Topicalization

Shigeru Miyagawa

MIT/University of Tokyo

Abstract: Chomsky (1977) argued for a dedicated topic position above the CP. I will develop this idea in several directions. First, I will show that this topic position hosts Aboutness topics uniformly across three languages: English, Japanese, and Spanish. Second, while this topic position occurs freely in matrix clauses, in complement clauses it can only occur with certain predicates identified by Hooper and Thompson (1973). Using Villalta's (2008) analysis of the subjunctive mood in Spanish, I will argue that the limitations on the occurrence of the topic position in complement clauses are due to the semantic properties of these clauses and the predicates that select them. Finally, we will see that the other two kinds of topics, Contrastive and Familiar topics, vary in their distribution across languages. I will show that this variation is predicted by the typology under Strong Uniformity (Miyagawa 2010, 2017).*

Key words: topic, root, main clause, strong uniformity

1. Introduction

Many languages have a way to mark the topic in a sentence.

- (1) This book, I really like.
- (2) a. As for this book, I really like it.
 - b. This book, I really like it.

Example (1) is typically called the topic construction while (2) is referred to as left dislocation. In both cases some sort of topic phrase is placed at the head of the sentence. We will refer to both as topicalization. There are a number of issues to contend with in analyzing these constructions, including:

- (3) (i) What is the "meaning" of topicalization?
 - (ii) How does the topic phrase end up where it does, at the head of the clause?
 - (iii) Can topicalization occur freely, in any environment?

As it turns out, the answers to (3ii) and (3iii) vary from language to language, and within a language, the answers may differ depending on which topic "meaning" (3i) one is considering—for there are more than one. One point that is clear

^{*} I am grateful to Peter Culicover, David Hill, and Despina Oikonomou for comments on various aspects of this article. I was unable to address many questions that came up, which I hope to do in future work. I also thank the two anonymous reviewers for helpful comments.

at the outset is that to deal with sentences like (1) and (2), one needs to incorporate into the grammar a topic position that occurs somewhere above the TP. In Chomsky (1977), it is noted that no rule could create a structure such as *as for this book* within the core sentence (CP), hence the topic position must be outside of this core portion of the structure. He proposes it to be S", which we will translate into the more modern designation TopP, which occurs above CP.

(4)
$$TopP \rightarrow Top CP$$

Furthermore, as observed by Sag (1976), the topic construction can occur in an embedded structure.

(5) I informed everyone that [this book, they should read by tomorrow].

To accommodate this fact, Chomsky further proposes the following (again we update the labels to more modern versions).

(6)
$$CP \rightarrow \left\{ \begin{array}{c} C TP \\ C TopP \end{array} \right\}$$

Along with accounting for embedded topics, this rule, in combination with (4), allows for topic recursion (Chomsky 1977), of which (7) is an example.

(7) As for John, as far as this book is concerned, he will definitely have to read it.

In principle there is no upper limit on the number of topics allowed, although in practice sentential meaning and other factors intervene to restrict the number. Typically there is just one topic, but two are not impossible, as (7) shows.

In this article I will look closely at the distribution of topics across languages. As we will see, regardless of the language, one type of topic, called the *Aboutness* topic by Frascarelli and Hinterhölzl (2007), occurs at the TopP level. In contrast, the other two topics identified by Frascarelli and Hinterhölzl, *Contrastive* and *Familiar* topics, may vary in position, either at the TopP level or the TP level, depending on the language. In a language such as English, where all topics, including Contrastive and Familiar topics apparently occur in the same structural position, TopP, there is a severe restriction on the occurrence of topics in subordinate clauses (Emonds 1969, Hooper and Thompson 1973). But in languages that allow Contrastive and Familiar topics to occur at the TP level, those topics occur freely in the complement clause of all kinds of verbs (Jiménez-Fernández and Miyagawa 2014, Miyagawa 2012, 2017). This variation between TopP and TP topics is a function of Strong Uniformity, which is a system of language typology that designates where φ-features and δ-features (discourse-configurational features) of topic and focus may occur (Miyagawa 2010, 2017).

While I adopt Chomsky's (1977) analysis of topicalization, there are alternatives. Higgins (1973) and Bowers (1976), for example, argue that the topic is in Spec, CP, not in a higher projection TopP. Our proposal is not incompatible with this approach, since the idea (as detailed in sections 2 and 3) is that, while the

topic itself is in TopP, in many cases there is an operator in Spec,CP that links the topic above it to a lower position inside TP. Rochemont (1989) argues that the topic is in Spec,TP, an idea that I will pursue not for English but for languages such as Japanese and Spanish. More recent analyses postulate a topic projection, such as Rizzi's (1997) and Haegeman's (2012) cartographic analyses. The analysis in this article is compatible in spirit with these works, though not necessarily in detail. I will not assume that all topics occur in a projection dedicated to topics, as the cartographic approach assumes. Instead, I will adopt an approach in which discourse-configurational features such as topic and focus appear on C in certain languages and on T in other languages, and the position of the topic feature dictates where the topic may appear. My analysis does not exclude a special projection for topics, since I will argue that TopP is dedicated to Aboutness topics across all languages and, in some languages, to the other topics as well. However, we will see that in other languages, Contrastive and Familiar topics may appear in a projection other than TopP.

2. Topics Associated and Not Associated with Movement

The English topic construction is associated with movement (Chomsky 1977), as shown by the fact that it is sensitive to islands.

- (8) a. This book, I really like.
 - b. This book, I believe Mary will assign to all her students to read.
 - c. *This book, I hope that Mary will see the need to assign to all her students to read.
 - d. *This book, I wonder who will read.

 In contrast, another form of topicalization, left dislocation, ignores islands.
- a. This book, I hope that Mary will see the need to assign it to all her students to read.
 - b. This book, I wonder who will read it.
 - c. As for this book, I wonder who will read it.

It is reasonable to assume from the occurrence of the "resumptive" *it* and the insensitivity to islands that there is no movement involved in left dislocation. Presumably, the topic phrase is externally merged at Spec, TopP, and the "resumptive" *it* is interpreted as coreferential with it (or with the DP inside it, in the case of *as for* ______). This is not a trivial matter: *it* being a pronoun, it should be free to refer to some entity outside of the sentence instead of the sentence-internal topic, but that would lead to a topic that isn't obviously connected to the content of the sentence, making it extremely difficult if not impossible to know how to interpret it as a topic.

On the other hand, the topic construction shows properties of movement, such as having a gap and being island sensitive, as we saw. Nevertheless, Chomsky argues that the topic expression itself (*this book*) is externally merged, just as with left dislocation. The movement that occurs, according to Chomsky, is a form of wh-movement; the wh-phrase that moves to Spec,CP is subsequently deleted.

(10)
$$\left[_{\text{TopP}} \text{ this book } \left[_{\text{CP}} w h_{_{i}} \left[_{\text{TP}} \text{ I really like } t_{_{i}} \right] \right] \right]$$

The deletion of the *wh*-phrase leads to an open sentence, and a rule of predication applies to the interpretation of the topic construction.

Chomsky (1977) develops a theory in which movement, as an operation, is independent of any particular construction. As had been shown earlier by Ross (1967), movement is sensitive to islands regardless of the construction in which it occurs, and has other global properties, such as leaving a gap and being sensitive to bridge/non-bridge constructions. Chomsky argues specifically that the movement that occurs in a wide range of constructions—including wh-questions, relative clauses, clefts, comparatives, and the topic construction—is the same operation, wh-movement. Of these, the topic construction is exceptional in that a wh-phrase never actually emerges in it. While there is no doubt that some movement takes place, there is a question as to whether it is in fact wh-movement. If it is wh-movement, there is presumably a +wh feature at C to attract the wh-phrase to its specifier. This is the solution opted for by Chomsky, as in (10).

In a more modern model of wh-movement, such as Cable's (2010), it isn't the +wh feature that attracts the wh-phrase but what Cable calls the Q feature; the wh-phrase has a matching Q feature attached to it and is pied-piped along with that feature. The Q feature occurs with wh-phrases and, in some languages such as Japanese and Tlingit, also with indefinites; these are expressions that we would expect not to topicalize under normal circumstances.

Chomsky's (1977) goal was to show that movement was an operation independent of any construction. He happened to call the movement in question wh-movement simply because many of the constructions exhibit a wh-phrase. Today, we would unify these movements as A'-movement instead of specifically as wh-movement. A'-movement is associated with some feature on C that attracts an XP. For true wh-movement, the feature is Q. For the topic construction, I will adopt the idea from a number of works (e.g. Rizzi 1997) that the relevant feature on C is the topic feature, a kind of δ -feature (discourse-configurational feature), that attracts an empty topic operator to the specifier of CP.

(11)
$$\begin{bmatrix} C_{\text{TopP}} & \text{this book } C_{\text{CP}} & OP_{i} & C_{\delta} & C_{\text{TP}} \end{bmatrix}$$
 I really like t_{i}

3. Topic Islands

We saw above that the topic construction is subject to island effects. Another observation made in the literature is that topicalization itself may create an island. Under normal circumstances, topicalization blocks *wb*-movement.

(12) a. *To whom did this book Mary give?

¹ See Koster (1978) for an alternative view that does not necessitate postulating movement for these constructions.

- b. *When did this book everyone read?
- c. *Where did this book Henry buy?

In these examples, topicalization disallows *wh*-movement across it.² Interestingly, the one exception appears to be *why*.

(13) ?Why did **this book** everyone buy at a store (instead of online)?

Presumably, *why* is not subject to the topic-island effect because it has the option of being directly merged into the Spec,CP where it takes scope (Bromberger 1987, 1992, Rizzi 1990, Ko 2005, Miyagawa 2017, etc.), thus it doesn't need to move from within the TP across the topic.

The same topic island can be observed in embedded environments, as in the following examples (cited in Haegeman 2012).

(14) a. *Who did you say that to Sue Bill introduced?

(Boeckx and Jeong 2004: 84)

- b. *Which company did Bill warn you (that) **flights to Chicago** had canceled? (Emonds 2004: 77)
- c. *Which books did Becky say that to Aaron she will give?

(Koizumi 1995: 140)

d. *On which table did Lee say that **these books** she will put?

(Koizumi 1995: 140)

e. *How do you think that this problem John solved?

(Lasnik and Saito 1992: 96)

All of these examples involve topicalization in the complement clause together with *wh*-extraction. It is important to note that, *wh*-movement aside, the complement clauses in these examples do allow topicalization (something we will see later is not always the case in English). I give examples below of topicalization with

(i) A university is the kind of place in which, that kind of behavior, we cannot tolerate.

This is a relative clause, a fact that may—or may not—contribute to overcoming the topic island. I will leave this issue open.

There are further exceptions noted in the literature. The following are cited in Haegeman (2012) as cases of a topic being extracted across a wh-phrase.

(ii) ?This book, to whom should we give?

(Pesetsky 1989: 13, (39b), attributed to A.Watanabe)

(iii) ?These prices, what can anyone do about?

(Langendoen 1979: 429, Pesetsky 1989: 13, (39b), via A. Watanabe)

As shown by the question mark, speakers do not find these entirely natural. Perhaps we are dealing with a left-dislocation construction where the resumptive *it* is unpronounced. I will not attempt a more detailed analysis of these exceptions in this article.

There are counterexamples in the literature to the claim that topicalization blocks *wh*-movement; the following is from Radford (2009: 327; quoted in Haegeman 2012).

each of the predicates above (say, warn, think).

- (15) a. Mary said that **this book** everyone must read by the next class.
 - b. John warned everyone that **this book** they must all read by the next class.
 - c. Joe thinks that **this book** everyone should read for their own good.

How can we account for this topic-island phenomenon? The simplest solution is to consider it an instance of the violation of Relativized Minimality (Rizzi 1990), according to which an A'-movement (topic movement) blocks another A'-movement (wh-movement) from occurring across it.

(16)
$$\left[_{CP} wb\text{-phrase}_{_{i}} \dots \right[_{TopP} TOPIC \left[_{CP} OP_{_{i}} C \left[_{TP} I \text{ really like } t_{_{i}} \quad t_{_{j}} \right] \right] \right]$$

To make this violation more precise, I will assume that Focus is involved in wh-questions (Rizzi 1997, Miyagawa 2010, etc.). In Strong Uniformity, Focus and Topic are both δ -features, thus they enter into competition and induce a Relativized Minimality violation.³

Another environment where topicalization cannot occur is in what Haegeman (2012, etc.) calls "central adverbial clauses," which are temporal clauses that relate to the time of the event of the main clause. The following are taken from Haegeman (2012).

- (17) Central adverbial clauses (Haegeman 2012, etc.)
 - a. When she began to write her regular column again, I thought she would be OK.
 - a'.*When her regular column she began to write again, I thought she would be OK.
 - a".*I thought she would be OK when **her regular column** she began to write again.
 - b. While I was revising this paper last week, I thought of another analysis.
 - b'.*While this paper I was revising last week, I thought of another analysis.
 - b".*I thought of another analysis while **this paper** I was revising last week.
 - c. I won't take time off until I have finished this handout.
 - c'.*I won't take time off until this handout I have finished.
 - c".*Until this handout I have finished, I won't take time off.

As shown, the central adverbial clause, regardless of where it occurs, does not permit topicalization.

I will adopt an essential component from Haegeman (2006, 2010), whose analysis is based on competition. She observes that in these adverbial clauses, operator movement (of *when*) has taken place. Though there is no obvious gap, we can see evidence that *when* has undergone movement in examples like the following, in which it has ambiguous scope.

³ See section 6 for a full explanation of Strong Uniformity.

(18) John left when Sheila said he should leave.

When here may be pointing to the time when Sheila said the quoted material (the "high" reading), or to the time when John should leave (the "low" reading). Larson (1987, 1990) proposes the following wh-movement representations for high and low construal (see also Geis 1970 and Johnson 1988, among others, for relevant discussion).

(19) a. John left
$$[_{CP}$$
 when, $[_{IP}$ Sheila said $[_{CP}$ $[_{IP}$ he should leave]] t_i]]
b. John left $[_{CP}$ when, $[_{IP}$ Sheila said $[_{CP}$ $[_{IP}$ he should leave t_i]]]]

(Larson 1987)

According to Haegeman (2006, 2010), the occurrence of the *wh*-operator *when* blocks a topic from occurring in the same position. I will make a slight adjustment to her analysis and collapse this effect with the topic-island effect we saw earlier. I assume the operator movement of *when* is *wh*-movement. As we saw earlier, *wh*-movement cannot take place from within a topicalized structure due to Topic and Focus being in competition, which induces a Relativized Minimality violation.

(20)
$$\left[_{CP} wb\text{-phrase}_{j} \dots \right[_{TopP} TOPIC \left[_{CP} OP_{i} C \left[_{TP} I \text{ really like } t_{i} t_{j} \right] \right] \right]$$

Unlike central adverbial clauses, what Haegeman (2012) calls peripheral adverbial clauses do allow topicalization. These are adjunct clauses that add a comment on the event of the main clause without directly linking to its meaning (such as temporal occurrence). Haegeman cites the following examples.

- (21) Peripheral adverbial clauses (Haegeman 2012, etc.)
 - a. I think we have more or less solved the problem for donkeys here, because **those we haven't got,** we know about. (*Guardian*, G2, February 18, 2003)
 - b. We don't look to his paintings for common place truths, though **truths** they contain none the less. (*Guardian*, G2, February 18, 2003: 8, col. 1)
 - c. His face not many admired, while **his character** still fewer felt they could praise. (Quirk et al. 1985: 1378)
 - d. While **other brilliant things** hardly anyone buys—I'd put my friend's first novel and sherry in this category. (*Observer*, December 6, 2009)
 - e. Sophie would put Len between two women who would have to bear his halitosis, while **Gillian** she buried mid-table among the also-rans.

(Sebastian Faulks 2010: 40)

f. If **some precautions** they did indeed take, many other possible measures they neglected.

Haegeman (2012) argues that peripheral adverbial clauses occur higher in the structure (CP) of the matrix clauses than central adverbial clauses (TP). From our perspective, a salient point is that peripheral adverbial clauses do not appear to involve any kind of operator movement. Thus, in the following, *while* and *if* only have high construal (with *Mary said*, not the complement clause).

- (22) John was watching TV while Mary said that he should be studying.
- (23) If Mary said that she will attend the meeting, I will also attend.

We thus would not expect any Relativized Minimality violation in the peripheral adverbial construction.

4. Truncation

Hooper and Thompson (1973: 485) pointed out that infinitival clauses do not allow topicalization.

- (24) a. My friends tend to support the more liberal candidates.
 - b. *My friends tend the more liberal candidates to support.

Hooper and Thompson, followed by Haegeman (2006, 2010), suggest that the failure of the infinitival clause to host a topic is due to the fact that an infinitival clause is a reduced clause. In cartographic terms (Rizzi 1997, 2001), such reduction would amount to the truncation of some higher levels of structure.

(25) Force
$$P > Int P > Top P > ... > Fin(ite) P$$

By way of contrast, a *wh*-phrase may occur at the left edge of an infinitival clause (see Shlonsky and Soare 2011) and references therein; the following example is based on examples in their paper).

(26) Mary asked Bill a. who/what to serve.

b. when/how/where to serve oysters.4

Shlonsky and Soare (2011), who adopt the cartographic approach, suggest that truncation leaves the "WhP" projection as the top projection of an infinitival clause, allowing a *wh*-phrase to occur.

(27)
$$ForceP > IntP > TopP > FocP > WhP > Fin(ite)P$$

WhP is a position that, along with FocP, can host a wh-phrase other than why (see footnote 2).

5. Topicalization and the Root: Truncation or Topic Island?

In the remainder of the article, I will look closely at topicalization in subordinate environments across three types of languages and three types of topics.

While Chomsky (1977) does not indicate any restrictions on the occurrence of the topic phrase, Emonds (1969) observes that topicalization is a root transformation and should therefore be limited to root environments.

See their article and Miyagawa (2017) for a discussion of this difference.

⁴ Shlonsky and Soare (2011) provide these examples in service of their main point: that unlike other wh-phrases, why is not allowed in the infinitival clause.

⁽i) ??Mary asked Bill why to serve oysters.

(28) Root

A root will mean either the highest S in a tree, an S immediately dominated by the highest S or the reported S in indirect discourse. (Emonds 1969: 6)

- (29) a. This book, everyone will most probably read without being told.
 - b. Because this book, everyone will most probably read without being told, you need not assign it.
 - c. John said, this book, everyone will most probably read without being told.
 - d. *I deny that this book, everyone will most probably read without being told.

Sentences (29a-c) exemplify the three root environments, while (29d) does not conform to any of them, hence topicalization leads to ungrammaticality.

In the two preceding sections, we looked at two cases of incompatibility with topicalization: operator movement and truncation. First we saw that topicalization creates an island that blocks (additional) operator movement. In Miyagawa (2017), based in part on the work of Haegeman (2006, 2010, 2012), I argue that the ungrammaticality of examples such as (29d) is essentially another case of topicisland violation. As Haegeman argues, the complement clause of verbs such as *deny* contains operator movement. For her, this operator competes with the topic at Spec, CP, blocking the latter from occurring; in our analysis, topicalization creates an island that blocks the operator from raising to Spec, CP, an analysis that is empirically equivalent to that of Haegeman's.

However, I will argue below that the ungrammaticality of (29d) is due instead to truncation—specifically the absence of the TopP layer above CP. I will use the same set of data as in Jiménez-Fernández and Miyagawa (2014) and Miyagawa (2017), though in those earlier works I gave a topic-island analysis for examples like (29d).

The difference between the earlier works and the present work is that in the earlier works I focused on the differences among languages with respect to topicalization in complement clauses. The types of topics that *can* vary from language to language are Contrastive and Familiar topics, so naturally I focused on them. However, if we focus instead on Aboutness topics, which are cross-linguistically uniform in behavior, we are led to the conclusion that the ungrammaticality of (29d) is due to truncation that deprives the structure of the TopP projection. In the case of the infinitival clause, the truncation analysis is motivated by the lack of evidence for any higher levels of structure than TP (not even CP). For complement clauses like the one in (29d), I will adopt an analysis in Villalta (2008) to motivate the absence of TopP.

5.1. Hooper and Thompson (1973)

Emonds (2004), in response to criticism by Hooper and Thompson (1973), which I will go over below, expands the notion of "the reported S in indirect discourse" to include what he calls "root-like indirect discourse embeddings" (or "RIDEs"),

which he defines as finite complement clauses of a governing V or A. The following are examples of RIDEs from his work.

- (30) a. Bill warned us that $[_{RIDE}$ flights to Chicago we should try to avoid].
 - b. John said that [RIDE his mother the children often helped].

The following are examples of non-RIDEs.

- (31) a. *Bill warned us [flights to Chicago to try to avoid].
 - b. *Mary used another company since/until [flights to Chicago they could avoid].
 - c. *A warning that [**flights to Chicago** travellers should avoid] will soon be posted.

Sentence (31a) is an example of non-finite reported speech; in (31b) the embedded clause is an adjunct, so there is no governing head; and the embedded clause in (31c) is a complement of N, not V or A.

There is some overlap between the idea of RIDEs and the cases of ungrammatical topicalization that we gave earlier. For (31a), we saw in section 4 that infinitival clauses have a truncated structure and lack the topic projection. Sentence (31b) is reminiscent of Haegeman's (2012, etc.) central adverbial clauses (section 3). As for the NP complement clause in (31c), although we have not discussed it, it has been independently shown that complex NPs do not allow topicalization in their relative clause or complement clause (Kuno 1973, etc.).

By Emonds's (1969, 2004) account of root transformations, it would seem that TopP is limited to the root environments, with the addition of RIDEs. Is this true? Hooper and Thompson (1973) demonstrate that root transformations such as topicalization occur in a wider array of constructions than Emonds originally noted, and RIDEs do not cover all of the additional cases.

Hooper and Thompson begin with the observation that all of the root transformations that Emonds listed involve emphasis of some sort; these root transformations include topicalization, left dislocation, VP preposing, preposed negative constituents, and V inversion for quotes and for directional PPs. In moving a phrase to the left edge, topicalization places some sort of an emphasis on the information expressed by it. The same can be said of the other root operations.

Based on this observation, Hooper and Thompson argue that the environments in which these operations can occur are those that are *compatible* with emphasis—namely, environments with the meaning of *assertion*. Asserted environments are those in which some expression is highlighted in order to draw attention to it. In contrast, in non-asserted environments, most typically clauses whose information is presupposed, placing emphasis on a phrase would be inappropriate, hence root transformations are incompatible with such environments. To give an example, the predicate *find out* allows its complement to have the meaning of assertion, thus root transformations such as negative-constituent preposing are allowed.

(32) I found out that **never before** had he had to borrow money.

(Hooper and Thompson 1973: 119)

This complement clause does not fit into any of Emonds's root environments or RIDEs.

To flesh out the asserted and non-asserted environments, Hooper and Thompson propose a classification of predicates whose complement is or is not compatible with assertion.

(33) Hooper and Thompson (1973: 473-474)

Non-factive			Factive	
A	В	C	D	E
say	suppose	be (un)likely	resent	realize
report	believe	be (im)possible	regret	learn
exclaim	think	deny	be surprised	know
etc.	etc.	etc.	etc.	etc.

According to Hooper and Thompson, the complement of a class A verb may comprise the main assertion of the sentence. For class B, the main verb does not always carry the meaning of assertion, which opens the way for the complement to express the main assertion. Class C verbs have the meaning of assertion, and their complement is neither asserted nor presupposed. Class D verbs likewise express assertion, and their complement is presupposed. Finally, class E verbs are called "semi-factive" and their complement is not always presupposed. How do root transformations, including topicalization, pattern with respect to this classification? They are possible in the complement clause of the predicates whose complement can express assertion, namely, classes A, B, and E.

- (34) I exclaimed that this book, I will never read. (A)
- (35) I think that this book, he read thoroughly. (B)
- (36) I found out that this book, no one is willing to read for the assignment. (E)

In contrast, classes C and D do not allow root transformations in their complement clause.

- (37) *It's likely that this book, everyone will read for the assignment. (C)
- (38) *He was surprised that this book, I had not read. (D)

Interestingly, the same pattern of predicate sensitivity for embedded topicalization shows up in Japanese (Miyagawa 2012, Jiménez-Fernández and Miyagawa 2014, Miyagawa 2017). As has been known since Kuno (1973, 1976), the occurrence of the topic phrase marked with -wa is highly restricted. For example, it cannot occur in a relative clause. (It is important that the -wa phrase is unstressed; stressing it turns the topic into a Contrastive topic, which we will look at later.)

(39) *[Taroo-wa katta hon]-o misete kudasai.

Taro-Top bought book-Acc show.me please
'Please show me the book that Taro bought.'

Miyagawa (2012) and Jiménez-Fernández and Miyagawa (2014) show that the distribution of the topic -wa in complement clauses matches Hooper and Thompson's predicate classification. Before we give the examples, one important thing to note is that in Japanese, the complementizer itself helps distinguish classes A–E (Miyagawa 2012). The complementizer to is for non-factive clauses, while the complementizer koto (or no) is for factive ones (Kuno 1973, McCawley 1978).

(40) Class A: to, koto Class B: to, koto Class C: koto Class D: koto Class E: to, koto

As we can see, the predicates in classes A, B, and E—those that Hooper and Thompson argue have complements that can have the meaning of assertion—allow the non-factive complementizer to. These predicates also allow koto, so the complement of these predicates may be factive as well as non-factive, but the non-factive to is the more common complementizer with these predicates. In contrast, the predicates in class C and D, which do not allow their complement to have the meaning of assertion, only allow the factive complementizer koto.

Following are examples of embedded topicalization for each predicate class.

Class A:

(41) Hanako wa [sono hon wa kodomo ga yonda to] itta. Hanako TOP that book TOP child NOM read C said 'Hanako said that as for that book, her child read it.'

Class B:

(42) Hanako wa [sono hon wa kodomo ga yonda to] Hanako TOP that book TOP child NOM read C sinziteiru.

believe

'Hanako believes that as for that book, her child read it.'

Class E:

(43) Hanako wa [Taroo wa kanozyo ga suki da to] kizuita. Hanako TOP Taro TOP she NOM like COP C realized 'Hanako realized that as for Taro, he likes her.'

Class C:

(44) *Hanako wa [sono hon wa kodomo ga yonda koto] o Hanako TOP that book TOP child NOM read C ACC hiteisita.

denied

'Hanako denied that as for that book, her child read it.'

Class D:

(45) *Hanako wa [sono hon wa zibun ga yonda koto] o Hanako TOP that book TOP self NOM read C ACC kookaisita.
regretted

'Hanako regretted that as for that book, she herself read it.'

As we can see, the complements of classes A, B, and E allow the topic -wa phrase, while the complements of classes C and D do not. This parallels what we saw for English topicalization.

We find the same pattern in Spanish (where topicalization is marked by word order). Here is an example with the class D predicate 'regret' (Jiménez-Fernández and Miyagawa 2014).

(46) ??Siento que tu libro no lo hayas terminado regret.1SG that your book not Cl have.SUBJ.3SG finished todavía.

'I regret that you haven't finished your book yet.'

Let us interpret the observations from English, Japanese, and Spanish as follows: languages allow the topic projection for the complements of classes A, B, and E, but not for C and D. This is a truncation analysis.

(47) Topic projection

The topic projection TopP is allowed for the complement of classes A, B, and E, but not for the complement of classes C and D.

The truncation analysis may at first appear to contrast with the analysis given in Jiménez-Fernández and Miyagawa (2014) and Miyagawa (2017), which are based on Haegeman's (2006, 2010, 2012) competition analysis. In that approach, C and D complements are associated with more movement, not less structure. Haegeman (e.g. 2006), following Hooper and Thompson, observes that the class C and D predicates take complements whose meaning is presupposed, as opposed to being asserted. Presupposed environments are factive in nature, and factives have been argued to involve operator movement, from some position such as a focus position to Spec,CP (Melvold 1991, Hiraiwa 2010, Watanabe 1993, 1996), among many others; see Munsat (1986) for relevant discussion). In Haegeman's analysis, this operator occupies the position that would otherwise be occupied by the topic, thus blocking topicalization by competition.

(48)
$$\left[_{\text{CP}} \text{ OP}_{_{\text{i}}} \text{ C}_{_{\text{event}+\delta}} \dots \right]_{\text{FP}} t_{_{\text{i}}} \left[_{\text{TP}} \dots \text{DP} \dots \right]$$
 Topicalization

Although I will not adopt a competition analysis, I will incorporate the idea that there is an operator in C and D complements that is focus-related. This focus

operator will play a role in forcing truncation.

The main reason to believe that the impossibility of topicalization in the complement of C and D predicates has to do with truncation and not with competition is that it holds regardless of whether or not the topicalization involves movement. Recall that of the two forms of topicalization in English, the topic construction involves movement while left dislocation does not. Both are impossible in C and D complements. We already saw this for the topic construction in (37) and (38). The following are examples with left dislocation.

- (49) *It's likely that this book, everyone will read it for the assignment. (C)
- (50) *He was surprised that this book, I had not read it. (D)

Furthermore, the Japanese topicalization construction with -wa appears to be left dislocation as well, in that it is not sensitive to islands (see e.g. Kuno 1973).

- (51) Taroo_i wa [kyonen $e_i e_j$ kaita ronbun_j] o yatto tookoosita. Taro TOP last.year wrote article ACC finally submitted 'Taro finally submitted the article that (he) wrote last year.'
- (52) Taroo_i wa [Hanako ga *e*_i hometa kara] yorokondeiru. Taro TOP Hanako NOM praised because is.happy 'Taro is happy because Hanako praised (him).'
- (53) Taroo, wa [dare ga e, hometa ka] siritagatteiru. Taro TOP who NOM praised Q want.to.know 'Taro wants to know who praised (him).'

Thus, topic -wa, despite being left dislocation and lacking movement, shows the same predicate-sensitivity pattern ((41)–(45)) as the English topic construction ((34)–(38)), which does involve movement.

5.2. Focus Operator and Truncation

What causes truncation in the complement of C and D predicates? What prevents it from projecting the TopP structure? An important hint comes from Spanish, which makes a distinction between indicative and subjunctive complements.

In Spanish, A, B, and E complements, which are those that allow topicalization in English, are always in the indicative mood, while C and D complements are always in the subjunctive mood (Jiménez-Fernández and Miyagawa 2014).

- (54) Class A: 'say', 'report', 'exclaim' (only indicative)
 Él nos informó que rechazaron/*rechazaran el artículo.
 he us informed that rejected.IND.3PLl/rejected.SUBJ.3PL the paper
 'He told us that they rejected the paper.'
- (55) Class B: 'suppose', 'believe', 'think' (only indicative)
 Él creyó que rechazaron/*rechazaran el artículo.
 he believed that rejected.IND.3PL/rejected-SUBJ.3PL the paper
 'He thought that they rejected the paper.'

- (56) Class E: 'realize', 'learn', 'know' (only indicative)
 - Hemos sabido que los vuelos a Chicago han/*hayan have.1PL learned that the flights to Chicago have.IND.3PL/have-sido cancelados.

SUBJ.3PL been cancelled

'We have learned that the flights to Chicago have been cancelled.'

- (57) Class C: 'be (un)likely', 'be (im)possible', 'deny' (only subjunctive)

 Es probable que *rechazaron/rechazaran el artículo
 is likely that rejected.IND.3PL/rejected.SUBJ.3PL the paper
 'It is likely that they rejected the paper.'
- (58) Class D: 'resent', 'regret', 'be surprised' (only subjunctive)
 Él siente que *rechazaron/rechazaran el artículo.
 he regrets that rejected.IND.3PL/rejected.SUBJ.3PL the paper
 'He regrets that they rejected the paper.'

Note that this is a dichotomous distribution: only indicative is acceptable with classes A, B, and E, only subjunctive with classes C and D. Below, we will associate the indicative with the presence of TopP and the subjunctive with its absence.

We saw earlier that the complementizer in Japanese varies between these two groups of predicate classes.

(59) Class A: to, koto Class B: to, koto Class E: to, koto Class C: koto Class D: koto

The complementizer to occurs with non-factive complements, which can have the meaning of assertion, while *koto* occurs with factive complements, which are presupposed, thus non-asserted. To can occur with A, B, and E—those predicates that have complements that allow topic -wa—while in C and D complements, only *koto* is allowed.

On the one hand, unlike with the Spanish moods, this is not a dichotomous distribution: A, B, and E complements allow both complementizers, *to* and *koto*. On the other hand, with *koto*, topic *-wa* is in fact not possible, even with A, B, and E predicates, indicating that TopP is absent. I give an example with a B predicate. Class B:

(60) *Hanako wa [sono hon wa kodomo ga yonda **koto**] o Hanako TOP that book TOP child NOM read C ACC sinziteiru.

believe

'Hanako believes that as for that book, her child read it.'

So it turns out on closer examination that the situation in Japanese is not unlike the situation in Spanish. Whereas in Spanish the one-to-one correspondence is between moods and predicates, in Japanese it is between the complementizer and the availability of topicalization. In our analysis, the form of the complementizer will be determined by the actual structure of the complement clause: *to* with TopP, *koto* with non-TopP.⁵

Let us now turn to Villalta's (2008) analysis of the Spanish mood marking. The indicative mood is selected by the following types of predicates.

(61) Indicative mood in Spanish

epistemic predicates: e.g. saber 'know', pensar 'think', creer 'believe' predicates of communication: e.g. decir 'say', anunciar 'announce' predicates of certainty: e.g. estar seguro 'be sure', estar convencido 'be convinced' commissives: e.g. prometer 'promise' fiction verbs: e.g. adivinar 'guess', comprender 'understand' predicates of perception: e.g. notar 'notice', ver 'see', escuchar 'hear'

The subjunctive mood is selected by the following types of predicates.

(62) Subjunctive mood in Spanish

desire predicates: e.g. *querer* 'want', *preferir* 'prefer', *temer* 'fear' emotive factive predicates: e.g. *lamentarse* 'regret', *alegrarse* 'be glad' *sorprenderse* be surprised'

modals: e.g. es possible 'it is possible', es necesario 'it is necessary' predicates expressing doubt: e.g. dudar 'doubt' directives: e.g. ordenar 'order', aconsejar 'advise', sugerir 'suggest' causatives: e.g. hacer 'make', conseguir 'achieve'

Developing an idea starting with Heim's (1992) semantics for propositional-attitude predicates (see earlier work by Stalnaker 1984), Villalta (2008) argues that the complement in the subjunctive mood involves a proposition with alternative semantic values. This meaning arises from the complement being associated with a focus operator (cf. Rooth 1985). The proposition in the subjunctive mood is compared to its contextual alternatives along a scale introduced by the matrix predicate. Let us briefly look at evidence for each of these points.

There are a number of factors involved here, including the use of the adverb categorically,

There are specific predicates in Spanish that do allow both indicative and subjunctive complements (Villalta 2008). The predicate *sentir* as an emotive factive predicate ('be sorry') selects a complement in the subjunctive mood, while as a predicate of perception ('sense'/'have the impression') it selects for an indicative complement.

⁶ See von Fintel (1999) for a view of want that contrasts with Heim (1992).

⁷ For comments on Villalta's work, see Portner and Rubinstein (2012) and Oikonomou (2016). The semantic approach suggested here based on Villalta may hold promise for accounting for the wide range of judgments regarding topicalization in the subordinate environment. For example, in contrast to the ungrammatical example Emonds (1969) gave using *deny*, the following, pointed out to me by Peter Culicover, is more readily acceptable.

⁽i) I categorically deny that to Mary, the federal government will give a sizable refund.

If the subjunctive complement contains a focus operator, as Villalta argues, we would expect focus sensitivity. A predicate of desire such as 'want' takes the subjunctive in Spanish. Assuming that the same semantic effects hold for a language such as English, which does not distinguish indicative and subjunctive (except marginally), we observe the following. In a context where Victoria wants Sofia to bring a chocolate cake to the party but it is likely that Sofia will bring something else instead, (a) is felicitous while (b) is not.

- (63) a. Victoria wants Sofia to bring A CHOCOLATE CAKE.
 - b. Victoria wants SOFIA to bring a chocolate cake.

This kind of focus sensitivity parallels examples in which one sees an overt focus operator such as *only* (Rooth 1985, 1992). In contrast, with predicates that in Spanish select for the indicative mood, such as the propositional-attitude predicates 'know' and 'believe', focus-induced meaning differences are not so clear (Boër 1979). (I have changed the example slightly without any effect on the argument.)

- (64) a. Tom knows/believes that Bob KISSED Alice.
 - b. Tom knows/believes that Bob kissed ALICE.

Let us assume that the focus operator occurs in Spec, CP of the subjunctive complement, having been attracted there from within the TP by the Focus feature on C.

(65)
$$\dots \left[_{CP} OP_i C_{FOCUS} \left[_{TP} \dots t_i \dots \right]\right]$$

Note that this is similar to the factive operator that Haegeman (e.g. 2006, 2010) assumed for the complements of C and D predicates. The advantage over Haegeman's analysis is that the existence of this operator does not entail factive; instead it entails focus, leading to the semantics of alternatives. As we saw from Hooper and Thompson's (1973) predicate classification, of the two classes that do not allow root transformations in the complement, C selects for a non-factive complement and D for a factive complement. This shows that the key distinction is not factive/non-factive. Finally, this focus operator is part and parcel of the meaning of the complement, hence we would expect it to occur in CP uniformly across all languages.

The second part of Villalta's proposal is that the predicates that select the subjunctive mood are gradable predicates, and the gradable property is what the alternatives generated by the focus operator in the complement is compared with. A reliable test for gradability in the literature is 'enormously' (Doetjes 1997: 122, cited in Villalta 2008). We see that 'enormously' distinguishes, for example, a predicate of desire, which selects the subjunctive mood, from the epistemic predicate 'know', which selects the indicative mood.

which may be helping to overcome the need for a predicate with a gradable meaning and a complement that matches it with focus-generated alternatives. I will leave this for future work.

- (66) a. Marcela desea enormemente que Rafael venga. Marcela desires enormously that Rafael come.SUBJ.3SG 'Marcela enormously wants Rafael to come.'
 - b. *Sofia sabe enormemente que no puede venir. Sofia knows enormously that not can.IND.3SG come 'Sofia knows enormously that she cannot come.'

We now have the assumptions necessary to motivate a truncation analysis for topicalization. The predicates in the C and D classes select a complement that contains a focus operator that generates alternatives. In languages such as Spanish, this kind of complement is overtly marked with the subjunctive mood, but even when it is not so marked, as in English, the semantics remains the same. In Japanese, we saw that such a complement is marked by *koto*, commonly said to be a factive complement, but we can now say that it is a marker of a complement containing the focus operator that generates alternatives.

The other assumption is that the predicates that select such a complement are gradable in nature. The gradable property operates over the alternatives generated by the focus operator. This means that the predicate must select for a complement with such a focus operator.

(67)
$$predicate_{GRADABLE} [_{CP} OP_{FOCUS} ...]$$

In order for the selection to properly occur, nothing can intervene between the gradable predicate and the focus operator. Consequently, projecting TopP above the CP would lead to a selection violation.

(68) *predicate_{GRADABLE} [
$$_{\text{TopP}} \dots [_{\text{CP}} \text{OP}_{\text{FOCUS}} \dots]]$$

This is the reason why the TopP structure cannot occur for the complement of C and D predicates, thus precluding topicalization in these complements.

This focus-operator analysis of the complements of C and D predicates has another consequence. The discussion so far has been largely driven by topicalization without movement, the so-called left dislocation (marked by -wa in Japanese and by resumptive pronouns and other devices in English), and what we have said so far accounts for this construction's distribution. It cannot occur in the complement of C and D predicates, and this led us to the idea of truncation: TopP simply cannot project. The reason we have given is the need of the C/D predicate to directly select the CP with the focus operator. But what about those topic constructions that involve the movement of a topic operator to Spec,CP? It appears there are two causes for their ungrammaticality with C andD predicates. The first cause is the same as for non-movement topicalization: a selection violation caused by TopP intervening between the predicate and the CP complement that has the focus operator. The second cause is a conflict in features, or competition in Haegeman's terms: C has the Focus feature to attract the focus operator of the

Thanks to Despoina Oikonomou for suggesting this idea.

subjunctive complement; the same C would need to also have the Topic feature to attract the topic operator. But Focus and Topic are in complementary distribution, hence having them both on C would be a clash of features. If the Topic feature could lower to a lower point in the structure, the conflict would be avoided. We will see cases of precisely this situation below, in languages where Topic may be inherited by T.

6. Variation across Languages

Up to now, we have seen topicalization behaving similarly in English, Japanese, and Spanish. In this last section of the article, I will look at topic types, language variation, and Strong Uniformity, with an eye to accounting for language variability in the distribution of topics. So far, we have looked at "topics" without distinguishing among different types. However, once we do so, we get a more detailed distribution that tells us about the general system at play across languages vis-a-vis operations such as topicalization.

Bianchi and Frascarelli (2010), based on Frascarelli and Hinterhölzl (2007), propose three types of topics: Aboutness, Contrastive, and Familiar.

- (69) Three types of topics (Frascarelli and Hinterhölzl 2007: 87–88).
 - (a) Aboutness topic: "what the sentence is about" (Reinhart 1981, Lambrecht 1994); in particular a constituent that is "newly introduced, newly changed or newly returned to" (Givón 1983: 8), a constituent which is proposed as "a matter of standing and current interest or concern" (Strawson 1964)
 - (b) Contrastive topic: an element that induces alternatives which have no impact on the focus value and creates oppositional pairs with respect to other topics (Kuno 1976, Büring 2003)
 - (c) Familiar topic: a given or accessible (cf. Chafe 1987) constituent, which is typically destressed and realized in a pronominal form (Pesetsky 1987; when a familiar topic is textually given and d-linked with a pre-established aboutness topic, it is defined as a continuing topic (cf. Givón 1983)

Although these distinctions are not always easy to detect in languages such as English, in Japanese, the three are clearly marked in form.

- (70) Three types of topics as seen in Japanese
 - a. Aboutness topic: -wa

Hanako wa piza o tabeta. Hanako TOP pizza ACC ate 'As for Hanako, she ate pizza.'

b. Contrastive topic: -WA

Hanako WA piza o tabeta. Hanako TOP.CONTR pizza ACC ate 'HANAKO ate pizza (but not Jiro).' c. Familiar: scrambling

Piza o Hanako ga tabeta. pizza ACC Hanako NOM ate

Aboutness topics are marked with the unstressed -wa while Contrastive topics are marked with the stressed -WA (or with stress on the entire topic phrase) (Kuno 1973). Familiar topics are marked by being scrambled to the head of the sentence (Miyagawa 2010, 2017).

Bianchi and Frascarelli (2010: 82) point out that the Aboutness topic is a root phenomenon, distinguishing it from the other topics. In Jiménez-Fernández and Miyagawa (2014), we argue, following Bianchi and Frascarelli, that the Aboutness topic behaves uniformly as a root phenomenon across all languages, while Contrastive and Familiar topics may vary in their distribution from language to language.

(71) Distribution of topics

- (i) Aboutness topics uniformly occur in the C region (Bianchi and Frascarelli 2010: 82).
- (ii) The position of Contrastive topics and Familiar topics depends on the type of language (Jiménez-Fernández and Miyagawa 2014).

We can interpret "in the C region" for Aboutness topics as the TopP projection. Aboutness topics across all languages must occur in Spec,TopP. We saw above that the TopP projection in complement clauses is restricted to A, B, and E predicates for semantic reasons. Assuming the universal nature of the semantic issues involved, we can presume that the restriction on the occurrence of the TopP is uniform across all languages unless some other factor comes into play to mediate the semantic requirements.

6.1. Strong Uniformity and Topicalization

What about Contrastive and Familiar topics? To attempt to understand the variability we see across languages for these two types of topics, we turn to the notion of Strong Uniformity.

(72) Strong Uniformity (Miyagawa 2010, 2017) Every language shares the same set of grammatical features, and every language overtly manifests these features.

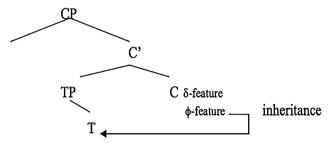
The "grammatical features" in Strong Uniformity include both ϕ -features and δ -features, what Kiss (1995) calls "discourse-configurational" features.

⁹ See Miyagawa (2010) for an argument that scrambling is an instance of topicalization. Not all instances of scrambling are for topicalization, as in the case when a wh-phrase is scrambled to the head of the sentence. This would be more like focus movement. Thanks to an anonymous reviewer for this point.

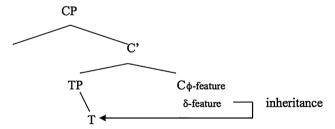
(73) φ-features δ-features: topic, focus

The idea is that these two types of grammatical features are computationally equivalent, both serving to trigger operations within narrow syntax across languages. Furthermore, all grammatical features are assumed to originate at a phase head—C, for our purposes (Chomsky 2008, Richards 2007, Miyagawa 2010, etc.). One or more of these features that originate at C may be inherited by T. In Miyagawa (2010), I dealt with two kinds of languages that come out of the typology of grammatical feature placement, the agreement-based language and the discourse-configurational language.

(74) Agreement-based language



(75) Discourse-configurational language



In Miyagawa (2017), I explore two additional types of languages, one in which both features are inherited by T and one in which neither is, thus expanding the typology into four classes.

(76) Some languages predicted by Strong Uniformity

Setting aside Category IV (see Miyagawa 2017 for discussion of this category), we see that in Categories I and III (Japanese and Spanish), the δ -feature is inher-

ited by T, while in Category II (English), it stays on $C.^{10}$ Remember that these variations with regard to the δ -feature of Topic pertain only to Contrastive and Familiar topics; the Aboutness topic always occurs in TopP, thus it is not affected by any variation in the location of the Topic feature.

The typology above predicts that for a Class II language such as English, Contrastive and Familiar topics occur at TopP. This in turn predicts that in English, all three types of topics will have the same distribution as the TopP projection: in complement clauses, they will only occur with A, B, and E predicates, not C and D predicates. This is precisely what we see (Jiménez-Fernández and Miyagawa 2014). Since in English it is difficult to distinguish Familiar topics from Aboutness topics, I give two examples each for the five verb classes: a generic topic, which may be either Aboutness or Familiar, and Contrastive, which is indicated by a contrastive statement tagged on at the end of the sentence.

Class A:

- (77) a. Mary said that those books, she will read today.
 - b. Mary said that those books, she will read, but not these.

Class B:

- (78) a. Mary believes that those books, she could read today.
 - b. Mary believes that those books, she could read, but not these.

Class E:

- (79) a. Mary realized that those books, she could read today.
 - b. Mary realized that those books, she could read, but not these.

Class C:

- (80) a.?*Mary denied that those books, she will read today.
 - b. *Mary denied that those books, she will read, but not these.
- (81) a. *It is impossible that those books, John will read by the end of the week.
 - b. *It is impossible that those books, John read, but not these.

Class D:

- (82) a. *Mary resents that those books, John read while on vacation.
 - b. *Mary resents that those books, John read, but not these.
- (83) a.?*I regret that those books, John read without consulting me.
 - b. *I regret that those books, John read, but not these.

Let us now turn to Japanese, which clearly distinguishes Aboutness, Contrastive, and Familiar topics. As we see below, while the Aboutness topic distribution is the same as in English, as we expect, there is a sharp contrast in the distribution of the Contrastive and Familiar topics. They are fine in the complements of all predicate classes, unlike in English (Jiménez-Fernández and Miyagawa 2014).

¹⁰ This typology has a more fine-grained version that distinguishes between the δ-features Topic and Focus. In Spanish, the Topic δ-feature is inherited by T, as shown, but the Focus δ-feature actually stays on C (see Miyagawa 2017).

Class A:

- (84) a. Hanako wa [sono hon wa kodomo ga yonda to] itta. Hanako TOP that book TOP child NOM read C said 'Hanako said that as for that book, her child read it.'
 - b. Hanako wa [sono hon WA kodomo ga yonda Hanako TOP that book CONTR.TOP child NOM read to] itta.

C said

'Hanako said that that book, her child read (but not this book).'

c. Hanako wa [sono hon o kodomo ga yonda to] itta. Hanako TOP that book ACC child NOM read C said 'Hanako said that as for that book, her child read.'

Class B:

(85) a. Hanako wa [sono hon wa kodomo ga yonda to] Hanako TOP that book TOP child NOM read C sinziteiru.

believe

'Hanako believes that as for that book, her child read it.'

b. Hanako wa [sono hon WA kodomo ga yonda Hanako TOP that book CONTR.TOP child NOM read to] sinziteiru.

C believe

'Hanako believes that that book, her child read (but not this book).'

c. Hanako wa [sono hon o kodomo ga yonda to] Hanako TOP that book ACC child NOM read C sinziteiru.

believe

'Hanako believes that as for that book, her child read.'

Class E:

(86) a. Hanako wa [Taroo wa kanozyo o suki ni natta to]
Hanako TOP Taro TOP she ACC like became C
kizuita.

realized

'Hanako realized that as for Taro, he came to like her.'

b. Hanako wa [Taroo WA kanozyo o suki ni natta Hanako TOP Taro CONTR.TOP she ACC like became to] kizuita.

C realized

'Hanako realized that Taro came to like her (but not Jiro).'

c. Hanako wa [kanozyo o Taroo ga suki ni natta to] Hanako TOP she ACC Taro NOM like became C kizuita.

realized

'Hanako realized that Taro came to like her.'

Class C:

(87) a. *Hanako wa [sono hon wa kodomo ga yonda koto]

Hanako TOP that book TOP child NOM read C
o hiteisita.

ACC denied

'Hanako denied that as for that book, her child read it.'

b. Hanako wa [sono hon WA kodomo ga
 Hanako TOP that book CONTR.TOP child NOM yonda koto] o hiteisita.
 read C ACC denied

'Hanako denied that that book, her child read, (but not this book).'

c. Hanako wa [sono hon o kodomo ga yonda koto]
 Hanako TOP that book ACC child NOM read C
 o hiteisita.

ACC denied

'Hanako denied that that book, her child read.'

Class D:

(88) a. *Hanako wa [sono hon wa kodomo ga yonda koto]

Hanako TOP that book TOP child NOM read C
o kookaisita.

ACC regretted

ACC regretted

'Hanako regretted that as for that book, her child read it.'

b. Hanako wa [sono hon WA kodomo ga yonda Hanako TOP that book CONTR.TOP child NOM read koto] o kookaisita.

C ACC regretted

'Hanako regretted that that book, her child read, (but not this book).'

c. Hanako wa [sono hon o kodomo ga yonda koto]
 Hanako TOP that book ACC child NOM read C
 o kookaisita.

ACC regretted

'Hanako regretted that that book, her child read.'

The grammaticality of (87b, c) and (88b, c) is precisely what we expect, since Japanese is a Category I language. In this type of language, the δ -feature is inherited by T, so that topicalization (for these two types of topics, Contrastive and Familiar) occurs within the TP. This is why, for example, scrambling (Familiar topicalization) may overcome weak crossover and create a new binder, which are hallmarks of A-movement. Familiar topicalization is A-movement because it targets a position within the TP instead of the CP (Saito 1992, Miyagawa 2010, etc.).

Finally, Spanish, a Category III language, behaves the same as Japanese with regard to Contrastive and Familiar topics (Jiménez-Fernández and Miyagawa 2014). This is what we expect, since the δ -feature lowers to T in both types of languages. In the following examples, we can see that a topic, which can be inter-

preted as either type, may occur in the complement of C and D predicates.

- probable que [sólo (89) a. Es alguna vez hava have.PRES.3SG be.PRES.3SG probable that only some time conducido Juan ese coche]. driven Iuan that car 'It's probable that Juan has only rarely driven that car.' (Class C)
 - b. Ángela estaba sorprendida de que [los regalos Angela be-PAST.3SG that the surprised of presents CL hubieran dejado los Reyes Magos debajo del árboll. the Kings Magicians under of the tree have.PAST.3PL left 'Angela was surprised that the three Wise Men had left the present under the Christmas tree.' (Class D)

7. Conclusion

In this article I developed the idea that there is a dedicated position for topics across all languages. This topic position, first proposed in Chomsky (1977), occurs above the CP. It occurs freely in the matrix clause, but in the complement clause it is restricted to what Hooper and Thompson (1973) called class A, B, and E predicates. I argued that the reason why a topic cannot occur in the complement of C and D predicates is due to the semantics of these constructions: the complement is "subjunctive" and contains a focus operator that induces a semantics of alternatives, the predicates themselves are gradable in nature and must select the focus operator directly to function properly. If TopP is projected above the complement CP, this blocks selection. Turning to language variation, while the Aboutness topic occurs in the TopP region across languages, Contrastive and Familiar topics vary in their position. In English, these two types of topics occur in the TopP region, thus are restricted in their distribution in the same way as the Aboutness topic. But in Japanese and Spanish, Contrastive and Familiar topics occur within the TP. As a result they are not subject to the restriction on TopP, making it possible to occur in the complement of all predicate classes. This contrast between English on the one hand and Japanese and Spanish on the other is predicted by Strong Uniformity.

References

Bianchi, Valentina and Mara Frascarelli (2010) Is topic a root phenomenon? *Iberia: An International Journal of Theoretical Linguistics* 2(1): 43–88.

Boeckx, Cedric and Youngmi Jeong (2004) The fine structure of intervention in syntax. In: Chungja Kwon and Wonbin Lee (eds.) *Issues in current linguistic theory: A festschrift for Hong Bae Lee*, 83–116. Seoul: Kyungchin.

Boër, Steven E. (1979) Meaning and contrastive stress. *Philosophical Review* 88(2): 263–298. Bowers, John (1976) On surface structure grammatical relations and the structure-preserving hypothesis. *Linguistic Analysis* 2: 225–242.

Bromberger, Sylvain (1987) What we don't know when we don't know why. In: Nicholas Rescher (ed.) *Scientific inquiry in philosophical perspective*, 75–104. Lanham, MD: University Press of America.

- Bromberger, Sylvain (1992) On what we know we don't know. Chicago: University of Chicago Press.
- Büring, Daniel (2003) On D-trees, beans, and B-accents. Linguistics and Philosophy 26: 511–545.
- Cable, Seth (2010) The grammar of Q: Q-particles and the nature of Wh-fronting, as revealed by the Wh-Questions of Tlingit. Doctoral dissertation, MIT, Cambridge, MA.
- Chafe, Wallace (1987) Cognitive constraints on information flow. In: Russell S. Tomlin (ed.) *Coherence and grounding in discourse*, 21–51. Amsterdam: John Benjamins.
- Chomsky, Noam (1977) On *Wh*-movement. In: Peter W. Culicover, Thomas Wasow, and Adrian Akmajian (eds.) *Formal syntax*, 71–132. San Diego, CA: Academic Press.
- Chomsky, Noam (2008) On phases. In: Robert Freidin, Carlos P. Otero, and Maria Luisa Zubizarreta (eds.) Foundational issues in linguistic theory, 133–166. Cambridge, MA: MIT Press.
- Doetjes, Jenny Sandra (1997) Quantifiers and selection: On the distribution of quantifying expressions in French, Dutch, and English. The Hague: Holland Academic Graphics.
- Emonds, Joseph E. (1969) Root and structure-preserving transformations. Doctoral dissertation, MIT, Cambridge, MA.
- Emonds, Joseph E. (2004) Unspecified categories as the key to root constructions. In: David Adger, Cécile de Cat, and George Tsoulas (eds.) *Peripheries*, 75–121. Dordrecht, the Netherlands: Kluwer.
- von Fintel, Kai. (1999). NPI licensing, Strawson entailment, and context dependency. Journal of semantics 16(2): 97–148.
- Frascarelli, Mara and Roland Hinterhölzl (2007) Types of topics in German and Italian. In: Kerstin Schwabe and Susanne Winkler (eds.) *On information structure, meaning, and form*, 87–116. Amsterdam: John Benjamins.
- Geis, Michael (1970) Adverbial subordinate clauses in English. Doctoral dissertation, MIT, Cambridge, MA.
- Givón, Thomas. (1983) Topic continuity in discourse: An introduction. In: Thomas Givón (ed.) *Topic continuity in discourse: A quantitative cross-language study*, 5–41. Amsterdam: John Benjamins.
- Haegeman, Liliane (2006) Conditionals, factives, and the left periphery. *Lingua* 116: 1651–1669.
- Haegeman, Liliane (2010) The internal syntax of adverbial clauses. Lingua 120: 628-648.
- Haegeman, Liliane (2012) Adverbial clauses, main clause phenomena, and composition of the left periphery. Oxford: Oxford University Press.
- Heim, Irene (1992) Presupposition projection and the semantics of attitude verbs. *Journal of Semantics* 9(3): 183–221.
- Higgins, Francis Roger (1973) The pseudo-cleft construction in English. Doctoral dissertation, MIT, Cambridge, MA.
- Hiraiwa, Ken (2010) Complement types and the CP/DP parallelism: A case of Japanese. *Theoretical Linguistics* 36(2/3): 189–198.
- Hooper, Joan B. and Sandra A. Thompson (1973) On the applicability of root transformations. *Linguistic Inquiry* 4: 465–497.
- Jiménez-Fernández, Ángel L. and Shigeru Miyagawa (2014) A feature-inheritance approach to root phenomena and parametric variation. *Lingua* 145: 276–302.
- Johnson, Kyle (1988) Clausal gerunds, the ECP and government. *Linguistic Inquiry* 19: 583-609.
- Kiss, Katalin É. (1995) Introduction to discourse configurational languages. In: Katalin É.

- Kiss (ed.) Discourse configurational languages, 3-27. Oxford: Oxford University Press.
- Ko, Heejeong (2005) Syntax of why-in-situ: Merge into [Spec,CP] in the overt syntax. Natural Language and Linguistic Theory 23: 867–916.
- Koizumi, Masatoshi (1995) Phrase structure in minimalist syntax. Doctoral dissertation, MIT, Cambridge, MA.
- Koster, Jan (1978) Locality principles in syntax. Dordrecht: Foris.
- Kuno, Susumu (1973) The structure of the Japanese language. Cambridge, MA: MIT Press.
- Kuno, Susumu (1976) Subject, theme, and the speaker's empathy: A reexamination of relativization phenomena. In: Charles N. Li (ed.) Subject and topic, 417–444. New York: Academic Press.
- Lambrecht, Knud (1994) Information structure and sentence form: Topic, focus, and the mental representations of discourse referents. Cambridge: Cambridge University Press.
- Langendoen, D. Terence (1979) More on locative-inversion sentences and the structure-preserving hypothesis. *Linguistic analysis* 5: 421–437.
- Larson, Richard (1987) 'Missing prepositions' and the analysis of English free relative clauses. *Linguistic Inquiry* 18: 239–266.
- Larson, Richard (1990) Extraction and multiple selection in PP. *The Linguistic Review* 7: 169–182.
- Lasnik, Howard and Mamoru Saito (1992) Move a: conditions on its application and output. Cambridge, MA: MIT Press.
- McCawley, Noriko A. (1978) Another look at No, Koto, and To: Epistemology and complementizer choice in Japanese. In: John Hinds and Irwin Howard (eds.) Problems in Japanese syntax and semantics, 178–212. Tokyo: Kaitakusha.
- Melvold, Janis (1991) Factivity and definiteness. In: Lisa Cheng and Hamida Demirdache (eds.) *MIT Working Papers in Linguistics 15: More Papers on Wh-Movement*, 97–117. Cambridge, MA: MITWPL.
- Miyagawa, Shigeru (2010) Why agree? Why move? Unifying agreement-based and discourse configurational languages. Cambridge, MA: MIT Press.
- Miyagawa, Shigeru (2012) Agreements that occur mainly in main clauses. In: Lobke Aelbrecht, Liliane Haegeman, and Rachel Nye (eds.) *Main clause phenomena: New horizons*, 79–112. Amsterdam: John Benjamins.
- Miyagawa, Shigeru (2017) Agreement beyond phi. Cambridge, MA: MIT Press.
- Munsat, Stanley (1986) Wh-complementizers. Linguistics and Philosophy 9: 191-217.
- Oikonomou, Despina (2016) Covert modals in root contexts. Doctoral dissertation, MIT, Cambridge, MA.
- Pesetsky, David (1987) Wh-in-situ: Movement and unselective binding. In: Eric J. Reuland and Alice G. B. ter Meulen (eds.) *The Representation of (in)definiteness*, 98–129. Cambridge, MA: M IT Press:
- Pesetsky, David (1989) Language-particular processes and the earliness principle. Ms., MIT, Cambridge, MA.
- Portner, Paul and Aynat Rubinstein (2012) Mood and contextual commitment. Semantics and Linguistic Theory 22: 461–487.
- Quirk, Randolph, Sydney Greenbaum, Geoffrey N. Leech, and Jan Svartvik (1985) *A grammar of contemporary English*. London: Longman.
- Radford, Andrew (2009) Analysing English sentences. Cambridge: Cambridge University
 Press
- Reinhart, Tanya (1981) Pragmatics and linguistics: An analysis of sentence topics. *Philosophica* 27: 53–94.

Richards, Mark D. (2007) On feature inheritance: An argument from the phase impenetrability condition. *Linguistic Inquiry* 38: 563–572.

Rizzi, Luigi (1990) Relativized minimality. Cambridge, MA: MIT Press.

Rizzi, Luigi (1997) The fine structure of the left periphery. In: Liliane Haegeman (ed.) *Elements of Grammar*, 281–337. Dordrecht, the Netherlands: Kluwer.

Rizzi, Luigi (2001) On the position 'Int(errogative)' in the left periphery of the clause. In: Guglielmo Cinque and Giampaolo Salvi (eds.) *Current studies in Italian syntax: Essays offered to Lorenzo Renzi*, 267–296. Amsterdam: Elsevier.

Rochemont, Michael S. (1989) Topic islands and the subjacency parameter. *Canadian Journal of Linguistics* 34: 145–170.

Rooth, Mats E. (1985) Association with Focus. Doctoral dissertation, University of Massachusetts, Amherst.

Rooth, Mats E. (1992) A theory of focus interpretation. *Natural Language Semantics* 1: 75–116.

Ross, John (1967) Constraints on variables in syntax. Doctoral dissertation, MIT, Cambridge, MA.

Saito, Mamoru (1992) Long-distance scrambling in Japanese. *Journal of East Asian Linguistics* 1: 69–118.

Sag, Ivan A. (1976) Deletion and logical form. Doctoral dissertation, MIT, Cambridge, MA.

Shlonsky, Ur and Gabriela Soare (2011) Where's 'why'? Linguistic Inquiry 42: 651–669.

Stalnaker, Robert (1984) Inquiry. Cambridge, MA: MIT Press.

Strawson, P. F. (1964) Identifying reference and truth values. Theoria 30: 96-118.

Villalta, Elisabeth (2008) Mood and gradability: An investigation of the subjunctive mood in Spanish. *Linguistics and philosophy* 31: 467–522.

Watanabe, Akira (1993) Larsonian CP recursion, factive complements, and selection. *NELS* 23: 523–537.

Author's contact information:
Department of Linguistics & Philosophy, MIT,
Cambridge 02139, USA
e-mail: miyagawa@mit.edu

[Received 30 January 2017; Accepted 1 September 2017] 【要 旨】

話題化

宮川 繁

マサチューセッツ工科大学/東京大学

Chomsky(1977)は、CPの上にトピックのための特別なポジションがあると議論したが、本論文ではこの考え方をいくつかの観点から考察する。まず第1に、英語、日本語、スペイン語の3言語において、いわゆる Aboutness topic がこのポジションに入ることを示す。第2に、このトピック・ポジションは主節では自由に現れるが、従属節では Hooper and Thompson (1973)によって特定されたある種の述語としか共起しないことを示す。Villalta(2008)のスペイン語の仮定法の分析に基づき、トピック・ポジションの従属節における制限を、従属節とそれを選択する述語の意味的特性から説明する。最後に、いわゆる Contrastive topic と Familiar topic の分布が言語によって異なることを示し、この言語間のバリエーションが Strong Uniformity(Miyagawa 2010, 2017)から予測できることを指摘する。