

## Non-manual Focus Markers in Turkish Sign Language

Aslı Gürer & Serpil Karabuklu\*

**Abstract.** Sign languages use syntactic strategies (fronting, doubling, clefting), manual modulations (variation in size, length, speed, repetition), and nonmanual markers (head and eyebrow movements) to mark focus. Due to their simultaneous nature, sign languages are well-known for using these strategies together. In this study, we examined how the focus is marked in Turkish Sign Language (TİD) in free conversations and elicited data. Both studies' most observed nonmanual markers are the head nod and eyebrow raise. We propose that these nonmanual markers are not pure focus markers since they can cooccur with focus and topic constituents. However, they can signal the prosodic phrase boundaries induced by information structure. Furthermore, the duration of focal signs could be the marker of focus.

**Keywords.** focus, nonmanual markers, Turkish Sign Language (TİD)

**1. Introduction.** Information structure smoothes the exchange of a message between two interlocutors within their needs. Interlocutors use different syntactic, phonological, or morphological strategies to convey information status as given, topic, or focus. The focus is a fundamental part of information structure. As a semantic and pragmatic notion, focus cross-linguistically has realizations in different modules of grammar. Languages can also use more than one realization together in the expression of focus. All these strategies aim to make focus-marked constituents the most prominent unit (Truckenbrodt 1995). In the current manuscript, we examined how the focus is realized in Turkish Sign Language (TİD) via two studies, free conversations, and semi-guided elicitations. Since it is still unknown which strategies TİD uses in the expression of focus, we considered the semantic definition of focus as the starting point to observe how the prominence is conveyed. Based on two studies, we will show: (i) the focus is not consistently nonmanually marked via head nod and brow raise; only consistent marking is that eyebrow raise occurs with corrective statements, (ii) the longer durations of manual signs can be the potential focus marking strategy, and (iii) number and noun order is a syntactic strategy used to mark focus only in contrastive focus.

Focus is analyzed as the introduction of alternatives (Rooth 1992, Krifka 2008). In his seminal work, Rooth (1992) analyzes the semantic value of focus as a set of propositions building on the ordinary semantic value. If a constituent is focus-marked (F-marked), it is eligible to introduce focus alternatives (F-alternatives) (Rooth 1992, Büring 2016). For example, “Bilge” in (1) denotes an individual in ordinary semantics. When it is focused, triggered by the wh-question in (2), the answer denotes a set of individuals in which Bilge forms a subset. F-alternatives for “Bilge” would be the set of all individuals, for example, ‘John, Ali, Mary, Bilge, Bill...’ Unfocused version, ordinary semantic value, denotes a singleton set including only “Bilge.”

- (1) [[Bilge owns a rabbit]] =  $\langle \lambda_{\text{own}}(\text{b}, \text{r}) \rangle$   
 (2) a. Q: Who owns a rabbit?  
 A: [[[Bilge]<sub>PF</sub> owns a rabbit]] =

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- (1) [[Bilge owns a rabbit]] =  $\langle \lambda_{\text{own}}(b,r) \rangle$
- (2) a. Q: Who owns a rabbit?  
 A: [[[Bilge]<sub>PF</sub> owns a rabbit]] =  
 focus semantic value = {Bilge owns a rabbit, John owns a rabbit, Bill owns a rabbit, Mary owns a rabbit, ...}
- b. Q: Who owns a rabbit? Bilge or John?  
 A: [[Bilge]<sub>CF</sub> owns a rabbit]  
 focus semantic value = {Bilge owns a rabbit, John owns a rabbit, Bill owns a rabbit, Mary owns a rabbit, ...}

The semantic value of the question in (2) denotes the set of all answers (Hamblin 1973). In this regard, the answer's focus semantic value contains each answer in the set. This subtype is classified as presentational focus (PF).<sup>1</sup> There are also cases where the focused constituent is identical to an element of the focused semantic value, as in (2). This subtype is classified as contrastive focus (CF), as triggered by an alternative question. Finally, corrective statements can trigger contrastive focus, as in (3). This type is classified as corrective focus (CrF) under the contrastive focus category.

- (3) A: John owns a rabbit  
 B: [No, [Bilge]<sub>CrF</sub> owns a rabbit] =  
 focus semantic value = {Bilge owns a rabbit, John owns a rabbit, Bill owns a rabbit, Mary owns a rabbit, ...}

The following structures (Figure 1), adapted from Büring (2016), indicate the semantic difference between the two focus subtypes. With PF (the tree on the left), the contextually supplied focus domain variable is a subset of the focus semantic value of the unit (set ( $\subseteq$ ), but it is identical to the focus semantic value of the unit with CF (the tree on the right) (individual ( $\in$ )). The focus status of “Bilge” can be marked via phonological strategies as pitch accent placement, prosodic phrasing, boundary placement, or via morphology as special morphemes, or via syntax as different constituent ordering, or not marked at all (Büring 2009:178). All these strategies are tools to assign the highest prominence to focus.

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<sup>1</sup> We used the following abbreviations in this paper: ASL: American Sign Language; br: brow raise; bf: eyebrow furrow; CF: contrastive focus; CrF: corrective focus; DoD: deaf children of deaf adults; DoH: deaf children of hearing adults; DGS: German Sign Language (Deutsche Gebärdensprache); FinSL: Finnish Sign Language; htl: head leftward tilt; hbt: head backward tilt; hn: head nod; PF: presentational focus; hs: head shake; htr: head rightward tilt; NGT: Sign Language of the Netherlands; NP: noun phrase; PhP: phonological phrase; IP: intonational phrase; IP: intonational phrase; PW: prosodic word; PF: presentational focus; PhP: phonological phrase; RSL: Russian Sign Language; S: subject; SG: singular; TİD: Turkish Sign Language (Türk İşaret Dili); TOP: topic; V: verb; VP: verb phrase

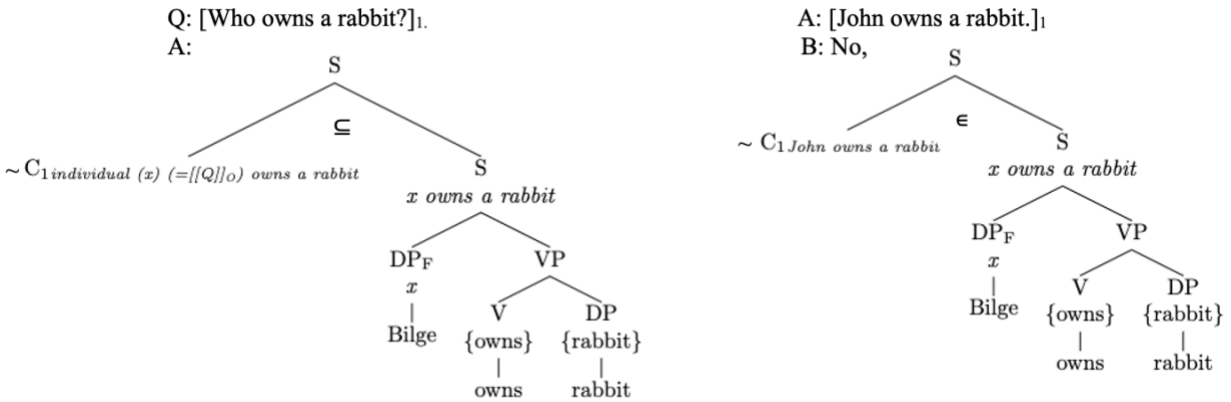


Figure 1. Structures representing the difference between presentational and contrastive focus

Illustrated semantic differences between PF and CF are attested as different strategies in spoken languages. For example, Hungarian makes a syntactic distinction between PF and CF using cleft constructions in CF and no syntactic ordering for PF (Kiss 1998). Hungarian marks prominence via f<sub>0</sub> and duration (Genzel, Ishihara & Surányi 2015). The effect of focus in phonological rephrasing is also observed in other languages like Italian (Frascarelli 2000), Tangale (Zimmermann 2011), Japanese, and German (Féry & Ishihara 2009). All these syntactic and phonologic realizations serve the aim of making focus prominent (Truckenbrodt 1995). Reflections of semantic-pragmatic focus distinctions are also observed in sign languages' syntax and prosody. The next section is a concise summary of the literature that shows how information structure is marked and how focal prominence is realized in sign languages.

1.1. SIGN LANGUAGE LITERATURE. Information structure in sign languages is well-known for its simultaneous realization via manual signs (hands) and nonmanual markers (face and body movements). In addition to this modality-specific simultaneous nature, sign languages are reported to use syntactic strategies and modulations in manual signs to mark information structure. Different syntactic strategies have been reported for sign languages, such as doubling the focused item in American Sign Language (ASL) (Petronio 1993, Petronio & Lillo-Martin 1997), in Brazilian Sign Language (LSB) (Quadros 1999), in Russian Sign Language (RSL) and Netherlands Sign Language (NGT) (Kimmelman 2012, 2013), clefts in ASL (Wilbur 1994, 1996), in LIS (Branchini 2014), placement in clause-final position (Wilbur 1999), or fronting to the initial position in ASL (Lillo-Martin & Quadros 2008), Russian Sign Language (RSL) and Netherlands Sign Language (NGT) (Kimmelman 2014).

Along with syntactic structures, sign languages can simultaneously use nonmanual markers. Mostly reported nonmanual markers are head movements (nod, tilt, and so on) or eyebrow raise. The head nod is the most observed one across sign languages as in ASL (Wilbur 2000), German Sign Language (DGS) (Waleschkowski 2009, Herrmann 2015), NGT (Van der Kooij Crasborn & Emmerik 2004, Kimmelman 2014), RSL (Kimmelman 2014). Other reported head movements include a head trust or pull in Finnish Sign Language (FinSL) (Puupponen et al. 2015), head tilt in DGS (Herrmann 2015), and NGT (Kimmelman 2014). The second articulator observed across sign languages is eyebrows; eyebrow raise is reported in ASL (Wilbur 2000), DGS (Herrmann 2015), RSL, and NGT (Kimmelman 2014).

Information structure overall is underinvestigated in TID; a few studies have reported syntactic and nonmanual strategies as a marker of focus. As for syntactic structures, doubling,

cleft, and fronting to the initial position are also reported for TĪD (Makaroğlu 2012). Gökgöz & Keleş (2020) report eyebrow raise and eye squint as nonmanual strategies.

Building on the literature, we investigated answers to questions to examine which strategy is used to mark focus in TĪD following Rooth's theoretical framework and Truckenbrodt's focus prominence hypothesis. As discussed above, questions denote all possible answers, and every answer is among the focus alternatives. Answers to wh- questions denoting a subset relation will show how PF is marked, while answers to alternative questions denoting an element of focus semantic value will show how CF is marked as in Figure 1.

We carried out two studies, free conversations and focus elicitation studies, on defining the strategies used in TĪD. In line with the literature, we observed that eyebrow raise accompanies only corrective focus, and noun number syntactic order is used to mark contrastive focus. Even though the head nod was the most observed nonmanual marker, we will argue that it is not the exclusive marker of focus yet a possible marker of the phonological or intonational domain due to information structure. The potential focus marking strategy seems to be the longer duration of focused constituents.

**2. Focus marking in TĪD.** The current study is based on two data sets. First, we investigate how the focus is encoded in naturally occurring conversations. We identify the contexts that can trigger focus and investigate the strategies used in those constructions. Hence, we can list all possible tools without bias. Next, we investigate how the focus is realized in elicited data. We apply the same steps for this study too. Additionally, we can compare and contrast the results of the two studies.

**2.1. STUDY I - FREE CONVERSATIONS.** In the first study, we focused on five free conversations (~ 50 mins in total) that were recorded during the COST Action IS1006 SignGram Project.<sup>2</sup> The conversations were on topics like movies that they watched or holiday events that they attended or celebrated, such as Mother's Day or 3rd December Disabled Day. Deaf research assistants glossed the recordings during the funded projects.

**2.2. PARTICIPANTS.** 8 Deaf signers' recordings were analyzed, four of whom are Deaf of Deaf (DoD) and female. All were Istanbul residents at the time of the data collection.

**2.3. DATA.** Following Rooth's (1992) analysis of question-answer congruence, we annotated 75 wh- question-answer pairs as presentational focus (PF) that trigger non-exhaustive alternative sets. We used only 11 pairs in the final analysis because we could not safely conclude that the discarded ones were question-answer pairs. It was possible to analyze these constructions as self-directed questions (4)<sup>3</sup>, or wh- cleft constructions (5). Even though wh- clefts and question-answer pairs can be a potential data source for focus, we do not yet know how they are distinctly marked in TĪD. Hence, we leave these constructions for future studies.

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<sup>2</sup> COST Action IS1006, Unraveling the Grammars of European Sign Languages: Pathways to Full Citizenship of Deaf Signers and to the Protection of their Linguistic Heritage (2012-2015) Coordinator: Prof. J. Quer (Universitat Pompeu Fabra, Barcelona, Spain) .

<sup>3</sup> Sign language data will be glossed with small caps since sign languages do not have written forms. Nonmanual markers co-occurring with manual signs will be glossed above the manual gloss and line shows their spreading domain. Missing or unknown signs are showed as XXX. Even though sign languages are usually glossed with the dominant language in that country, we will gloss them in English here to save space.

- \_\_\_\_\_bf  
 \_\_\_hbt \_\_\_\_\_hn \_\_\_\_\_hn
- (4) LATER PREGNANT ... PREGNANT CAN'T-BE HOW  
 'After a while, I became pregnant. I cannot be pregnant. How come?'
- \_\_\_\_\_hs
- (5) IX-3 HEARING DISABLED ALL PROBLEM WHAT PSYCHOLOGICAL PROBLEM EXISTENTIAL  
 'What (problems) Deafs have is the psychological problem./ What (problems) do Deafs have? They are psychological problems.'

Data included 39 yes/no questions and seven alternative questions for contrastive focus (CF) that trigger exhaustive sets. We also found four corrective statements for corrective focus (CrF).

2.4. FINDINGS. The head nod is the main nonmanual marker, mostly observed with all participants and focus types. Since the head forward tilts and holding the head in that position is also the primary marker of polar questions in TİD (Göksel & Keleşir 2013), we labeled the nonmanual marker as head nod when the head returned to its neutral position from the forward tilt. As in Figure 2, where the red line is the reference point for head movement, a head nod occurs over MONTH and returns to its neutral position over TWO. Here, two participants talk about their plans for Mother's Day, the participant's pregnancy, and becoming a mother. The other participant asks her how many months pregnant she is. Her question triggers the set of alternatives, including the true answer, as illustrated in (6). When the signer answers the question, she signs EIGHT MONTH with a head nod, which is the PF.

- \_\_\_\_\_bf \_\_\_\_\_hs
- (6) Q: IX-2 PREGNANT MONTH HOW-MANY^MONTH  
 'How many months pregnant are you?'
- \_\_\_\_\_hn \_\_\_\_\_hn
- A: [8 MONTH 2 2^WEEK] BE  
 'It's 8 months 2 weeks.'
- focus semantic value = {8 months and two weeks, six months, four months and two weeks....}

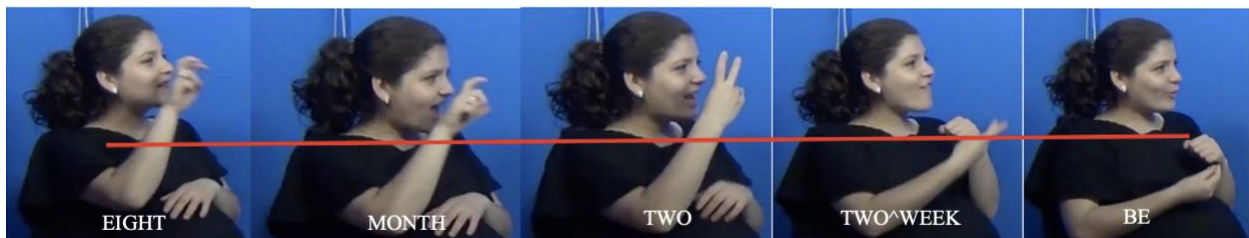


Figure 2. Head nod over MONTH in (6)

Even though the head nod appears at the edge of the focus phrase and behaves as a focus marker in (6), it does not always accompany focus. While talking about the same topic, the signer asks her interlocutor about her plans for Mother's Day. In contrast to (6), a head nod does not appear over the answer FOOD TRAY - thus the focus in the answer in (7).

- \_\_\_\_\_hf, hs
- (7) Q: IX-3 WEEK SUNDAY MOTHER DAY WHAT DO  
 'What will you do for Mother's Day?'

\_\_\_\_\_hn \_\_\_\_\_hn \_\_\_\_\_hn  
 A: IX-1 MOTHER DAY [FOOD TRAY SQUARE TRAY]<sub>F</sub> XXX IX-3 PRESENT BUY  
 ‘I bought a square tray as a gift for Mother’s Day.’  
 focus semantic value = {I bought a square tray as a gift for Mother’s Day, I bought a mug as a gift for Mother’s day...}

In (7), instead of the focused constituent, a head nod accompanies the topic ‘Mother’s Day’ that is introduced in the question and at the beginning of the conversation. As clearly seen in (6) and (7), a head nod appears with both focus and topic, so it is not exclusively a focus marker.

When alternative question-answer pairs were examined, alternatives in both wh- and yes/no questions were always marked with a head nod. As seen in (8), the signer marks the wh-question with a head shake, which is the main marker of wh- questions (Göksel & Keleş 2013). Then the signer marks alternatives EUROPE OUT (European) and TURKISH (Turkish) with a head nod. Similarly, his interlocutor also signs the chosen alternative EUROPE OUT (European) in the answer with a head nod in his answer.

\_\_\_\_\_hs \_\_\_\_\_hs \_\_\_\_\_hn  
 (8) Q: WHAT^LIKE EUROPE OUT IX-3 TURKISH  
 ‘What do you like, European or Turkish (movies/series)?’  
 \_\_\_\_\_hn \_\_\_\_\_hn  
 A: [EUROPE OUT]<sub>F</sub> TURKISH XXX IX-1 [EUROPE OUT]<sub>F</sub>  
 ‘European, not Turkish. I like European.’  
 focus semantic value = {European, Turkish}

In the data, another construction type consistently appeared with a head nod: contrastive topic-focus pairs (CT-F). The participant talked about the storyline of a TV series he had watched. He was comparing two main characters: elder and younger brothers. He already introduced the brothers in the discourse before and gave new information about each in the sentence in Figure 3. He located both discourse referents in the signing space with his right, and left body leans, respectively. Similar to alternative questions, a head nod accompanies focus in each CT-F pair. These patterns constantly occurred with all CT-F pairs across participants.



-----htl, hn -----htr, hn  
 [ELDER]<sub>CT</sub> [STRONG]<sub>CF</sub> [YOUNGER]<sub>CT</sub> [WEAK]<sub>CF</sub>  
 ‘The elder is strong; the younger is weak.’

Figure 3. Head nod, head tilt, and contrastive use of space in contrastive topic-contrastive focus pairs

CrF is the one that has a distinct nonmanual marker from other focus types. In line with Gökgöz & Keleş (2020), we observed only brow raise with CrF, but not systematically closed eyes, as in (9). The signers were talking about a football tournament, and his interlocutor asked who had

more scores. The signer first thought it was IZMIR; then, he remembered it was CORLU. He did not use a negative manual sign or nonmanual marker to update his information; he only signed CORLU with brow raise, which is the focus value (Figure 4).

- (9) \_\_\_\_\_sq      \_\_\_\_\_hn      \_\_\_\_\_br  
 IX-3 TIE WHO    IX-3 ONE IZMIR    TWO ... CORLU IX-3 CORLU  
 ‘Who is tied? The first one is Izmir, the second ... (no) Corlu, and the first one is Corlu.’



Figure 4. Brow raise over corrective focus CORLU

2.5. SUMMARY. As an interim summary of Study I, we found that head nod and brow raise occur with focus, the second of which primarily occurs with corrective focus. Data show that a head nod appears with the focus in the sentence-initial position (6); otherwise, no nonmanual markers are observed (7). The same nonmanual marker head nod is used with both PF and CF; the CrF is the only focus type that is distinguished via a separate nonmanual marker. These findings will be tested again in the following section regarding more controlled data.

**3. Study II - Elicited Data.** To check the validity of the findings in the first study, we conducted a controlled elicitation study.

3.1. PARTICIPANTS. Ten participants, 6 of whom were Deaf of Deaf (DoD) and female, took part in the second study. They were all living in İstanbul, and the mean age was 34 at the time of the study.

3.2. DATA. We used the Questionnaire on Information Structure (QUIS) Task 17 (Skopeteas et al 2006) to elicit focus in different constructions. The participants saw pictures of people with different objects assigned to them, as illustrated below (Figure 5).

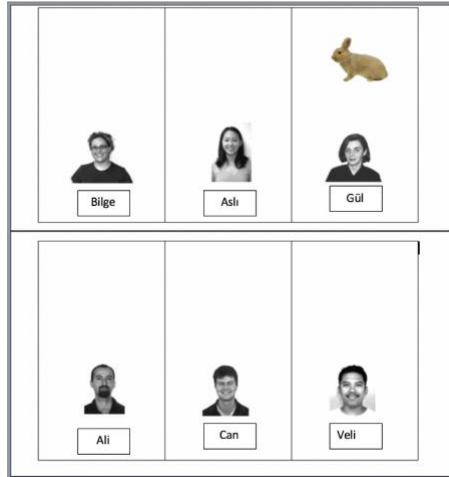


Figure 5. An example of the QUIS Task from the study

A Deaf research assistant asked some wh-, yes/no, and alternative questions to elicit answers. Due to time constraints, we could not carry out the whole task with all the participants; hence, we did not get the same target constructions from all participants. There were six wh- questions, four alternative questions, four yes/no questions, six corrective statements to answer yes/no questions, and six Contrastive Topic-Focus (CT-F) pairs as an answer.

3.3. FINDINGS. With wh- questions, when the focus is on the subject or the object, our observations replicate the findings of the first study: Nonmanual markers of head nod and brow raise accompany sentence-initial subject. In (10), the subject is a focus phrase that has a head nod over. In contrast, the subject in (11) with a head nod is a topic phrase. Hence, one cannot suggest these nonmanual markers to be the pure focus or topic markers.

(10) Q: IX-3 RABBIT IX-3 WHO  
 ‘Who has the rabbit?’  
 \_\_\_hn

A: [ASLI]<sub>F</sub> RABBIT EXISTENTIAL PALM-UP  
 ‘Aslı has a rabbit.’  
 focus semantic value = {Aslı has a rabbit, Bilge has a rabbit....}

(11) Q: VELI IX-3 WHAT IX-3  
 ‘What does Veli have?’

A: \_\_\_br&hn  
 VELI [CLEMENTINE TWO]<sub>F</sub> EXISTENTIAL  
 ‘Veli has two clementines.’  
 focus semantic value = {Veli has two clementines, Veli has three apples....}

As in presentational focus, the same pattern is also observed in alternative questions. Irrespective of the syntactic position of the focus constituent, nonmanual markers accompany the sentence-initial phrase. As in (12), repetitive head nod (rhn) and cheek raise (cr) accompany the subject that is part of the focus phrase. Similarly, brow raise (br) and head nod (hn) appear with the subject that is the topic in (13) (Figure 6).

(12) Q: IX-3 WHO IX-POSS-3 PARROT EXISTENTIAL IX-3A ALI-A IX-POSS-3B OR IX-3B VELI-B  
IX-3B WHICH

‘Who has the parrot? Ali or Veli, which one?’

A: \_\_\_\_\_rhncr \_\_\_\_\_cr

[ALI-A IX-POSS-3A]<sub>F</sub> PARROT EXISTENTIAL ALI-A IX-POSS-3A

‘Ali has a parrot, Ali.’

focus semantic value = {Ali has a parrot, Veli has a parrot....}

(13) Q: BILGE-a IX-POSS-3a CHOCOLATE OR CHEESE WHICH EXISTENTIAL  
‘What does Bilge have, chocolate or cheese? Which one?’

\_\_\_\_\_br \_\_\_\_\_hn

A: IX-3a BILGE-b IX-3b [CHOCOLATE TWO]<sub>F</sub> EXISTENTIAL

‘Bilge has two chocolate (bars).’

focus semantic value = {Bilge has chocolate bars, Bilge has some cheese....}

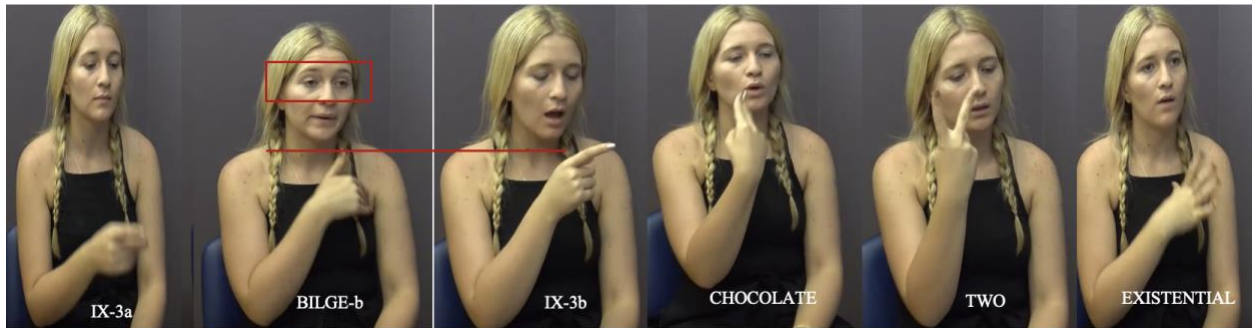


Figure 6. Answer of an alternative question focusing on the object

As for corrective statements, like spontaneous speech, brow raise is observed as a nonmanual marker, as illustrated below. However, this nonmanual marker is not consistent either. A possible reason for this inconsistency in elicited data is that all corrective statements were answers to yes/no questions, as in (14). However, they were participants’ corrections in free conversations in (9).

(14) Q: ALI IX-POSS ORANGE MANY EXISTENTIAL  
‘Does Ali have many oranges?’

A: \_\_\_\_\_bl&bht \_\_\_\_\_hn  
\_\_\_\_\_br \_\_\_\_\_hn \_\_\_\_\_hn

NO, ALI IX-3 TWO PIECE CLEMENTINE EXISTENTIAL IX-3

‘No, Ali has two clementines.’

Thus, answers to yes/no questions represent dissents from the interlocutor’s asking for discourse updates rather than correcting the information (Farkas & Roelofsen 2017). In other words, information in question is not part of the common ground until the interlocutor assents or dissents it. In contrast, correctives in free conversation update the information that is part of the common ground. This difference in discourse moves might be the reason for inconsistency because answers to yes/no questions are not corrective in the sense of statements in free conversations.



- (17) a.  $\overline{\hspace{2cm}} \text{hn\&br}$   
 ((IX-3 BILGE IX-3)<sub>NP</sub> ((CHOCOLATE<sub>F</sub> TWO<sub>F</sub>)<sub>NP</sub> EXISTENTIAL)<sub>VP</sub> ]<sub>TP/CP</sub>  
 (  $\hspace{10cm} \text{x}$  )<sub>IP</sub>  
 (  $\hspace{2cm} \text{x}$  ) (  $\hspace{2cm} \text{x}$  )<sub>PhP</sub>  
 b. IX-3 BILGE IX-3 CHOCOLATE<sub>F</sub> TWO<sub>F</sub> EXISTENTIAL  
 ‘Bilge has two chocolate (bars).’

Note that there are two PhPs and the nonmanual markers appear at the right edge of the first one indicating the boundary. The first hypothesis is that the nonmanual markers serve as an edge marker, wrapping the whole unit within a PhP. When the verb bears focus, a nonmanual marker appears not only with the sentence-initial phrase but also with the verb. We suggest that the verb is wrapped in a PhP, excluding the object, and the head nod reflects this pattern.

- (18) ASLI IX-POSS-3 RED PEPPER EXISTENTIAL  
 ‘Does Aslı have a red pepper?’

- a.  $\overline{\hspace{2cm}} \text{hn}$   $\overline{\hspace{2cm}} \text{hn}$   
 ((ASLI IX-POSS-3)<sub>NP</sub> ((RED BELL-PEPPER)<sub>NP</sub> (EXISTENTIAL<sub>F</sub>)<sub>VP</sub> )<sub>TP/CP</sub>  
 (  $\hspace{10cm} \text{x}$  )<sub>IP</sub>  
 (  $\text{x}$  ) (  $\hspace{2cm} \text{x}$  ) (  $\text{x}$  )<sub>PhP</sub>  
 b. ASLI IX-POSS-3 RED BELL-PEPPER EXISTENTIAL<sub>F</sub>  
 ‘Aslı has a red pepper.’

CT-F pairs repeated below as (20) further support this hypothesis. With CT-F pairs, there are two clauses. As indicated in section 2.3, the head nod appears at the right edge of the clauses. These clauses map onto IPs in our analysis. We suggest that the first head movement serves as a continuation rise, indicating the end of the first IP and a signal of the next IP.

- (19) a. [ELDER]<sub>CT</sub>  $\overline{\hspace{2cm}} \text{htl, hn}$  [STRONG]<sub>F</sub> [YOUNGER]<sub>CT</sub>  $\overline{\hspace{2cm}} \text{htr, hn}$  [WEAK]<sub>F</sub>  
 (  $\hspace{10cm} \text{x}$  ) (  $\hspace{10cm} \text{x}$  )<sub>IP</sub>  
 b. ELDER STRONG YOUNGER WEAK  
 ‘The elder is strong; the younger is weak.’

The final head nod indicates the end of the second IP. The head nods in (8)-(10) are more subtle (Figure 2) when compared to the head nods in CT-F pairs (Figure 3). Hence, we suggest that the head movement signals the IP boundary in CT-F pair lists and the PhP boundary in root clauses. To sum up, the nonmanual markers do not necessarily reflect focushood but the phrasing patterns in a sentence.

There are a few loose ends with this hypothesis. First, according to the focus prominence rule (Truckenbrodt 1995: 11), “If F is a focus and DF is its domain, then the highest prominence in DF will be within F.” In (16), it is the subject that bears focus, and it is the object in (17). In (16), it is the leftmost PhP, and in (17), it is the rightmost PhP that includes a focussed constituent. It is impossible to come up with a generalization for the position of the PhP, including a focus phrase. The nuclear stress is on the rightmost PhP in each case, overriding focus prominence in (16). Hence, focus prominence is not reflected at the IP level, according to this analysis.

4.2. DURATION AS A MARKER OF FOCUS. Then, the question is which other strategy TĪD uses to mark focus. Modifications in manual signs are reported as focus marking strategies in other sign languages. Focused signs are longer, slower, larger, higher in signing space, and more repetitive articulations in Israeli Sign Language (ISL) (Sandler & Lillo-Martin 2012), RSL, and NGT (Kimmelman 2014). Based on these patterns, we looked for the same sign appearing in both focal and non-focal positions in the elicited data. We found a few pairs from four participants and compared their durations. We had the following conditions: PF on subject and non-focus (n=4); PF on object and non-focus (n=3); CF on object and non-focus (n=4); CrF and non-focus (n=4); and CF on the verb and non-focus pairs (n=8). Even though data did not have the full paradigm of focus types in all syntactic positions, focal signs have longer duration than non-focal signs, except for verb conditions (Table 1). The scale of the data is so small that we could not carry out significance tests. We leave this issue for further investigation in an experimental study.

Conditions	Numbers of Items	Focus Duration (ms.)	Non-Focus Duration (ms.)
PF on Subject	4	613	501
PF on Object	3	580	457
CF on Object	4	569	511
Corrective Focus	4	503	309
CF on Verb	8	431	474
Overall	23	518	474

Table 1. Duration of focal and non-focal signs in different conditions

To sum up, in line with focus prominence, the focus is expected to be the most prominent unit in its domain and be reflected via specific strategies. However, in spontaneous speech and elicited data, no consistent nonmanual markers were exclusively used with focus phrases. The potential head nod and brow raise nonmanual markers are not restricted to focus phrases but accompany topic phrases. When we take the nonmanual markers as boundary markers of phonological and intonational phrases, we can account for the phrasing patterns observed in the data. However, IP level prominence associated with focus is sometimes the rightmost stress within an IP. The preliminary investigation with a small scale of data indicates that duration can be the marker of focus intonation in TĪD. However, a systematic, controlled study is needed for a firm conclusion.

**5. Conclusion.** Focus prominence in TĪD is investigated by building on data from spontaneous speech and elicited data with a special focus on nonmanual markers. The results indicate that head nod and brow raise are the outstanding nonmanual markers accompanying focus. However, this strategy is inconsistent because the immediate preverbal object is not marked with these markers. Additionally, these markers appear with sentence-initial topics, which indicates that they are not exclusive markers of focus. The same nonmanual markers appear when the focus is on the verb and with CT-F pairs. Hence, we suggest that these nonmanual markers are not topic and focus markers but markers of phonological and intonational phrases shaped by information structure.

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