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Word order asymmetries in NGT coordination: The impact of Information Structure

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Abstract

Research on spoken languages shows that the structure of coordination is typically determined by the parallel architecture of the conjuncts involved, a constraint that we refer to as the "Parallel Structure Constraint" (PSC). Apart from syntactic parallelism, the PSC requires that the conjuncts exhibit the same information structure (IS). We address the structure of coordination and the working of the PSC in Sign Language of the Netherlands (NGT), using corpus data. Data extracted from the Corpus NGT reveal that the PSC may be violated in this language in that the order of predicate and argument may vary across conjuncts. We claim that this asymmetry results from IS-related syntactic movement, in particular, fronting of a contrastively focused constituent in the second conjunct. It appears that in NGT, movement is at times preferred over prosodic marking in situ, as it is a more salient foregrounding strategy in such complex (bi-clausal) constructions.

Keywords: coordination, parallelism, information structure, corpus, Sign Language of the Netherlands

1   Introduction

In this paper, we investigate coordination in Sign Language of the Netherlands (Nederlandse Gebarentaal — NGT). We focus on conjunctive and disjunctive coordination in NGT and offer an account for a typologically unusual pattern. We show that the conjuncts of a coordinated structure in NGT may violate a constraint governing coordinated structures in spoken languages, which we refer to as the 'Parallel Structure Constraint' (PSC, see e.g. Lang 1987; Progovac 1998). According to this constraint, the conjuncts of a coordination must agree with respect to their word order, that is, word order variation across conjuncts leads to ungrammaticality. An example of a PSC violation from English is provided in (1), where the locative argument is asymmetrically topicalized in the second conjunct.

(1)   *Mary is going to school, and to college, Vivian (goes).

In NGT, syntactic asymmetries as in (1) are attested. We argue that they are triggered by Information Structure (Kimmelman and Pfau 2016). Thus, the second conjunct provides a contrastively focused constituent, which is marked by syntactic movement to a focus position in the left periphery of the second conjunct. We propose to account for the parametric

variation between NGT and languages such as English by assuming a modality-specific difference to the effect that in situ focus marking in NGT (Crasborn and van der Kooij 2013) may sometimes not be perceived as strong enough to express a contrastive accent in coordination. Asymmetric focus movement is then a last resort strategy to express the focal contrast across the conjuncts (cf. Hartmann 2000), at the cost of a PSC violation.

Our paper is structured as follows. In Section 2, we start by presenting previous studies on coordination in sign languages. In Section 3, we discuss symmetry conditions in coordination in spoken and sign languages. The methodology of our study is introduced in Section 4, followed by a presentation of our results in Section 5. The analysis of the data is presented in Section 6. Section 7 concludes.

2   Coordination in sign languages

To date, coordination in sign languages (SLs) has not received a lot of attention and has only been studied for a handful of SLs (see Tang and Lau 2012 for an overview). The available studies suggest that SLs generally have two coordination strategies: syndetic coordination involving an overt conjunction and asyndetic coordination, whereby the conjuncts are juxtaposed without the use of an overt conjunction. Davidson (2013) describes the former type of coordination for American Sign Language (ASL). She shows, for instance, that the manual coordinator COORD-L, which precedes each conjunct, can signal both conjunctive and disjunctive coordination, as illustrated in (2) (Davidson 2013, 7). Syndetic disjunction is further illustrated in (3) with an example extracted from the corpus NGT.

(2)   **COORD-L$_1$** [POSS$_{3a}$ PARENTS WILL BUY POSS$_{3a}$ CAR] **COORD-L$_2$** [INDEX$_{3a}$ WILL TRAVEL]
      'Her parents will buy her a car, and (then) she will travel.'
      'Her parents will buy her a car, or she will travel.'   (ASL)

(3)   SUPPOSE [HEAR IX$_1$ IN.LOVE] **OR** [DEAF IX$_1$ IN.LOVE]   (CNGT0062; S005)
      'Suppose that a hearing person and I are in love, or a deaf person and I are in love.'

Asyndetic coordination is also common. In (4) and (5), we provide examples from NGT and Hong Kong Sign Language (HKSL), respectively. No overt conjunction is used, but crucially the conjuncts are accompanied by non-manual markers that scope over each of the conjuncts (Pfau 2016, 165; Tang and Lau 2012, 343).[1]

(4)
$$\overline{\text{MOTHER IX}_{3a}\text{ MARKET IX}_{\text{left}}\text{ GO}_{\text{left}}}^{\text{bl-3a}}, \overline{\text{SON IX}_{3b}\text{ FRIEND IX}_{\text{right 3b}}\text{VISIT}_{\text{right}}}^{\text{bl-3b}}$$
      'The mother goes to the market (and) her son visits a friend.'   (NGT)

(5)   IX$_1$ GO-TO BEIJING, (pro$_1$) $\overline{\text{TAKE-A-PLANE}}^{\text{hn+bt right}}$ $\overline{\text{TAKE-A-TRAIN}}^{\text{hn+bt left}}$
      'I am going to Beijing. I will take a plane or a train.'   (HKSL)

The few available studies on ellipsis in SL-coordination have addressed gapping, i.e. the ellipsis of the verb in non-first conjuncts, as well as VP-ellipsis, i.e. the ellipsis of the whole predicate. The former phenomenon is illustrated by the ASL example in (6) (Liddell 1980,

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[1]We use the following abbreviations for non-manual markers: bl = body lean, bs = body shift, bt = body turn, hl = head lean, hn = head nod, re = raised eyebrows.

37), the latter by the Catalan Sign Language (LSC) example in (7) (Zorzi 2018, 79; see also Cecchetto et al. 2015 for Italian Sign Language).[2]

 Following Wilder (1995) and Hartmann (2000), among many others, we assume that ellipsis – both in gapping and VP-ellipsis – is derived by phonological reduction of constituents in non-first conjuncts which have been introduced in the first conjunct. Although this account has initially been proposed for spoken languages, we assume without further discussion that phonological ellipsis also derives gapping and VP-ellipsis in SLs.

(6) INDEX$_1$ BRING SALAD, JOHN $\overline{\text{BEER}}^{\text{hn}}$, SANDY $\overline{\text{CHICKEN}}^{\text{hn}}$, TED $\overline{\text{HAMBURGER}}^{\text{hn}}$
  'I brought the salad, John (brought) the beer, Sandy (brought) the chicken, and Ted (brought) the hamburger.'   (ASL)

(7) $\overline{\overline{\text{MARINA } \overline{\text{FRUIT}}^{\text{re}}\, \overline{\text{GIVE-IX-1}}^{\text{re}}}^{\text{hl+bs ipsilateral}}}$ $\overline{\overline{\text{JORDI}_j}^{\text{re}}\, 3_j\text{-AUX-IX-1 ALSO}}^{\text{hl+bs contralateral}}$
  'Marina gave me some fruit, and Jordi did, too.'   (LSC)

Examples (6) and (7) nicely illustrate that the remnants in elliptical coordination structures, that is, the overt constituents after ellipsis stand in a relation of contrast to their overt counterparts in the first conjunct. This is indicated by non-manual markers on the contrasting pairs across the conjuncts: a head nod in ASL gapping (6), and raised eyebrows in LSC VP-ellipsis (7) (also see Koulidobrova 2017 for VP-ellipsis in ASL). Thus, the non-manual markers can be seen as direct correlates of contrastive accent in spoken languages, which are necessarily associated with the remnants in coordinated structures, see Hartmann (2000).[3]

3 Symmetry in coordination

The conjuncts of a coordinated structure are often claimed to exhibit a parallel structure (Lang 1987; Goodall 1987; Progovac 1998; Hartmann 2000, among many others). Parallelism refers to a number of interrelated syntactic and semantic concepts regulating the shape of coordinations, some of which are illustrated in (8). First, the term has been used to describe the categorial identity of the conjuncts, referred to as the 'Law of Coordination of Likes' (e.g. Williams 1978, but cf. Sag et al. (1985) for notable exceptions). Consequently, (8a), where a PP and an AdvP are coordinated, is ungrammatical. Second, conjuncts must be of the same sentence type, as is evident from (8b).[4] Third, conjuncts have been assumed to exhibit an identical Information Structure as well (see Winkler 2005; Hartmann 2000). Lang (1987)

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[2]In her analysis of LSC, Zorzi (2018, 72) demonstrates that gapping in this language is not restricted by the same constraints that govern gapping in many spoken languages. This is shown in (i) for the 'No Embedding Constraint' (Hankamer 1979), which prohibits gapping of a verb in an embedded clause if the antecedent is contained in the matrix clause. While the LSC example is grammatical, the English translation is not.

(i) JORDI DOUGHNUT EAT, MARINA SAY IX-3$_j$ MARC$_j$ CROISSANT ~~EAT~~
  intended: '*Jordi ate a doughnut, and Marina said that Marc a croissant.'

[3]Note that the raised eyebrow marker accompanying FRUIT in the first conjunct is not replicated in the second since FRUIT does not have an overt matching counterpart in the second conjunct. Instead, it is elided as a part of the VP-ellipsis. This might indicate that the non-manual marker raised eyebrows does not only function to mark contrast in LSC but something else.

[4]Equivalence of sentence type could also be derived from the Across-the-Board restriction (Ross 1967; Williams 1978), which requires wh-movement to apply to both conjuncts simultaneously.

claims that the conjuncts have to have a so-called 'common denominator', which subsumes the content of each conjunct under a more general and situationally determined meaning. According to this view, conjuncts must be elements of the same set of focus alternatives, an idea that will be developed below. Given this constraint, asymmetric topicalization, as in (1), repeated in (8c), is also banned. In the present contribution, we focus on word order parallelisms across conjuncts, and we claim that the conjuncts of a conjunctive coordination tend to be syntactically symmetrical.[5]

(8)   a. * My brother is working [PP in the garden] or [AdvP today].

        b. * Peter loves strawberries and who raspberries?

        c. * Mary is still going to school, and to college, Vivian (goes).

Coordination, especially coordination involving ellipsis, is closely related to focus. We propose that the parts of a coordinated structure have an identical topic-focus structure. This requirement allows us to derive the syntactic as well as the prosodic symmetries across the conjuncts. The background of this assumption is that conjuncts represent individual, partial answers of the actual question under discussion (QUD, Roberts 1996), as is illustrated in the gapping example in (9). The symmetric distribution of the pitch accents (accented syllables are capitalized) follows from the fact that each conjunct partially answers the preceding question (the elided verb is marked by strikethrough).

(9)   Q: What would you like to drink?
        A: I take a BEER, Mila ~~takes~~ an ORange juice, and Mara ~~takes~~ a COKE.

Structural symmetry across conjuncts is especially required in instances of ellipsis. The reason for this is that an elliptical constituent in a non-first conjunct is licensed by an overt antecedent in the first conjunct.[6] Thus, in addition to the information-structural restrictions on the syntactic and prosodic conjunct shape, semantic recoverability of an elliptical constituent is not only guaranteed by mere phonetic pre-mentioning of the antecedent; rather, the antecedent must be in a syntactically identical position as well. It is therefore ungrammatical to asymmetrically embed a gapped verb, a constraint known as the 'No Embedding Constraint' (Hankamer 1979). The working of this constraint is illustrated in (10), taken from Hankamer (1979, ex. 23) (also see footnote 2).

(10)   *Alfonse stole the emeralds, and I think that Mugsy ~~stole~~ the pearls.

In a slightly more formal vein, we assume that the conjuncts of a coordination are members of the same focus alternative set (Rooth 1985; Rooth 1992). The conjunction (*and/or*) functions as an operator selecting additional elements from the alternative set as second conjunct(s). This is illustrated in (11) (T indicates the topic, F the focus constituents).

(11)   Q: What did Joan and Peter bring?
        A: [JOAN]T brought [the STRAWberries]F and [PEter]T brought [the CREAM]F

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[5]Psycholinguistic evidence for parallelism in coordination is presented by Frazier and Clifton (2001) and Carlson (2002).

[6]The relation between the antecedent and the elliptic constituent is typically anaphorical, Right Node Raising (RNR) being an exception. In RNR, a cataphorical relation is established between an elliptical element in the first conjunct and its match in the second (Hartmann 2000).

The topic/focus alternative set of the first conjunct (C_1) is given in (12). The alternative set contains elements which vary in comparison to C_1 in the position of the topic and the focus, respectively. According to Büring (1997), the focus value of C_1 is contained in the topic value, as shown in (13).

(12)   [$_{TP}$ Joan$_T$ brought [the strawberries]$_F$]$_f$ =
        { {Joan brought the strawberries, Joan brought the cream, Joan brought the wine, ...},
        {Peter brought the strawberries, Peter brought the cream, Peter brought the wine, ...} }

(13)   a. focus value of C_1:
            $\lambda p.\exists y[y\epsilon ALT(\text{strawberries})\ \&\ p = \text{brought}(y)(J)]$

        b. topic value of C_1:
            $\lambda P.\exists x[x\epsilon ALT(\text{Joan})\ \&\ P = \lambda p.\exists y[y\epsilon ALT(\text{strawberries})\ \&\ p = \text{brought}(x)(y)]]$

In order to refer to the symmetry conditions on coordination, we introduce the Parallel Structure Constraint:

(14)   Parallel Structure Constraint (PSC)
        Conjuncts must have a syntactically, semantically, and prosodically parallel structure.

Having established the theoretical background, we now present the results of our study of NGT coordination.

4   Methodology

As a data source, we used the Corpus NGT, a partly annotated and translated database of natural signed dialogues (Crasborn and Zwitserlood 2008; Crasborn, Zwitserlood, and Ros 2008). We analyzed 16 video clips with a total length of 58 minutes, including 12 native signers (age 18-84 years), who interact in pairs. We used the available annotations and translations after verification. Syndetic coordinated structures were identified by searching in the annotated data for overt manual conjunctions glossed as OF ('or') and PLUS, the latter corresponding to 'and' in spoken languages. Asyndetic coordinated structures were found by searching for the corresponding Dutch coordinators *of* and *en* on the translation tier.

In total, we obtained 4,457 hits many of which were irrelevant, be it because of overlap in glosses and translations, two-handed signs (e.g. PLUS) appearing twice (on two tiers), or no coordination involved (e.g. clause-initial PLUS). At the end, we extracted 120 coordinated structures from these hits, which we analyzed with respect to coordination type. After spotting some instances of asymmetric coordination, we coded all examples for sign order within conjuncts and conducted a second corpus search, now focusing specifically on asymmetric structures.

5   Results

Our corpus search yielded examples of syndetic and asyndetic symmetric and asymmetric coordination in NGT — both conjunction and disjunction. As expected, in most of the examples found in the corpus, the conjuncts are symmetrically structured. In the syndetically coordinated examples in (15) and (16), the conjuncts both show identical word order, OV in the disjunction in (15), and VO in the conjunction in (16). (The sources of the data in the corpus are indicated in parentheses.)

(15) SUPPOSE [HEAR IX$_1$ IN.LOVE] **OR** [DEAF IX$_1$ IN.LOVE]   (CNGT0062; S005)
      'Suppose that a hearing person and I are in love, or a deaf person and I are in love.'

(16) [GUYOT IX$_1$ DO H-A-V-O V-S-O IX$_3$ SCHOOL IX$_3$] **PLUS** [LATER IX$_1$ STUDY FOR TEACHER
      DUTCH]   (CNGT0411; S022)
      'At Guyot I did HAVO at a VSO school, and later I studied for (to become a) teacher in
      Dutch.'

Coordination in NGT may also be asyndetic, hence be realized without an overt conjunction.
Again, in most of the cases we found, the order within the conjuncts is symmetric. In the
disjunction in (17), the conjuncts exhibit a symmetric OV order, while in the conjunction in
(18), the order is VO in both conjuncts.

(17) DOES.NOT.MATTER, SAME VALUE, [CL:GROUP$_{3a}$ TALK] [CL:GROUP$_{3b}$ SIGN]
      'It does not matter, (they are) equivalent; a group that talks (or) a group that signs.'
                                                                  (CNGT0511; S026)

(18) [DRIVE INTO DEN.BOSCH] [IX$_1$ WAIT:CL$_{car}$ TRAFFIC.LIGHT]   (CNGT0050; S005)
      '(We) drove into Den Bosch (and) we had to wait for a traffic light.'

Interestingly, however, our results also reveal that NGT allows for a hitherto unnoticed syn-
tactic asymmetry across conjuncts. Note that the literature is not unanimous concerning the
question of the basic word order of NGT. Both orders, SOV and SVO are attested (Coerts 1994;
Oomen and Pfau 2017). We do not take a stance on this issue since it is irrelevant for our ar-
gument. What matters is that the order between the object and the verb may vary between
the first and second conjunct, thus violating the PSC. Consider examples (19) to (21), where
one of the conjuncts shows an OV order whereas the other displays a VO order: OV-VO in
(19) and (20), VO-OV in (21). These patterns are in clear violation of the PSC. Note that the
question whether the conjuncts are syndetically or asyndetically coordinated does not have
an impact on the issue under debate.

(19) WHEN DILEMMA CHOOSE [CI TAKE.OFF] **OR** [STAY CI]   (CNGT0529; S025)
      'When (you) feel ambivalent, (you can) choose, take the CI off or keep the CI.'

(20) EVENING [SCARY STORY TELL] **PLUS** [WALK DARK]   (CNGT0417; S022)
      'In the evening (we) told scary stories plus (we were) walking in the dark.'

(21) CI [GO++$_{3a}$ S-H SCHOOL] [HEARING SCHOOL GO$_{3b}$]   (CNGT0299; S017)
      'Because of CI, (children) go to a hard-of-hearing school (or) go to a hearing school.'

We argue that the word order variation follows from asymmetric fronting of a constituent in
the second conjunct, which has the effect of a contrastive focus interpretation. Contrast is
established across the conjuncts, the matching pair being the non-fronted equivalent in the
first conjunct. Hence, in (19) the verb STAY in the second conjunct is contrastively focused
to TAKE.OFF in the first. In (20) the verb WALK is asymmetrically fronted and contrasted to
TELL. In (21) the locative argument HEARING SCHOOL is contrasted to S-H SCHOOL ('hard-of-
hearing school') in the second conjunct.
     A variation of the pattern just described involves conjuncts with clause-final subject pro-
nouns (a construction reminiscent of what has traditionally been referred to as 'pronoun
copy'; cf. Bos 1995 for NGT). In our data, however, there never is a clause-initial subject

(pronoun) in these cases, i.e. we only observe VP-S structures. We thus propose to subsume pronoun copies appearing in coordination under our analysis. Given that NGT is a pro-drop language (Bos 1993), subject pronouns are generally optional. If present, we assume that they always fill the subject position. Any constituent preceding them must have been fronted to the clause-initial position for information-structural reasons. In (22) and (23), both disjunctive coordinations, the presence of the subject pronoun in post-verbal position in the second conjunct syntactically implies a contrastive focus interpretation of the initial VP. In accordance with our proposal, we assume that the predicates in the second conjuncts in (22) and (23) are fronted and contrastively focused with respect to the predicates in the first conjuncts.

(22)   T-E-S-T [IX$_3$ HUNDRED PERCENT DEAF] **OR** [BIT HEAR IX$_3$]   (CNGT0295; S017)
       '(They) test whether he is 100% deaf or whether he hears a little bit.'

(23)   IX$_3$ BUSY [IX$_1$ NOT(-ALLOWED) INTERRUPT] **OR** [STOP NOT(-ALLOWED) IX$_1$]
       'He is busy, I am not allowed to interrupt or to stop.'   (CNGT1587; S068)

In Table 1, we provide an overview of the numbers of examples involving asymmetric coordination that we extracted from the Corpus NGT. In total, we found 17 cases that display asymmetric coordination, both conjunctive and disjunctive as well as syndetic and asyndetic ones. Given that asymmetric topicalization tends to be ungrammatical in English and German, the number of examples with asymmetric coordination in NGT is surprisingly high.

Table 1: Asymmetric coordination resulting from asymmetric topicalization in the second conjunct in our NGT data (N = 17).

Type	Asymmetric topicalization
Syndetic OF ('or')	7
Syndetic PLUS ('and')	6
Asyndetic *of* ('or')	2
Asyndetic *en* ('and')	2
Total	**17**

6   Analysis

We assume a split CP-analysis (Rizzi 1997) for the representation of topic and focus phrases in NGT. For SLs in general, it has been shown that the clausal left periphery hosts the IS-related functional projections TopP and FocP, the landing sites of syntactically marked topic and focus phrases (e.g. Neidle et al. 2000; Lillo-Martin and de Quadros 2008; Aboh and Pfau 2010; Brunelli 2011; Wilbur 2012; Kimmelman and Pfau 2016). Topics are generally marked by fronting them to TopP; non-manual markings (mostly raised eyebrows), when present, typically scope over the entire fronted topic phrase (Kimmelman and Pfau 2016). Turning to focus, there is syntactic variation as to where the focused phrase may appear. Focus may be realized in its canonical position, hence the position where it is merged (= in situ focus). In NGT, as well as in many other spoken and signed languages, in situ focus is marked prosodically; hence the sign is expressed with a longer duration, a larger movement, and/or a higher velocity of the movement (for NGT, see Crasborn and van der Kooij 2013). Focus may also

be realized in a non-canonical position, which often is a position in the left periphery of the clause (= ex situ focus). Ex situ focus is a syntactic focus marking strategy, which may or may not be a secondary strategy to prosodic focus marking. In German (SOV), a fronted focus necessarily carries the focal accent, see (24). In languages without prosodic focus marking (as in many African languages), syntactic focus fronting is often the only strategy to mark a focus.

(24) [$_{FOC}$ MIR] *hat das Müsli heute morgen   nicht geschmeckt.*
          to.me has the cereal today morning not   tasted
      'I didn't like the cereals this morning.'

There is a lot of debate in the literature on whether the two focus positions are associated with different types of focus. Thus, new information focus, i.e. focus realized after wh-questions, has been assumed to be realized preferably in the in situ position. Contrastive focus, which expresses a contrast to some preceding or contextually salient phrase, has often been claimed to be more marked and hence preferably realized ex situ (Repp 2016). Although this correlation is not clear-cut, it is certainly a tendency across languages. In NGT, contrastive and non-contrastive (new information) focus phrases may both target FocP or be realized in their in situ position, where prosodic stress is the only indication of focus. Again, there is a tendency for the more marked contrastive focus to appear in SpecFocP.

    With respect to coordination, we adopt Zorzi's (2018) proposal that sentential conjuncts exhibit topic and focus projections as well. Thus, in the LSC gapping example in (25), the contrastive subject topics occupy SpecTopP, the contrastive foci are realized in SpecFocP (Zorzi 2018, 78).

(25) [$_{C.TOPIC}$ MARINA] [$_{C.FOCUS}$ COFFEE] PAY [$_{C.TOPIC}$ JORDI] [$_{C.FOCUS}$ CROISSANT]
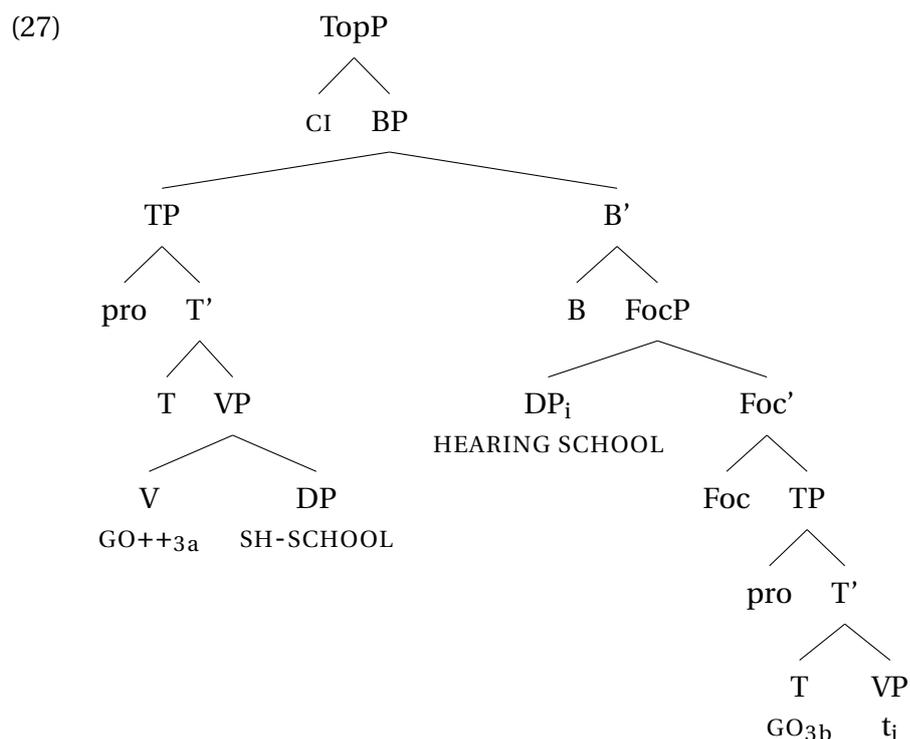   'Marina paid for a coffee and Jordi for a croissant.'   (LSC)

Concerning the structure of coordination, we follow Munn (1993), who was the first to assume that coordination has a binary structure, called BP, which is headed by a 'boolean' element B, the coordinating element. The first conjunct is located in the specifier of the BP, while the second is a complement of its head. In NGT, the head of the BP can be overt (syndetic coordination) or covert (asyndetic coordination), as is evident from the examples in Section 5.

    With these assumptions as a background, we analyze asymmetric topicalization in NGT as asymmetric movement in the second conjunct of a contrastively focused constituent to SpecFocP. For illustration, consider again example (21), repeated below for convenience as (26). We assume the structure in (27).[7, 8]

(26) CI [GO++$_{3A}$ S-H SCHOOL] [HEARING SCHOOL GO$_{3B}$]   (CNGT0299; S017)
      'Because of CI, (children) go to a hard-of-hearing school (or) go to a hearing school.'

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[7]The structure in (27) assumes an underlying VO order for NGT. We would like to point out again that OV orders are also attested (Coerts 1994; Oomen and Pfau 2017). In this contribution, we do not discuss this issue any further. What is relevant to us is the fact that the word order differs in the two conjuncts.

[8]Pronoun copy constructions involving asymmetric topicalization are derived in the same way.

(27)

```
                        TopP
                       /    \
                     CI      BP
                           /    \
                        TP        B'
                      /   \      /   \
                   pro    T'    B    FocP
                         /  \       /    \
                       T    VP   DPᵢ       Foc'
                          /   \  HEARING SCHOOL /  \
                        V     DP            Foc    TP
                    GO++₃ₐ  SH-SCHOOL            /   \
                                             pro     T'
                                                    /  \
                                                   T    VP
                                                 GO₃ᵦ   tᵢ
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The coordinated structure in (27) is preceded by a shared topic (CI) in SpecTopP. The coordinated BP is asymmetrical in two respects. First, the conjuncts differ in category. The first conjunct does not project any IS-sensitive phrases, hence it is just a TP. The second conjunct of the coordinated structure is extended and has a FocP in its left periphery. Second, the conjuncts involve asymmetric movement in that only the focused object of the second conjunct moves to SpecFocP. Thus, the structure in (27) clearly violates the PSC.

Given that in situ focus is an option in principle in NGT, also for contrastive focus, the question emerges why (asymmetric) focus movement takes place in the second conjunct after all. While it is true that there is not a one-to-one correspondence between syntactic position and interpretation of a focus constituent as being contrastive or non-contrastive – a fact that also holds for spoken languages – it is nevertheless obvious that focus fronting involves syntactic marking in addition to focus prosody on the focal constituent, which is likewise realized on in situ and ex situ focus. We assume that the need to establish a contrast across conjuncts of a coordinated structure may be such that prosodic marking of an in situ focus is considered not to be strong enough. Hence, fronting of the focused constituent to SpecFoc yields a stronger marking, which may be perceived as being more compatible with the contrastive focus interpretation by some NGT speakers.

NGT differs in this respect from English or German, which do not allow asymmetric topicalization in coordination. Thus, the PSC may not be violated in these languages. Contrastive pairs across conjuncts must either be both in situ, or, as in German, be both fronted. This is shown in the German examples in (28). Again, we choose a gapping example because the conjuncts of an elliptical structure form a clear syntactic unit due to recoverability conditions on the gapped verb, see also Section 3. The conjuncts in (28a/b) are both symmetric in that the foci are either both in situ (28a) or fronted (28b). (28c) is ungrammatical due to asymmetric fronting of the local adverbial in the second conjunct.

(28)   a. *Der Opa   liegt auf dem Sofa und die Oma   ~~liegt~~ im
           DET grandfather lies on the sofa and the grandmother lies in.DAT
           Bett.
           bed
           'Grandfather is lying on the sofa, and grandmother in bed.'

       b. Auf dem Sofa liegt der Opa und im Bett ~~liegt~~ die Oma.

       c. *Der Opa liegt auf dem Sofa und im Bett ~~liegt~~ die Oma.

We speculate that the impact of prosody on focus realization differs between NGT and languages like German. In German, prosodic accents unequivocally indicate the position of the matching contrast pairs across the conjuncts. The pitch accents in the first conjunct yield an intonational pattern that is repeated in the second conjunct. The constituents subsumed under this pattern in the second conjunct are spontaneously interpreted in parallel syntactic position as their matches in the first conjunct. Asymmetric focus fronting disrupts this relation. In NGT, on the other hand, in situ focus is also marked prosodically, but the intonational pattern derived from the first conjunct does not provide a blue-print for the second. Thus, NGT speakers are free to leave the contrasting pairs in the second conjunct in their canonical in situ position or to express a stronger formal marking of the contrast by moving the focus to the sentence-initial position. Future research should investigate whether there are additional factors that favor choice of one strategy over the other. Also, it would be interesting to study whether comparable PSC violations are also attested in other SLs.

7   Summary

Coordination in NGT exhibits violations of the well-established Parallel Structure Constraint to the effect that word order across the conjuncts may differ. We assumed that the topic and focus projections of a coordinated structure can be asymmetrically accessed in NGT. We further argued that the reason for the PSC violation may be that prosody is considered as too weak to express the contrast across the conjuncts in situ, hence reordering in the second conjunct yields the desired strength of marking. This suggests that the word order of NGT is highly determined by discourse-configurational principles, rather than by ordering principles that are especially required for the assignment of prosodic accents.

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