 8.6 RESULTS

The videos in both languages contained very few clauses that met our criteria for being considered ‘V-initial’, and all involved Vs used in a consistent way. We therefore here give a complete overview of the data for only the first two minutes of the video of a single male signer plus female interviewer of Libras, and the entire video (which lasted under two minutes) for a single male signer of the narrative in Auslan. We enrich these data with examples of V-initial clauses in the other videos when appropriate.

### 8.6.1 Results on Interviews in Libea

We dub one Libras interviewee Libras-Alex and in Table 8.1 we give an overview of the first two minutes of the video with him with respect to the number of clauses in each sentence. We dub the Libras interviewer simply Libras-Int, since there was one interviewer for all interviews.

In the total forty-eight sentences in the first two minutes of the interview with Libras-Alex, containing seventy-four clauses, only three examples of V-initial clauses appeared. These three appear in separate sentences, given in (7)–(9). The predicate of interest is boldfaced. (Note: In (9) the “sc” after the names of the cities indicates fingerspelling for Santa Caterina, the name of the state these cities are part of.)

(7) Libras-Alex

YES BECAUSE LONG-AGO OLD **SEEM** STUDY SCHOOL EXAMPLE GO

‘Yes, because long ago, really long ago, for example, it seems I went to school to study.’

(8) Libras-Int

**TRADITION** HAVE FAMILY DEAF

‘(But) they say you have a deaf family.’

(9) Libras-Alex

NEAR BIGUAÇU-SC MIDDLE **BEGIN** SÃO-JOSÉ-SC

‘Near Biguaçu, at the middle, ~~SÃO-JOSÉ~~ begins.’

In (7) the initial predicate is *SEEM*, a classic verb to appear in initial position, if our hypothesis is right. *SEEM* takes as its subject the (complex) clause that follows it, setting up a world of possibility in which the event of that clause takes place. In (8) the initial predicate is the nominal *TRADITION*. *TRADITION* takes as its subject the (simple) clause that follows it, setting up a different world of possibility (hearsay) in which the event of that clause takes place. Again, this V-initial clause is consistent with our hypothesis. While both predicates of interest in (7)–(8) are intensional, (9) is different. The V of interest in

**Table 8.1.** LIBRAS INTERVIEW, NUMBER SENTENCES BY NUMBER OF CLAUSES IN EACH

	1 clause	2 clause	3 clause	Total clause	Total sentence
Libras-Int	14	4	2	28	20
Libras-Alex	14	10	4	46	28

(9) is BEGIN. Here we have a presentational/locational verb. So we again find confirmation of our hypothesis, but of a different sort.

Likewise, in our three other Libras interviews, there were examples of V-initial clauses with SEEM and TRADITION, consistent with our hypothesis.

Further, we found HAPPEN in the interview with the interviewee we dub Libras-Andre, shown in (10). Here **HAPPEN** takes a following (complex) sentential subject (where "IX" indicates a spatial index that is manually expressed, and hyphens between letters indicates fingerspelling).

(10) Libras-Andre

(so) **HAPPEN** I-F-S-C MAKE HELP IX (3ps) HELP IX (1ps)

'So it happened that IFSC (the university) made him help me.'

Additionally, presentational HAVE comes up. The examples in (11) are from the interview with the interviewee we dub Libras-Nicoli (where in (11a) "+" indicates continuative aspect and the word *so* in parentheses indicates a gesture that acts as a conversational place holder).

(11) a. Libras-Nicoli

(so) BEST **HAVE** BILINGUAL PORTUGUESE LIBRAS BEST +

'(So) it's best that there should be bilingual education, Portuguese and Libras.'

b. Libras-Nicoli

IX (1ps) (little) SUFFER **HAVE** BULLYING **HAVE** BULLYING

'I suffered a little because of bullying.'

In (11a) the matrix clause has what we dub a flanking structure, with the predicate BEST at each end (see Appendix B). But the clause of interest is the medial one, which begins with presentational HAVE, consistent with our proposal. In (11b) there's a repetition of the clause HAVE BULLYING, where HAVE establishes the existence of bullying in the interviewee's school days.

Additionally, we found sentences open to two possible analyses, where one is of interest to us. In (12) we exemplify with a sentence from the interview with Libras-Alex, though articulated by the interviewer (again the word in parentheses indicates a gesture):

(12) Libras-Int

FREE INTERACT INTERVIEW (positive)

'You're free to interact in the interview.'

FREE might be predicated of an understood second person subject, in which case (12) is not relevant to our hypothesis. Alternatively, this could be a

deontic modal, conveying that it is permissible for the following event to take place (that in which the interviewee interacts in the interview). With the second analysis, we have our first example of a deontic modal in clause-initial position.

The interviewer uses this same predicate in other interviews. Here we give examples from the interview with Libras-Nicoli, where in one sentence the V is preceded by a manually articulated second person pronoun, but in another it is not:

(13) Libras-Int  
 IX (2ps) FREE AT-WILL PRODUCE  
 'Feel free to say what you like.'

(14) Libras-Int  
 FREE POSSESSIVE(2ps) FEEL HOW IX(2ps) (positive)  
 'You're free to feel how you feel (about your life experience), okay?'

Given (13), we are not confident that (12) and (14) are deontic uses of a modal FREE, but if they are, they are coherent with our proposal.

### 8.6.2 Results on Narratives in Auslan, BSL, NLT, and STS

Turning now to the narratives, all of them were completed within two minutes. Thus we offer a characterization of the data in the entire Auslan video by number of clauses in each sentence and then total number of sentences in Table 8.2. Here there is only one signer—the narrator. (Appendix D gives details about some findings in Table 8.2.)

Of these sixty-one clauses, only three began with a V where all of that V's arguments were separately and manually expressed. All three such clauses just happened to occur in a single sentence (judging from paralinguistic characteristics), shown in (15). We have boldfaced the three relevant Vs. (Again, letters with hyphens between them indicate fingerspelling; further, "Pt" indicates a pronoun or determiner articulated via finger-pointing.)

**Table 8.2.** AUSLAN NARRATIVE, RANGE OF SENTENCES BY NUMBER OF CLAUSES IN EACH

1 clause	2 clause	3 clause	4 clause	5 clause	7 clause	Total clause	Total sentence
8	10	2	2	1	2	61	25

(15) Auslan

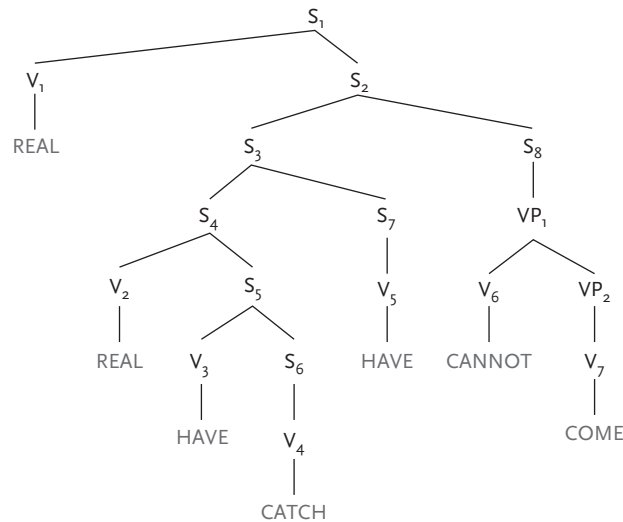
**REAL** B-U-T Pt:det TIME **REAL HAVE** Pt:det WOLF Pt:Pro3sg CATCH PEOPLE SHEEP  
 Pt:Pro3pl HAVE B-U-T Pt: PEOPLE CANNOT COME NOTHING

'It's really true, there really was a wolf that caught people's sheep, there was, but people couldn't come, so nothing happened (when the boy cried out).'

We offer a tree analysis with a bracketed analysis under it in Figure 8.2, where only predicates are shown. "S" is used for clause, in this appropriately simplified tree.

The initial **REAL** is OUR matrix predicate ( $V_1$ ) and it takes a coordinated embedded clause as its subject argument (the conjuncts being  $S_3$  and  $S_8$ ). The coordinator is the fingerspelled B-U-T, and, interestingly, it occurs twice. Comparably to how the coordinators for disjunction in various spoken languages can appear between the two disjuncts or in front of each (as in English *Charles or Fred*, as well as *either Charles or Fred*, and in Italian *Carlo o Federico*, as well as *o Carlo o Federico*), so can the coordinator B-U-T, here appearing in front of each conjunct.

Looking at  $S_3$ , we find that it is also made up of two clauses, but without any kind of juncture between them. The first is  $S_4$ , whose predicate is the second **REAL** ( $V_2$ ) and whose subject is the entire complex clause that runs from the first instance of **HAVE** ( $V_3$ ) to the point that indicates a 3rd person plural pronoun (immediately after the sign **SHEEP**). The subject argument of that first



**Figure 8.2.**  
 Tree and bracketed analysis of (15).

HAVE (V<sub>3</sub>) is either WOLF with a modifying relative clause (whose V is CATCH), or a clause (in which WOLF is the subject and, again, the V is CATCH). So with either analysis, CATCH is the V of S<sub>6</sub>, the lowest clause within the subject complement of that HAVE (V<sub>3</sub>). Then comes another instance of HAVE (V<sub>5</sub>), standing alone as its own clause (S<sub>7</sub>) with no phonologically expressed argument.

Next comes the second conjunct of the subject complement of the matrix REAL: S<sub>8</sub>, which expresses that people don’t come, so nothing happens. The predicate of S<sub>8</sub> consists of the modal CANNOT and its complement, whose V is COME.

So the sentence in (15) has a coordination (of S<sub>3</sub> and S<sub>8</sub>) as well as much subordination (S<sub>6</sub> is embedded within S<sub>5</sub>, which is embedded within S<sub>4</sub>). Additionally, S<sub>7</sub> simply stands as a sister to S<sub>4</sub>; that is, we have a juxtaposition of mutually independent clauses (for discussion of parataxis, see Lehmann 1988; for examples in Italian Sign Language, see Volterra et al. 1984).<sup>7</sup>

There are arguably multiple ways to analyze (15), including treating NOTHING as its own clause, as well as the issue of whether the clause whose V is CATCH is a relative clause or an argument clause. Fortunately, the debatable details for the analysis of (15) are not pertinent to the main issue of this chapter.

The two instances of REAL(V<sub>1</sub> and V<sub>2</sub>) are both predicates that take a whole event as their subject—and that are initial in their clauses. They tell us the following event (expressed as their sentential subject) is true—it really happened. The use of HAVE (V<sub>3</sub>) that initiates and is the predicate of S<sub>5</sub> is presentational, telling us either that there really was a wolf on the scene (so HAVE is presentational and CATCH is inside a relative clause modifying WOLF) or that the event of a wolf catching the people’s sheep really did happen (so HAVE is presentational again). All of these instances of V-initial clauses are expected, given our hypothesis.

Notice that the second instance of HAVE (V<sub>5</sub>), standing alone in S<sub>7</sub>, has a subject understood from context rather than manually articulated. So it does not meet the criteria for being considered a V-initial clause in the sense used here.

A small handful of examples of V-initial clauses came up in the narratives in the other three languages. We now discuss them, where the translations into English here and the translations into the ambient spoken languages in our Appendix C are from the ELAN transcriptions for those languages we do not know.

When we look at the same narrative told in BSL, we find HAPPEN OCCURRING clause-initially:

7. We labeled the node above S<sub>4</sub> and S<sub>7</sub> an S (S<sub>3</sub>), so that this conjunct would have the same label as its sister conjunct S<sub>8</sub>.



(16) BSL

TIME-PASS **HAPPEN** SEE PANIC WOLF

‘The time came when the boy was shocked to see a real wolf.’

But we also find one new clause-initial predicate: *IDEA*.

(17) BSL

**IDEA** SOMETHING-DIABOLICAL WHAT TRICK.

‘It occurred to him that it would be a keen idea to play a trick on the villagers.’

(17) might be a specificational sentence, in which case there is no predicate. Alternatively, *IDEA* could be a presentational predicate (perhaps best translated as ‘have an idea’), setting up an idea-world in which the trick exists. In the latter analysis, this example is consistent with our hypothesis.

The NGT narrative also has an example in which *IDEA* is an initial predicate, seen in (18) (“Ind” indicates a spatial index manually expressed).

(18) NGT

THINK **IDEA** PEOPLE PERSON VILLAGE Ind Ind JOKE TEASE

‘One day he came up with a little trick to tease the people from the village.’

The sign *THINK* has an empty 3rd person subject clear from the discourse context. So *IDEA* plus the clause telling what the idea is might be the object of *THINK*. However, the signer shifts from the role of narrator into the role of the shepherd boy before *IDEA* is articulated. Therefore, we suggest a better translation of (17) would be, “He thought... oh, I have an idea: how about...” In this case, *THINK* might be its own clause and *IDEA* might start a new clause (so it’s clause-initial), thereby setting up an idea-world for the event expressed in the clause that follows it.

We found no other clauses among the narratives that had a potential analysis as starting with a *V*.

## 8.7 ADDITIONAL RESULTS

Our results so far concern instances of *V*-initial clauses—quite naturally, since that’s what our hypothesis was about. We also examined the data, however, for whether the same *Vs* that occur in initial position can appear in other positions with the same scene-setting sense. It seems they do not, for all five languages, in both interviews and narrative. Here we give the details on Libras.

SEEM and HAPPEN occurred only in clause-initial position or alone, surrounded by pauses, as a comment on the previous discourse.

Every time HAVE had a presentational sense, it was clause-initial, but in those instances in which it had the sense of possession (as in 'having a family'), the subject either preceded it or was understood in context.

TRADITION usually occurred clause-initially with the predicative sense seen in (8). However, it occurred following a nominal in an interview with interviewee Libras-Andre:

(19) Libras-Int

ALL TRADITION

'Everything is hearsay.'

This sentence appears when the interviewer is checking what Libras-Andre is saying in comparison to what is generally known. We have given the translation that seems the best to us. That is, this is a specificational sentence, so there is no predicate here at all.

Given these facts, we suspect that our hypothesis should be strengthened to include the converse, so that the definition of a scene-setter becomes a clause-initial V, like so (where, again, we call a V clause-initial only if its arguments are separately and manually expressed).

**Scene-setter Hypothesis for Sign Languages (Strong Version): A clause begins with a V if and only if the V serves as a scene-setter**

We hesitate, however, because of the placement of the modal verb CANNOT in (15); it does not occur in clause-initial position, but, rather, is preceded by PEOPLE, despite being a scene-setter. There is good evidence that auxiliary verbs in some sign languages have special grammatical behavior (for Libras, Quadros 2003; for German Sign Language, Rathmann 2001; for Taiwanese Sign Language, Smith 1990; for NGT, Bos 1994 and Cokart 2013; for Greek Sign Language, Sapountzaki 2005). So if the strong version of our hypothesis holds, auxiliaries might form a systematic exception. We leave the question open.

Finally, we note two differences between dialogue and narrative in this very limited study, differences that call for future research. First, comparing Tables 8.1 and 8.2, we see that the most number of clauses in a sentence in the interview with Libras-Andre was three, while the most number in the Auslan narrative was seven. This seems expected, given that interviews are a turn-taking situation while in narratives, the narrator can keep stringing one utterance along. We do note, however, that the interviewee we dub Libras-Karine at one point claimed the stage and held it for thirty-seven seconds, during which she articulated twenty-three predicates, which, given the nonmanuals

and the speed, were arguably all one run-on sentence. So perhaps turn-taking does not lead to a tendency for fewer clauses in a sentence, after all.

Second, scene-setter predicates were scattered throughout the interviews; not so in the narratives. In the interviews, each participant appeared to want to coax the other along to understand where they were going in a series of questions that led in many different directions, so scene-setters smoothed the way—acting as transitions. In the narratives, the narrator led the audience from one event to the next, connected event, with simple presentations of episodes, except for points that were big plot shifts, where the shift was the focus of the narrative. There were two such plot shifts in this story. One was when the boy decided to play a trick on the villagers. The signers of BSL (in (17)) and of NGT (in (18)) marked that point with a clause-initial scene-setter V. The other was when a real wolf showed up and the boy panicked. The signers of Auslan (in (15)) and BSL (in (16)) marked that point with a clause-initial scene-setter V. So the scene-setters here make the audience sit up and pay attention. Again, this difference between the interviews and the narratives seems expected, given what this particular interview was about (getting to know someone) and what this particular narrative was about (a story with a turning point and a surprise ending).

## 8.8 CONCLUSION

Our hypothesis was confirmed in these data sets: In V-initial clauses, the V serves as a scene-setter. Further, in these data sets, the converse holds, but only if we set aside auxiliary verbs: if a V serves as a scene-setter, it precedes its arguments. Since the sign languages here include unrelated languages with no history of contact (such as Libras and Auslan), and since these languages were not chosen on the basis of any particularities of syntax or semantics (that is, the choice was based on access to the data, a random factor with regard to structural characteristics), these findings can be expected to hold of all sign languages.

This study is one more piece of evidence for the alignment of semantics with syntax in sign languages, where visualization is the key: scene-setters appear in initial position because they set up a broad understanding of how we are to interpret the event that we are about to visualize. Sign languages appear to follow a sensible communication principle: if you can make the visuals line up with meaning, do it. After all, that's how to understand each other better.

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## APPENDIX A: EXAMPLES OF CLAUSES IN WHICH THE FIRST ARTICULATED ELEMENT WAS A V NOT PERTINENT TO OUR HYPOTHESIS

As expected, many sentences contained clauses in which the first articulated element was V but the clause was irrelevant to our hypothesis because there was at least one understood argument that was not manually articulated or at least one argument that was phonologically encoded in the V. For example, in (20a) we see a question with an understood second person subject; in (20b) we see a predication of a third person discourse referent. In (21a-c) we have assertions with an understood first person subject. In (21d) we have a predication of a third person discourse referent.

### (20) Libras-Int

- a. SIGN-NAME  
'And (what's) your sign name?'
- b. LAUGH (so)  
'That's funny.'

### (21) Libras-Alex

- a. ENJOY PARTICIPATE  
'I'm happy to participate.'
- b. HAVE-NOTHING/NO ONE  
'I have no one.'
- c. GROW (after) DEAF MOCK (leave it)  
'I grew up and the other deaf people made fun of me.'
- d. MOCK SIGN-NAME-(ALEX)  
'They made fun of my sign name.'

Other examples not relevant to our study included equational sentences, which we set aside as specificational, as in (22) and (23).

### (22) Libras-Int

- TOPIC WHAT INTERVIEW (any)  
'The topic (of our conversation) is an interview.'

### (23) Libras-Nicoli

- MAIN FOCUS STUDY  
'The main thing was to focus on studying.'

## APPENDIX B: FLANKING STRUCTURES

Sometimes we find instances of the structure *XYX*, where the two *Xs* are repeats of a single element (predicate or argument) within a single event. We call these structures flanking.

One well-studied kind of flanking is verb-sandwiches. In a verb-sandwich the VP has the form *VOV*, where the two *Vs* are the same lexical item (perhaps in different morphological forms, such as different aspects) or they are distinct lexical items that are close in sense (Fischer and Janis 1990). That is, both *Vs* refer to the same action in a single event. Verb-sandwiches raise the question as to whether such VPs are to be analyzed as *V-initial* and/or *V-final*, and, if such verb-sandwiches occur in clause-initial position, they could be relevant to our study. While verb-sandwiches occur in at least some of the languages in the present study (for Auslan, see Johnston et al. 2007), no relevant verb-sandwiches appeared in our data. That is, all *VOV* flankings had a clear *S* argument (either manually expressed before the *VOV* or understood from context). So we remark on verb-sandwiches simply as a caution to others looking at the phenomenon of *V-initial* clauses.

What did appear in our data, however, were scattered flankings of the form *VSV*. A typical one we found in *Libras* is given in (24).

- (24) *Libras-Int*  
NAME NEIGHBORHOOD NAME (SO)  
 'What was your neighborhood's name?'

The nominal *NAME* has the function of predicate, flanking the subject in this question, so we analyze this as *VSV*. We note that this sentence (and the other relevant flankings in our interview corpus, such as that in (10a) in the text) has much in common with specificational sentences like those in (22)-(23) in Appendix A. Depending on the proper analysis of flanking sentences and of specificational sentences, flankings like (24) here might or might not be problematic for our hypothesis.

## APPENDIX C: GLOSSES OF TEXT EXAMPLES IN AMBIENT SPOKEN LANGUAGES OTHER THAN ENGLISH

- (25) [= (5) MANDRARAKA KAMIÔ VATO].  
 scatter truck rock  
 'The truck scatters rocks.'  
 (from Malagasy Sign Language; Minoura 2008: 52)

- (26) [= (6) WAND<sub>i</sub> JACKE ICH HANG-AN<sub>i</sub>].  
 Wall jacket I hang-on  
 'I hang up the jacket on the wall.'  
 (from German Sign Language; Leuninger 2000: 238, translation from Plaza-Pust 2008: 85)
- (27) [= (7) Libras-Alex.]  
 SIM PORQUE ANTIGAMENTE ANTIGO **PARCEER** ESTUDAR ESCOLA EXEMPLO IR  
 yes because long-ago old seem study school example go  
 'Yes, because long ago, really long ago, for example, it seems I went to school to study.'
- (28) [= (8) Libras-IntA.]  
**TRADIÇÃO** TER FAMÍLIA SURDO  
 tradition have family deaf  
 '(But) they say you have a deaf family.'
- (29) [= (9) Libras-Alex.]  
 PERTO BIGUAÇU-SC MÉDIO **COMEÇAR** SÃO-JOSÉ-SC  
 near Biguaçu middle begin SÃO-JOSÉ  
 'Near Biguaçu, at the middle, SÃO-JOSÉ begins.'
- (30) [= (10) Libras-An.]  
 (ENTÃO) **ACONTECER** I-F-S-C FAZER AJUDAR IX (ele) AJUDAR IX(eu)  
 (so) happen IFSC make help (3rd s) help IX (1st ps)  
 'So it happened that IFSC (the university) made him help, help me.'
- (31) [= (11a) Libras-Nicoli.]  
 (ENTÃO) MELHOR TER BILINGUE PORTUGUÊS LIBRAS MELHOR+  
 (so) best have bilingual Portuguese Libras best (continual)  
 '(So) it's best that there should be bilingual education, Portuguese and Libras'  
 [= (11b) in the main text] Libras-Nicoli  
 IX(si) (pouco) **SOFRER** TER BULLYING TER BULLYING  
 (I) (little) suffer have bullying have bullying  
 'I suffered a little because of bullying.'
- (32) [= (12) Libras-Nicoli.] Libras-Int  
**LIVRE INTERAGIR ENTREVISTAR** (positivo)  
 free interact interview (positive)  
 'You're free to interact in the interview.'

- (33) [= (13) Libras-Int.]  
 IX(você LIVRE VONTADE PRODUZIR  
 you free (at) will produce  
 'Feel free to say what you like.'
- (34) [= (14) Libras-Int.]  
 LIVRE POSS(Nicoli) SENTIR COMO IX(seu) e(positivo)  
 free your(Nicoli) feel how you (positive)  
 'You're free to feel how you feel (about your life experience), okay?'
- (35) [= (18) NGT]  
 DENKEN IDEE MENSEN PERSON DORP IND IND GRAP PLAGEN  
 think idea people person village ind ind joke tease  
 'One day he came up with a little trick to tease the people from the village.'
- (36) [= (19) Libras-Int.]  
 TUDO TRADIÇÃO  
 all tradition  
 'Everything is hearsay.'

#### APPENDIX D: DETAILS ON TABLE 8.2

Included in this count is one 1-clause sentence that was a false start, which was followed by the 5-clause sentence.

Also in here are three clauses in which the V is a modal (CAN, positive or negative). Two of these were in sentences that were analyzed as having two clauses, and one was in a sentence analyzed as having seven clauses.

Additionally, some clauses had repeated Vs, but none of them raised problems for our hypothesis. One of these was in a three-clause sentence. This was not a flanking structure but, rather, a simple adjacent repetition, and it was counted as a single clause. The other three-clause sentence had a clause that contained a verb-sandwich (i.e., VOV), but that clause also had an initial manually expressed subject. One of the four-clause sentences presented the same situation. And, finally, one of the two-clause sentences began with a verb that flanks another element, but the V was a classifier predicate with its subject phonologically encoded within it.

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