

Topics and Conditionals in Sign Languages

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1 Introduction¹

- In the past, various studies on spoken and signed languages have emphasized similarities between topics and conditionals (e.g. Haiman 1978; Coulter 1979; Janzen 1999).
- Superficially, in sign languages (SLs), the two types of constructions are similar in that both topics and conditionals appear sentence-initially, are marked by similar non-manual markers (NMMs), and constitute independent prosodic units (Sandler 1999).
- In this paper, I will reconsider similarities and differences between topics and conditionals in SLs. I will also investigate their interaction with each other and speculate about their position vis-à-vis each other in the left periphery of the sentence.
- While the focus of this paper is on SL of the Netherlands (NGT) and American SL (ASL), similar patterns are attested in German SL (DGS) and probably other SLs.

2 Types of topics

- Generally, SL topics appear sentence-initially and are accompanied by a non-manual marker (NMM). The basic NMM is eyebrow raise; this may combine with other NMMs depending on the information structure status of the topic (see Figure 1a).



a. topic marking b. conditional marking

FIGURE 1. Non-manual markers

2.1 Moved versus base-generated topics

- In her study on ASL topics, Aarons (1994, 1996) distinguishes base-generated and moved topics. She assumes that the topics in (1ab) are base-generated, since they are not arguments of the main verb. In (1a), the topic bears a semantic relation to an argument of the main clause, in (1b) the topic is co-referential with an argument (Aarons 1996: 78f).²

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² All sign language examples are given in English small caps. The line above the glosses indicates which manual signs are accompanied by a particular non-manual marker. For the most part, the abbreviations used for these markers refer to their function (e.g. topic, negation), not to their form (e.g. eyebrow raise, headnod, etc.). Subscript numbers refer to points in the signing space that are used for the localization of non-present referents, for pronominalization, or agreement.

- In contrast in (1c), the argument position within the clause is empty and Aarons assumes that the topic moved to topic position leaving behind a trace in object position.

- (1) a. ^{top2} VEGETABLE, JOHN LIKE CORN [ASL]
‘As for vegetables, John likes corn.’
b. ^{top3} JOHN_i, INDEX_{3j} LOVE MARY
‘(You know) John, he loves Mary.’
c. ^{top1} MARY_i, JOHN LOVE t_i
‘Mary, John loves.’

- Aarons (1994, 1996) describes three types of topics with different discourse properties which are accompanied by slightly different NMMs (top1, top2, and top3 in (1)).
- NGT examples are given in (2): a base-generated (co-referential) topic in (2a) (NGC 2002), a moved topic in (2b) (Coerts 1992: 223; see Jantunen (2007) for Finnish SL).

- (2) a. ^{top} POSS₁ BROTHER INDEX₃, EVENING INDEX₃ VISIT₁ [NGT]
‘As for my brother, he will visit me tonight.’
b. ^{top} AIRPLANE, ^{neg} COME NOT
‘The airplane, (it) did not arrive.’

- Compare the Korean examples in (3). Note that in Korean, topics are morphologically marked by the suffix *-un* (Park 1997: 34)

- (3) a. Ssaengsseon-**un** yeone-ga madissa [Korean]
fish-TOP salmon-NOM be.delicious
‘As for fish, salmon is delicious.’
b. [Gu chaek-**un**]_i John-i Mary-ege t_i suessda
the book-TOP John-NOM Mary-DAT gave
‘The book, John gave to Mary.’

2.2 Argument versus adjunct topics

- In all of the above examples, the topic either is related to an argument of the main clause or it is an argument of the main clause. However, it is also possible for a temporal or locative adjunct to occupy the topic position. See (4) for ASL examples (Aarons 1996: 72) and (5) for NGT examples (Coerts 1992: 228; NGC 2002).

- (4) a. ^{top} TOMORROW, JOHN PLANE ARRIVE TIME SIX [ASL]
‘Tomorrow, John’s plane arrives at six.’
b. ^{top} BOSTON, MARY GO-TO SCHOOL
‘In Boston, Mary goes to school.’

- (5) a. ^{top} SUNDAY, INDEX₁ CAR MAKE [NGT]
‘On Sunday, I (plan to) repair my car.’

- b. top
 YESTERDAY EVENING, PARTY INDEX₃, MANY PEOPLE BE-PRESENT₃ [NGT]
 ‘Yesterday evening, at the party, there were lots of people.’

2.3 Topic stacking

→ A sentence can contain more than one topic. In ASL, there is a maximum of two topics (6); see Aarons (1996: 93f) and (9) for combinatorial constraints.

- (6) a. top2 top1
 ?JOHN_i, MARY_j, t_i LOVE INDEX_{3i} [ASL]
 ‘As for John, *Mary* loves him.’
 b. top3 top1
 JOHN_i, MARY_j, t_i LOVE INDEX_{3i}
 ‘You know John, *Mary* loves him.’
 c. top3 top2
 JOHN_i, MARY_j, INDEX_{3i} LOVE INDEX_{3j}
 ‘You know John, as for *Mary*, he loves her.’

→ Topic stacking is also allowed in NGT (7). The maximum of topics per sentence also appears to be two but it is not yet clear in how far the order of topics is constrained; examples from Coerts (1992: 227f) (note that ‘mm’ in (7b) is an adverbial NMM).

- (7) a. top top
 POSS₁ HUSBAND, MORNING, POSS₁ DAUGHTER ONE TIME ACCOMPANY [NGT]
 ‘As for my husband, one morning, (he) accompanied my daughter once ...’
 b. top top mm
 INSIDE HOUSE INDEX₃, MOTHER, COOK, FATHER NEWSPAPER
 ‘Inside the house, the mother, (she) is cooking while the father is reading the newspaper.’

→ The above data are in line with Rizzi’s (1997) claim that there are (at least) two topic positions within the left periphery.

→ Frascarelli & Hinterhölzl (2007) claim that three different types of topics have to be distinguished; these are briefly characterized in (8).

- (8) a. Aboutness-shift topic: represents “what the sentence is about” with particular reference to the element that qualifies as a *shift* in the conversation and is made prominent with respect to other (possible) topics in the previous discourse.
 b. Familiar topic: is part of the background information (i.e. D-linked elements) and are generally produced to obtain topic continuity.
 c. Contrastive topic: creates an oppositional pair with respect to other topics as far as some (new) information is concerned.

→ The different topics are claimed to occupy dedicated topic positions within the left periphery in the following hierarchical order: ShiftP > ContrP > FocP > FamP* > IP.

→ Puglielli & Frascarelli (2007) suggest that the topic types distinguished by Aarons relate to the three types distinguished in (8): aboutness topics are Aaron’s “top2” (1a), familiar topics are “top3” (1b), contrastive topics are “top1” (1c).

→ However, while an aboutness topic precedes a contrastive element (6a), familiarity precedes contrast (6b) and aboutness (6c) in ASL; reverse orders are ungrammatical (9).

- (9) a. top1 top3
 *MARY_i, JOHN_j, t_i LOVE INDEX_{3j} [ASL]
 ‘*Mary*, you know John, (she) loves him.’
 b. top2 top3
 *MARY_i, JOHN_j, INDEX_{3j} LOVE INDEX_{3i}
 ‘As for *Mary*, you know John, he loves her.’

→ Also in line with Rizzi (1997, 2001) and Aboh (2004b), topics precede yes/no-questions (10a) (NGC 2002), wh-questions (10b), and imperatives (10c). In all cases, the reverse order is ungrammatical (see Pfau (2006) for details).

- (10) a. top y/n
 HORSE INDEX₃, INDEX₂ STROKE₃ DARE[^]INDEX₂ [NGT]
 ‘As for the horse, do you dare to stroke it?’
 b. top wh
 BOOK, STEAL WHO Q-PART
 ‘As for the book, who stole it?’
 c. top imp
 TICKET, EVENING₂ GIVE₁
 ‘The ticket, give (it) to me this evening!’

→ Aboh & Pfau (in press) assume that both yes/no- and wh-questions are attracted into SpecInterP (the optional question particle in (10b) occupying Inter^o); the imperative in (10c) occupies a lower specifier, SpecFinP (Aboh 2004b) or SpecMoodP (Han 2000).

3 Conditionals

→ In this section, I discuss some prosodic and syntactic similarities and differences between topics and conditionals and I speculate about the topic-status of SL conditionals.

3.1 Similarities between conditionals and topics

→ Just like topics, conditional clauses must appear in a left-peripheral position, i.e. they must precede the main clause; the reverse order is ungrammatical, as shown by the NGT examples (11ab). The same holds for ASL (11c) (Liddell 1986: 252).

- (11) a. cond
 TONIGHT RAIN, PARTY CANCEL [NGT]
 ‘If it rains, the party will be cancelled.’
 b. cond
 *PARTY CANCEL, SUPPOSE RAIN
 ‘The party will be cancelled if it rains.’
 c. cond
 SHOW-UP₃ STAY-SAME, INDEX₁ SLAP₃ [ASL]
 ‘If he shows up like he did before, I’ll slap him.’

→ Although studies on ASL conditionals (e.g. Baker & Padden 1978; Liddell 1980, 1986) give slightly different descriptions of the NMM, they all agree that the conditional clause is accompanied by raised eyebrows; see figure 1b above (for NGT see Coerts (1992)).

→ Just like topics, conditionals precede yes/no-questions (12a), wh-questions (12b) (Smith 2004), and imperatives (12c). Again, in all cases, the reverse order is ungrammatical.

- (12) a. $\frac{\text{cond}}{\text{EVENING RAIN, PARTY CANCEL}}$ $\frac{\text{y/n}}{\text{‘If it rains in the evening, will the party be cancelled?’}}$ [NGT]
- b. $\frac{\text{cond}}{\text{SUPPOSE PARTY CANCEL, WHO GO-TO BEACH WHO}}$ $\frac{\text{wh}}{\text{‘Who will go to the beach if the party is cancelled?’}}$
- c. $\frac{\text{cond}}{\text{FIRE SEE, HOUSE INDEX}_3}$ $\frac{\text{imp}}{\text{RUN-TO}_3}$
‘If you see fire, run to the house!’

→ Conditional protases are clausal constituents. Note, however, that not only DPs and adverbials can be topicalized but also sentential arguments (CP or IPs), as shown for ASL in (13a) (Aarons 1996: 87) and NGT in (13b).

- (13) a. $\frac{\text{top}}{\text{[JOHN MUST LIPREAD MOTHER]_i, TEACHER REQUIRE } t_i}$ [ASL]
‘About John having to lipread mother, the teacher requires (it).’
- b. $\frac{\text{top}}{\text{[POSS}_2 \text{ BROTHER HAPPY]_i, INDEX}_1 \text{ KNOW } t_i}$ [NGT]
‘As for your brother being happy, I know (about it).’

→ With respect to topics and conditionals (and some other constructions), Coulter (1979) suggests that phrases accompanied by raised eyebrows describe background information and that all such phrases function as topics (see Dachkovsky (in press) for Israeli SL).

→ Similarly, Haiman (1978: 564) notes that “conditionals, like topics, are givens which constitute the frame of reference with respect to which the main clause is either true (if a proposition), or felicitous (if not)”.

→ Similar marking of conditionals and topics is also observed in some spoken languages. In Hua (Papua New Guinea), for instance, the same marker (-ve) is used in conditionals (14a) and topic constructions (14b) (Haiman 1978: 570f). In (14c), the topic marker accompanies a sentential constituent (Haiman 1978: 575)

- (14) a. E-si-**ve** baigu-e [Hua]
come-3.SG.FUT-INT will.stay-1.SG
‘If he will come, I will stay.’ / ‘Will he come? I will stay.’
- b. Dgai-mo-**ve** baigu-e
I(emph.)-C.P.-TOP will.stay-1.SG
‘As for me, I will stay.’
- c. Krivua hangirehama namo-**ve**, nabo? a?-koe
trap how.to.set thing-TOP that NEG-I.know
‘As for setting a trap, that I don’t know how to do.’

→ In Turkish (15), a conditional suffix or particle can be used in a special type of topic construction (Moser-Weithmann 2001: 148; Haiman 1978: 577).

- (15) a. Türkiye-ye gide-r-se-m Bursa-ya da uğra-r-ım [Turkish]
Turkey-DAT go-AOR-COND-1.SG, Bursa-DAT also stop.at-AOR-1.SG
‘If I go to Turkey, I will also visit Bursa.’
- a. Ahmed i-se, çok meşgul
Ahmed be-COND very busy
‘As for Ahmed, he’s very busy.’
(lit. ‘If it’s Ahmed you’re interested in, he’s very busy.’)

→ Note that Hua -ve also marks interrogatives (14a). Hence, Hua conditional protases resemble polar questions. Haiman (1978: 570) points out that Hua is not unusual in this respect. A similar tendency is found in English where polar questions are marked by subject-verb inversion (16a).

- (16) a. Had it been otherwise, I would have told you. [English]
- b. $\frac{\text{y/n (brows up)}}{\text{TOMORROW INDEX}_2 \text{ PARIS INDEX}_3 \text{ FLY-TO}_3}$ [NGT]
‘Are you flying to Paris tomorrow?’

→ Similarly, in NGT (and ASL), raised eyebrows also mark polar questions (16b). Janzen (1999) interprets this similarity in terms of a grammaticalization path: from polar question (*Are you doing X?*) to topic (*Do you know X?*) (also cf. Pfau & Steinbach 2006).

3.2 Differences between conditionals and topics

→ Liddell (1986) argues that there is a crucial difference in non-manual marking between topics and conditionals: in his corpus, a head thrust (ht) was consistently present in ASL conditionals (17a) but not in topics; see (17b) for a similar NGT example (Smith 2004).

- (17) a. $\frac{\text{ht}}{\text{cond}}$
TOMORROW RAIN, PICNIC CANCEL [ASL]
‘If it rains tomorrow, no picnic.’
- b. $\frac{\text{ht}}{\text{cond}}$ $\frac{\text{q}}{\text{SUPPOSE RAIN, PARTY CANCEL}}$ [NGT]
‘If it rains, will the party be cancelled?’

→ More recently, head thrust has been identified as prosodic boundary marker accompanying the last sign of a prosodic domain (Sandler 1999; Wilbur 2000). Hence, this difference between conditionals and topics might well be prosodic in nature.

→ Alternatively, head thrust can be analyzed as a non-manual mood marker: within the conditional clause, the verb moves to a functional head (e.g. Mood^o) where the NMM is affixed to the verb (see Pfau (2002) and Pfau & Quer (2002) for a similar proposal concerning negative headshake). Consequently, its absence in topics is predicted.

→ A second difference, according to Liddell (1986), is that only conditionals but not topics can co-occur with a negative headshake; cf. the contrast in (18ab) (Liddell 1986: 257).

- (18) a. $\frac{\text{neg}}{\text{top}}$
* RED CAR, INDEX₁ SELL [ASL]
‘The not red car, I sold it.’
- b. $\frac{\text{top}}{\text{JOHN, SHOW-UP}}$ $\frac{\text{neg}}{\text{cond}}$
THINK SELF
‘As for John, if he doesn’t show up, use your own judgment.’

→ Again, this difference is not surprising, if we assume that the headshake must accompany at least a negative sign or a predicate (Pfau & Quer 2002).

- In other words, (18a) would also be ungrammatical if the topicalized argument was in its base position (Neidle et al. 2000). In contrast, negated sentential constituents can very well be topicalized; the topics in (13) e.g. could also be negated.
- Consequently, Liddell’s examples do not necessarily constitute strong evidence against the assumption that SL conditionals are topical.

4 Interaction of topics and conditionals

- The above discussion raises the question of what position the conditional clause occupies in the phrase structure. In the following, I will speculate on different possibilities based on the interaction of topics and conditionals.

4.1 Stacking

- Adopting Rizzi’s (1997, 2001) proposal for the left periphery (19) and taking into account that conditionals precede interrogatives, it is clear that the conditional clause must occupy a position above InterP.

(19) Force > Top₁* > Inter > Foc > Top₂* > Fin > Mood > IP ...

- The next thing to note is that a conditional clause can precede a topic, as shown for NGT in (20ab) and for ASL in (20c) (Liddell 1986: 259).

- (20) a. $\frac{\text{cond}}{\text{SUNDAY INDEX}_2 \text{ VISIT}_1, \text{ BOOK}_i, \text{ INDEX}_1 \text{ t}_i \text{ GIVE}_2} \frac{\text{top}}{\text{‘If you visit me on Sunday, as for the book, I will give it to you.’}}$ [NGT]
- b. $\frac{\text{cond}}{\text{EVENING RAIN, PARTY INDEX}_3, \text{ INDEX}_2 \text{ WEAR WHAT}} \frac{\text{top}}{\text{‘If it rains in the evening, as for the party, what will you wear?’}}$
- c. $\frac{\text{top}}{\text{TEST, GET-A, PART B, NOT-HAVE-TO STUDY INDEX}_2 \text{ NOT-HAVE-TO}} \frac{\text{cond}}{\text{‘The test, if you get an A on it, then as for part B, you won’t have to study for it.’}}$ [ASL]

- Assuming that the conditional does indeed target SpecTopP, this would have to be SpecTop₁ in (19). Note, however, that at present, it is unclear whether there are constraints on what type of topics can follow the conditional (see section 2.3). Actually, it is not even clear what type of topic the conditional should be (see (8)).
- What makes things more complicated is the fact that the reverse order – a topic preceding a conditional – is also grammatical in NGT (21ab) and ASL (21c) (Neidle 2002: 81).

- (21) a. $\frac{\text{top}}{\text{BOOK}_i, \text{ SUNDAY INDEX}_2 \text{ VISIT}_1, \text{ INDEX}_1 \text{ t}_i \text{ GIVE}_2} \frac{\text{cond}}{\text{‘As for the book, if you visit me on Sunday, I will give it to you.’}}$ [NGT]
- b. $\frac{\text{top}}{\text{PARTY INDEX}_3, \text{ EVENING RAIN, INDEX}_2 \text{ WEAR WHAT}} \frac{\text{cond}}{\text{‘As for the party, if it rains in the evening, what will you wear?’}}$
- c. $\frac{\text{top}}{\text{JOHN}_i, \text{ RAIN, INDEX}_3; \text{ LEAVE}} \frac{\text{cond}}{\text{‘As for John, if it rains, he’s leaving.’}}$ [ASL]

- To accommodate multiple topics, Rizzi (1997) assumes that TopP is recursive (marked by * in (19)). Sticking to the assumption that SL conditionals are topical, this could account for the sequence Top > Cond > Top.
- Enter focus: actually, brow raise does not only mark given, presupposed information; it also marks new information. Contrastive topicalization e.g. always targets new information that replaces/corrects what has previously been asserted or implied (1c).
- Brow raise (br) is also found to accompany other structures with new information: e.g. the ASL THAT-cleft (22a) and sentence-initial constituents with focus particles (22b) (Wilbur & Patschke 1999: 15).

- (22) a. Context: And what about Fred? What did he eat?
 $\frac{\text{br}}{\text{BEANS THAT, FRED EAT}} \frac{\text{cond}}{\text{‘It’s beans that Fred ate.’}}$ [ASL]
- b. $\frac{\text{br}}{\text{KIM ONLY-ONE GET-A}} \frac{\text{cond}}{\text{‘Only Kim got an A / The only one who got an A is Kim.’}}$

- This observation opens up another avenue for analysis. Analyzing the topic-conditional relationship in depth, Jacobsen (1992: 154) concludes that “the apparent affinity between the two is illusory” (contra Haiman (1978) and Coulter (1979)).
- First, only topics require a presupposition of truth. In contrast, (hypothetical) conditionals are statements of conditions that are not (yet) true.
- In addition, Iatridou (1991: 53) shows that in a typical conditional “both the *if*-clause and the consequent are part of the assertion”. That is, the *if*-clause, in contrast to a topic, is not pragmatically presupposed.
- Actually, Neidle (2002) suggests that conditionals occupy the specifier of some functional projection FP above FinP but below TopP. In a footnote, she points out that this projection might be FocP.
- Her suggestion is based on the observation that conditional clauses, (head-internal) relative clauses, and focused DPs are in complementary distribution. However, all these types of phrases can follow a topic.
- While this may account for the co-occurrence of topics and conditionals in (20) and (21), it cannot, without further stipulation, account for the fact that conditionals precede questions in NGT (23a) and ASL (23b) (Wilcox & Wilcox 1995: 143).

- (23) a. $\frac{\text{cond}}{\text{EVENING RAIN, PARTY CANCEL}} \frac{\text{y/n}}{\text{‘If it rains in the evening, will the party be cancelled?’}}$ [NGT]
- b. $\frac{\text{cond}}{\text{INDEX}_{3a} \text{ STUDY}^{++}, \text{ PASS TEST WILL INDEX}_{3a}} \frac{\text{y/n}}{\text{‘If he studies really hard, will he pass the test?’}}$ [ASL]

- Following suggestions made in Aboh (2004ab), one could assume that first, the conditional clause moves to SpecFocP followed by movement of FocP to SpecInterP.

4.2 Embedded topics

- The last question I want to address is whether topics can appear within conditional clauses. The identification of such structures, if they exist, is not straightforward, since – as mentioned before – the relevant NMMs are very similar.

→ Note first that in many languages, topicalization is allowed in complement clauses. For spoken languages, this is demonstrated in (24) by an English (Maki et al. 1999: 3) and a Gungbe (Aboh 2004a: 168) example; for sign languages, it is shown by the ASL (Aarons 1996: 83) and NGT examples in (25).

- (24) a. John believes that this book, Mary read. [English]
 b. Ûn sè dɔ̃ [dàn ló yà]_{Top} Kòfì hù i [Gungbe]
 1.SG hear that snake DET TOP Kofi kill 3.SG
 ‘I heard that, as for the snake, Kofi killed it.’
- (25) a. top
 TEACHER REQUIRE MOTHER_i, JOHN MUST LIPREAD t_i [ASL]
 ‘The teacher requires that mother, John must lipread.’
 b. top
 INDEX₁ HOPE, PHONOLOGY EXAM INDEX₁ PASS [NGT]
 ‘I hope that, as for the phonology exam, I will pass it.’

→ Conditional clauses, however, are adjunct clauses. Note that in (21), with topics preceding conditionals, the topic cannot be part of the conditional clause. However, in the NGT example in (26a) and the ASL example (26b) (Liddell 1986: 258), the sentence-initial topic might as well occupy a position within the conditional clause (also see (20c)).

- (26) a. top cond
 CAR_i, INDEX₁ FATHER t_i LEND AUX₁, ₁VISIT₂ [NGT]
 ‘As for the car, if my father lends it to me, I will visit you.’
 b. top cond
 J-O-H-N K-E-N-N-E-D-Y, STILL LIVE, WELL AMERICA LOOK LIKE WELL [ASL]
 ‘As for JFK, if he were still alive, what would America be like?’

→ The NGT examples in (27) provide clearer evidence for embedded topicalization since in these examples, the (optional) conditional marker SUPPOSE indicates that CAR/BOOK are indeed part of the conditional clause and do not precede it.

- (27) a. cond
 SUPPOSE CAR_i INDEX₁ FATHER t_i LEND AUX₁, ₁VISIT₂ [NGT]
 ‘If the car my father lends to me, I will visit you.’
 b. cond neg
 SUPPOSE BOOK INDEX_{3i} INDEX₂ t_i READ, SLEEP CAN^{NOT} [NGT]
 ‘If this book you read, you will not be able to sleep.’

→ While the eye brows remain raised throughout the conditional clause, the topic within the conditional clause may additionally be marked by head forward and/or a sharp head nod.

→ This observation, as preliminary as it is, is interesting in the light of a study by Maki, Kaiser & Ochi (1999) who show that embedded argument topicalization is impossible in (English and Japanese) adjunct clauses, as shown in (28) (Maki et al. 1999: 3, 10).

- (28) a. *Before this book, Mary read, John had already read it. [English]
 b. * [Kono hon-wa Mary-ga yomu maeni, John-wa sudeni yondeita [Japanese]
 this book-TOP M.-NOM read before J.-TOP already had.read
 ‘Before this book, Mary read, John had already read it.’

→ Haegeman (2003) distinguishes between event-conditionals (which contribute to the event structure by modifying the main clause event) and premise-conditionals (which relate to discourse structure).

→ She shows that Maki et al’s generalization is too strong. In particular, argument fronting is impossible in event-conditionals (29a) but possible in premise-conditionals (29b) (Haegeman 2003: 332).

- (29) a. *If *these final exams* you don’t pass, you won’t get the degree.
 b. If *his SYNTACTIC analysis we can’t criticise*, there is a lot to be said against the semantics of the paper.

→ Therefore, assuming that the NGT conditionals with fronted arguments in (27) are event-conditionals (presupposed conditionals), they are a challenge to Haegeman’s conclusion. I leave this issue for further research.

→ Note finally that adjunct fronting is possible in both types of conditionals, as shown for event-conditionals in the English (Haegeman 2003: 333) and Gungbe (Aboh 2004a: 168) examples in (30).

- (30) a. If [with all these precautions] you don’t succeed, you will have to try again next week [English]
 b. Ní [hwèñènú yà], Kòfì wè yé yró, bé Àsíbá má ná wà [Gungbe]
 COND at.that.time TOP Kofi FOC 3.PL call then Asiba NEG FUT come
 ‘If at that time, they invited *Kofi*, then Asiba would not have come.’

5 Conclusion

→ In ASL and NGT (and DGS), topics and conditionals share prosodic (non-manual) and syntactic characteristics. Moreover, some of the alleged differences (head thrust, negation) between the two have been shown to be due to their internal syntax.

→ Based on these structural similarities as well as the suggested overlap in information structure status (given information), it might be tempting to assume movement of the conditional clause to one of the topic positions in the left periphery.

→ However, once we take into account the interaction of topics and conditionals with each other as well as with other non-manually marked constituents, their integration into the left periphery suggested by Rizzi (1997) proves problematic.

→ I offered some speculations for how to account for the patterns: (i) recursive TopP, as suggested by Rizzi (1997); (ii) movement of conditional to FocP, motivated by difference in information structure status (new information) – both options deserve further research.

→ Finally, I investigated the possibility of topicalization within the conditional clause. The data indicate that argument fronting within the conditional is possible, at least in NGT.

References

- Aarons, Debra (1994). *Aspects of the syntax of American Sign Language*. PhD thesis, Boston University.
- Aarons, Debra (1996). Topics and topicalization in ASL. *Stellenbosch Papers in Linguistics* 30: 65-106.
- Aboh, Enoch O. (2004a). Left or right? A view from the Kwa periphery. In: Adger, D., C. de Cat & G. Tsoulas (eds.), *Peripheries. Syntactic edges and their effects*. Dordrecht: Kluwer, 165-189.
- Aboh, Enoch O. (2004b). *The morphosyntax of complement-head sequences: Clause structure and word order patterns in Kwa*. Oxford: Oxford University Press.
- Aboh, Enoch O. & Roland Pfau (in press). What's a wh-word got to do with it? To appear in: Benincà, P. & N. Munaro (eds.), *The Cartography of CP*. Oxford: Oxford University Press. [draft version downloadable from: <http://home.medewerker.uva.nl/r.pfau/index.html>]
- Baker, Charlotte & Carol Padden (1987). Focusing on the nonmanual component of ASL. In: Siple, P. (ed.), *Understanding language through sign language research*. New York: Academic Press, 27-57.
- Coerts, Jane A. (1992). *Nonmanual grammatical markers: An analysis of interrogatives, negations and topicalisations in Sign Language of the Netherlands*. PhD thesis, University of Amsterdam.
- Coulter, Geoffrey R. (1979). *American Sign Language typology*. PhD thesis, University of California, San Diego.
- Dachkovsky, Svetlana (in press). Facial expression as intonation in Israeli Sign Language: the case of neutral and counterfactual conditionals. To appear in: J. Quer (ed.), *Signs of the time. Selected papers from TISLR 2004*. Hamburg: Signum.
- Frascarelli, Mara & Roland Hinterhölzl (2007). Types of topics in German and Italian. In: Winkler, S. & K. Schwabe (eds.), *On information structure, meaning, and form*. Amsterdam: Benjamins, 87-116.
- Haegeman, Liliane (2003). Conditional clauses: External and internal syntax. *Mind & Language* 18: 317-339.
- Haiman, John (1978). Conditionals are topics. *Language* 54: 564-89.
- Han, Chung-Hye (2000). *The structure and interpretation of imperatives*. New York: Routledge.
- Janzen, Terry (1999). The grammaticization of topics in ASL. *Studies in Language* 23: 271-306.
- Jacobsen, W.M. (1992). Are conditionals topics? The Japanese case. In: Brentari, D., G.N. Larson & L.A. MacLeod (eds.), *The joy of grammar. A festschrift in honor of James D. McCawley*. Amsterdam: Benjamins, 131-160.
- Jantunen, Tommi (2007). What counts as a topic in Finnish Sign Language? Paper presented at the workshop “What’s the topic?”, Radboud University Nijmegen, January 2007.
- Liddell, Scott K. (1980). *American Sign Language syntax*. The Hague: Mouton.
- Liddell, Scott K. (1986). Head thrust in ASL conditional marking. *Sign Language Studies* 52: 243-262.
- Maki, Hideki, Lizanne Kaiser & Massao Ochi (1999). Embedded topicalization in English and Japanese. *Lingua* 109: 1-14.
- Moser-Weithmann, Brigitte (2001). *Türkische Grammatik*. Hamburg: Buske.
- Nederlands Gebarententrum (NGC) (2002). *Basisgrammatica Nederlandse Gebarentaal* (CDRom). NGC & UvA: Bunnik & Amsterdam.
- Neidle, Carol (2002). Language across modalities: ASL focus and question constructions. *Linguistic Variation Yearbook* 2: 71-98.
- Neidle, Carol, Judy Kegl, Dawn MacLaughlin, Ben Bahan & Robert G. Lee (2000). *The syntax of American Sign Language. Functional categories and hierarchical structure*. Cambridge, MA: MIT Press.
- Park, Young-Me (1997). Topikalisierung im Koreanischen: Eine Folge von Basisgenerierung oder Move-alpha? *Frankfurter Linguistische Forschungen* 21: 34-44.
- Pfau, Roland (2002). Applying morphosyntactic and phonological readjustment rules in natural language negation. In: Meier, R.P., K.A. Cormier & D.G. Quinto-Pozos (eds.), *Modality and structure in signed and spoken languages*. Cambridge: Cambridge University Press, 263-295.
- Pfau, Roland (2006). Visible prosody: Spreading and stacking of non-manual markers in sign languages. Paper presented at 25th West Coast Conference on Formal Linguistics (WCCFL 25), Seattle, April 2006.
- Pfau, Roland & Josep Quer (2002). V-to-Neg raising and negative concord in three sign languages. *Rivista di Grammatica Generativa* 27: 73-86.
- Pfau, R. & M. Steinbach (2006). Modality-independent and modality-specific aspects of grammaticalization in sign languages. *Linguistics in Potsdam* 24: 3-98. Available at <http://www.ling.uni-potsdam.de/lip/>.

- Puglielli, Annarita & Mara Frascarelli (2007). Interfaces: the relation between structure and output. In: Pizzuto, E., P. Pietrandrea & R. Simone (eds.), *Verbal and signed languages. Comparing structures, constructs, and methodologies*. Berlin: Mouton de Gruyter, 133-167.
- Rizzi, Luigi (1997). The fine structure of the left periphery. In: Haegeman, L. (ed.), *Elements of grammar. Handbook in generative syntax*. Dordrecht: Kluwer, 281-337.
- Rizzi, Luigi (2001). On the position “Int(errogative)” in the left periphery of the clause. In: Cinque, G. & G. Salvi (eds.), *Current Studies in Italian Syntax*. New York: Elsevier, 287-296.
- Sandler, Wendy (1999). The medium and the message: Prosodic interpretation of linguistic content in Israeli Sign Language. *Sign Language & Linguistics* 2 (2): 187-215.
- Smith, Dorothy (2004). *The layering of syntactic non-manual markers in Sign Language of the Netherlands: Possibilities and constraints*. MA thesis, University of Amsterdam.
- Wilbur, Ronnie B. (2000). Phonological and prosodic layering of nonmanuals in American Sign Language. In: Emmorey, K. & H. Lane (eds.), *The signs of language revisited: Festschrift for Ursula Bellugi and Edward Klima*. Mahwah, NJ: Lawrence Erlbaum, 213-244.
- Wilbur, Ronnie B. & Cynthia Patschke (1999). Syntactic correlates of brow raise in ASL. *Sign Language & Linguistics* 2 (1): 3-41.
- Wilcox, Sherman & Phyllis Wilcox (1995). The gestural expression of modality in ASL. In: Bybee, J. & S. Fleischmann (eds.), *Modality in grammar and discourse*. Amsterdam: Benjamins, 135-162.