

The syntax of topic, contrast and contrastive topic

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1 Introduction

There is overwhelming evidence from a wide ranging languages that [topic], [focus] and [contrast] are autonomous notions of information structure that interact in systematic ways with syntax (e.g., Aboh 2004, Frey, 2004, Rizzi 1997, Vallduví 1992, Vallduví & Vilkuña 1998). Moreover, some authors have argued that items usually referred to as contrastive topic and contrastive focus should be analysed as composites of the notions [topic] and [contrast], and [focus] and [contrast], respectively (Molnár 2002, Giusti 2006 among others). Based on these considerations, Neeleman et al. (2009) propose the typology in (1).

(1) *Syntactic typology of topic, focus and contrast* (Neeleman et. al. 2009)¹

	Topic	Focus
	non-contrastive topic [topic]	non-contrastive focus [focus]
contrast	contrastive topic [topic] [contrast]	contrastive focus [focus] [contrast]

The main motivation for the above typology comes from the observation that languages show cross-cutting generalisations over the syntactic distribution of items sharing one of the three privative notions. If [topic], [focus] and [contrast] are indeed autonomous notions that can be targeted by syntax, one would expect to find mapping rules relevant only for [topic], only for [focus], or only for [contrast]. Neeleman et al. argue that Japanese, Russian and Dutch have discrete mapping rules regarding [topic], [focus] and [contrast], respectively.

This paper provides further evidence from Japanese and Korean for the typology in (1). The two languages display an additional pattern of cross-linguistic variation that is predicted to exist. The typology does not preclude the possibility that one language has more than one mapping rule. For example, a language may have a rule for [topic] and another for [contrast]. However, if the two rules cannot be satisfied simultaneously, a conflict arises as to which rule should be relevant for a contrastive topic. I argue that in such an instance the language adopts one rule over the other. This predicts that if a language has conflicting rules for [topic] and [contrast], a contrastive topic in that language would systematically behave either like a non-contrastive topic or like a contrastive focus with respect to the rules. In this paper, I argue that Japanese and Korean exemplify precisely this situation. The two languages have the same rule for [topic] and the same rule for [contrast], but Japanese contrastive topics are subject to the rule for [topic], while Korean contrastive topics are subject to the rule for [contrast].

The paper is organised as follows. Section 2 first clarifies the notions ‘topic’, ‘focus’ and ‘contrast’ that are adopted in this paper. In Section 3, I discuss the distribution of non-contrastive topics in Japanese and Korean and show that the two languages share the same rule for [topic]. Section 4 examines the distribution of contrastive and non-contrastive foci

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¹ I use the term ‘non-contrastive’ here to highlight the opposition to the contrastive counterparts. Non-contrastive topics and non-contrastive foci go by various names in the literature, such as ‘link’, ‘aboutness topic’ and ‘theme’ for the former, and ‘information focus’ for the latter. Section 2 discusses the definitions adopted in this paper.

and show that the two languages have the same rule relevant for [contrast]. In Section 5 I show that contrastive topics in Japanese behaves like non-contrastive topics in this language with respect to the rule for [topic], while Korean contrastive topics behave like contrastive foci regarding the rule for [contrast]. Section 6 demonstrates that the current proposal makes further correct predictions regarding the distribution of contrastive topics and contrastive foci with respect to each other.

2 Terminologies

2.1 Topic

The notion [topic] that the present paper is concerned with is that of ‘sentence topic’ and not of ‘discourse topic’ in the sense of Reinhart (1981). A sentence topic is a syntactic category that newly introduces a referent as what the rest of the sentence is about, while a discourse topic is what the whole discourse is about and therefore can be more abstract. The distinction between sentence topic and discourse topic is widely recognised in the discourse literature. A sentence topic is variously known as ‘chain-initial topic’ (Givón 1983), ‘link’ (Vallduví 1992), or ‘aboutness topic’ (Frascarelli & Hinterhölzl 2007). The two types of topics are clearly closely linked. The referent introduced by a sentence topic often functions as a discourse topic and continues to do so in the subsequent discourse.

A sentence topic can be identified as the item *X* in the answer to the request *tell me about X* (Reinhart 1981). Such a request explicitly instructs the hearer to introduce *X* as the discourse topic. Thus, *John* in Speaker B’s utterance below is a sentence topic. (Here and below, a topic is indicated by double-underlining in the relevant examples.)

- (2) A: Tell me about John.
B: Well, John is a student from Canada.

Sentence topics must also be distinguished from discourse given items that simply refer back to them (Givón 1983, Chafe 1987, Lambrecht 1994, Vallduví & Engdahl 1996). Uttered discourse-initially, *Max* in the question in (3)A is a sentence topic: speakers of English generally interpret this question as being about Max. However the pronoun *he* in the reply by B is not a sentence topic. It does not newly introduce the referent as what the sentence is about. It is merely a discourse anaphoric item whose antecedent happens to be a sentence topic. Utterances such as (3)B can be analysed as consisting only of a comment and inheriting a discourse topic from the previous discourse (Vallduví 1992, Vallduví & Engdahl 1996).

- (3) A: Who did Max see yesterday?
B: He saw ROSA yesterday.

There are several grammatical effects that are associated only with a sentence topic, but not with a discourse topics or items referring back to them, such as the directionality of dislocation (Vallduví 1992, Lambrecht 1994), distinct prosodic properties (Frascarelli & Hinterhölzl 2007), and special morphological marking (Choi 1997).

As we will see below, some Japanese and Korean phrases marked by the putative topic markers *wa* and *nun*, respectively, do not always fall under the category [topic] on the above definition. Although these markers are generally assumed to be markers of topics, there are arguments in the existing literature, some of which I will discuss below, that they do not always function as such. I will also provide further evidence for this claim.

2.2 Focus

I adopt the widely held view of [focus] that it provides a highlighted piece of information with respect to the rest of the sentence. As such, it can be identified as the item that answers the *wh*-part of a preceding question (e.g., Rooth 1985, 1992, É Kiss 1998). Thus, *Rosa* in (3) is a focus, for instance. (Focus is indicated by small caps)

2.3 Contrast

[Contrast] is a notion that can combine with focus or topic (Repp 2009, Winkler & Molnár 2009, and references therein). There are some interpretive differences between contrastive topic and contrastive focus, which derive from the widely held view that focus is a propositional notion, while a topic is an utterance level notion (Tomioka 2010). I assume that contrast implies the negation of at least one alternative in the set of relevant alternatives generated by a contrastive focus or a contrastive topic. Thus, a contrastive focus implies the negation of at least one alternative proposition, while a contrastive topic implies the negation of at least one alternative utterance. I will not go into the details of the semantics of the notion ‘contrast’, due to lack of space, but will introduce here some representative discourse contexts which require a contrastive focus and a contrastive topic.

A typical context requiring a contrastive focus is in cases of correction, such as (4), where B corrects the statement by A. In B’s sentence, *The Extended Phenotype* is a contrastive focus. By uttering the sentence, B asserts that the alternative proposition expressed by A’s utterance is false. Contrastive focus carries a so-called A-accent in English (a plain high tone (H*), often followed by a default low tone; Jackendoff 1972, Pierrehumbert 1980), while non-contrastive focus is not marked as such (Katz & Selkirk 2008). (Here and below, contrast is indicated by italics.)

- (4) A: John read The Selfish Gene.
B: No, he read *The EXTENDED PHENOTYPE*.
{[John read The Extended Phenotype], [~~John read The Selfish Gene~~],...}

A context which requires a contrastive topic is illustrated by the exchange in (5) (see also Büring 1997, 2003, Tomioka 2010). The question by A is about Bill, but B’s reply is about Maxine. *Maxine* is therefore a topic that is interpreted contrastively. By uttering the sentence, B implies that an alternative assertion regarding Bill cannot be made. Here, what is negated is an utterance, and hence the reason for this negation could be pragmatic. It could be that the speaker does not know the truth value of the proposition expressed by the alternative utterance, as made explicit in (5)B. A contrastive topic in English carries a so-called B-accent (maximally realised as L+H*, followed by a default low tone and a high boundary tone (L H%); Jackendoff 1972, Büring 2003), but a non-contrastive topics need not.

- (5) A: Tell me about Bill. Did he read the Selfish Gene?
B: Well, I don’t know about Bill, but *Maxine* read The Selfish Gene.
{Assert[Maxine read The Selfish Gene], ~~Assert[Bill read the Selfish Gene]~~, ...}

In sum, I assume that topic is a syntactic category that newly introduces its referent as what the rest of the sentence is about, focus is a highlighted piece of information with respect to the rest of the sentence and contrast implies the negation of at least one alternative in the set of relevant alternatives. Contrastive focus is a focus that is interpreted contrastively, and similarly, a contrastive topic is a topic that is interpreted contrastively. Throughout the paper, I will use the above discourse contexts for identifying a syntactic item bearing a particular discourse function.

3 [Topic]: non-contrastive topics

In this section, I argue that Japanese and Korean have the same mapping rule relevant for the notion [topic], informally stated as in (6).

(6) [topic] is licensed in clause-initial position.

The empirical motivation for (6) comes from the behaviour of non-contrastive topics in a context requiring a non-contrastive topic, discussed in the previous section. In response to the request about ‘that hat’ in Japanese in (7), the object *ano boosi* ‘that hat’ in the answer must appear in clause-initial position, as the contrast in the felicity between (8)a and (8)b shows. A non-contrastive topic in Korean shows the same pattern, (9)/(10). A subject topic must also appear in clause-initial position in both languages. (Infelicitousness is indicated by #.)

(7) ano boosi-nituite nanika osiete-kudasai. (J)
 ‘Tell me something about that hat.’

(8) a. ano boosi-wa/_i#o John-ga kinoo e_i kaimasita.
 that hat-WA/ACC John-NOM yesterday bought
 b. #John-ga ano boosi-wa/_o kinoo kaimasita.
 John-NOM that hat-WA/ACC yesterday bought
 ‘John bought that hat yesterday.’

(9) ku moca-eytayhayse mal-hay-po-a.² (K)
 ‘Tell me about this hat.’

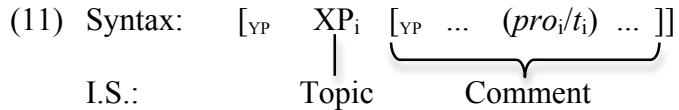
(10) a. ku moca-nun/_{lul} John-i ecey e_i sasse.
 this hat-NUN/ACC John-NOM yesterday bought
 b. #John-i ku moca-nun/_{lul} ecey sasse.
 John-NOM this hat-NUN/ACC yesterday bought
 ‘John bought this hat yesterday.’

The above observation for Korean is in line with the standard view in the literature (Choe 1995, Choi 1997, 1999, Han 1998 a.o.). On the other hand, the standard description of non-contrastive topics in Japanese is that they only ‘typically’ appear in clause-initial position (Kuno 1973, Kuroda 2005, Heycock 2008 and references therein). The motivation behind this description is that there are some instances in which a phrase marked with the putative topic marker *wa* appears in a position other than clause-initial position, such as (14)c (Watanabe 2003). However, the example in (7)/(8) illustrates clearly, with an appropriate context, that a non-contrastive topic ‘must’ occupy clause-initial position in this language. Moreover, I have argued in Vermeulen (2009, To app.) that such *wa*-phrases that are not in clause-initial position are not topics, but rather discourse given items referring back to sentence topics, like the pronoun in the English example in (3). One piece of evidence I provide there is that while a *wa*-marked phrase that functions as a non-contrastive topic is insensitive to island constraints, those that are not in clause-initial position are. I will not discuss these cases here.

The standard analysis of a non-contrastive topic in Japanese and Korean is that it either has moved to clause-initial position or is base-generated there, binding an empty pronominal in a thematic position internally to the clause (see Saito 1985 and Hoji 1985 for motivation for the two derivations). I argue that the overt displacement of a topic to clause-initial

² In Korean, the nominative case marker is realised as *ka* after a vowel and as *i* elsewhere. Similarly, the accusative marker is realised as *lul* if following a vowel and as *ul* elsewhere.

position on either derivation is motivated by its effect at the interface. It creates a transparent mapping between the syntactic structure and information structure, as illustrated below. Topic as well as the comment correspond to syntactic constituents (Neeleman & van de Koot 2008). I take this effect to be an instantiation of a mapping rule regarding the notion [topic]. I will return to this mapping rule in Section 7.



4 [Contrast]: contrastive focus

In this section, I argue that Japanese and Korean have the same rule relevant for the notion [contrast], informally stated in (12).

(12) [Contrast] licenses scrambling.

In a correction context, a contrastive focus can remain in-situ, or undergo scrambling to a clause-medial or clause-initial position in both Japanese, (13)/(14), and Korean, (15)/(16).

(13) John-wa Sue-ni CD-o agemasita. (J)
 ‘John gave a CD to Sue.’

- (14) a. Ie, John-wa Sue-ni ANO HON-O agemasita.
 No, John-WA Sue-to that book-ACC gave
 b. Ie, John-wa ANO HON-O_i Sue-ni t_i agemasita.
 No, John-WA that book-ACC Sue-to gave
 c. Ie, ANO HON-O_i John-wa Sue-ni t_i agemasita.³
 No, that book-ACC John-WA Sue-to gave
 ‘No, John gave that book to Sue.’

(15) John-i Sue-eykey CD-ul cwuess-e (K)
 ‘John gave a CD to Sue.’

- (16) a. Ani, John-i Sue-eykey KU CHAYK-UL cwuess-e.
 No, John-NOM Sue-to that book-ACC gave-DECL
 b. Ani, John-i KU CHAYK-UL_i Sue-eykey t_i cwuess-e.
 No, John-NOM that book-ACC Sue-to gave-DECL
 c. Ani, KU CHAYK-UL_i John-i Sue-eykey t_i cwuess-e.
 No, that book-ACC John-NOM Sue-to gave-DECL
 ‘No, John gave that book to Sue.’

In both languages, however, a phrase answering a simple *wh*-question, such as ‘what did John give to Sue?’ can also undergo the same kind of scrambling as in (14) and (16). Thus, one may wonder whether the relevant notion in licensing the kind of scrambling above is [focus] rather than [contrast]. However, speakers report that scrambling of a focus, as in the (b)- and (c)-examples require accommodation of an additional contrastive interpretation. Furthermore, long-distance scrambling is possible in Japanese only if the scrambled item is interpreted contrastively (Saito 1985, Miyagawa 2006, a.o.). Thus, the sentence in (18), which involves

³ This is an example of a non-contrastive *wa*-phrase in a position other than clause-initial position, mentioned at the end of the previous section.

long-distance scrambling of the embedded indirect object, is felicitous as a correction of the statement in (17), but the same sentence is infelicitous as an answer to the question in (19), unless the speaker enriches the context and accommodates an additional contrastive meaning.

- (17) Bill-wa [_{CP} John-ga Mary-ni ano hon-o ageta to]omotteiru. (J)
 ‘Bill thinks that John gave a book to Mary.’
- (18) Ie, *SUE-NI_i* Bill-wa [_{CP} John-ga ano hon-o *t_i* ageta to] omotteiru (ndayo).
 no, Sue-to Bill-wa John-NOM that book-ACC gave that thinking (PRT)
 ‘No, Bill thinks that John gave a book to Sue.’
- (19) Bill-wa [_{CP} John-ga dare-ni ano hon-o ageta to]omotteiru no? (J)
 ‘Who does Bill think John gave the book to?’
- (20) ??*SUE-NI_i* Bill-wa [John-ga *t_i* ano hon-o ageta to] omotteiru.
 Sue-to Bill-WA John-NOM that book-ACC gave that thinking.PRES

In Korean too, it is often claimed that long-distance scrambling requires a contrastive reading of the scrambled item (Choe 1995, Tsoulas 1999, Hwang et al. To app.). Thus, the same pattern of judgement obtains as in Japanese, although the judgement is somewhat less robust.⁴

- (21) Swuni-ka [_{CP} Yenghi-ka ku kwutwu-lul sasse-ta-ko] sayngkakha-n-ta (K)
 ‘Swuni thinks that Yenghi bought those shoes.’
- (22) Ani, *KU MOCA-LUL_i* Swuni-ka [_{CP} Yenghi-ka *t_i* sasse-ta-ko] sayngkakhan-ta.
 no, that hat-ACC Swuni-NOM Yenghi-NOM bought-DECL-that thought-DECL
 ‘No, Swuni thinks that Yenghi bought that hat.’
- (23) Swuni-ka [_{CP} Yenghi-ka mwuess-ul sasse-ta-ko] sayngkakhan-ta. (K)
 ‘What does Swuni think Yenghi bought?’
- (24) ?*MOCA-LUL_i* Swuni-ka [_{CP} Yenghi-ka *t_i* sasse-ta-ko] sayngkakhan-ta.
 hat-ACC Swuni-NOM Yenghi-NOM bought-DECL-that think-DECL

I conclude therefore that a contrastive focus in Japanese and Korean can optionally undergo clause-internal as well as long-distance scrambling and [contrast] licenses this distribution.

Like the overt displacement of a topic, I argue that scrambling licensed by [contrast] is motivated by its effects at the interface between syntax and information structure. Following Neeleman et al. (2009), I claim that a contrastive item is quantificational and takes scope. Scrambling of a contrastive item has the effect of marking the sister constituent as the scope of contrast, which Neeleman et al. call ‘the domain of contrast’. The idea is schematised in (25). Treatment of scrambling as an instance of overt QR has been proposed for quantifiers on several occasions in the literature (Miyagawa 2006, to app. and references therein). I take this scope-marking operation to be an instantiation of a mapping rule relevant for [contrast].

- (25) Syntax: [_{YP} XP_i [_{YP} ... *t_i* ...]]
- I.S.: CF/CT Domain of Contrast

⁴ The judgement in Korean appears to be less robust than in Japanese. I believe this is due to the fact that a case-marked item in sentence-initial position can be a topic in Korean, unlike in Japanese, and discourse contexts can never ‘force’ an item to have a particular discourse function, but they can only ‘strongly favour’ the interpretation of the item as having such a discourse function. Some deviations can be accommodated. Nonetheless, for the Korean case at hand, when one ensures that the long-distance scrambled item is a focus, by using a *wh*-question, judgement in a similar direction to the judgement in Japanese obtains. See Hwang, Schafer & O’Grady To app. for evidence from parsing for a strong preference for a contrastive interpretation of a long-distance scrambled item in Korean.

The domain of contrast for a contrastive item contains material used to calculate the size of the set of relevant alternatives. The difference between (14)b/(16)b and (14)c/(16)c is that the domain of contrast for the contrastive focus in the former does not contain the subject, while the one for the latter does, as illustrated below for the Korean examples.

- (16)'b: John-i [VP KU CHAYK-UL_i [VP=DoC Sue-eykey t_i cwuess-e]
 (16)'c: [TP KU CHAYK-UL_i [TP=DoC John-i Sue-eykey t_i cwuess-e]

I assume that contrast is always based on an expression that is minimally a proposition (Schwarzchild 1999). Thus, existential closure must apply in the case of (16)'b, resulting in the set of alternative propositions in (26). For (16)'c, the subject is included in the set of alternative propositions, yielding the set as in (27).

- (26) {[someone has given the book to Mary], [~~someone has given a CD to Mary~~],...}
 (27) {[John has given the book to Mary], [~~John has given a CD to Mary~~],...}

Like other scope-marking operations, the effects of marking the domain of contrast can best be observed in sentences with more than one contrastive item. I examine such cases in section 7, where I consider the interaction between the rule for [contrast] and the rule for [topic].

5 Contrastive Topics in Japanese and Korean

Before considering the distribution of contrastive topics, a remark is in order regarding the particles *wa* in Japanese and *nun* in Korean. Contrastive topics are marked by the particles *wa* and *nun* in the respective language, like their non-contrastive counterparts discussed in Section 3. However, it is often claimed that the particle that attaches to a non-contrastive topic and the one that attaches to a contrastive topic are two different lexical items (Kuroda 1965, 2005, Kuno 1973, Oshima 2008, C. Lee 2006, Hetland 2007). In both languages, the particle that appears on a contrastive topic is associated with a distinct set of properties: it is emphatically stressed, shows much freer syntactic distribution and induces a contrastive interpretation. I will therefore treat *wa* and *nun* that attach to contrastive topics as different lexical items from their non-contrastive counterparts and refer to them as ‘contrastive *wa*’ and ‘contrastive *nun*’, respectively.

The distribution of contrastive topics in Japanese and Korean diverge, but in a systematic way. The following exchange shows, a contrastive topic in Japanese must move to clause-initial position, like its non-contrastive counterpart, (7)/(8). Here, *ano hon-wa* ‘that book-WA’ is a contrastive topic, as its referent is newly introduced and it shifts the topic of discourse from ‘that CD’.

- (28) Dare-ga Sue-ni ano CD-o ageta no? (J)
 ‘Who gave that CD to Sue?’
 (29) Hmm, ano CD-wa doo-da-ka siranai kedo...
 ‘Well, I don’t know about that CD, but...’
 a. #JOHN-GA Sue-ni ano hon-wa kinoo ageteita (yo)
 John-NOM Sue-to that book-WA yesterday gave PRT
 b. ??JOHN-GA ano hon-wa_i Sue-ni Kinoo t_i ageteita (yo)
 John-NOM that book-WA Sue-to yesterday gave PRT
 c. ano hon-wa_i JOHN-GA Sue-ni kinoo t_i ageteita (yo)
 that book-WA John-NOM Sue-to yesterday gave PRT
 ‘as for that book, John gave it to Sue yesterday.’

In the same context, a contrastive topic in Korean behaves exactly like a contrastive focus: it can optionally scramble to a clause-medial or clause-initial positions.

- (30) John-i nwuku-hantey ku CD-lul ecey cwuesse? (K)
 ‘To whom did John give this CD yesterday?’
- (31) Hmm, ku CD-nun molu-keyss-ko
 ‘Well, I don’t know about this CD, but...’
- | | | | | | |
|----|--------------------------------|--------------------------------|-------------------|-----------|-------------------------------|
| a. | John-i | SUE-HANTEY | <u>i chayk-un</u> | ecey | cwuesse |
| | John-NOM | Sue-to | this book-NUN | yesterday | gave |
| b. | John-i | <u>i chayk-un</u> _i | SUE-HANTEY | ecey | <i>t</i> _i cwuesse |
| | John-NOM | this book-NUN | Sue-to | yesterday | gave |
| c. | <u>i chayk-un</u> _i | John-i | SUE-HANTEY | ecey | <i>t</i> _i cwuesse |
| | this book-NUN | John-NOM | Sue-to | yesterday | gave |
- ‘as for this book, John gave it to Sue yesterday.’

Contrastive topics in the two languages can also undergo long-distance scrambling to sentence-initial position (Saito 1985, Hoji 1985 for Japanese; Choe 1995 for Korean).

I conclude therefore that Japanese contrastive topics are subject to the rule relevant for [topic], while Korean ones are subject to the rule relevant for [contrast]. The above data show patterns that are different from what is assumed in the literature. In Japanese, it is possible for a phrase marked with contrastive *wa* can appear in a clause-medial position and the standard view is that a contrastive *wa*-marked phrase is a contrastive ‘topic’ regardless of its position in the sentence (Tomioka 2010, Heycock 2008, Kishimoto 2009). In Korean, the standard description is that a contrastive *nun*-marked phrase is a contrastive ‘topic’ only in clause-initial position and is a contrastive ‘focus’ elsewhere (Choe 1995, Han 1998, Choi 1997, 1999, Gill & Tsoulas 2004). In the following section, I provide arguments that those contrastive *wa*-marked phrases in-situ are indeed not contrastive topics and a contrastive *nun*-marked phrase that is a contrastive topic is not restricted to clause-initial position.⁵

6 Ordering restrictions between contrastive topic and contrastive focus

The current proposal makes predictions regarding the syntactic distribution of a contrastive topic and a contrastive focus with respect to each other. The predictions derive from the combination of the proposed rules for [topic] and [contrast] and the widely held view that a focus is propositional, while a topic is an utterance level notion.

At the level of information structure, an utterance is partitioned into topic and comment and the latter is further partitioned into focus and background (Lambrecht 1994; see also Rizzi 1997), as schematised below. I assume that that a comment is a proposition that is predicated of a topic via an assertion operator (Erteschik-shir 1997, Krifka 2001), capturing the idea that focus is a propositional notion.

- (32) [Utterance topic [Comment FOCUS [Background]]]

I have argued above that scrambling of a contrastive focus marks the sister constituent of the scrambled item as its domain of contrast, (25). If focus is a propositional notion, the domain of contrast for a contrastive focus, which is relevant for the interpretation of a contrastive

⁵ It is worth noting here that when a contrastive *nun*-marked phrase is described as a contrastive ‘focus’ in the literature, the notion ‘contrastive focus’ is not quite the same as what is generally referred to as ‘contrastive focus’ in the discourse literature. Thus, a contrastive *nun*-marked phrase cannot be used in a correction context, for instance (C. Lee 2003).

focus, must also only contain propositional material. Given that topic is an utterance-level notion, it follows that it cannot be contained inside a proposition and hence also not inside the domain of contrast for a contrastive focus. It is predicted then that a contrastive focus cannot move to a position above a topic, as this would result in an ill-formed structure where the domain of contrast for a contrastive focus contains a topic. This is illustrated in (33)c.

On the other hand, when a contrastive topic undergoes scrambling in Korean, what is in the domain of contrast for this contrastive topic is material taken from its comment, the propositional content expressed by the utterance. As such, it can contain a focus. Thus, in Korean, we predict that a contrastive topic can move to a position above a focus, as shown in (33)d. Similarly, in Japanese, movement of a contrastive topic to clause-initial position marks the comment, which must contain a focus. Thus, in Japanese too, it is predicted that a contrastive topic in Japanese can move to a position above a contrastive focus.

If there is no scrambling by a contrastive item, no comment or domain of contrast is overtly marked for either of the contrastive items. There is no mapping instruction in such cases and the ordering between the two items is predicted to be free, as shown in (33)a and (33)b. I will discuss these predictions for each language in turn. I restrict consideration of these predictions to contrastive foci and contrastive topics only (as opposed including their non-contrastive counterparts), as doing so will allow us to use minimal pair examples.

- (33) a. [... CT ... CF ...] (CF = Contrastive Focus; CT = Contrastive Topic)
 b. [... CF ... CT ...]
 c. #_{[YP CF [YP=DoC for CF ... CT ... t_{CF} ...]]} (DoC = Domain of Contrast)
 d. [_{YP} CT [_{YP=DoC for CT ... CF ... t_{CT} ...]]}

Starting with Korean, the following exchange shows that the predictions in (33)a and (33)c are borne out. The question in (34) is about *John*, but the reply in (35) is about *Bill*, making *Bill* a contrastive topic. The presence of *-man* ‘only’ the object *khong-man* ‘beans-only’ ensures that it is a focus interpreted contrastively. In (35)a, the contrastive topic and contrastive focus appear in their base-generated positions in that order, bearing out the prediction in (33)a. In (35)b, the contrastive focus has scrambled across the contrastive topic, and as indicated, this results in infelicity, bearing out the prediction in (33)c.

- (34) John-un/i ecey pathi-eyse mwuess-lul mekesse? (K)
 ‘What did John eat at the party yesterday?’
 (35) Hmm, John-un molu-keyss-ko
 ‘Well, I don’t know about John, but...’
 a. Bill-un 8-si-ey KHONG-MAN mekesse. (CT CF)
 Bill-NUN 8 o’clock-at beans-only ate
 b. #KHONG-MAN_i Bill-un 8-si-ey t_i mekesse. (#CF_i CT t_i)
 beans-only Bill-NUN 8 o’clock-at ate
 ‘as for Bill, he was eating only beans around 8 o’clock.’

The following exchange show that the predictions in (33)b and (33)d are also correct.

- (36) ecey party-eyse nwuka pasta-lul mekesse? (K)
 ‘Who ate the pasta at the party yesterday?’
 (37) Hmm, pasta-nun molu-keyss-ko
 ‘Well, I don’t know about the pasta, but...’
 a. BILL-MAN khong-un 8-si-ey mekesse (CF CT)
 Bill-only beans-NUN 8 o’clock-at ate

- b. *khong-un*_i BILL-MAN 8-si-ey *t*_i mekesse (CT_i CF *t*_i)
 beans-NUN Bill-only 8 o'clock-at ate
 'as for the beans, only Bill ate them at 8 o'clock.'

Further predictions derive from the current proposal. In (33)c, what deems the structure ill-formed is the fact that the domain of contrast for the contrastive focus, which is propositional, contains a contrastive topic, an utterance-level notion. Thus, scrambling of a contrastive focus to a position above a contrastive topic should generally be disallowed even if its launching site is above the contrastive topic. The point is illustrated in (38)a. On the other hand, contrastive topic can scramble to a position above a contrastive focus from a launching site above the contrastive focus, as shown in (38)b without comparable problems.

- (38) a. #[_{YP} CF [_{YP=DoC for CF} ... *t*_{CF} ... CT ...]]
 b. [_{YP} CT [_{YP=DoC for CT} ... *t*_{CT} ... CF ...]]

The examples in (39)/(40)b and (41)/(42)b show that these predictions are also borne out, respectively.

- (39) John-i nwuku-hantey ku CD-lul cwuesse? (K)
 'To whom did John give this CD?'

- (40) Hmm, ku CD-nun molu-keyss-ko
 'Well, I don't know about this CD, but...'
 a. John-i *SUE-HANTEY-MAN* *i chayk-un* ecey cwuesse (CF CT)
 John-NOM Sue-to-only this book-NUN yesterday gave
 b. #*SUE-HANTEY-MAN*_j John-i *t*_j *i chayk-un* ecey cwuesse (#CF_i *t*_i CT)
 Sue-to John-NOM this book-NUN yesterday gave
 'as for this book, John gave it only to Sue.'

- (41) John-i Mary-hantey mwu-lul cwuesse? (K)
 'What did John give to Mary?'

- (42) Hmm, Mary-nun molu-keyss-ko
 'Well, I don't know about Mary, but...'
 a. John-i *Sue-hantey-nun* I CHAYK-MAN ecey cwuesse (CT CF)
 John-NOM Sue-to-NUN this book-only yesterday gave
 b. *Sue-hantey-nun*_j John-i *t*_j I CHAYK-MAN ecey cwuesse (CT_i *t*_i CF)
 Sue-to-NUN John-NOM this book-only yesterday gave
 'as for Sue, John gave her only this book yesterday.'

The data in (39)/(40) also show that the ill-formedness of the example in (35)b, cannot be explained in terms of a Relativized Minimality violation (Rizzi 1990) or an intervention effect (Beck & Kim 1997), by assuming that the feature composition of a contrastive topic may be richer than that of a contrastive focus, for instance. The observation is also difficult to capture on an approach with a designated functional projection for contrast proposed recently by Winkler & Molnár (2009) (but see also Vallduví & Vilkuna 1998, Molnár 2006).

In sum, in addition to providing support for the general mapping rule based approach pursued here, the above Korean data provide evidence against the standard view that the interpretation of a contrastive *nun*-phrase as a contrastive topic is restricted to clause-initial position. A contrastive *nun*-phrase can function as a contrastive topic in other positions too.

I now turn to Japanese. Due to the fact that contrastive topics in Japanese must appear in clause-initial position independently, it may appear that none of the predictions can be tested.

This is true for all but the prediction in (33)c. This prediction can be shown to be correct by examining data involving an embedded clause. A contrastive topic can appear in an embedded clause, as shown in (44), uttered in the context in (43). The context makes *kono CD* ‘this CD’ a contrastive topic, as it shifts the topic of discourse from *the book*. The presence of *kare* ‘his’, that is coreferential with the matrix subject *Bill*, ensures that the embedded clause is not a direct quotation (Fukui 1995).

(43) Context: John finds a book on Sue’s desk and he asks Bill to tell him something about the book. Bill does not know anything about the book, but he knew how Sue obtained a CD that was also on the desk. So, he decides to tell John about the CD. In describing this situation, you utter (44).

(44) Bill_j-wa [_{CP} *kono CD-wa*_i Mary-ga kare_j-no mise-de Sue-ni *t_i* ageta to] itta. (J)
 Bill-WA this CD-WA Mary-NOM he-GEN shop-at Sue-to gave that said
 ‘Bill_j said that as for this CD, Mary gave it to Sue in his_j shop.’

Independently, we saw in Section 4 that a contrastive focus can undergo long-distance scrambling in cases of correction (Saito 1989, Miyagawa 2006). The precise prediction here is that it should be impossible to combine these two operations, as this will result in the ill-formed structure in (33)c. The prediction is borne out. The example in (46), uttered as correction of the statement in (45), is infelicitous. The contrastive topic *kono-CD-wa* ‘this CD-WA’ is moved to initial position in the embedded clause, while the contrastive focus *Sue-ni* has undergone scrambling across it to initial position of the embedding clause.⁶

(45) Bill_j-wa [_{CP} Mary-ga Jenny-ni kono hon-o kare_j-no mise-de ageta to] itta. (J)
 Bill-WA Mary-NOM Jenny-to this book-ACC he-GEN shop-at gave that said
 ‘Bill_j said that Mary gave this book to Jenny in his_j shop.’

(46) Tigau yo. Bill-wa ano hon-nituite-wa sir-anakat-ta-kedo,
incorrect PRT Bill-WA that book-about-WA know-not-PAST-but
 ‘That’s not true. Bill didn’t know anything about the book, but...’
 #*SUE-NI_i* Bill_k-wa [_{CP} *kono CD-wa*_j Mary-ga kare_k-no mise-de *t_i* *t_j* ageta to] itta ndayo.
 Sue-to Bill-WA this CD-WA Mary-NOM he-GEN shop-at gave *that* said PRT
 Lit.: ‘it’s to Sue that Bill_k said that as for this CD, Mary gave it to her in his_k shop.’

Crucially, the sentence is acceptable if the focus remains in-situ, which is possible in the same context, in accordance with the prediction in (33)d:

(47) ... Bill_k-wa [_{CP} *kono CD-wa*_j Mary-ga kare_k-no mise-de *SUE-NI* *t_j* ageta to] itta.
 ... Bill-WA this CD-WA Mary-NOM he-GEN shop-at Sue-to gave that said
 ‘... Bill_k said that as for this CD, Mary gave it to Sue in his_k shop.’

This prediction also allows us to demonstrate that a contrastive *wa*-marked phrase that is not in clause-initial position is not a contrastive topic, contrary to the standard view. An example of contrastive *wa*-marked phrase in a clause-medial position is given in (48). The embedded indirect object is a contrastive *wa*-marked phrase, *3-nin-ni-wa* ‘3 people-to-WA’. It is highly unlikely that this *wa*-phrase is a contrastive topic. Beside the fact that it is not in clause-initial position, contrary to the behaviour we observed in the previous section, it is a non-specific, quantified item and even has a scalar interpretation, ‘at least three people’,

⁶ Slight unnaturalness arises here due to repeated mention of *Bill-wa* in (45), but this does not affect the argument here, as the same informants found (47) acceptable.

which is indicated by the possibility of having the adverbial ‘at least’. Such items are generally not possible topics (Reinhart 1981; see also Hara 2006, Endo 2007). It does not make sense to talk of the sentence or the embedded clause as being ‘about at least three people’: it does not mean ‘as for at least three people, (Bill said that) Mary introduced Sue to them in his shop.’ The prediction is that such a contrastive *wa*-marked phrase should not be subject to the syntactic distribution predicted in (33)c, because it is not a contrastive topic. This is correct. In correcting (48), the contrastive focus *Sue-o* can under go long-distance scrambling from within the embedded clause to sentence-initial position, as illustrated in (49).

- (48) Bill_j-wa [_{CP} Mary-ga (sukunakutomo) 3-NIN-NI-WA Jane-o (J)
 Bill-WA Mary-NOM at.lesat 3-CL.-to-WA Jane-ACC
 kare_j-no mise-de syookai-sita to] itta.
 he-GEN shop-at introduced that said
 Bill said that Mary introduced Jane to at least three people in his shop.’
- (49) [?]Tigau yo, SUE-O_i Bill_j-wa [_{CP} Mary-ga (sukunakutomo) 3-NIN-NI-WA t_i
 Incorrect PRT, Sue-ACC Bill-WA Mary-NOM at.least 3-CL.-to-WA
 kare_j-no mise-de syookai-sita to] itta ndayo.
 he-GEN shop-at introduced that said PRT
 ‘No, it is Sue that Bill said that Mary introduced to at least three people in his shop.’

The contrast between (49) and (46) is unexpected if all contrastive *wa*-marked phrases were contrastive topics. Moreover, as in the comparable cases in Korean, the acceptability of (49) shows that the unacceptability of (46) cannot be due to Relativized Minimality (Rizzi 1990) or an intervention effect (Beck & Kim 1997), caused by the contrastive focus crossing a contrastive *wa*-marked phrase. In the acceptable (49) too, the contrastive focus moves across a contrastive *wa*-marked phrase.

Thus, in Japanese too, it is not possible for a contrastive focus to scramble to a position above a contrastive topic. At the same time, such a prediction allows us to demonstrate independently, whether a particular contrastive *wa*-phrase is a contrastive topic or not.

The data in this section lends strong support for the idea that overt displacement of topics and contrastive items in these languages have direct consequences for the mapping between syntax and information structure. In particular, syntax cannot create a structure in which a contrastive topic must be interpreted within a proposition. Moreover, the predictions allow us to provide more accurate characterisation of the discourse function and the corresponding syntactic behaviour of contrastive *wa*- and *nun*-marked phrases.

7 Conclusion

In this paper, I have argued that the syntactic distribution of topic and focus, both contrastive and non-contrastive types, in Japanese and Korean can be explained in a systematic manner, if we assume the typology given in (1). Specifically, I have argued that Japanese and Korean have the mapping rule relevant for [topic] and one relevant for [contrast]. However, they differ in which rule is adopted for contrastive topics. Japanese contrastive topics are subject to the rule relevant for [topic], while the Korean contrastive topics are subject to the rule for [contrast]. I also demonstrated that the two rules interact to provide correct predictions concerning the word order between a contrastive topic and a contrastive focus in both languages, and thereby providing a more accurate characterisation of the syntactic distribution of these discourse-related items.

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