

Turning Over a New Leaf in English Language Learning  
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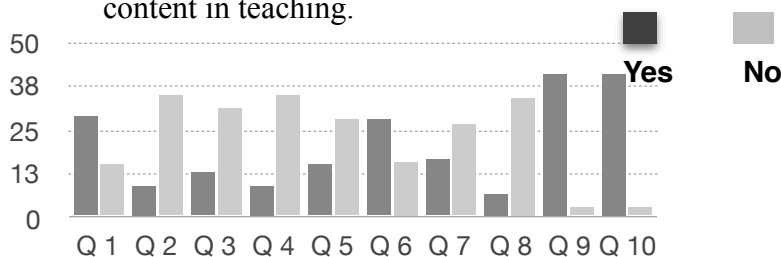
**Abstract**

Prior to the present English courses at the graduate school of engineering which the engineering research students take as compulsory subjects, they already have studied the English subject for twelve years from the 5th grade onto their respective undergraduate courses. Notwithstanding their exposure to English for the described length of period and in spite of the attendance of English native speakers team-teaching with JTEs (Japanese Teachers of English) until their senior high school year, there is a clear deficit displayed by the students in their knowledge of understanding of even the most common of idiomatic expressions whenever these are used in the class. The goal of every engineering graduate student is understood to be able to undertake presentations of their researches, especially before international settings. However, the fact that they cannot understand, let alone, recognize idiomatic expressions is indicative of the possible lack or absence of idioms as a learning content in their years of language learning resulting in a generally memorized presentation, and the failure to interact with fellow participants. The following research questions are submitted: 1.) *Should the study of idiomatic expressions become a teaching/learning content from junior high school to aid in developing an enduring language learning fluency?* 2.) *Do junior high school JTEs perceive the need to include idioms as a content in language learning?* Idioms are groups of words with a meaning of its own that is different from the meaning of each separate word put together. (*New Webster Dictionary, 1993*). Idioms are a colorful and fascinating aspect of English; they are commonly used in all types of languages, informal and formal, spoken and written. (*Cambridge Idioms Dictionary, 2010*) Understanding and using idioms altogether is known to increase the ability of a second language learner's speaking skills akin to those of the native speakers. Sounding natural by being able to communicate and understand the way they do, ensures a successful communication. Since idiomatic expressions are so frequently encountered in both spoken and written discourse, they require special attention in language programs and should not be relegated to a position of secondary importance in the curriculum (Cooper, 1998).

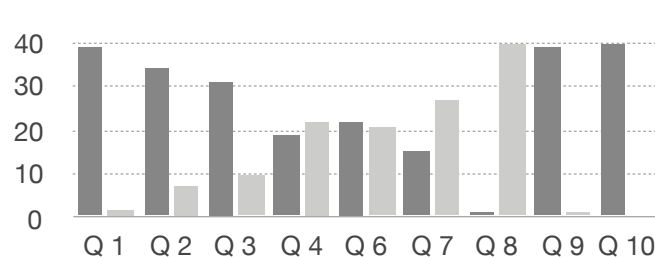
**Methodology**

A pre-idioms lesson survey was conducted to 44 engineering graduate students from four different classes before the start of the introduction of the topic course on idiomatic expressions. Forty common idioms were selected and the 11-13 students composing each class were divided into groups of three, comprising a total of 4 groups. Every group was assigned a list of 10 corresponding idioms to report on. During the course of reporting, the instructor consistently gave supplemental explanations to *further* illustrate different situations where the idioms can be applied. After four meetings on the idioms topic, the students were given a three-set evaluation test, each set bearing a different type of test. A post-idioms survey questionnaire was then distributed after the third evaluation test. Furthermore, 12 JTEs from 12 different JHS out of the total 20 in Tsu City with English teaching experience of 5 to over 30 years and each as

lead English teacher participated in a two-part open and close-ended survey. The first part of 8 questions was aimed at establishing the teaching background and experience, the second part of 10 questions was to gauge their perception of idioms and their willingness to include that as a content in teaching.



**Table 1. Pre - Idioms Lesson Survey Results**



**Table 2. Post - Idioms Lesson Survey Results**

**Table 1** showed Q5-63% of students said idioms was not taught in JHS, Q9-93.18% wants to learn idioms, and Q10-93.18% believes their English comprehension will improve if they learn about the topic. Meanwhile, **Table 2** yielded Q1-95% understanding what an idiom is and Q2-82.92% being able to explain that in their own words, *but* students still cannot confirm whether or not it was idioms they learned in JHS Q4-53.66%; Q9-97.5% believes that idioms should be a learning content of every English program for students and Q10-100% believes learning idioms will have a great impact on their comprehension of English. The JTEs demonstrated mixed responses of enthusiasm and indifference to the subject matter of including idioms in their English lessons. 4 answered 'yes,' when asked whether it will help the students acquire better English skills if idioms were a content while 4 replied, they 'think so,' and the rest did not comment; 9-yes, 1-no, 1-yes/no, on whether they think learning idioms will help in becoming a better English speaker. 9 teachers answered positively when asked if they are willing to teach idioms by themselves and the same teachers responded similarly on their willingness to teach with ALTs. Finally, 6 JTEs approximated the success rate of integrating idioms in the English curriculum for JHS to be 2,5,6,7,8,8, in a scale of 1-10, and yielded 'no,' from the six other JTEs.

### Conclusion / Recommendation

Engineering graduate students have validated the importance of learning idioms and desiring for it to be taught beginning from JHS thus aiding in developing a life-long or an enduring language learning fluency. While JTEs perceive the need for idioms in English language learning, and are aware of the importance their role as language teachers play to realize its inclusion, they are reluctant to implement that in their English teaching. It is incumbent upon the education board to revolutionize its existing English curriculum and cognizant of MEXT's English Education Reform Plan, must undertake all means to give adequate training and support for this purpose in order that JTEs will become motivated and proactive towards the goal of turning over a new leaf in English language learning as essentially imperative in the modern globalization.

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## Japanese right-dislocation constructions with adverbials

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This paper examines Japanese right-dislocation constructions (RDCs) with adverbs postverbally and provides new arguments for the mono-clausal analysis. What has not (to my knowledge) been observed before in the literature on Japanese RDCs is that adverbs can be postposed together with Case-marked DPs, as shown (1).

(1) *Any news?*

[e] kita-yo, tabun John(-ga).  
came-PRT tabun John-NOM  
'Probably, John came.'  
'Someone came; probably John came.'

(1) yields a mono- and a bi-clausal interpretation. The former is possible when no pause is inserted after the verb (Simon 1989) whereas the latter is clear if a noticeable pause exists after the verb along with the sloppy reading of the null subject (Saito 2007). This poses challenges to the prevailing bi-clausal analysis and a uniform treatment of the construction. This paper argues for the mono-clausal analysis of Japanese RDCs with new arguments.

The bi-clausal analysis adopts the perspective that a RDC consists of two identical clauses in (2) (e.g. Tanaka 2001, Takita 2011, Abe 1999, 2019).

(2) [S1 ... *pro*<sub>i</sub> / [e]<sub>Augment Ellipsis</sub>...] [S2 Adv DP-NOM<sub>i</sub> ~~[*t*<sub>i</sub>]~~]

(2) contains *pro* or Argument Ellipsis (AE) in S1, associated with the postverbal DP in S2. (2) fails to explain the mono-clausal interpretation of (1) since *pro* cannot include the meaning of the adverb. Note that Takita's (2014) mono-clausal analysis with base-generation also cannot explain the RDC in question since it is unlikely that the adverb and DP postverbally function as topics together or separately even when the DP is Caseless.

Alternatively, provided that the verb is overtly raised to C (Sato & Hayashi 2018), I suggest the mono-clausal analysis with TP movement in (3).

(3) [CP ... *t*<sub>i</sub> Verb] [TP Adv(-*sika*) DP-NOM<sub>i</sub> *t*<sub>v</sub>]<sub>i</sub>

When the verb is raised to C, TP undergoes rightward movement. The analysis correctly explains the word order and the mono-clausal interpretation of (1). Significantly, the preverbal null element is a trace of TP, and thus it evidently includes the adverbial meaning.

The proposed analysis makes an interesting prediction. Merchant (2001, 2013) and Chung (2006) observe that sluicing in English (an instance of TP ellipsis) disallows active-passive voice mismatches between the antecedent clause and the sluice in (4).

(4) \*Someone shot Ben, but I don't know by who(m)<sub>i</sub> [TP ~~Ben was shot *t*<sub>i</sub>~~].

Merchant (2001) attributes the ungrammaticality to a voice mismatch between *Bens* in the object position and the subject position as a violation of the syntactic identity constraint. If a trace is a copy of the movement element, as is standardly assumed, Japanese RDCs with mono-clausal interpretations that are likewise derived through TP-ellipsis are expected to prohibit voice mismatches with antecedent clauses. This predication is borne out in (5).

(5) *Did your department hire John this year?*

a. \*[e] Yatowareta-yo, kotosi John-ga.

was.hired-PRT this year John-NOM

Intended: ‘Yes, John was hired this year.’

b. [e] Yatoimasita-yo, kotosi watasi-no gakubu-ga John-o.

hired-PRT this year my-GEN department-NOM John-ACC

‘Yes, my department hired John.’

The ungrammaticality in (5a) shows that the construction does not tolerate voice mismatches between *Johns* in the RDC and its antecedent clause in the given context, as opposed to (5b) without a mismatch (cf. Sugisaki 2014), in favor of the proposed analysis.

The other argument comes from RDCs with postverbal adverbial clauses in (6).

(6) *I heard that Taro quitted the company. Is this true?*

a. [e] yameta-n-janai-yo, [munou-da-kara Taro-wa sono kaisya-o].

quit-NMLZ-COP.NEG-PRT incompetent-COP-because Taro-TOp the company-ACC

‘It is not because he was incompetent that Taro quit the company.’

b. Taro-wa sono kaisya-o yameta-n-janai-yo, [munou-da-kara].

Taro-TOP the company-ACC quit-NMLZ-COP.NEG-PRT incompetent-COP-because

‘It is not that Taro quit his job; because he was incompetent.’

Postverbally, (6a) has an adverbial clause and a DP whereas (6b) only involves the adverbial clause. (6a) is true under the situation where Taro quit the company. Thus, the adverbial is under the scope of the negation. In contrast, (6b) is true if Taro did not quit the company. The adverbial is not under the scope of the negation. In the proposed analysis, the preverbal null element in (6a) is a trace of the moved TP in a mono-clausal analysis.

This paper examines Japanese RDCs with adverbs and DPs postverbally and offers new arguments for the mono-clausal analysis, combined with movement of TP. This conclusion has significant implications. It suggests that right-dislocation is not a uniform phenomenon. It may also be derived via movement in a single sentence. The proposed argument also lends support to V-T-C movement in overt syntax for Japanese (Sato and Hayashi 2018).

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In this talk I will claim that a functional head F takes a head nominal as its complement, then moves upward to Spec,CP in short-distance movement in a *that*-relative clause (RC).

To begin with, I introduce two types of derivations regarding RCs. The first is the raising analysis (Schachter 1973), where the head nominal is base-generated inside the RC, then moved out of the RC. The second is the head external analysis (Chomsky 1977). In this case, the head nominal is assumed to be base-generated inside the matrix clause. In the following derivation, a *wh*-operator moves overtly to Spec,CP. According to Aoun and Li (2003), *that*-RCs derive in the raising analysis while *wh*-RCs do in the head external analysis. These two different derivations explain why the idiomatic and anaphoric reading are possible only in *that*-RCs as in (1) and (2).

(1) The *headway* ***that/??which*** Mel *made* was impressive.

(2) The picture of *himself<sub>i</sub>* ***that/\*which*** John<sub>i</sub> painted in art class is impressive.

Aoun and Li (2003:110,111)

In (1), *headway* has to occupy the argument position of the verb *made* to obtain the idiomatic reading. Although the head nominal of *that*-RCs moves from the argument position inside the RC to its surface position, that of *wh*-RC never moves from its base-generated position in the matrix clause. Consequently, the contrast emerges. (2) is explained in the same manner, where *the picture of himself* is c-commanded by its antecedent *John* only in the derivation of the *that*-RC.

Also, Aoun and Li (2003) show data regarding RCs derived via long-distance movement of the head nominal. Examine the sentences below:

(3) We admired the picture of *himself<sub>i</sub>* ***that/\*which*** Mary thinks John<sub>i</sub> painted in art class is impressive.

(4) The picture of *his<sub>i</sub>* mother ***that/\*?which*** Mary thought that *every<sub>i</sub>* student painted in art class is impressive.

Aoun and Li (2003:112,113)

In (3) and (4), each head nominal of *the picture of himself* and *the picture of his mother* is required to be c-commanded by its antecedent. These examples indicate that long-distance movement is available in *that*-RCs.

Nonetheless, *that*-RCs containing idiomatic expressions in long-distance environments draw a contradictory argument. Consider the following sentence:

(5) *The beans* that John thinks(thought) that Mary *spilled* caused a scandal.

Assuming the raising analysis, (5) is expected to have an idiomatic reading meaning ‘to tell somebody something secret’; however, this does not hold. An analogous example in Japanese also shows the same phenomenon. First, examine the sentence below:

(6) Sono eiga-wa [Mary-ga watatta] abunai hasi-o migotoni saigensita.  
 that movie-Top -Nom crossed dangerous bridge-Acc elegantly reconstructed  
 “(Lit.) That movie elegantly reconstructed the dangerous bridge Mary crossed”

Morita (2013:649)

(6) involves an idiom ‘*abunai hashi-wo wataru*’ meaning ‘to make a risky attempt’. The availability of the idiomatic reading in (6) shows that Japanese RCs are also derived through movement. Next, examine the RC in the long-distance environment.

(7) Sono eiga-wa John-ga [Mary-ga watatta] to omotta abunai hasi-o  
 that movie-Top -Nom -Nom crossed COMP thought dangerous bridge-Acc  
 migotoni saigensita.  
 elegantly reconstructed  
 “(Lit.) That movie elegantly reconstructed the dangerous bridge that John thought Mary crossed”

The idiomatic reading disappears in (7). In both (5) and (7), the idiomatic reading is obtained when *Mary thinks(thought)* and *John-ga ...to omotta* are omitted.

With the examples (5) and (7) in mind, I stipulate that a functional head F with two edge features first takes the head nominal as its complement, then moves upward to Spec,CP, leaving a copy of the head nominal. The structure can be described as follows:

(8) [<sub>FP</sub> F [<sub>NP</sub> NP(DP)]]

According to Chomsky (2000), a selector or a probe projects. Thus, when the head nominal moves to Spec,CP, the functional head F projects, which results in short-distance movement of the head nominal. This explains why the idiomatic reading disappears in long-distance RCs. Furthermore, this provides a simple derivation of short-distance *that*-RCs without motivating unattested movement such as sideward movement (Henderson 2007).

Regarding other examples of long-distance *that*-RCs such as (5) and (6), they imply that FP neither cooccurs with reflexive pronouns nor bound pronouns because FP motivates short-distance movement. Therefore, I suppose that those pronouns are derived as head nominals without FP, and move upward, leaving a variable, not a copy. The absence of a copy leads to a different interpretation of head nominals at LF, which contrasts with *that*-RCs containing idiomatic expressions.

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# Two Types of Germanic Suffixes Forming Relational Adjectives in English

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## 1. Introduction

Spencer and Nikolaeva's (S&N) recent series of studies on nominal modification reveal the fact that Relational Adjectives (RAs), a type of denominal adjective, divide into two groups according to whether they concern either *derivation* or *inflexion* (S&N (2017), N&S (2019)). The current study points out that the denominal adjectives containing *-en* behave differently from speaker to speaker and deals with the question of why such behaviour is observed. We answer the question by considering the properties of *-en* as a Germanic suffix and its diachronic change that accompanies the transition of English from a synthetic language to an analytic language. These factors crucially determine whether an RA is derivation-type or inflexion-type in English morphology.

## 2. Two Types of RAs and Adjectives with *-en*

A strong test that S&N propose for the classification of RAs is whether a given word shows the *Base Noun Modifiability Property*. In the case of a canonical derivative, its base word cannot be modified by an adjective; in *trusted friendless*, *trusted* cannot modify *friend*, so fails to mean 'lack of trusted friends'. However, in inflected words, the base (or stem) can be modified by an adjective; in *trusted friends*, *trusted* successfully modifies the lexeme *friend*. Applying this test to RAs, S&N show that they can be classified into derivative-type or inflected word-type adjectives. For example, *high* in (1a) cannot modify the base noun *tide* of *tidal* and the expression does not mean 'fluctuations in/at high tide' but 'high fluctuations in the tide'. On the other hand, *blue* in (1b) can modify *eye*, yielding the meaning of 'a boy who has blue eyes'. This shows that *al*-adjectives belong to derivative-type and *ed*-adjectives to inflected word-type.

- |     |    |                         |                                  |                       |
|-----|----|-------------------------|----------------------------------|-----------------------|
| (1) | a. | high tidal fluctuations | * 'fluctuations in/at high tide' | (N&S (2019: 291))     |
|     | b. | blue-eyed boy           | 'a boy who has blue eyes'        | (Spencer (2018: 266)) |

According to Spencer (2018), denominal adjectives with *-en* behave in the same way as those with *-al* in terms of the Base Noun Modifiability Property; in (2), *Brazilian* cannot modify *wood* and only the interpretation in (2a) is available.

- |     |    |                                |                       |
|-----|----|--------------------------------|-----------------------|
| (2) | a  | Brazilian wooden bow           | (Spencer (2018: 267)) |
|     | a. | 'a wood bow made in Brazil'    |                       |
|     | b. | 'a bow made of Brazilian wood' |                       |

Interestingly, however, our survey shows that, depending on the speaker, the (2b)-interpretation is also possible. This means that the morphological status of *en*-adjectives varies among speakers; for those who

are interpreting (2) only as (2a), the adjectives are derivative-type while for those who allow the (2b)-interpretation, they are inflected word-type.

### 3. Analysis

Then, why is *-en* different from other suffixes in that it functions as a derivational suffix like *-al* in some speakers but *-ed* in others? We argue that the suffix *-en* attaching to nouns can originally play a role at the inflectional level but due to the diachronic change in English its role is replaced (though not completely) by derivational morphology.

#### 3.1. The Origins of the Suffixes

First, let us consider why *-en*, as well as *-ed*, can be used at the inflectional level. What groups *-en* with *-ed* and distinguishes the two from *-al* is their origins; while *-al* is a Latinate suffix, *-en* and *-ed* originate in Old English (OE). Importantly, S&N's (2017) observation suggests that languages that typically have RAs of inflected word-type are agglutinative, for example, and rich in inflectional devices. Given that OE was also an inflexion-rich language and *-en* and *-ed* are inherited from OE, it is natural that they would both maintain their inflectional roles for nouns in some speakers of Present-day English. On the other hand, Latinate suffixes including *-al* are used only in derivation, thus fail to be inflectional endings. An indication of the inflectional status of *-en* can be found in south-western dialects of British English, where *-en* is still productive to many nouns (e.g. *glassen*, *papern*, *steelen*, *tinnen*) (*Oxford English Dictionary*; *OED*). Thus, the inflected word-like behaviour of the RA *wooden* in (2) can be attributed to *-en*, which is a remnant of OE.

#### 3.2. The Loss of Inflectional Suffixes and the Status of *-en*

The above consideration also explains why *-en* is no longer an inflexion-level element for some speakers. The *OED* states that *en*-adjectives have been discarded for the attributive use of the noun (e.g. *a golden watch* vs. *a gold watch*). This can be considered as a part of the diachronic change of English, where many inflectional elements have been disposed of. Accordingly, the role of *-en* is changing and has begun to acquire the status of a derivational suffix for nouns. Speakers who only accept the (2a)-interpretation have this type of *-en*. The inconsistent behaviour of *en*-adjectives reflects the transition of *-en* from an inflectional to a derivational element.

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## **A Discussion of Grammatical Indeterminacy from a Pedagogical Perspective**

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This research explores the problem of grammatical indeterminacy in explaining grammar to English as a foreign language (EFL) learners. In EFL situations, grammar tends to be recognized as a set of strict and rigid rules, which often causes confusion and frustration to nonnative speakers who are faced with exceptions or complicated cases. If grammar is posited as a combination of form, meaning, and use, as suggested in Celce-Murcia and Larsen-Freeman (1999), rather than only as an area of form, the concepts of gradience (the degree of distance from a prototype) and flexibility interconnected with lexis and grammar will be more readily accepted. In this case, the problem of grammatical indeterminacy will not weaken their theoretical framework of linguistics but contribute to reinforcing learners' cognitive power in contemplating various linguistic factors operating in grammar.

For this purpose, the criteria necessary to solve grammatical indeterminacy will be probed. First, case studies of selected lexical verbs, adjectives and adverbs from the 1,000 academic words with the highest-ranking frequency from the Corpus of Contemporary American English (COCA) are examined. In the case of verbs, Hanks' *Pattern Dictionary of English Verbs* is also referred to. Then, the following questions are investigated in terms of meaning, position, and optionality: 1) In what respects do multiple meanings of a word influence grammar? 2) What semantic factors should be considered in respect to word positions? and 3) What determines optional or obligatory elements in a sentence?

With regard to position, for example, the underlined words of the following sentences belong to the adverb category and their positions are flexible. In structural terms, they are treated as adjuncts, but their meanings and grammatical roles differ according to their positions.

- A. a. Tom once dated Mary. (at some unspecified period of time in the past)
- b. Tom dated Mary once. (frequency)

B. a. Really, the public does not have much choice in the matter.

(disjunct of value judgment type)

b. She is really an intelligent child. (subjunct of predication)

c. She has a really beautiful face. (emphasizer of *beautiful*)

d. I really will slug you. (intensifying *will*, intention)

Thus, this study reveals some limitations when we deal with grammar only in terms of form/structure. Also, it highlights the interconnection between form, meaning, and use in order to widen EFL learners' grammatical perspective and improve their linguistic intuition, in that the grammar of a word in isolation is indeterminable.

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## English Manner-of-Motion Verbs in Transitive Constructions

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English manner-of-motion verbs, as well as change-of-state verbs like *break*, appear in both intransitive and transitive constructions.

- (1) a. The ball rolled down the hill.  
b. Bill rolled the ball down the hill. (Levin, 1993, p. 265)
- (2) a. The mouse ran through the maze.  
b. We ran the mouse through the maze. (Levin & Rappaport Hovav, 1995, p. 111)
- (3) a. The cup broke.  
b. Janet broke the cup. (Levin, 1993, p. 29)

We classify three types of verbs here: *roll* verbs for verbs which display the behavior in (1) (e.g., *bounce*, *slide*), *run* verbs for verbs which display the behavior in (2) (e.g., *jump*, *march*), and *break* verbs for verbs which display the behavior in (3).

Comparing these three types of verbs, this study (i) emphasizes the similarity between *roll* verbs and *run* verbs, (ii) proposes that transitive constructions with these three types of verbs describe two types of events, ‘physically caused’ ones, which all of them can describe, and ‘mentally caused’ ones, which only *roll* and *run* verbs can describe, and (iii) claims that the crucial difference between *roll* verbs and *run* verbs is the “complexity” of manner of action.

Previous studies tended to analyze (1) and (3) as instances of the same inchoative/causative alternation, while treating the alternation in (2) differently. Certainly, *roll* verbs are similar to verbs like *break*, but not to *run* verbs in selectional restriction on subject.

- (4) a. The man/the stick/the wind rolled the ball.  
b. The vandals/the rocks/the storm broke the windows. (L&RH, p. 103)  
c. \*The downpour/\*the tear gas marched the soldiers to the tents. (ibid., p. 112)

*Roll* verbs, however, behave similarly to *run* verbs in the following ways. First, *roll* verbs and *run* verbs entail neither change of state nor change of location, contrary to *break* verbs. This characteristic allows an explanation of the difference in telicity between the two types.

- (5) a. Taro bounced the ball for two minutes, but it was in the same location.  
b. Hanako ran the radio-controlled car for two minutes, but it was in the same location.
- (6) \*Taro broke the vase, but it was still completely intact.

Second, transitive constructions of *roll* verbs and *run* verbs can describe ‘physically caused’ events, defined in (7), and ‘mentally caused’ ones, defined in (8). Admittedly, *run* verbs have a slight difficulty with physically caused events because of the “complexity” of manner, as will be described below. Generally, *break* verbs describe only physically caused events.

- (7) Physically caused events are one type of causal event, in which one entity’s “physical” action on the other entity causes a change of state/location of that entity.

- (8) Mentally caused events are one type of causal event, in which one animate entity's "mental" inducement toward the other animate entity causes a change of state/location of that entity.
- (9)
  - a. The father slid his daughter to the other side of the skating rink.
  - b. The general rolled the soldiers down the hill during a rigorous training session.
- (10)
  - a. The mother jumped her sleeping baby on the chair.
  - b. The jailer ran a prisoner to the gate.

As for *roll* verbs, a physical causation interpretation is dominant. This is exemplified in (9a), where the father causes his daughter to skate, perhaps by pushing her body or pulling her hands. In some contexts, however, a mental causation interpretation is possible, as in (9b), where the general merely orders the soldiers to roll down the hill. As for *run* verbs, conversely, a mental causation interpretation is dominant, as exemplified in (10b). In some contexts, however, a physical causation interpretation is possible, as in (10a), where the mother causes her sleeping baby to jump on the chair, for example, by lifting his body.

Although there are similarities between *roll* verbs and *run* verbs, there is a difference in the complexity of manner of action. The physical action of "running" is more complex than that of "rolling," due to which almost all physical and solid objects can "roll" while objects that can "run" are very restricted. Such a complex event is hard to bring about physically, so the interpretation of mental causation is dominant. As an anonymous reviewer points out, not all *run* verbs can appear in transitive constructions, as below.

- (11)
  - a. Laura \*ambled/\*bounded her friend to her door.
  - b. Laura marched/walked her friend to her door. (Tenny, 1995, p. 211)

This difficulty some *run* verbs show can also be attributed to the complexity of manner of action. Nevertheless, in some contexts, *run* verbs can describe physically caused events like (5b) and (10a). Because of this complexity, it is necessary for a causer to be able to bring about such an intricate manner of action in a causee. As a result, it is difficult for inanimate entities to be a causer, exemplified in (4c).

Although the complexity of their manner of action is different, which I claim results in the difference of their selectional restriction on subject and of dominant interpretation, we conclude that as a whole, *roll* verbs and *run* verbs behave in the same way in transitive constructions.

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# **The Future Reference with *Must*: from the Viewpoints of Futurates and Veridicality**

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**Introduction:** *Must* has ambiguity, epistemic (1-a) or root (1-b). In the literature, it has been reported that with epistemic *must*, the time of the situation described by the prejacent must be present or past, and when referring to a future situation, *must* has only the root interpretation (2). In other words, epistemic *must* cannot be used for future reference (cf. Lakoff (1972), Huddleston and Pullum (2002), and many others). Westney (1995) points out, however, that in some cases, epistemic *must* is used to refer to a future situation (3). As to when *must* can be used epistemically, this paper gives a unified analysis that can handle cases such as (3) in terms of futurates and veridicality.

**Futurates and Future Reference with *Must*:** In English, the simple present tense form can describe future situations; so-called *futurates* (cf. Huddleston (1977)). Huddleston and Pullum (2002) propose a pragmatic constraint on futurates, ‘the clause must involve something that can be assumed to be known already in the present’ (ibid:132). Likewise, Copley (2008) argues that futurates need *plans*, that is, scheduled events, and that plans need a *director*, the entity who is in the position to make a plan. According to her analysis, (4-a) is natural because we can assume the existence of a director, but (4-b) is not because there is no plan for the result of the tomorrow’s game. With this in mind, let us look at (3), whose prejacent expresses a scheduled event, the plane’s arrival. I claim that future reference with epistemic *must* is possible if the described situation is scheduled (5). This claim is supported by (4) and (6). (4-a) expresses a plan, so futurates can be used and the use of epistemic *must* is also licensed (6-a) while in (6-b) it is not licensed because the futurate interpretation is not licensed in the prejacent (4-b).

**Veridicality and Epistemic Interpretation:** With epistemic *must*, the event time of the prejacent must generally be present or past. But why? Furthermore, how can we unify this property with the futurate examples? To answer these questions, we focus on *veridicality*. According to Giannakidou and Mari (2018), veridicality is the semantic property of propositional operators, and the continuation ‘*but I am not entirely sure*’ is a diagnostic for veridicality (7). When a sentence accepts such continuation, the sentence has a nonveridical operator, while the operator is veridical when the continuation is not accepted. According to this test, future (FUT) is nonveridical (8-a), while past (PAST) and present (PRES) are veridical (8-b). I suppose that futurates have their unique temporal operators, FUTURATE (F-op, for short). As in (9), futurates do not accept the continuation, so F-op is veridical. I claim that epistemic *must* requires its prejacent to be veridical. Turning to examples so far, (1)’s prejacent has PRES, which is veridical, so an epistemic interpretation can arise, while that of (2) cannot because its prejacent has FUT, which is non-veridical. Furthermore, when the constraint on futurates is satisfied, epistemic *must* can be used because futurates have a veridical operator. The representations of (6-a) and (6-b) are (10-a) and (10-b) respectively. (6-a)’s prejacent has F-op, which is veridical, so an epistemic interpretation of *must* is licensed, while that of

(6-b) is not because its prejacent has non-veridical operator. In this way, we have the semantic condition of epistemic *must* (11).

- (1) John must be in the library now.
  - a. It is necessary that John is in the library. [epistemic]
  - b. John is forced to be in the library. [root]
- (2) John must be in the library tomorrow. [only root]
- (3) The plane must land in a few minutes. (Westney (1995:143-144))
- (4) a. The Carp play the Tigers tomorrow.  
b. #The Carp win the Tigers tomorrow.
- (5) Future reference with epistemic *must* is possible with futurates.
- (6) a. The Carp must play the Tigers tomorrow.  
b. #The Carp must<sub>epi</sub> win the Tigers tomorrow.
- (7) Veridicality of temporal operators:  
A temporal function *F* is veridical if '*Fp, but I'm not entirely sure*' is unacceptable.
- (8) a. He will be home, but I am not entirely sure. [FUT: nonveridical]  
b. He is / was at home, #but I am not entirely sure. [PAST, PRES: veridical]  
(adapted from Giannakidou and Mari (2018:19))
- (9) The Carp play the Tigers tomorrow, #but I am not entirely sure. [F-op: veridical]
- (10) a. MUST(F-op(the carp play the Tigers tomorrow))  
b. MUST(FUT(the carp win the Tigers tomorrow))
- (11) Epistemic *must* requires the tense of its prejacent to be veridical.

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## Nominative Objects and Scope in Japanese

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We discuss the derivation of the Nominative object in Japanese. In transitive sentences, the object usually receives Accusative Case *o*, whereas it can receive Nominative Case *ga* if the predicate is stative (cf. Kuno (1973)).

- (1) a. John-wa migite-**o/ga** age-rare-ru.  
John-TOP right.hand-ACC/NOM raise-can-PRES  
'John can raise his right hand.'

**Previous Analysis:** Following Takezawa's (1987) claim that Nominative Case is associated with T, Koizumi (1994) proposes that the Nominative object is licensed by T via spec-head agreement. This derivation is exemplified succinctly in (2). (Irrelevant points are omitted.)

- (2) [CP [TP Subj<sub>i</sub> Obj<sub>j</sub>-NOM [<sub>VP</sub> *t<sub>i</sub>* [<sub>VP</sub> *t<sub>j</sub>* v] v] T] C].

**Problem with Koizumi (1994):** His analysis forces all objects to move to Spec-TP to receive Nominative Case. However, the data in (3) suggests that his theory is insufficient. In (3), *kao-o-das* 'visit someone's house' is an idiom. When the stative suffix (*rar*)*e*- 'can' is attached to this, either Nominative or Accusative Case on *kao* 'face' can be realized, as shown in (3).

- (3) a. Zikan-ga na-katta-ga, John-wa isoide oba-no-ie-ni kao-**o/ga**-das-e-ta.  
time-NOM not-PAST-but, John-TOP hurriedly aunt-GEN-house-to face-ACC/NOM-visit-can-PAST.

'While he does not have much time, John can visit aunt's house in a hurry.'

In (3), the adverb *isoide* 'hurriedly' modifies the verb so that it is adjoined to vP. *Oba-no-ie-ni* 'to an aunt's house' is an argument related to location. Following Murasugi (1991) and Yatsushiro (1999), such an argument is situated in VP. Given these points, we can safely argue that the Nominative object in (3) is located in VP, contradicting Koizumi's (1994) analysis.

**Proposal:** We propose that Nominative Case in Japanese is licensed at two positions: one is at Spec-TP, and the other within vP. Note that phase heads C and v in Japanese transmit Case-feature to T and V, respectively (cf. Miyagawa (2011)). Moreover, Case-marking takes place in spec-head relation (cf. Bošković (2007)). Miyagawa (1989) argues that the stative suffix (*rar*)*e*- 'can' can absorb Accusative Case from the verb. Considering these analyses, v becomes an inert head for Case licensing when the stative suffix is attached to it. However, the object must have Case to satisfy Case Filter (Chomsky (1981)). We thus adopt Aoyagi's (2006) proposal here that DP is marked as Nominative by default in that case. The structures in (1) with *-o* and *-ga* will be reflected in (4a) and (4b), respectively.

- (4) a. [CP [TP John<sub>i</sub>-wa [<sub>VP</sub> [<sub>VP</sub> [<sub>VP</sub> *t<sub>i</sub>* [<sub>VP</sub> migite-**o** age v] v] rare v] v] ru T] C]. (ACC-pattern)  
b. [CP [TP John<sub>i</sub>-wa [<sub>VP</sub> *t<sub>i</sub>* [<sub>VP</sub> migite-**ga** age v] [<sub>v</sub>-rare v]] ru T] C]. (NOM-pattern)

Furthermore, we will argue that as Koizumi (1994) posits, T is responsible for assigning non-default Nominative Case. The Nominative object receives the focus interpretation in that case. Koizumi (1994) notes that the focused Nominative object takes scope over negation and potential suffix, but the focused Accusative object cannot take scope over both elements. The data in (5) imply that the former is located at a higher position than the latter.

- (5) John-ga migime-dake-**o/ga** tumur-e-na-i. (Koizumi 1994: 221/222)  
 John-NOM right.eye-only-**ACC/NOM** close-can-NEG-PRES  
 ‘John cannot close only his right eye.’

ACC-pattern’s scope: NEG > can > only / NOM-pattern’s scope: only > NEG > can

Miyagawa (2010, 2013) proposes that the phase heads C and v in Japanese transmit topic/focus-features to T and V, respectively. Based on the discussion above, we claim that when Case-feature of v is absorbed, focus must be activated at Spec-TP. The object receives Nominative Case at Spec-TP in this case. By contrast, when DP has Accusative Case, it can be focused in vP. Due to this, a scope discrepancy arises between the focused Nominative and focused Accusative object.

This proposal is supported by the data from Kumamoto Japanese (=KJ, which is spoken in the southwest part of Kyushu in Japan).

- (6) John-wa nihongo-**ga/no** dekur-u. (KJ)  
 John-TOP Japanese-**(ga)NOM/(no)NOM** can-PRES  
 ‘John is capable of Japanese.’
- (7) John-wa nihongo-dake-**ga/\*no** dekur-u. (KJ)  
 John-TOP Japanese-only-**(ga)NOM/\*(no)NOM** can-PRES  
 ‘John is capable of only Japanese.’

In KJ, Nominative Case is expressed not only by *ga* but also *no*. According to Kato (2007), DP with *no*-marked Nominative is within vP, while DP with *ga*-marked Nominative is outside vP. The examples above imply that in standard Japanese, the default Nominative object corresponds to the *no*-marked nominative object in KJ. Moreover, Nishioka (2019) argues that *no*-marked Nominative is an anti-focus, as (7) shows. These data corroborate our argument that the object must move to Spec-TP to receive Nominative Case when it is focused since, as the KJ data suggests, if the object receives the default Nominative Case, it is incompatible with focus.

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# Extraposition as Late-merger or Agreement

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## 1. Introduction

Fox and Nissenbaum's (1999, F&N henceforth) attractive extension of two types of leftward movement to rightward movement correctly captures some complement/adjunct asymmetries in Extraposition from object. The former derives via (i) A'-movement and the latter via (ii) covert syntactic movement (Quantifier Raising: QR) + late-merger (cf. Lebeaux (1977)). Our talk aims at a further extension and elaboration of F&N's theory of the two types of permutational operation targeting right edges in terms of Extraposition from subject. In particular, we focus on the extraposition of adjunct PP. It has been traditionally observed that a PP adjunct can be extraposed "costlessly" only from an indefinite and unaccusative subject (Johnson (1985), Guéron (1980), Guéron and May (1984)).

- |        |  |                                   |
|--------|--|-----------------------------------|
| (1) a. | [A book] came out [by Obama].                          | (Indefinite unaccusative subject) |
| b.     | *[The book] came out [by Obama].                       | (Definite unaccusative subject)   |
| c.     | *[A student] ran in the schoolyard [with blue hair].   | (Indefinite unergative subject)   |
| d.     | *[The student] ran in the schoolyard [with blue hair]. | (Definite unergative subject)     |

However, it has been observed that the ungrammatical sentences in (1b–d) improve when the extraposed constituents have a contrastive interpretation (Huck and Na (1990); Reeve and Hicks (2017), CAPITALs indicate contrastive focus):

- |        |   |
|--------|---|
| (2) a. | [A book <i>t<sub>PP</sub></i> ] came out [ <sub>PP</sub> by OBAMA] (, not TRUMP).                                   |
| b.     | [The book <i>t<sub>PP</sub></i> ] came out [ <sub>PP</sub> by OBAMA] (, not TRUMP).                                 |
| c.     | [A student <i>t<sub>PP</sub></i> ] ran in the schoolyard [ <sub>PP</sub> with BLUE hair] (, not with BROWN hair).   |
| d.     | [The student <i>t<sub>PP</sub></i> ] ran in the schoolyard [ <sub>PP</sub> with BLUE hair] (, not with BROWN hair). |

The fact that contrastiveness rescues the degraded cases (1b–d) is theoretically problematic insofar as we assume all the acceptable cases above derive from a unique operation. Instead, we argue that (1a) and (2b–d) fall under F&N's two types of operations. More precisely, as for the former, an extraposed PP is generated via late-merger, and as for the latter, the subject as a whole A'-moves rightward to a certain specifier position (i.e., Spec-Head Agreement).

## 2. Proposal

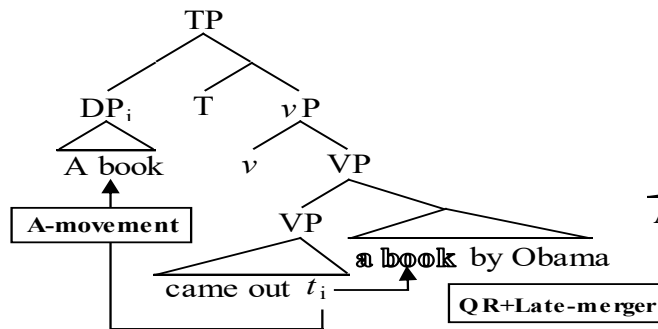
Based on the fact that "costless" Extraposition attaches to a V-domain, as demonstrated by the licensing of NPI in (3) (Nakajima (1989:105)), we assume that the targeting site of QR and the following late-merger is a VP rather than a TP or a *v*P (cf. Hunter (2014)):

- (3) [<sub>TP</sub> [Books]<sub>i</sub> [<sub>T'</sub> weren't [<sub>VP</sub> [<sub>VP</sub> published [<sub>NP</sub> *t<sub>i</sub>* *t<sub>j</sub>*]]] [by anyone unknown]<sub>j</sub>]]]

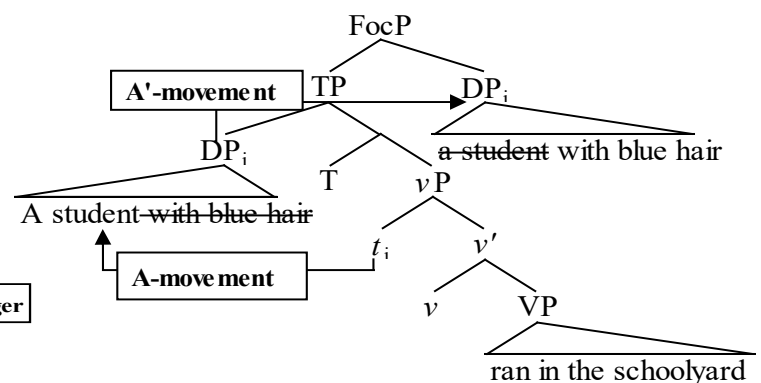
Note that this assumption straightforwardly captures the fact that only an indefinite unaccusative subject such as (1a) can undergo Extraposition "costlessly," because QR normally targets quantifiers and it is only an

unaccusative subject that “raises” to a VP (cf. Burzio (1986)). Then, such a QRed NP late-merges with an adjunct PP. The derivational steps are illustrated in (4a) (*t* stands for an unpronounced copy). As for the other cases (2b–d), which are apparently rescued by contrastive focus, the structure in (4b) is pertinent. The point is that such subjects cannot QR to a VP due to the lack of the qualification for QR (i.e., definiteness or unergativity), and thus cannot undergo movement until they occupy Spec TP. Furthermore, we propose this type of movement does not target a PP but a whole DP, with scattered deletion in virtue of the requirement of PF-interface (Nunes (2004)). Consider the structure in (4b) (we tentatively assume the landing site in question to be a Foc(us)P):

(4) a. *indefinite unaccusative subject*



b. *the others (e.g., indefinite unergative subject)*



### 3. Supportive Evidence

Our proposal entails that an extraposed PP via (4a) is base-generated due to late-merger, and thus that such a PP does not itself undergo any movement operation. Meanwhile, the structure (4b) exhibits A'-movement of a DP as a whole to the right periphery. This operational distinction predicts the opposite behavior in licensing parasitic gap, which serves as a diagnostic for A'-movement. Note that by hypothesis, although the verb in (5b) is unaccusative, it cannot stem from step (4a) because a definite NP does not undergo QR. Hence, (5b) must derive only from step (4b), unlike its indefinite counterpart (5a), leading to the different behavior in parasitic gap. This prediction is born out:

- (5) a. A book<sub>i</sub> came out yesterday without revising {<sup>??</sup>PG / <sup>ok</sup>it<sub>i</sub>} by Obama.  
 b. The book<sub>i</sub> came out yesterday without revising {<sup>ok</sup>PG / <sup>??</sup>it<sub>i</sub>} by OBAMA.

Furthermore, our proposal, extended from F&N, will shed light on the possibility of ordering such phenomena as pseudo gapping (Takahashi (2004); cf. Johnson (2008)), multiple sluicing (Lasnik (2014)), and Heavy-NP Shift, which are analyzed as rightward movement because of the absence of certain leftward movement properties.

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## Deducing Transfer Domain from Labeling

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Since Chomsky (2000, 2001), the notion of phase has played crucial roles in minimalist syntax. Phase is a cycle of derivation in which a syntactic object (SO) is transferred to the interfaces. To see how derivation proceeds, consider the following structure for the CP phase of (*I think*) [<sub>CP</sub> *that John admires Mary*].

(1) [<sub>α</sub> C [<sub>β</sub> Subj [<sub>γ</sub> T [<sub>δ</sub> *t*<sub>subj</sub> [<sub>ε</sub> *v* ...]]]]]

In (1), (i) C merges externally, (ii) the uninterpretable phi-feature (uPhi) on C gets inherited by T, (iii) β, the phase-head-complement (PHC) of C, undergoes Labeling, and (iv) β gets transferred to the interfaces. However, the question remains unanswered why the PHC β, not the phase α, undergoes Transfer. This article attempts to solve this long-standing puzzle.

Chomsky (2013, 2015) proposes a label of an SO is determined by Minimal Search (MS) to detect prominent heads. On the basis of this, Epstein et al. (2018) claims that probe-goal relations are replaced with MS for Labeling, and feature-valuation is carried out at the morpho-phonological component. Given an XP-YP structure with shared features F, MS for Labeling locates X with valued features vF and Y with unvalued ones uF simultaneously, and the value of vF is copied onto uF at the morphological component, as a reflex of the MS.

With these assumptions in place, this article proposes to deduce the Transfer domain from (2).

(2) Transfer the minimal SO containing eliminable -CI features.

-CI features are a subset of uninterpretable features: features that play no roles at the CI interface (i.e., uPhi on T and uCase on N, but not uQ on wh-phrases). (2) dictates that once these features are introduced to the derivation, it must be removed by Transfer, as far as it successfully undergoes feature-valuation. With this much, consider how the derivation in (1) proceeds. The uPhi is introduced when C externally merges. The minimal SO containing uPhi is C itself, but Transfer of C does not qualify (2) owing to lack of an element assigning a value. The next largest SO is α, but Transfer of it cannot cause valuation of uPhi on C: since it is not an XP-YP structure with shared features, Subj cannot value the uPhi on C as a reflex of MS for Labeling. Thus, to value the uPhi on C, it must get inherited by T. Owing to Inheritance, T becomes the minimal SO containing uPhi. Transfer of T and Transfer of the next largest SO γ cannot eliminate the uPhi, but Transfer of β results in elimination of the uPhi: MS locates the vPhi on Subj and the uPhi on T simultaneously, and valuation takes place between them. Thus, β qualifies as a Transfer domain.

The proposed system brings about welcome consequences. First, it accounts for transparency of non-finite clauses like (3).

(3) a. ?\*To whom<sub>j</sub> did you wonder what<sub>i</sub> they gave *t<sub>i</sub> t<sub>j</sub>*?

b. To whom<sub>j</sub> did you wonder what<sub>i</sub> to give *t<sub>i</sub> t<sub>j</sub>*?

(Cinque (1990: 52))

(3) shows that the wh-island violation is relaxed when the embedded clause is non-finite. Given (2),  $\beta$  in (1) does not qualify as a Transfer domain when C lacks uPhi. In (3a),  $\beta$  is counted as a Transfer domain owing to presence of uPhi. Then, *to whom* must be extracted to the embedded Spec-C, but it is occupied by *what*, thereby causing the wh-island violation. In (3b), in contrast,  $\beta$  is not counted as a Transfer domain since the infinitival C lacks uPhi. Then, *to whom* does not have to be extracted to Spec-C, and hence wh-island violation is not seen.

Second, the proposed system accounts for the bound pronoun effects (BPE). Grano and Lasnik (2019) (G&L) observe that some clause-bounded constructions lose clause-boundedness when a clausal subject is replaced with a bound pronoun. (4) illustrates the BPE in the gapping construction.

- (4) a. \*Mary claims that Jill likes oranges and [Ann ~~claims [that Jill likes]~~ oranges]].  
 b. ?Mary<sub>i</sub> claims that she<sub>i</sub> likes oranges and [Ann<sub>j</sub> ~~claims [that she<sub>j</sub> likes]~~ oranges]].

(Grano and Lasnik (2019: 466-467))

G&L try to account for this, proposing that (i) uF on the head of PHC (i.e., uPhi on T) keeps the CP phase open, (ii) the CP phase is responsible for clause-boundedness, and (iii) a bound pronoun enters the derivation without vPhi and receives it from a binder. Given these assumptions, the embedded CP in (4b) is counted as a phase since the uF on T undergoes deletion thanks to the vF on *Jill*, and hence the phasal CP blocks long-distance gapping. In contrast, the embedded CP in (4c) is not a phase since the uF on T cannot be deleted owing to lack of vF on the bound pronoun *she*, thereby permitting long-distance gapping. G&L, however, do not give a principled explanation of why (i) holds. The proposed system accounts for this: given (2),  $\beta$  in (1) does not qualify as a Transfer domain when the uPhi on T is not eliminable as a reflex of MS for labeling. Thus, the proposed system eliminates the stipulation in (i) by G&L, providing a principled explanation to the BPE.

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A Comparative Study Between Japanese and American  
Mother-Child Interactions During Joint Picture Book Reading

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Language socialization is said to begin from the moment a child has social contact (Ochs & Schieffelin, 1986). Throughout childhood, children learn the culturally appropriate form of communication from their caretakers. Extensive research has revealed that Japanese mothers are affection-oriented and value interpersonal relationships while American mothers are information-oriented and respect independence (Markus & Kitayama, 1991). Clancy (1986) maintains that Japanese mothers to 2-year-olds conduct empathy training by using declaratives instead of imperatives to discipline their children (i.e. “I feel bad for the toy” instead of “Play with the toy gently”). However, there have only been a handful of studies that explain the process in which children are socialized in this manner.

This paper addresses how children acquire their respective styles of communication in the context of joint picture book reading. Specifically, (1) Do Japanese mothers use more empathetic expressions, and do American mothers use more informative expressions as indicated by previous studies? (2) If so, what linguistic framings and conversational functions are employed to convey their respective conversation styles? (3) Is this consistent across all children’s age groups?

32 Japanese and 15 American mother-child dyads were observed reading *The Very Hungry Caterpillar* to their children. 25 Japanese dyads and 9 American dyads consisted of children 2-11 months old (age group A), 7 Japanese dyads and 6 American dyads were 48-59 months old (age group B). The influence of the participants’ demographics such as mother’s age, education, child’s sex, and history of reading *The Very Hungry Caterpillar* were considered with a multivariate analysis. Upon transcribing all utterances, all extratextual utterances were coded using MAXQDA. As codes based on linguistic framing cater better to Western conversations, a focus on both frame and function is necessary to fairly code all utterances (Crane and Fernald, 2016). As such, the codes for this study were divided into two main categories, linguistic framing and conversational function. Linguistic framing includes (but not limited to); *Question* (i.e. “Where’s the bird?” *Tori-wa-doko?*), *Declarative* (i.e. “That’s a bird.” *Sore-wa-tori-dayo.*), *Imperative* (i.e. “Read it.” *Yon-de.*), and *Onomatopoeia* (i.e. “Nom-nom.” *Amu-amu.*). Conversational function includes (but not limited to); *Feedback* (i.e. “That’s right!” *Seikai!*), expressing an assertion (i.e. “That’s a bird, right?” *Sore-wa-tori-dane.*), describing/asking the physical situation (i.e. “That’s green.” *Midori-dane.*), describing/asking the emotional situation (i.e. “He looks so sad.” *Kanashiso-dane.*, “Ouch!” *Itai-yo!*) .

Analysis of the mean number of coded utterances revealed that Japanese mothers express assertion and use onomatopoeias significantly more than Americans, which supports the standpoint of previous studies that Japanese mothers use more empathetic expressions (Japanese: M=0.66, English A: M=0.17). It is of particular interest how and when mother’s start using such expressions. Japanese

mothers increase the amount assertions from age group A to B (A: M=2.08; B: M=3.00), while American mothers use a significantly small amount of assertions in the first place and even decrease that to zero instances from age group A to B (A: M=0.11; B: M=0.00). However, the general amount of maternal utterances, usage of onomatopoeia, and descriptions of the emotional situation all decrease from group A to B in the Japanese samples, whereas in American samples, they all increase. Furthermore, no descriptions of emotional situations were found in American group A samples. These results suggest that Japanese mothers socially condition their children to use empathetic language as early as 2 months of age, and may regard their children to have acquired empathetic speaking by the age of four and therefore decrease the amount of scaffolding. This is further supported by the fact that a small number of Japanese children in age group B express assertions (B: M=0.14) while American children do not express assertions at all. The rich amount of extra-textual information that Japanese mothers provide to their children in group A may be to make it is easier for the children to empathize with their mother's utterances.

Results also revealed that American mothers significantly ask more questions regarding the physical situation for age group B compared to the Japanese mothers, which also aligns with previous studies in that American mothers are information-oriented. In return to the mother's questions, American children describe the physical situation to their mothers and also provide more feedback to their mothers compared to Japanese children which suggests that that American mothers value the exchange of information, and their children also comply with this social norm. At the same time, it should be noted that Japanese children ask twice as many questions than American children. However, 20% of Japanese children's questions are used to mirror their mother's utterance (M=0.29) and 15% of their questions are used to ask their mother's opinions while American children's questions are all used to convey open-ended uncertainty about the physical situation. (M=1.17). This offers support for the idea that children may acquire their respective cultural conversation styles by the age of four, and thus require less scaffolding from their mothers.

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## What defines Phases?

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The aim of this presentation is to clarify the conception of phases. More specifically, we deal with what defines phases. Extending Chomsky's (2015) suggestion that unvalued features mark phases, we argue that unvalued "phi features" constitute phases and show that this proposal is in fact borne out.

It has been argued by a number of researchers that infinitival constructions in English do not constitute a phase (Grano and Lasnik (2018), Kanno (2008), Miyagawa (2011), Sugimoto (2016), Wurmbrand (2013)). In the literature, *Wh*-island and Quantifier Raising (QR) are used for checking the phasehood of CP complements. It is well known that *Wh*-island effects can be voided if the embedded clause is a non-finite clause as shown in (1a, b). Kanno (2008) and Grano and Lasnik (2018) argue that an extraction from the Control *Wh*-island is possible because the CP of the Control complements does not constitute phases and is not subject to the Phase Impenetrability Condition (PIC).

(1) a. ?What<sub>i</sub> do you wonder how<sub>j</sub> to repair *t<sub>i</sub> t<sub>j</sub>*? (Lee (1996: 58))

b. \*What<sub>i</sub> do you wonder how<sub>j</sub> Mary repaired *t<sub>i</sub> t<sub>j</sub>*? (Manzini (1992: 51))

With regard to QR, since May (1977), it has been well known that QR is 'clause-bounded'.

(2) Someone thinks that John loves everyone. (some > every, \*every > some) (Takahashi (2010))

Under the phase theory, Cecchetto (2004), Miyagawa (2011), Takahashi (2010) and Wurmbrand (2013) give an account for QR. They claim that QR is a syntactic movement which also obeys the PIC. Infinitival complements such as Control, ECM and Raising constructions appear not to constitute phases as we can see from (3)

(3) a. At least one professor claims/tends to read every journal. ( $\forall > \exists$ ) (Grano and Lasnik (2018: 467))

b. Someone expects Sue to marry every boy. ( $\forall > \exists$ ) (Wurmbrand (2013: 278))

c. Someone seems to attend every class. ( $\forall > \exists$ ) (Cecchetto (2004: 369))

Kanno (2008) provides an intriguing proposal that the presence of an "Agree feature" and Tense feature on CP makes CP a phase, while the absence of one or both of the two features makes it a non-phase. Under his proposal, finite complements have both features, thereby constituting phases, while Control, ECM, and Raising complements lack one or both features, hence leading to no phases. Therefore, his proposal can explain the (non-)phasehood of all infinitival constructions in (1-3). However, the grammaticality of (4a, b) in the Control constructions in European Portuguese casts doubt on his analysis.

(4) a. O que (.que) perguntaste como/quando arranjar?

what wondered-you how/when to-fix

'What did you wonder/ask how/when to fix?' (Eduardo, Raposo (p.c.))

b. \*O que (.que) perguntaste como/quando arranjaras?

what wondered-you how/when to-fix.2sg

'What did you wonder/ask how/when to fix?' (Eduardo, Raposo (p.c.))

(4a) is a non-inflected control, while (4b) is an inflected control ("arranajes" is the 2sg of the inflected infinitive). A *Wh*-phrase can be extracted from the *Wh*-island in (4a) in contrast with (4b). This fact suggests that the Control complement in (4a) does not constitute a phase but the one in (4b) constitutes a phase. What is crucial here is that the only difference between (4a, b) is "Agree features" (phi feature) in the Control complement. Since Kanno (2008) assumes that the presence of both "Agree feature" and Tense feature is necessary for the phasehood and that Control complements do not have tense features, this fact cannot be explained. In addition, his approach cannot be applied to *for*-DP-infinitives as shown in (5).

- (5) a. A different student wanted to read every book. ( $\forall > \exists$ ) (Johnson (2000: 199))  
 b. A different student wanted for you to read every book. ( $*\forall > \exists$ ) (*ibid.*)

We propose an alternative analysis. Extending Chomsky's (2015) suggestion, we argue that unvalued phi features constitute a phase and show that this can explain (4a, b) and (5a b) as well as (1)-(3). Under our proposal, the C in the Control complement in (4a) does not have an unvalued phi feature, leading to no phase, while the one in (4b) has an unvalued phi feature, constituting a phase. As for (5b), we argue that the C of the infinitival complement in (5b) has an unvalued phi feature, which is made evident through the existence of DP in Spec TP. Therefore, we can correctly predict that the phasehood of (5b) (cf. Wurmbrand (2013)).

Finally, we show that our analysis can be extended to *adjunct island* effects. In the literature, an extraction from adjunct clauses has been shown to be impossible, which is called *adjunct island*. However, in a non-finite clause, there are cases where an extraction from adjunct clauses is possible as we can see in (7a, b), unlike (6a, b). This presentation assumes that *adjunct island* effects can be explained under the PIC. Following Haegeman (2012), we assume that the edge of adjuncts cannot be used as an escape hatch because of the existence of the temporal operator. In (6a, b), The Cs in the adjunct clause have an unvalued phi feature, constituting a phase, so that the *Wh*-phrase cannot be extracted due to the PIC. On the other hand, in (7a, b), the Cs in the adjunct clause (control and gerund) do not have any phi features; thus, no phases are constituted, and *Wh*-extraction is therefore possible.

- (6) a. \*Who did John go home [before he talked to *t*]?  
 b. \*Who did John go home [after he talked to *t*]? (Truswell (2011: 176))  
 (7) a. What did you come round [to work on *t* ]?  
 b. Who did John get upset [after talking to *t*]? (*ibid.*: 129))

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## How to License NPIs and PPIs in the *Than*-Clause Across More Than- and Less Than-Comparatives

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It is well-known that the *than*-clause of *more than*-comparative constructions CCs can license negative polarity items NPIs and much recent semantic work has pointed to positive polarity items PPIs also being licensed in this position. While not much attention has been paid to *less than*-CCs, it has been pointed out that the *than*-clause of *less than*-CCs is upward-entailing, with NPIs also occurring in this position. The aim of this paper is to explore licensing(-like) properties of the *than*-clause across *more than*- & *less than*-CCs. We specifically focus on possible appearances of positive & negative polarity items (PPIs, NPIs) with varying acceptability in CC *than*-clauses. The analysis here is couched in Heim's (2006a) *CCs as generalized quantifiers over degrees* approach to clausal comparatives, with the internal argument specifying a finite set & the external argument not specifying such a set (based on Hornstein & Pietroski 2009).

**Typical Examples to Account For** We will see the following four cases with their varying possibilities: i) an NPI in the *than*-clause of a *more than*-CC ((1a, b)); ii) a PPI in the *than*-clause of a *more than*-CC ((1c)); iii) an NPI in the *than*-clause of a *less than*-CC ((1d, e)); & iv) a PPI in the *than*-clause of a *less than*-CC ((1f)):

- (1) a. Sarah was taller than *anybody* had expected.
- b. Belinda is much richer than I will *ever* be. (NPI-licensing; Rullmann 1995: 64)
- c. John is taller than *some professional basketball players are*. → John is taller than *some professional athletes are*. (*some* as a PPI/‘upward entailing’; Giannakidou & Yoon (2017: 3)
- d. Sarah was less tall than *anybody* had expected.
- e. Belinda is less rich than I will *ever* be. (NPI-licensing; Rullmann 1995: 80)
- f. Fewer students danced than *teachers sang a ballad*. → Fewer students danced than *teachers sang*. (‘upward-entailing’; Rullmann 1995: 79, note 4)

**Assumptions & Analysis** The **standard of comparison** contributed by the *than*-clause provides *a finite set/interval of degrees*, informationally being a discourse-given topic of some sort ((2ai), ii)). I take “*-er/less (= -er+little)*” as the heads of the CCs taking two arguments (2bi), ii)); based on Heim 2006a,b; also Morzycki 2016):

- (2) a. i) Mary is taller than John is. (with Mary being 180cm & John 170cm)
- ii) John is less tall than Mary is.
- b. i) [[*-er* [INTERNAL than John is]] [EXTERNAL Mary is tall-(<sub>er</sub> e) [e]]]  
Mary's height: (0 ~ 180cm), John's height: (0 ~ 170cm)
- ii) [[*less=-er+little* [INTERNAL than Mary is]] [EXTERNAL John is (<sub>less=er+little</sub> e) tall [e]]]  
Mary's height: (180cm ~ ∞), John's height: (170cm ~ ∞)

The focus of the CC in (2ai)) is the existence of some degrees of Mary's height surpassing the

set of all such degrees of John's height. The focus of the CC in (2a<sub>ii</sub>) is the existence of some degrees of John's height falling below the set of all such degrees of Mary's height. And see the following requirements for licensing of NPIs & PPIs:

- (3) a. NPI-licensing requires the presence of some *finite set/interval of degrees*.
- b. PPI-licensing requires the presence of some *set/interval of degrees*.

I take the licensing requirements (3a, b) to be the baselines to account for the unmarked status of NPI-licensing in the *than*-clause of *more than*-CCs ((1a, b)) and PPI-licensing in the *than*-clause of *less than*-CCs ((1f)). Let us see the marked cases of PPI-licensing in the *than*-clause of *more than*-CCs ((1c)) & NPI-licensing in the *than*-clause of *less than*-CCs ((1d, e)):

- (4) a. John is taller than *some professional basketball players are*. → John is taller than *some professional athletes are*. (= (1c))
- b. John is taller than  $\max (\lambda d. \exists x[\text{tall}(x, d) \wedge [\text{things-less-tall-than-John} \cap \text{professional-basketball-players}](x)])$

The requirement in (4b) is that there be a non-null intersection of a (finite) set of height-degrees less than John's height and set of professional basketball players (in any height). I assume that upward-entailing computation is implemented independently of comparative interpretation. Look at (5) before getting on to (1d):

- (5) Lucinda is driving less fast [than [is allowed on this highway]]. (Heim 2006b, 35 (1))
- Suppose that the posted speed limit is 65mph (65mph  $\sim \infty$ ) and the posted minimum speed 40mph (40mph  $\sim \infty$ ). Given the *finite* speed interval of 40  $\sim$  65 mph obtained from the above two points of speed, we get the two readings: (i) "less-than-max"  $\Rightarrow < 65\text{mph}$ ; & (ii) "less-than-min"  $\Rightarrow < 40\text{mph}$  (Heim 2006b).

- (6) a. Sarah was less tall than *anybody* had expected. (= (1d); with Sarah being 150cm)
- b. Sarah's height: (150cm  $\sim \infty$ )
- c. Sarah was less tall than  $\max/\min ((\text{anybody-had-expected})_{(M)} \wedge \lambda d. \exists x[\text{tall}(x, d) \wedge \text{Sarah}(x)])$

For the purposes of the requirement (3a), we need a *finite set/interval of degrees* of Sarah's height for the *than*-clause. Suppose then that Sarah's heights a la *anybody-had-expected* are: *min*: 160cm  $\sim \infty$  & *max*: 170cm  $\sim \infty$ , leading to a finite set/interval of height degrees: 160cm  $\sim$  170cm. Then in this case as well, we get two interpretations: i) Sarah's actual height  $< \text{min}$ : 160cm, & ii) Sarah's actual height  $< \text{max}$ : 170cm.

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# A Unified Account of Mad Magazine Sentences and Non-canonical Types of *How Come* Construction in English

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Mad Magazine Sentences (henceforth, MMs) like (1) are similar to the non-canonical type of *How Come* Construction (henceforth, HCC) in (2) in that their subjects are accusative.

(1) What! *Her* call me up?! Never. (Akmajian (1984: 3))

(2) “How come *him* to mention me at all?” (COHA,1932,FIC,Store)

The sentence in (2) is different from the canonical type of HCC like (3), where there is an inflected form of verb, preceded by the nominative subject.

(3) How come John left? (Collins (1991: 32))

Kondo and Tamada (2019) suggest that, unlike in the case of the canonical type of HCC in (3), where *come* is base generated in C in accordance with Late Merge Principle (Gelderen (2004, 2011)), *come* is an inflected form of lexical verb moving to the CP domain in the following variant of the canonical type of HCC.

(4) how came *he* to have such daughters?  
(COHA,1846,FIC,ElinorWyllysVolume1)

The similarity between (2) and (4) in word order would lead us to assume that *come* is a lexical verb in (2), though these examples are different in that only in (4) is *come* inflected.

This paper tries to account for the similarity between (1) and (2) and the difference between (2) and (4). Chomsky (2008) argues that T inherits  $\phi$ -features and tense feature from C and attracts the subject to the specifier of TP to value and delete its case feature. Under the analysis, the nominative case is assigned to the subject through the establishment of an Agree relation in  $\phi$ -features. Extending Chomsky’s (2008) analysis, this paper proposes that C is merged without  $\phi$ -features and tense feature, and so T cannot inherit any features from C in MMs, in which the subject is not assigned any kind of case, so that it is realized as an accusative form, the default case form (cf. Schütze (1997) and Osawa (2011)). Along this line, the MM in (1) is derived as in (5).

(5) [<sub>CP</sub> her C [<sub>TP</sub> T [<sub>vP</sub> *t<sub>her</sub>* [<sub>V+v</sub> call] [<sub>VP</sub> *t<sub>V</sub>* me up]]]]

In (5), since T cannot inherit  $\phi$ -features and tense feature from C, the relevant affixes cannot be created to attach to a lexical verb, and an Agree relation cannot be established between the subject and T. Thus, the subject is assigned an accusative case as the default case. Akmajian (1984) observes that the subject of MMs must be stressed. This leads us to assume that *her* undergoes focalization, moving from its original position to the left periphery of CP.

The present analysis is immediately extended to the non-canonical type of HCC in (2), as shown in (6).

(6) [<sub>CP</sub> how C [<sub>TP</sub> T [<sub>vP</sub> [<sub>V+v</sub> come] [<sub>VP</sub> *t<sub>V</sub>* him [to mention me at all]] *t<sub>how</sub>*]]]

In (6), since *come* is an unaccusative verb, *him* is merged as an internal argument. The lack of  $\phi$ -features in T forces the subject to be accusative and stay in its original position. Given that *wh*-movement is an instance of focalization, it is *how* that undergo focalization to move

to Spec-CP in such sentences, but not the subject *him*. The present analysis can account for the presence of the non-canonical type of HCC in (7).

- (7) How come that he knows so much about the yacht?

(COHA,1950,FIC,LoveHonor)

The sentence in (7) can be interpreted to be the *it*-less variant of the following sentence, analyzed as having the same kind of structure as the sentence in (4).

- (8) How comes it that those ruins have not, in part, accumulated?

(COHA,1836,NF,StPierresStudies / Kondo and Tamada (2019))

Along the line of the present analysis, the sentence in (7) is derived as in (9).

- (9) [CP how C [TP T [vP [V+v come] [vP t<sub>v</sub> [CP that ...]]] t<sub>how</sub>]]

Given that the expletive *it* is inserted to satisfy the EPP, which is rephrased as the requirement of merger or movement for deleting the relevant features, the absence of *it* immediately follows from the present analysis, under which C is merged without the relevant feature which is inherited by T.

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## On the Functional Differences in Optional Subject Auxiliary Inversions

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**1. Aim.** Optional subject-auxiliary inversions (SAI) can be observed in *than*- and *as*-clauses. This research aims to show that when SAI applies to these clauses with personal pronoun subjects, *as*-clauses in manner use (e.g. ..., *as are we*) have a different function from scalar comparisons (e.g. ...*than was I* / ...*as eccentric as was she*).

**2. Problem.** Most researchers have argued that the weight and focus of an inverted subject NP in these clauses are two major factors in this optional SAI. Very little research, however, has been done on why optional SAI tends to be applied to *as*-clauses in manner use when personal pronouns appear as the subject, unlike scalar comparisons. There is a highly uneven distribution of data of SAIs of *as*-clauses in manner use and scalar comparisons with personal pronoun subjects, as Table 1 shows:

**Table 1. Distribution of three SAI constructions with personal pronouns\***

| Clause Types                    | [1] Non_SAI | [2] SAI   | Total | ratio of [1] and [2] |
|---------------------------------|-------------|-----------|-------|----------------------|
| [A] <i>as</i> -clauses [manner] | 164         | <b>55</b> | 219   | 75% / <b>25%</b>     |
| [B] <i>as...as</i> construction | 4278        | <b>10</b> | 4288  | 99.8% / <b>0.2%</b>  |
| [C] <i>than</i> -clauses        | 5266        | <b>2</b>  | 5268  | 99.9% / <b>0.03%</b> |

\*Source: The Corpus of Contemporary American English (COCA)

In Table 1, the ratio of SAI in Types [B] and [C] are vanishingly low, almost non-existent; on the contrary, that of SAI in Type [A] accounts for 25 percent. This raises the question of why the distribution differs dramatically between [A] and the other clauses.

The purpose here is to demonstrate that *as*-clauses in Type [A] are clauses that are independent from the main clause, and being an adjunct may contribute to serving a unique discourse function; on the contrary, scalar comparisons as in Types [B] and [C] are used only to show the standard of comparison, and do not serve the same function as *as*-clauses in Type [A].

**3. Syntactic Difference and Disparity of Function.** Huddleston and Pullum (2002: 654) argue that the bracketed PPs in (1) are complements, but (2) only contains an adjunct clause:

- (1) a. Kim is as tall [as Pat].  
b. Kim is taller [than Pat]. (Huddleston and Pullum 2002: 654)

- (2) He was a devout Catholic, [as were \_\_\_ both his brothers]. (Ibid.: 1148)

In light of the syntactic difference, let us consider the following instances. VP deletion applies optionally to Types [B] and [C] clauses, but not to a Type [A] clause:

- (3) I am as severely handicapped as {you are / you}. [B] (Quirk et al. 1985: 1137)  
(4) He's bigger than {I am / I}. [C] (Ibid.: 661)

(5) Sandy loved linguistics, as {they / we / she / he / you / I} {did / \* $\phi$ }. [A]

This difference in deletion suggests that Types [B] and [C] do not require specification of VPs in *than*- and *as*-clauses, because the deleted VPs can be understood from the main clauses, and their function is simply to present the standard of comparison in comparative clauses.

In contrast, the *as*-clause in (5) needs an auxiliary. This implies that Type [A] clauses serve as an adjunct clause to introduce a similar event to a main clause. In other words, a sentence with a Type [A] clause can be regarded as a sentence including two events (or propositions). This would cause Type [A] clauses to have a unique function. Of particular relevance here is “topic-promoting function,” and this discourse function can be observed clearly, especially when personal pronouns, to which inversion does not usually apply, are inverted. Tokunaga (to be published) statistically proves that SAI in type [A] *as*-clauses with personal pronouns tend to introduce the inverted subject as a noun with a highly topical grammatical case (i.e. nominative or accusative) in the subsequent context, and can contribute to topic persistence. For instance in (6), the postposed personal pronoun *I* appears as a discourse topic from the immediately following sentence (S1) to the third one (S3) (emphasis added):

- (6) [S1] Nominative (N) → [S2] N → [S3] (omitted but identical) N  
 ..., **as have I**. [S1] If I can order an airline ticket ..., why can't **I** do the same with theater tickets? [S2] And, yes, **I** did go to the box office and [S3] buy the tickets for \$15 less! (COCA: News)

Topic persistence in (6) can be attributed to the function of Type [A] *as*-clauses to introduce a similar event to that of the main clause. In fact, as for Type [B] and [C] clauses with personal pronouns, there is no data of SAI serving the same function as the *as*-clause in (6) in COCA. Both clauses are basically used to set the standard of comparison. They do not have any specific function concerning a topic of the following discourse. (The observation holds even when proper nouns are used as the subjects of the inverted constructions of [B] and [C].)

In conclusion, optional SAIs in *as*-clauses can be categorized into two types: (i) one that shows the standard of comparison, and (ii) the other that describes a similar event to the main clause. Despite their same syntactic forms, Type [B] *as*-clauses behave in the same way as *than*-clauses, unlike *as*-clauses in manner use, which can serve a “topic-promoting function.”

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# On the Distribution of the Genitive Case Marker in the Manchu Language

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## 1. Introduction

This paper investigates the distribution of the genitive case marker in Manchu, a Tungusic language spoken in Manchuria, and elucidates the mechanism behind it. We owe all examples used in this paper to Shuo Wang, an instructor of Manchu at Hebei Normal University for Nationalities. There are no existent monolingual speakers of the language, but some 100 people are bilingual of Manchu and Chinese, and there are some 1,000 people who are not bilingual of these, but can read, write, speak and translate Manchu, one of whom is Shuo Wang. Our findings are as follows. First, the genitive subject is allowed in Manchu. Second, in sentences with no overt relative head, headed by *tala* ‘until,’ for example, the genitive subject is disallowed. Third, the Transitivity Restriction does not hold. Fourth, the genitive subject is disallowed in embedded clauses. Fifth and finally, N’-deletion is impossible. It will be argued that these findings suggest (i) that Manchu and Japanese partially differ in the distribution of the genitive case marker, (ii) that the distribution of the genitive case marker in Manchu is more or less identical to that of the Yanbian variety of Korean, and (iii) that the conditions on genitive subject licensing in Mongolian proposed by Maki et al (2016) apply not only to Mongolian, but also to Japanese, the Yanbian variety of Korean and Manchu.

## 2. Background

This section provides basic syntactic properties of Manchu as background to subsequent sections. First, Manchu is an SOV language.

- (1) Jangsan’-ø      Liisy’-be      saixaha.  
Zhangsan-Nom   Lisi-Acc      praised  
‘Zhangsan praised Lisi.’

Second, the genitive case marker is *-i* in Manchu.

- (2) Jangsan’-i      bihe  
Zhangsan-Gen      book  
‘Zhangsan’s book’

Third, a relative clause precedes the head noun in Manchu.

- (3) [Sikse      Jangsan’-i      udaha]      bihe-oci      ere      bihe      inu.  
yesterday   Zhangsan-Gen   bought   book-Top   this   book   be  
‘The book Zhangsan bought yesterday is this book.’

## 3. Data

Let us now examine relevant data in Manchu. First, Manchu is a head-final language, and a relative clause precedes the head nominal, as shown in (3) and (4).

- (4) [Sikse      Jangsan-i      injebuhe]      baita      baita      inu.  
yesterday   Zhangsan-Gen   laughed   fact   problem   be  
‘The fact that Zhangsan laughed yesterday is a problem.’

Second, in sentences with no overt relative head, headed by *tala* ‘until,’ for example, the genitive subject is not allowed.

- (5) \*      Aga-i      naka-tala,      Jangsan’-ø      albanbou-de      bihei      bi.  
rain-Gen   stop-until   Zhangsan-Nom   office-at   all.the.way   was  
‘Zhangsan was at his office all the way until it stopped raining.’

Third, the Transitivity Restriction does not hold.

- (6) [Sikse Jangsan'-i tere bithe-be juwen buhe ningge, Liisy' inu.  
yesterday Zhangsan-Gen that book-Acc lend give person Lisi be  
'The person who Zhangsan lent the book to is Lisi.'

Fourth, the genitive subject is not allowed in embedded clauses.

- (7) \* [[Sikse Jangsan-i udaha seme] Liisy'-ø gvnimbi] bithe-oci,  
yesterday Zhangsan-Gen bought that Lisi-Nom think book-Top  
tere bithe.  
that book  
'The book which Lisi thinks that Zhangsan bought yesterday is that book.'

Fifth and finally, N'-deletion is not possible.

- (8) We-i tuwaraba-ø sain akv?  
who-Gen attitude-Nom good not  
'Whose attitude is not good?'  
(9) Jangsan'-i [N' tuwaraba/\*e].  
Zhangsan-Gen attitude  
'Zhangsan's (attitude).'

#### 4. Discussion

Let us now consider what the observed facts might suggest for the theory of (Manchu) syntax. First, the findings suggest that Manchu and Japanese differ in N'-deletion, the Transitivity Restriction and the availability of genitive subject in the *until*-clause. The Japanese counterparts of (5) and (9) are grammatical, while the Japanese counterpart of (6) is ungrammatical. Second, the findings suggest that the distribution of the genitive case marker in Manchu is more or less identical to the Yanbian variety of Korean, which allows genitive subject, but disallows N'-deletion, as shown below.

- (10) Ecey nu-ka/-ki mantun lyoli-ka ceyil masissess ni?  
yesterday who-Nom/-Gen made.Adn dish-Nom most delicious Q  
'[The food [which who cooked yesterday] is the most delicious?]'  
(11) a. Nu-ki thayto choci ansumni ka?  
who-Gen attitude good not.be Q  
'Whose attitude is not good?'  
b. John-i [N' thayto/\*e] imnita.  
John-Gen attitude be  
'John's (attitude) is.'

This in turn suggests that there is no correlation between the N'-deletability and the availability of genitive subject in languages with prenominal sentential modifiers.

Third, the findings suggest that the conditions on genitive subject licensing in Mongolian proposed by Maki et al (2016) apply not only to Mongolian, but also to Japanese, the Yanbian variety of Korean and Manchu.

- (12) *Conditions on Genitive Subject Licensing in Mongolian*

- a. A genitive subject must be c-commanded by a nominal element in a local domain.
- b. A genitive subject must be in a local relationship with the adnominal form of a predicate.

(12a, b), which were proposed based on the fact that the Mongolian counterpart of (7) is grammatical, properly predict the distribution of genitive subject in the three languages, indicating that they are more general than have been considered.



## On Direct Object Restriction in English and Mandarin Resultatives

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Since Simpson (1983), it has been known that a resultant predicate must be predicated of the object: the so-called Simpson's Law. The term Direct Object Restriction (hf. DOR) is given by Levin & Rappaport Hovav (1995), which states that "a resultative phrase may be predicated of an immediately postverbal NP, but may not be predicated of a subject or of an oblique complement." The DOR is observed in English resultatives, as shown in (1)-(4):

- (1) John hammered the metal flat. (thematic object)
- (2) The river<sub>i</sub> froze t<sub>i</sub> solid. (derived subject, i.e., underlying object)
- (3) The winter froze the river solid. (causative alternate of (2))
- (4) John laughed himself silly. (fake reflexive)

The Mandarin counterparts of (1)-(3) behave quite similarly as English, hence no DOR violation. In (4), a postverbal reflexive (which is called a fake reflexive as the verb *laugh* is intransitive) is obligatory to sidestep the DOR violation. However, the Mandarin counterpart (5), known as unergative resultatives, is problematic as the object is missing, apparently violating the DOR.

- (5) Lisi yijing tiao lei le  
Lisi already jump tired ASP  
'Lisi already jumped (himself) tired.'

This paper aims to offer a syntactic account of the apparent violation of DOR in Mandarin resultatives and to argue that the difference between Mandarin and English can be reduced to the occurrence of an intervening CP.

To account for the apparent DOR violation, I propose the structure and derivation in (6) for sentences like (5). The proposed structure involves two clauses and the resultant predicate is merged in the embedded one headed by a null complementizer. The XP headed by the resultant predicate then undergoes raising to the embedded SpecCP, producing a compound-like sequence of a manner and a resultant predicate. Importantly, there is an embedded null subject controlled by the matrix subject. As a result, the subject-result reading emerges.

- (6) a. [TP Subj<sub>i</sub> ... [VP [V' M.Pred [CP [ C<sup>0</sup> [TP PRO<sub>i</sub> [XP R.Pred]]]]]]] Result XP fronting
- b. [TP Subj<sub>i</sub> ... [VP [V' M.Pred [CP [XP R.Ped]<sub>j</sub> [ C<sup>0</sup> [TP PRO<sub>i</sub> t<sub>j</sub> ]]]]]]]]

The analysis immediately nullifies the apparent DOR violation since there is indeed a postverbal argument (*PRO*) of which the result XP is predicated. The cross-linguistic difference between (4) and (5) regarding the (non-)occurrence of a fake reflexive can be captured as well. Assuming the small clause (SC) analysis of English resultatives (cf. Kayne 1985, Hoekstra 1988, 1991; Den Dikken & Hoekstra 1994; Kratzer 2005), the fact that the subject of the embedded SC in (4) has to be a reflexive can be thought of as being case-marked (via ECM) by the matrix/manner verb *laugh*. In contrast, the reason why the ECM analysis does not work in Mandarin (5) is because the matrix/manner verb takes a CP complement, hence no ECM and a non-case-marked *PRO*. In other words, this amounts to saying that the cross-linguistic difference can be boiled down to the simple contrast below.

- (7) I don't know [CP whether [TP {\*John/*PRO*} to go to the party]. (Haegeman 1994, 170)
- (8) I know [TP John to be the best candidate]. (Haegeman 1994, 170)

In addition, a typical instance of embedded SC (cf. Tang 2005) requires the occurrence of a reflexive, which further suggests that the embedded in Mandarin resultatives not be a SC.

- (9) ta dang    [\*(ta-ziji) baichi]  
he consider he-self idiot  
'He considers himself idiot.'

The subject-result reading is also found in another type of resultative in Mandarin; namely, the phrasal resultative construction:

- (10) Lisi yijing tiao de lei le  
Lisi already jump DE tired ASP  
'Lisi already jumped (himself) tired.'

Based on the proposed analysis, I suggest that the particle *de* in (10) is the overt equivalent of the null complementizer found in the compound counterpart (5). The overt/covert alternation of the  $C^0$  can be constrained by the Principle of Projection Activation (Koopman & Szabolcsi 2001)/Generalized Doubly-Filled Comp Filter (Koopman 1991, 1993; Collins 2007) because the  $C^0$  can only be spelled-out overtly iff the SpecCP is not. As such, the result XP fronting in (6) blocks the spell-out of the  $C^0$  and, accordingly, the non-occurrence of the particle *de* in the compound counterpart is expected.

Moreover, it is observed that only unergative resultant predicates (e.g. *ku* 'cry') and adjectival predicates (e.g. *lei* 'tired') which can be modified by *hen* 'very' are able to participate in forming unergative resultatives that exhibit the subject-result reading (cf. the ill-formed (11)). The reason is simple: these two types of predicates naturally take an external argument (i.e. true subject), which clearly strengthens the proposed null subject analysis.

- (11) \* Lisi yijing tiao si le  
Lisi already jump dead ASP  
'Lisi already jumped (himself) dead.'

The fact that not all kinds of resultant predicates can form unergative resultatives also suggests that the unaccusativity kind of derivation that involves raising of an object to the subject position, as proposed in Williams (2005), Huang (2006), Cheng (2007), is untenable since these analyses all roughly categorize resultatives as intransitive (with unaccusativity raising) and transitive/causative, and thus fail to account for the contrast between (5) and (11).

The analysis also gains support from semantics. In particular, Rappaport Hovav & Levin (2001) propose a semantic diagnostic for the existence of a postverbal argument in resultatives, namely Argument-per-subevent Condition. What they call bare XP resultatives (e.g. *He danced to the other room*) differ from fake reflexive resultatives (e.g. (4)) in that the latter, but not the former, has a postverbal argument, per the condition. I will show that Mandarin unergative resultatives are semantically on a par with fake reflexives resultatives in English. As such, this also argues for the existence of the proposed null subject argument.

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## Passive Participles Movement in the History of English

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In present-day English, passive participles must not occur in positions preceding a floating quantifier (FQ) or a *vP*/VP-adverb, as shown in (1).

(1) a. \* The votes have been **counted** *all*. (Bobaljik (1995: 206))

b. ??/\* Ever since then, our invitations have no longer been **accepted** *always* by your parents. (Caponigro and Schütze (2003: 296))

Adopting the adverbial analysis of FQs (Bobaljik (1995)), this paper proposes that an FQ must occur in positions adjoined to the left edge of certain maximal projections of a predicate. According to Cinque's (1999) cartographic analysis on the position of adverbs, the ungrammaticality of (1) due to the failure of FQ/adverb licensing in a clause final position, as represented in (2).

(2) \* [<sub>TP</sub> DP<sub>i</sub> [<sub>T'</sub> have [<sub>PerfP</sub> been [<sub>VoiceP</sub> -en [<sub>vP</sub> t<sub>i</sub> [<sub>v'</sub> Participle [<sub>VP</sub> [FQ/ADV] [<sub>VP</sub> t<sub>v</sub> t<sub>i</sub> ]]]]]]]]]]

Nonetheless, passive participles have appeared in positions preceding an FQ/adverb in earlier stages of English. This paper attributes this phenomenon to passive participles movement as in the case of Italian and other Romance languages (Kayne (1989)). It aims to explain the historical changes concerning passive participles movement within the framework of the minimalist program.

The following two tables summarise the results of investigations conducted on the distribution of passive participles with respect to FQs and *vP*/VP adverbs in the history of English, which are based on YCOE, PPCME2, and PPCEME.

Table 1. Relative Orders of FQs and Passive Participles

|             | EOE     | LOE       | EME      | LME     | E1      | E2      | E3      |
|-------------|---------|-----------|----------|---------|---------|---------|---------|
| FQ-Part     | 4       | 51        | 18       | 35      | 17      | 38      | 25      |
| Part-FQ (%) | 0 (0.0) | 17 (25.0) | 8 (30.8) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |

Table 2. Relative Orders of *vP*/VP Adverbs and Passive Participles

|              | EOE     | LOE        | EME       | LME     | E1      | E2      | E3      |
|--------------|---------|------------|-----------|---------|---------|---------|---------|
| Adv-Part     | 215     | 375        | 99        | 355     | 406     | 433     | 438     |
| Part-Adv (%) | 8 (3.6) | 128 (25.4) | 19 (16.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |

The Part-FQ/Adv order was productive until Early Middle English, but it began to decline in the 13th century and was eventually lost in the 14th century. It follows the richness of agreement morphology on participles (Mitchell (1985)) – that passive participles can move out of VP in early English. Adopting the Multiple Agree approach (Hiraiwa (2001)), this paper assumes that T acts as a probe and enters into a Multiple

Agree relation with the subject DP bearing [*i*φ] and [*u*Case] as well as the passive participle bearing [*u*φ] and [*u*Case]. The derivations of (3a–b) are represented in (4a–b).

- (3) a. ac hys wundra næron awritene ealle  
but his wonders-NOM;M;PL were-not written-NOM;M;PL all  
‘but his wonders were not all written’ (coaelhom, *ÆHom*\_6:318.1025)
- b. and efne heo is gehæled halwendlice  
and even she-NOM;F;SG is healed-NOM;F;SG entirely  
ðurh Crist.  
through Christ  
‘and even she is entirely healed by Christ’ (coaelive, *ÆLS*[Lucy]:28.2184)

- (4) [<sub>TP</sub> hys wundra<sub>i</sub> [<sub>T'</sub> næron [<sub>VoiceP</sub> awritene [<sub>νP</sub> [<sub>QP</sub> ealle] [<sub>νP</sub> t<sub>i</sub> [<sub>ν'</sub> t<sub>V</sub> [<sub>VP</sub> t<sub>V</sub> t<sub>i</sub>]]]]]]]]]

In (4a), the passive participle in the *ν* head successfully enters into a Multiple Agree relation with the probe T and the subject DP in Spec-*νP*. As a result, the participle moves to Voice head past the FQ, deriving the Part-FQ order. The same account holds for (3b). According to Mustanoja (1960), passive participles lost their inflectional endings in the 13th century. The demise of the Part-FQ/Adv order is thus a consequence of the loss of movement and agreement of passive participles.

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