FOCUS CONSTRUCTIONS IN AMERICAN SIGN LANGUAGE AND LÍNGUA DE SINAIS BRASILEIRA

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ABSTRACT

Information focus can be conveyed in ASL and LSB by presenting the focused information in the sentence-initial position. In contrast, emphatic focus, or emphasis, places the emphasized element in the sentence-final position ('final constructions'). Single words which are emphasized may also be repeated (doubled), occurring in both their sentence-internal position and the sentence-final position of emphasis. Information focus and emphasis are here syntactically analyzed as distinct operations, involving movement to different functional projections and, in the case of emphasis, remnant movement. Final and double constructions, however, are analyzed as alternate variants of the same thing. Data from the acquisition of both languages support this division of focus constructions, as information focus and emphasis are acquired at different times, while the two types of emphasis are acquired simultaneously.

1 Introduction

The goals of this study are to examine structures used for focus in American Sign Language (ASL) and Brazilian Sign Language (Língua de Sinais Brasileira, LSB). We propose an analysis of these structures based on distributional evidence from the adult languages. Secondarily, we look at the acquisition of these constructions, using the acquisition data to evaluate competing analyses of the adult data.

Numerous types of focus have been identified in spoken languages. In this paper, we concentrate on two types of focus in ASL and LSB, namely information (noncontrastive) focus, and emphatic focus. We will first present a brief review of these kinds of focus as discussed in the literature on spoken languages. After this, we will examine the structures for focus in ASL and LSB. We present both our analysis of these structures and competing analyses based on ASL. Finally, we will review our data on the acquisition of focus, arguing that these data support our analysis over the competitors.

2 Types of focus constructions

The literature on focus constructions takes a variety of approaches. Focus may be defined in terms of phonology, prosody, syntax, semantics, pragmatics, or discourse, as well as computation (for example, see Büring, to appear; Jackendoff, 1972; de Swart and de Hoop, 1995; Vallduví and Engdahl, 1996; Zubizarreta, 1998). For the present purposes, we adopt the view (common but by no means universal) that information structure-rele-

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vant notions such as givenness contribute to define focus and its related counterpart, topic. We furthermore assume that features expressing these information structure components are present in the syntactic representation, motivating, in some languages, overt syntactic movement operations, and specific prosodic patterns. We leave for future research a more detailed investigation of semantic, pragmatic, and phonological aspects of focus and topic in ASL and LSB. Background aspects of the discourse and syntax parts of our analysis are reviewed next.

We follow the general line of thought that divides the information expressed in a sentence into three parts: focus, topic, and the part that is neither topic nor focus. We discuss focus last since we consider it in much more depth.

The notion of topic is used to refer to old information. It is the part of the structure which connects the sentence with the previous discourse. It expresses the given, or old information, and is known as the 'link' in the terms of Vallduví (1992). Topics are more generally considered to be 'what the sentence is about' (Reinhart 1981). In some cases, researchers include as topics elements expressing information that is not old, in 'shifted topics' (which change the discourse topic) and 'contrastive topics' (which add some new distinguishing information to a topic). In very many languages (if not all), the sentence-initial position is used for expressing topic. Some English examples (from Vallduví and Engdahl 1996) are given in (1).

(1)

		(topic)
a.	John saw the play yesterday.	(John)
b.	Yesterday John saw the play.	(yesterday)
c.	The play John saw yesterday.	(the play)

The third part of the sentence is neither topic nor focus – the remainder. In some systems, topic is contrasted with comment; in others, focus is contrasted with ground. Since comment is not the same as focus, and topic is not the same as ground, it might seem that four types of sentence components are needed (topic, comment, focus, and ground). However, Vallduví (1992) argues that such a four-way distinction is not needed; rather, the three-way contrast illustrated in (2) is sufficient. We will broadly follow Vallduví's system here, distinguishing between focus, topic (link), and tail.

(2)
$$S = \{focus, ground\}$$
$$ground = \{link, tail\}$$

The focus contains the new information in a sentence. In so-called 'wide' focus, the whole sentence is new; in narrow focus, some portion of the sentence is focused. There are numerous types of focus discussed, including identificational (exhaustive) focus, information (noncontrastive) focus, contrastive focus, and emphatic focus. We discuss here in greater detail information focus and emphatic focus.

Information focus is used to introduce new discourse information. Languages vary with respect to whether stress intonation or a special word order is used for information focus. For instance, in the context of an English question such as (4)a or (5)a, the answer

in (4)b and (5)b places the new information in its usual pragmatically neutral sentential position (as shown by the comparison with example (3)), employing stress (indicated by underlining) to pick out the focused, new information.

(3)
    John ate a pie.

(4)
  a.   What did John eat?
  b.   John ate <u>a pie</u>.

(5)
  a.   Who ate a pie?
  b.   <u>John</u> ate a pie.

In Hungarian, however, the focused information occurs immediately preceding the verb, as illustrated in (6) (see Kiss 1981, 1998, Horvath 1985, Brody 1995, Szendröi 2001 for extensive discussions of focus in Hungarian).

(6)
  a.   szereti János Marit
      loves John Mary-acc
      'John loves Mary.'
  b.   János szereti Marit
      'It is John who loves Mary.'
  c.   Marit szereti János
      'It is Mary whom John loves.'
    (Kiss 1981)

Zubizarreta (1998) argued for a quantifier-variable relationship in information focus. She proposed an analysis employing two parts, as shown in (7): one, an existential presupposition provided by the context question which introduces the variable (A1), and the second, expressing the equative relation between the variable and its value (A2).

(7)
    A1: there is an x, such that John ate x
    A2: the x, such that John ate x = the pie
    (Zubizarreta 1998)

As opposed to information focus, contrastive focus is used to affirm or negate information previously given in the discourse. Given the context statement in (8)a, the response in English again involves the neutral word order with stress intonation on the contrastive part (8)b.

(8)
  a.   John is wearing a blue shirt.
  b.   No, John is wearing <u>a red shirt</u>.

In the case of contrastive focus, Zubizarreta's analysis includes both the negation of the context information as well as the assertion of the positive information, resulting in the analysis shown in (9).

(9)

A1: there is an x, such that John is wearing x

A2: it is not the case that the x (such that John is wearing x) = a blue shirt & the x (such that John is wearing x) = a red shirt

(Zubizarreta 1998)

Emphatic focus (or simply emphasis) is also used to negate or affirm information previously presented. Again, in English this is accomplished primarily through stress, as shown in (10). In the case of emphatic focus, there is no quantifier-variable relationship. This is because emphasis can affect units which cannot enter into quantifier-variable relationships, on the assumption that "variables range solely over propositions, phrasal arguments such as DPs and PPs, and predicates such as VPs and APs, but not over prepositions, functional categories (such as auxiliaries and determiners), and subparts of words (such as affixes)" (Zubizarreta 1998: 44). Such elements can receive emphasis, as in (11). In these examples, emphatic stress is indicated by using capital letters.

(10)

    a. Context: Someone lied to you.
         Response: NOBODY lied to me.
    b. Context: I think Mary lied to you.
         Response: You are right; Mary DID lie to me.

(11)

    a. Put the book UNDER the table.
    b. THOSE students passed the test.
    c. We will AFfirm our rights and CONfirm our goals.

The difference between contrastive and emphatic focus is important as they are realized quite distinctly in ASL and LSB. They are used in very similar ways. "Like emphasis, contrastive focus makes a statement about the truth or correctness of (certain aspects of) the presupposition provided by its context statement" (Zubizarreta 1998: 10). However, as we have seen, emphasis can affect elements which are relatively small, while contrastive focus affects phrasal elements. In the sign language data, we will be discussing emphasized single words.

In the following section, we present the distribution of these kinds of focus in ASL and LSB. Following the tradition of generative framework approaches to the study of focus constructions, our proposal presents a possible syntactic analysis of the phenomenon in two sign languages. We use the information structure notions outlined above to identify the relevant parts of a sentence containing focus, topic, and tail.

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We assume with many in the generative tradition[1] that there is a specific focus structure associated with an abstract feature F. In some languages at least, overt movement for feature-checking to the specifier of a focus projection takes place, resulting in a special word order for focused elements. On the interpretive side, the interpretation / discourse aspects of the focused element are relevant. On the phonological side, focused elements are associated with a particular intonation pattern.

We thus take focus to have relevance to various components of language, departing from those who would put its role exclusively in pragmatics, or in phonology, for example. Our concern here is mainly in the area of syntax, and we leave semantic and pragmatic analyses for a future step in our research agenda. In addition, we take the non-manual markers associated with each kind of structure in sign languages to be analogous to pitch or stress – a type of sign language prosody (see also Sandler & Lillo-Martin 2006). Such information helps us to identify the specific structures as topic, emphatic, informational or contrastive focus constructions, but we do not propose a detailed analysis of the prosodic markers for each construction at this time.

3 Information structure in ASL and LSB

3.1 Previous analyses

One very common claim made about information structure in sign languages is that they are organized around a 'topic-comment' ordering (with some – but not all – arguing that this is the predominant sentence-level ordering strategy rather than one based on grammatical roles; see, for example, Friedman 1976, and papers in Brennan and Turner 1994).[2] Most researchers would agree that ASL and LSB (as well as other sign languages) are 'discourse oriented', in that word order changes are used to accomplish information structuring.

Researchers since Fischer (1975) and Liddell (1980) have noted that ASL places topics in the sentence-initial position, setting them off from the rest of the sentence with a special non-manual marker. Aarons (1994) moved this observation forward by identifying three different non-manual markers accompanying different types of topics.

Aarons (1994) claimed that the first marker, which she called tm1, occurs with moved topics which are used to identify a particular member of the universe of discourse; or for emphasis or contrastive focus. Tm2 topics are base-generated, and include class: member topic-comment structures ('As for fruit, John likes bananas').Tm2 topics are also used to introduce new information which changes the discourse topic.[3] Tm3 topics are used with known referents, and introduce a major change in discourse topic ('shifted topics'). (We will not discuss tm3 topics in this paper.)

Neidle (2002), building on Aarons' analysis, claims that the left periphery is used for topics and focused phrases in ASL. She re-analyzes Aarons' tm1 'topics' as moved focus

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1   These include, among others, Laka (1990), Tuller (1992), Brody (1995), Tsimpli (1995).
2   See Li & Thompson (1976) among many others for a similar proposal for some spoken languages.
3   See Figure 2a, b for our illustrations of LSB versions of these two non-manual markers.

phrases, adopting Aarons' analysis of tm2 as base-generated topics. She suggests that a functional projection called FP, between CP and TP, is the host for these moved focus phrases. Her analysis is schematized in (12).

(12)

Neidle's (2002) proposed structure for moved focus phrases (tm1) and base-generated topics (tm2)
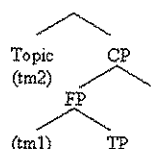
Aarons' and Neidle's claims are summarized in (13).

(13)

Aarons (1994)

    tm1 = moved topic, used to pick out a particular member of the discourse, and for emphasis or contrastive focus

    tm2 = base-generated topic, used for topic-comment structures or new information

Neidle (2002)

    tm1 = focused phrases moved to [Spec, FP]

    tm2 = base-generated topics

Wilbur (1997) also mentions that contrastively focused elements (what she calls topicalization for contrastive focus purposes) may appear in sentence-initial position in ASL, giving the example in (14)a. This example minimally contrasts with (14)b, which Wilbur considers to be topic followed by traditional comment/assertion.

(14)

a.   (Link)   Focus   Tail

                   __br__

              MARY, JIM LOVE TEASE [t]

              (Jim doesn't like to tease Jane.) 'It's MARY who Jim loves to tease.'

b.   Link   Focus   (Tail)

          __br__

          MARY,   JIM LOVE TEASE

          'As for Mary,   Jim loves to tease her.'

(Wilbur 1997)

Wilbur (1997) also extensively discussed the use of the sentence-final position for focused elements in ASL. She analyzed examples such as (15) as WH-clefts[4] (indicated by the non-manual notation 'whc'), used to put information in focus in the sentence-final position. She said that the sentence-final position is used for prominence generally. When an element should be made prominent, it must get in the sentence-final position either by moving there, or by everything following it moving out of its way. We broadly follow her suggestion in our analysis presented below.

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4   WH-clefts are also known as pseudo clefts.

(15)

        <u>   whc</u>

a.   JOHN BUY WHAT SHIRT

     'What John bought was a shirt'.

           <u>   whc</u>

b.   MARY LEAVE WHY GO-TO CLASS

     'The reason Mary left was to go to class.'

     (Wilbur 1997)

Petronio (1993), Petronio and Lillo-Martin (1997), and Quadros (1999) noted the strong use of the sentence-final position for prominent elements in ASL and LSB. They observed that (emphatically) focused heads occupy the sentence-final position, and may appear in the sentence twice: once in the usual sentence-internal position, and also doubled in the sentence-final position. This construction is used to emphasize or make more prominent the final/doubled element. For example in (16)a, the doubling would be used to emphasize John's ability to read. In the case of WH-questions, doubling makes the question more insistent. Some examples of the 'double' and 'final' constructions in both languages are given in (16) and (17) respectively.[5] Example (16)a is illustrated using ASL in Figure 1.
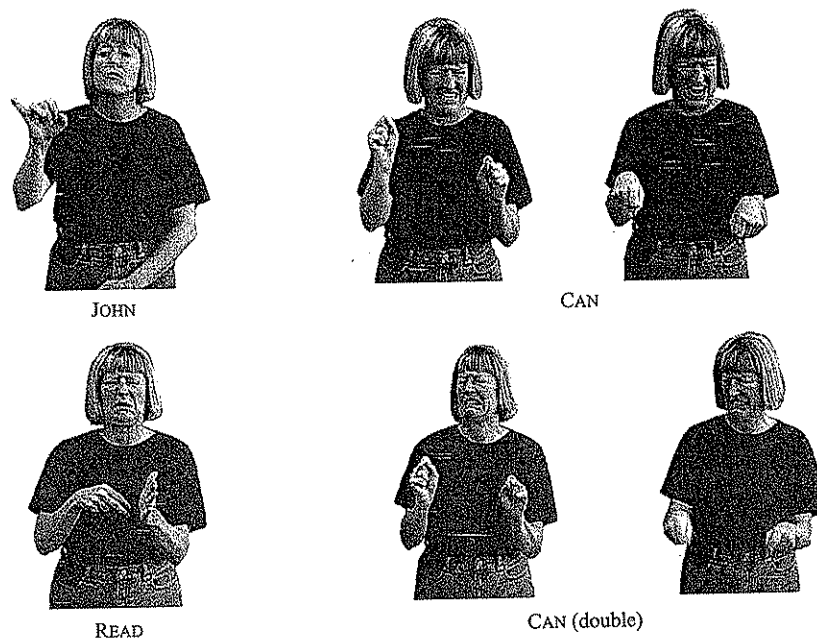

JOHN   CAN

READ   CAN (double)

Figure 1: Example (16)a illustrated using ASL

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5   These examples and the ones following, with differing lexical items but the same word order, are grammatical in both ASL and LSB.

(16)

a.   JOHN CAN READ   CAN (hn)
    'John really CAN read.'

b.   MARY FINISH GO SPAIN   FINISH (hn)
    'Mary ALREADY went to Spain.'

c.   I   LOSE BOOK   LOSE (hn)
    'I did LOSE the book indeed.'

d.   BABY CRY BABY (hn)
    'The BABY is the one crying.'

e.   JOÃO BUY WHAT YESTERDAY WHAT? (wh)
    'WHAT was it that John bought yesterday?'

f.   WHAT JOÃO BUY WHAT? (wh)
    'WHAT was it that John bought?'

The annotations "hn" and "wh" appear as lines above the indicated glosses.

(17)

a.   JOHN ~~CAN~~ READ   CAN (hn)
    'John really CAN read.'

b.   MARY ~~FINISH~~ GO SPAIN   FINISH (hn)
    'Mary ALREADY went to Spain.'

c.   I   ~~LOSE~~ BOOK   LOSE (hn)
    'I did LOSE the book indeed.'

d.   ~~BABY~~ CRY BABY (hn)
    'The BABY is the one crying.'

e.   JOÃO BUY ~~WHAT~~ YESTERDAY WHAT? (wh)
    'WHAT was it that John bought yesterday?'

f.   ~~WHAT~~ JOÃO BUY WHAT? (wh)
    'WHAT was it that John bought?'

As hinted at by the strikethough in the examples in (17), Petronio, Lillo-Martin, and Quadros analyze the double and final constructions as related, with the final constructions simply missing an element which is overt in the double constructions. We will return to this point when we discuss the relationship between these constructions and additional focus constructions in section 2.3.

3.2 Information focus

In order to move forward in understanding the realization of focus in ASL and LSB, we need to consider question-answer pairs, commonly used to identify the linguistic treatment of information focus. ASL and LSB behave similarly in this regard. New informa-

tion (the answer to the context question) may be presented in the sentence-initial position. It may also be felicitously left in situ. These options are illustrated in (18).

(18)
S1: WHAT YOU READ?
    'What did you read?'
        _____ I-focus
S2: BOOK STOKOE I READ
S2: I READ BOOK STOKOE
    'I read Stokoe's book.'

a. Topic / I-focus

b. T-C

c. C-focus

Figure 2: Non-manual markings (LSB)

The non-manual accompanying the sentence-initial new information is what Aarons called tm1. We present it in Figure 2a, and label it 'I-focus'. Thus, we agree with Neidle's observation that tm1 can be used to mark (information) focus. Furthermore, as expected under Neidle's proposal, a base-generated topic (such as a class: member topic with no gap) may co-occur with I-focus, as shown in (19). (We present the non-manual accompanying the topic-comment topic in Figure 2b, labeled 't-c'; it is what Aarons calls tm2.)

(19)
S1:   FRUIT, WHAT JOHN LIKE?
        'As for fruit, what does John like?'
        ___t-c___ __I-focus__
S2:   FRUIT, BANANA, JOHN LIKE MORE
   'As for fruit, John likes bananas best.'

However, we also find that it is possible to have both an informational-focused element and a moved topic in the same sentence, as in (20). We have indicated the non-manual on the topic as simply 'top'; it, like I-focus, is what Aarons calls tm1[6].

(20)
S1:   WHAT YOU READ IX SCHOOL?
'What did you read at school?'
        I-focus   top
S2: a. BOOK STOKOE, IX SCHOOL, I READ
        top
   b. IX SCHOOL, I READ BOOK STOKOE
'At school, I read Stokoe's book.'

This motivates a more complex structure, schematized in (21), with separate projections for focus and topic in addition to the base-generated topic-comment phrase. (This structure is similar to Rizzi's (1997) expanded CP structure for Italian, which also employed topic positions both above and below focus.)

(21)
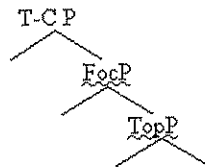
3.3 Emphatic focus

Although Aarons (1994) claimed that tm1 topics are used for emphasis or contrastive focus, we have found two different means for expressing these information types. Contrastive information may be signed in the sentence-initial position, with a distinct non-manual marker we have labeled C-focus in Figure 2c, as in (22). Contrastive focus seems to occupy the same sentence-initial position as information focus, however, it has a strong "pitch", that is, a more stressed non-manual marker associated with it.

(22)
S1:   YOU READ CHOMSKY BOOK?
'Did you read Chomsky's book?'
        C-focus
S2:   NO, BOOK STOKOE I READ
'No, I read Stokoe's book.'

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6   We do not make any specific claims about the type of topic permitted in this position other than 'old information.' The status of shifted and contrastive topics is left for future research.

Emphatic focus, as mentioned earlier, is found in the sentence-final position, in the doubling and final constructions illustrated in (16) and (17) above. These constructions seem to be restricted to heads, as shown in (23).

(23)
* NANCY BUY WHICH COMPUTER YESTERDAY WHICH COMPUTER
* I LOSE BOOK YESTERDAY LOSE BOOK

The double constructions are found with modals, tense signs, verbs, negative signs, quantifiers, nouns, and WH-elements (Petronio 1993; Quadros 1999). We adopt the analysis of these constructions offered by Nunes and Quadros (2006; this volume), schematized in (24). On their analysis, the focused element moves to the head of a Focus projection we now identify as E-Focus (as distinct from I-focus). As the prominent element must end up in the sentence-final position, the TP remnant moves to [Spec, TopP] (perhaps for prosodic reasons). Following the analysis of doubled elements across languages proposed by Nunes (2004), morphological fusion of the focused element and E-Foc prevents the deletion of the lower copy in the chain, so both copies are overt.

(24)
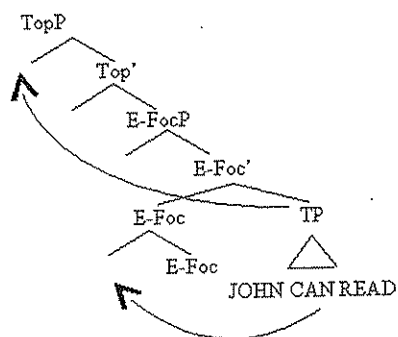
Like doubles, finals are emphatic and restricted to elements without complex morphology. The proposal is that finals are double constructions without the sentence-internal copy (Petronio 1993; Petronio & Lillo-Martin 1997; Quadros 1999; Nunes & Quadros 2006; this volume.[7] On the Nunes & Quadros analysis, this is possible because morphological fusion between the emphatic element and E-Foc is optional; when fusion does not apply the tail of the chain deletes as usual.

Neidle, Kegl, MacLaughlin, Bahan, and Lee (2000) disagree with our characterization of final and doubling constructions as related, focusing strategies. They suggest that doubling comes from a tag or simple repetition, noting, "In ASL, as in many other languages, sentence-final tags (consisting of a repeated but reduced version of basic material from

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7   According to Wood (1999) and Rathmann (2005), there are differences in the interpretation for negation and aspectual elements in their sentence-internal versus sentence-final positions. In on-going research we are looking into the relationship between these interpretive differences and constructions of emphasis.

the main clause) occur productively". As for final constructions, in the case of WH-questions these are analyzed as realizations of regular WH-movement to their hypothesized rightward [Spec, CP].

In other works we have presented our syntactic arguments against this position (Petronio and Lillo-Martin 1997, Quadros 1999, Nunes and Quadros 2006; this volume, Sandler and Lillo-Martin 2006). Momentarily we turn to acquisition data bearing on this controversy. Here, we briefly summarize some of the syntactic arguments for our analysis.

Both WH and non-WH elements have very similar distribution possibilities in double and final constructions. The restriction against multi-word elements in the sentence-final position applies to both double and final constructions. In both, the sentence-final element is stressed in its pronunciation.

WH-questions are different from non-WH sentences in that the non-final element may be in situ or WH-moved to the sentence-initial position. This means that there are two kinds of WH-doubles: those with a sentence-initial WH-word and a final one, and those with an in situ WH-word and a final one. These two types were illustrated in (16)e and f. However, it is not possible to create a double using a WH-initial and WH-in situ, as in (25). This is predicted by our analysis, since the double construction is formed when the WH-word is emphatically focused, surfacing in sentence-final position.

(25)
　*　WHAT ANN BUY WHAT YESTERDAY?

3.4 Synthesis

Many spoken languages use similar means to mark topic and focus (i.e. pitch accents). The same seems to be true for sign languages, which use similar kinds of facial expressions (and possibly other kinds of non-manuals). Hence, in both modalities, the phonology and syntax of some kinds of topics and focus seems to be closely related. Then, combining our structures for topic, information focus, and emphatic focus results in the structure given in (26).

(26)
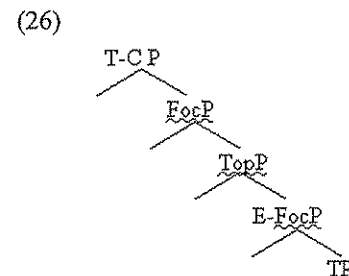
E-focus requires topicalization of the remnant to [Spec, TopP]. As expected with this combined structure, base-generated topics can co-occur with emphatic focus, as shown in (27).

(27)

_____t-c_____
a. FRUIT, I LIKE BANANA
    'As for fruit, I like bananas.'   (t-c)

_____t-c_____
b. FRUIT, I LIKE BANANA LIKE
    'As for fruit, I really like bananas.'   (t-c plus E-foc)

We summarize the different types of information structure elements discussed here in Table 1.

TYPE	ANALYSIS	NON-MANUAL (our notation)	NON-MANUAL (Aarons / Neidle's notation)
topic (topic-comment)	base-generated	t-c	tm2
focus (information or contrastive)	moved	I-focus	tm1
topic (old information)	moved	top	tm1
emphatic focus	moved + remnant mvmt	E-focus	tm1 (no remnant mvmt)

Table 1: Information structure elements in ASL and LSB

4   Acquisition of focus

Considering these different types of focus constructions the question that comes up is how children acquire them. We assume that certain aspects of these constructions would be governed by principles of UG, including the possibilities for topic and focus functional projections, the properties of movement, and the principles of chain formation and deletion of copies. However, other aspects must be learned based on the input. In particular, children acquiring ASL and LSB must determine that these languages are discourse oriented, using movement to specified positions for conveying information structure; and that the sentence-final position is the locus of prosodic prominence.

Given that aspects of the structures require learning, we might be able to use acquisition data as supporting evidence for one or the other type of analysis presented above. This would be possible if the analyses make different predictions regarding the timecourse of acquisition. We think they do. In particular, we take the predictions of our analysis to be those given in (28). They can be contrasted with the predictions of the competing analysis, given in (29).

(28)
The predictions of our analysis
I-focus and E-focus are distinct constructions, so they are not expected to be acquired at the same time.
E-focus doubling and final constructions are related, so they are expected to be acquired at the same time.

(29)
The predictions of competing analysis
I-focus and E-focus are not differentiated, so they are expected to be acquired at the same time.

E-focus doubling and final constructions are unrelated, so they are not expected to be acquired at the same time

To test these predictions, we conducted a study of longitudinal spontaneous production data from two children acquiring ASL and two children acquiring LSB. See Lillo-Martin and Quadros (2005) for a detailed description of the methods and results of this study. Here, we simply summarize the results.

Our study looked for the age of first consistent use of I-focus, doubling, and final constructions. We found that all four children showed evidence of I-focus from their first analyzable sessions (having multi-word responses to adult questions). This was significantly earlier than their first use of E-focus doubling or final constructions. On the other hand, there was no (statistical) difference in the timing of acquisition of doubling and final constructions; they came in together. The results are provided in Table 2.

Child		I-focus	Doubling	Final
Aby	(ASL)	1;9 ***	2;1	2;0
Sal	(ASL)	1;7 ***	1;9	1;9
Ana	(LSB)	1;6 **	2;0	2;1
Leo	(LSB)	1;10 ***	2;1	2;2

** $p < .005$ *** $p < .001$

Table 2: Summary of acquisition results

5 Conclusions

The child language data show no relationship between the acquisition of I-focus and E-focus. On the other hand, they show a strong relationship between the acquisition of doubling and final constructions. Therefore, child language data provide additional support for syntactic analyses such as ours connecting doubling and final through E-focus.

6 Acknowledgments

7 References

Aarons, D. 1994. *Aspects of the Syntax of American Sign Language*. Doctoral dissertation, Boston University.

Brennan, M. and Turner, G. 1994. *Word-Order Issues in Sign Language*. Durham, UK: International Sign Linguistics Association.

Brody, M. 1995. Focus and checking theory. In *Levels and structures, Approaches to Hungarian* 5, ed. István Kenesei, 31-43. Szeged: JATE.

Büring, D. to appear. Semantics, Intonation, and Information Structure. In *The Oxford Handbook of Linguistic Interfaces*, eds. G. Ramchand & C. Reiss. Oxford, UK: Oxford University Press.

Fischer. S. 1975. Influences on Word Order Change in American Sign Language. In *Word Order and Word Order Change*, ed. C. Li, 1-25. University of Texas Press.

Friedman, L. 1976. The Manifestation of Subject, Object, and Topic in American Sign Language. In *Subject and Topic*, ed. C. Li, 127-148 . New York: Academic Press.

Horváth, J. 1985. *Focus in the theory of grammar and the syntax of Hungarian*. Dordrecht: Foris.

Jackendoff, R. 1972. *Semantic Interpretation in Generative Grammar*. Cambridge, MA: MIT Press.

Kiss, K.É. 1981. Structural relations in Hungarian, a 'free' word order language. *Linguistic Inquiry* 12: 185-213.

Kiss, K.É. 1998. Identification focus and information focus. *Language* 74: 245-273.

Laka, I. 1990. *Negation in syntax: on the nature of functional categories and projections*. Doctoral dissertation. MIT.

Li, C.N. & Thompson, S. 1976. Subject and Topic: A New Typology of Language. In *Subject and Topic*, ed. C. Li, 459-489. New York: Academic Press.

Liddell, S. K. 1980. *American Sign Language Syntax*. The Hague: Mouton.

Lillo-Martin, D. & Quadros, R. 2005. The Acquisition of Focus Constructions in American Sign Language and Língua de Sinais Brasileira. In *Proceedings of the 29th Annual Boston University Conference on Language Development*, eds. A. Burgos, M.R. Clark-Cotton, and S. Ha, 365-375. Somerville, MA: Cascadilla Press.

Neidle, C. 2002. Language across modalities: ASL focus and question constructions. *Linguistic Variation Yearbook 2*: 71-98.

Neidle, C., J. Kegl, D MacLaughlin, B. Bahan, and R. G. Lee. 2000. *The Syntax of American Sign Language: Functional Categories and Hierarchical Structure*. Cambridge, MA: MIT Press.

Nunes, J. 2004. *Linearization of Chains and Sideward Movement*. Cambridge, MA: MIT Press.

Nunes, J. & Quadros, R. M. this volume. Phonetic realization of multiple copies in Brazilian Sign Language.

Nunes, J. & Quadros, R. M. 2006. Focus duplication of WH-elements in Brazilian Sign Language. In *Proceedings of the 35th Annual Meeting of the North East Linguistic Society*, eds. L. Bateman & C. Ussery. Charleston, SC: Booksurge.

Petronio, K. 1993. *Clause Structure in ASL*. Doctoral dissertation. University of Washington.

Petronio, K. and D. Lillo-Martin. 1997. Wh-Movement and the Position of Spec-CP: Evidence from American Sign Language. *Language* 73:18-57.

Quadros, R. 1999. *Phrase Structure of Brazilian Sign Language.* Doctoral dissertation, Pontifícia Universidade Católica do Rio Grande do Sul.

Rathmann, C. 2005. *Event Structure in American Sign Language.* Doctoral dissertation, University of Texas.

Reinhart, T. 1981. Pragmatics and linguistics: an analysis of sentence topics. *Philosophica* 27: 53-93.

Rizzi, L. 1997. The fine structure of the left periphery. In *Elements of Grammar: Handbook in Generative Syntax*, ed. L. Haegeman, 281-337. Dordrecht: Kluwer.

Sandler, W. & Lillo-Martin, D. 2006. *Sign Language and Linguistic Universals.* Cambridge University Press.

Szendröi, K. 2001. *Focus And The Syntax-Phonology Interface.* Doctoral dissertation, University College London.

de Swart, H. and de Hoop, 1995. Topic and Focus. *Glot International* 1.7: 3-7.

Tsimpli, I.M. 1995. Focusing in Modern Greek. In *Discourse configurational languages*, ed. K. É.Kiss, 176-206. Oxford: Oxford University Press.

Tuller, L. 1992. The syntax of postverbal focus constructions in Chadic. *Natural Language and Linguistic Theory* 10: 303-334.

Vallduví, E. 1992. *The Informational Component.* New York: Garland.

Vallduví, E., and Engdahl, E. 1996. The linguistic realization of information packaging. *Linguistics* 34:459-519.

Wilbur, R. 1997. A Prosodic/Pragmatic Explanation for Word Order Variation in ASL with Typological Implications. In *Lexical and Syntactical Constructions and the Constructions of Meaning*; eds. M. Vespoor, I. D. Lee, & E. Sweetser, 89-104. Philadelphia: Benjamins.

Wood, S.K. 1999. *Semantic and syntactic aspects of negation in ASL.* MA thesis, Purdue University.

Zubizaretta, M. L. 1998. *Prosody, Focus, and Word Order.* Cambridge, MA: MIT Press.

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