

Papers from the Thirty-Ninth Conference  
November 13-14, 2021  
and from  
the Fourteenth International Spring Forum  
May 8-9, 2021  
of  
The English Linguistic Society of Japan

# JELS 39

日本英語学会第 39 回大会（オンライン開催）  
第 14 回国際春季フォーラム（オンライン開催）  
研究発表論文集

The English Linguistic Society of Japan  
2022

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本書は、2021年5月8日、9日にオンラインにて開催された日本英語学会第14回国際春季フォーラム、および同年11月13日、14日にオンラインにて開催された日本英語学会第39回大会における研究発表論文、Symposium Reports、Workshop ReportsおよびSpecial Lecture Reportsを収録しています（投稿辞退分は除く）。発表採用決定日および投稿受理日は以下のとおりです。

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本論集は、執筆者から提出された原稿を、大会運営委員会で書式を確認の上、全体の統一を図るため最低限の修正を施して掲載しております。個々の修正箇所については、時間的な制約もあり執筆者への確認を省き大会運営委員会の責任で補正しました。ご了承ください。

なお、各論文の内容はすべて執筆者の責任に帰されるべきものです。

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**[I]**

**Thirty-Ninth Conference  
November 13-14, 2021**

## Acquisition of Degree Abstraction: Seeking Evidence from IPL\*

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Keywords : *Parameter, Degree Abstraction, Comparatives, Measure Phrase, Intermodal Preferential Looking*

### 1. Introduction

The parameter and principle theory in linguistics claims that the variation of each language is determined by binary setting of a number of universal parameters. In the process of language acquisition, a child will set each of the parameters (just like turning on/off switches) based on their language input.

This study looks at such a parameter involved in degree constructions, e.g. the degree clausal comparative (DCC) and the measure phrase construction (MP). These constructions are considered to be closely related based on theory of formal semantics, i.e., DCC and MP both involve a semantic operation called degree abstraction (i.e., binding of a degree variable in the structure).

Using the Intermodal Preferential Looking (IPL) task on English-learning children, this study seeks a support for language acquisition process based on the “parametric” hypothesis, where the positive setting of certain parameter is prerequisite for two or more related constructions, by showing the correlation between DCC and MP in the acquisition process.

### 2. The DAP and Prediction in Acquisition

Heim (2001) claims, based on von Stechow’s (1984) seminal work on comparison, that the English comparison construction semantically involves the comparison between degrees, where matrix and *than*-clause provide sets of degrees through abstraction over a degree variable. This operation, so-called degree abstraction, is considered to be involved in the clausal comparatives where degrees of the adjectives are compared (i.e., Degree Clausal Comparatives: DCC), as shown below (example given under (a) and standard logical form under (b)).

#### (1) Degree Clausal Comparatives (DCC)

- a. This shelf is taller than that door is wide.
- b. [[ [Degree Phrase -er than [<sub>d,t</sub> how<sub>1</sub> this shelf is t<sub>1</sub> tall]] [<sub>d,t</sub> 2 [that door is [<sub>AP</sub> t<sub>2</sub> wide]]]] ]]

Here the quantifier *-er* takes two degrees which are taken from both the main clause and the *than*-clause through the degree abstraction.

There are other quantifiers over degrees that differ from the comparative in terms of their specific meaning, but are otherwise similar. For example, the degree abstraction is involved in the measure phrase (MP), as shown below.

#### (2) Measure Phrases (MP)

- a. John is exactly 1.70m tall.
  - b. [ [Degree Phrase <<<sub>d,t</sub>,t> exactly 1.70m] [<sub>d,t</sub> how<sub>1</sub> [John is t<sub>1</sub> tall]] ] ]
- (Beck et al. (2009))

Through an extensive cross-linguistic survey in the previous studies (Snyder (1995), Beck et al. (2004), (2009) among others), it was found that all languages allowing DCC also allow MP (see Table 1). Thus, it was claimed that there is a

degree abstraction parameter (DAP), i.e., a language allows a degree abstraction or not, whose positive setting [+DAP] is a necessary condition (or prerequisite) for DCC and MP.

### (3) Degree Abstraction Parameter (DAP)

A language { does/does not } have binding of degree variables

(Beck et al. (2004), (2009))

Lg. \ Cons.	DCC	MP
English	yes	yes
German	yes	yes
Bulgarian	yes	yes
Hungarian	yes?	yes
Hindi-Urdu	n/a	yes
Thai	yes	yes
Romanian	no	no
Spanish	no	no
Guarani	no	no
Russian	no	no
Turkish	n/a	no
Chinese	no	no
Japanese	no	no
Mooré	n/a	no
Samoa	n/a	no
Yorùbá	n/a	no
Motu	n/a	no

Table 1

In terms of the language acquisition, then, the positive setting for the DAP is the prerequisite for children to comprehend these constructions, i.e., a child must turn on the parameter first in order to understand both the DCC and MP. Thus, the prediction we can make here is that there should be some correlation between children's comprehension performance on DCC and that on MP. E.g., A Child who is good at comprehending DCC should also be good at MP or a child who does not yet good at DCC is also not good at MP.

## 3. Previous Studies

### 3.1. TVJT

One previous study (Hattori (2019))

measured children's comprehension on both DCC and MP based on the experiments using Truth Value Judgement task (TVJT) on 15 monolingual English-learning children (3;03-5;10), in which a child judges the truth value (true or false) of the sentence given by a puppet (which is acted by an experimenter) after s/he listens to a story narrated by another experimenter.

The sample story and the test sentences uttered by the puppet (Cookie Monster: CM), are shown below. Here, instead of an experimenter acting out the stories with toys and props, stories were presented as animation on a tablet screen narrated by one of the experimenters. The picture shows the final image/slide of the story that the child would be looking at when CM utters the test sentences.

### (4) Sample Story:

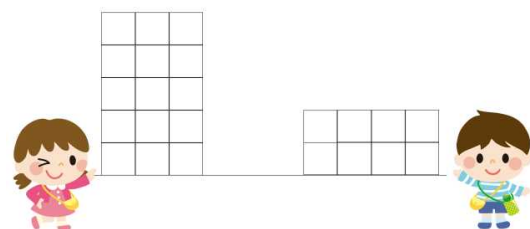
Girl - 5 bricks tall × 3 bricks wide;

Boy - 2 bricks tall × 4 bricks wide<sup>1</sup>

Experimenter: "A girl and a boy made walls out of bricks. Their walls are different. This one is very 'tall', but that one is very 'wide'"

Girl: "Look at my wall! I made it all by myself. It is ... (count to 5) this tall. Isn't it great!"

Boy: "That's a really tall wall. My wall isn't that tall but it is a really wide wall, see? It's ... (count to 4) this wide!"



(5) Test Sentences:

- a. So, the boy's wall is wider than the girl's wall is tall? (DCC)
- b. I know how tall the girl's wall is. It's 3 bricks tall. (MP)

In both cases, the correct answers correspond to a negative answer. If the child has the adult grammar, we expect that they will answer with “no” to CM (and should be able to explain if they are asked “what really happened?”). If they don't have the grammar, we expect they will disregard the second clause in (5a), interpret them as a phrasal comparative as shown below, and thus answer “yes.”

- (6) The boy's wall is wider than [<sub>DP</sub> the girl's wall] ~~is tall~~.

Also, a previous study (Arii et al. (2017)) shows that English/Japanese learning children tend to interpret the measure phrases as differential comparatives when they are young. If the children don't have the grammar, then they would interpret the MP sentence in (5b) as the following differential comparative sentence and thus answer “yes.”

- (7) Look, the girl's wall is 3 bricks taller than boy's wall.

The children's performance was measured based on percentages of correct answer to each item.

This study, however, failed to show correlation between their performance on DCC and that on MP (two-tailed  $p = .9843$ ). Crucially, the result shows that overall performance of children on all the test items (including the control) were below average, indicating that the task was simply too complicated for children.

### 3.2. IPL

There is one previous study looking at correlation between children's understanding on different linguistic constructions based on the idea that there is an abstract parameter, setting of which is a prerequisite for their acquisition. Snyder (1995-2014) has been arguing for the existence of “The Compounding Parameter” ( $\pm$ TCP). According to this proposal, the [+TCP] setting is one of the prerequisites for English verb-particle constructions (e.g. *pull the top off*) as well as for “creative” Noun-Noun compounding (NNC: e.g. *apple box lid*).

A recent study (Naigles et al. (2013)) tested TCP with the Intermodal Preferential Looking (IPL) task, a comprehension task that is more simple for young children (Hirsh-Pasek and Golinkoff (1991)). English-learning 2-year-olds viewed two, side-by-side images, and heard a directing audio that matched only one, as shown in the figure below.



Figure 1

Stimuli tested comprehension of particles (“She's kicking it up/down!”), and NNC (“Look at the hand chair / hand on the chair!”) as well as a variety of control constructions.

As predicted by TCP, children who looked the longest at the matching image for particles

also looked significantly longer at the NNC match. No such association existed between either particles or NNC, on the one hand, and any of the control measures. They take this pattern to indicate that a subgroup of the children had adopted the target value of TCP, and consequently could quickly and confidently identify the image matching either a particle or an NNC audio. For other children, who had not yet committed themselves to the [+TCP] setting, there was apparently nothing to link their preferred image (the match or non-match) for a particle to their preferred image on NNC items.

#### **4. Current Study**

The current study aims at (i) measuring children's comprehension on DCC and MP using a comprehension task that is more simple and straightforward for young children to process and (ii) by using the new methodology, aims at understanding more of the correlation between DCC and MP, testing the hypothesis that these are associated with the DAP. To achieve these goals, this study uses the Intermodal Preferential Looking (IPL) task, a comprehension task that is considered to be more simple/straightforward for young children. The task has been previously used and holds some promise for showing correlation between comprehensions of two different linguistic constructions.

##### **4.1. Procedure**

The subject child sees two side-by-side video clips while hearing audio that matches only one of the images. Children's faces were filmed as they were watching the videos, and then their eye movements were coded frame-by-frame using a custom coding program. Coders who were 'blind' to the match coded when the children looked to the left, right, to the

center, and/or away. The dependent variables were the percent of time looking to the match side (total looking time to the match) during the control and test trials, and the latency of first look to the match vs. nonmatch during the test trials, starting at the offset of their last look to the center/red dot before the trial began (i.e. how quickly they look at the match). The correlation between children's looking time/latency to the match on DCC and those on MP were analyzed (by Pearson's linear correlation test). Those measures were compared to the control ones, too, in order to make sure that what we are looking at is not just "some kids are smart and the other kids are not." The prediction is that children who look longer/more quickly at the matching image for MP also look significantly longer/more quickly at DCC match.

##### **4.2. Subject**

28 monolingual English learning children (age range: 4;01-7;06, average: 5;05) were tested. Children were excluded if they exhibit an obvious response bias, e.g., looking to one side all the time.

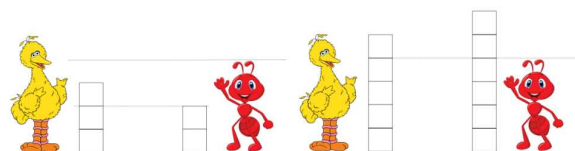
To see the age effect, the children were divided into two groups, i.e., 14 younger age children (4;01-5;00) and 14 older age children (5;01-7;06) groups.

##### **4.3. Stimuli**

Here are some sample stimuli below for DCC in (8) and MP in (9). Here, the left image matches the audio<sup>2</sup> (Match side was randomized and the animation is used in the actual stimuli). They were presented in a similar pattern: 6 seconds trials, preceded by a 3 second inter-trial-interval when only the red light was visible. Two familiarization trials were presented, followed by one baseline trial and two test trials.



(8) DCC



Audio: “Look, Big Bird is building a taller tower than ant.”

(9) MP



Audio: “Look, the girl’s wall is 3 bricks tall.”

In the DCC item (8), the interpretation is based on phonologically elided clauses in the embedded sentences as shown in (10). Children correctly looking at the matched images indicates that they have access to that elided comparative clause, and thus understand the DCC correctly.

(10) Look, Big Bird is building a taller tower than ant ~~is building a x-tall tower~~

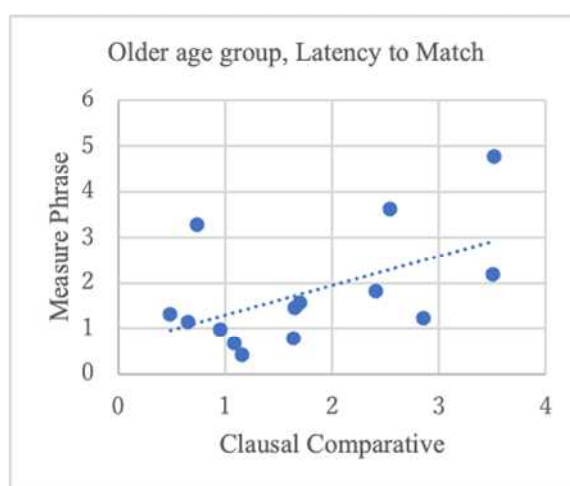
For the MP items like (9), the non-matched image is intended to show the situation which can be described by a differential comparative as shown below.

(11) Look, the girl’s wall is 3 bricks taller than boy’s wall

This is based on a previous study (Arii et al. (2017)) which shows that English/Japanese learning children tend to interpret the measure phrases as differential comparatives when they are young, indicating that they cannot yet understand MP. The control stimuli (e.g., phrasal comparatives) were also included.

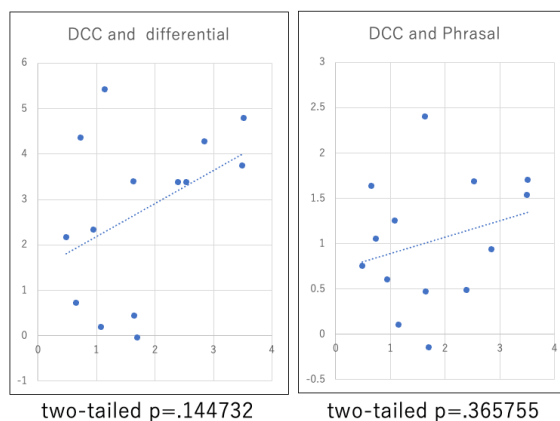
#### 4.4. Result

As a result, there are no correlation found in looking time/latency in younger group or DCC/MP against the control items in both the age groups, but there was some correlation effect ( $r^2=0.2857$ ,  $t(12)=2.19$ , two-tailed  $p=.049008^*$ , by Pearson’s Linear Correlation) between the latency of DCC and that of MP in the older group, as shown in the following scatter plot (Graph 1).



Graph 1

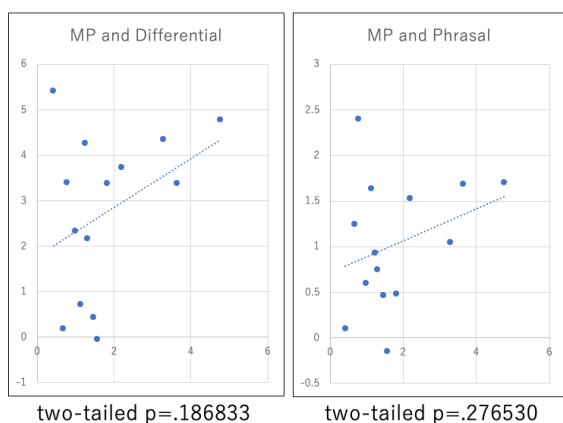
Regarding the correlation with the control items, there are no correlation found in latency of DCC/MP against any of the control items, as shown in the following graphs.



two-tailed  $p=.144732$

two-tailed  $p=.365755$

Graph 2: DCC vs. Controls



Graph 3: MP vs. Controls

#### 4.5. Discussion

The result shows that the older children who looked more quickly at the matching image for MP also looked significantly more quickly at DCC match. Also, no such association existed between either DCC or MP and any of the control measures, which indicate that the correlation between children's comprehension on DCC and that on MP is not because some kids are smart and generally good at the task.

This suggests that there is an indication that the degree abstraction parameter (DAP) exists, and its setting ( $\pm$ DAP) may affect the acquisition of DCC and MP, where a child needs to set the DAP to the positive value (+DAP) first in order to comprehend the DCC and MP.

The younger children (under 5;00) did not show this correlation effect presumably because they couldn't understand the stimuli in time, which were presented and needed to be processed in such a short period of time (i.e., 6 seconds).

#### 5. Conclusion

This study used the Intermodal Preferential Looking task on English-learning children, to seek a support for language acquisition process based on the "parametric" hypothesis, where the

positive setting of certain parameter is prerequisite for two or more related constructions. In particular, the study focused on Degree Abstraction Parameter for two related constructions, both of which involves the degree abstraction (i.e. binding of a degree variable) in their derivations based on the theory of formal semantics, i.e., Measure Phrase and Degree Clausal Comparatives. The result of 28 monolingual English-learning children (age range: 4;01-7;06) shows that there was some correlation effect between the latency of MP and that of DCC in the older group. This suggests that there is a DAP, and its setting ( $\pm$ DAP) may affect the acquisition of DCC and MP.

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#### NOTES

<sup>1</sup> Avoiding an abstract measure like inch, the number of bricks is used here to show the height or width of the objects that are compared.

<sup>2</sup> All audios were presented in American English Child-Directed Speech.

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## Location of Agreement and Case\*

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Keywords : *interface, agreement, case, Agree, label*

### 1. Introduction

This paper discusses the agreement and case assignment. First, we will go through some cases that are not expected in the standard framework with Agree. We allow agreement and case assignment to be explained as the phenomena at the interfaces based on the labels of the set.

We summarize the basic properties of Agree as the following:

- (1) a. Agree: [*u*F] acts as a probe, which searches the c-command domain for the goal [F] to get its value.
- b. Agree respects syntactic minimality and only the first-located goal can participate in the relation.

This follows from (1) that only (2a) is a well-formed configuration, and the ones like (2b, c) are not expected.

- (2) a. T[*u*phi][nom] - DP[phi][*u*case]
- b. T[*u*phi][nom] - DP1[phi][*u*case] & DP2[phi][*u*case]
- c. T[*u*phi][nom] & V[*u*phi][acc] - DP[phi][*u*case]

In (2b), two candidate DPs exist for the one [*u*phi] on T. In (2c), there are two case assigners for one DP. These one-to-many relations violate the syntactic minimality in (1b). Then, consider the following examples:<sup>1</sup>

- (3) Er läßt ihn {einen guten Mann/  
he let-3SG him a good man-ACC/  
ein guter Mann} sein.  
a good man-NOM COP  
'He lets him be a good man.'  
(German; adapted from Schütze (1997: 87))
- (4) Juma a-li-kuwa 3a-me-pika chakula.  
J. 3SG-PST-be 3SG-PERF-cook 7food  
'Juma had cooked food.'  
(Swahili; Carstens (2001: 150))
- (5) ngunha watharri-ku nyurna-yu  
that look=for-PRES snake-ACC  
warrapa-la-ku  
grass-LOC-ACC  
'He is looking for the snake in the grass.'  
(Panyjima; Plank (1995: 35))

We can see that (3) and (4) instantiate (2b, c), respectively. In (3), the predicate nominal can either be accusative or default nominative. In the former case, the matrix V assigns accusative to two nominals. In (4), the verbal participle as well as T agree with the subject. Finally, in (5), *warrapalaku* 'snake' with inherent locative also receives accusative, which is the same case as the modified head. Although Hiraiwa's (2005) Multiple Agree is intended to capture one-to-many relations like (3) and (4), the proposal bears conceptual problem if Agree is an instance of Minimal Search (Chomsky (2015)), since Multiple Agree, by definition, ignores minimality in that Search proceeds even after it locates one goal (see also Zeijlstra (2012)). Thus, we do not resort to this option and assume that

syntactic operation follows minimality.

Another problem of Agree is found in the *wh* interrogatives like (6).

- (6) a. [Which[*uQ*] cat] do[Q] you like?  
 (adapted from Epstein, Kitahara, and Seely (EKS) (2017))  
 b. Who[*uQ*] will[Q] be offended if we invite which[*uQ*] philosopher?  
 (adapted from Reinhart (1998: 36))

The underlined *wh* operators with [*uQ*] do not c-command interrogative C. The question of how to determine the values must be explained.

## 2. Proposal

Our analysis is based on the following assumptions:

- (7) a. [*uF*] and nominals without case are problematic at the interfaces because of the legibility condition. (EKS (2017))  
 b. Agree in syntax respects syntactic minimality. (Chomsky (2000, 2001))  
 c. Agreement and case are determined at the interfaces based on the labels of the sets. (EKS (2017), Hayashi (in press))  
 d. The agreement labels with T/R assign nominative/accusative cases.

(7a) departs from the standard analysis, which requires [*uF*] to be assigned in syntax. [*uF*] is problematic at the interfaces, not in syntax in that the interfaces cannot interpret them. Thus, we assume that the illegibility problem is solved if the interpretation of [*uF*] can be determined at the interfaces with an appropriate configuration. We assume in (7c) that it is the labels that carry out this job. Chomsky (2013: 43) argues that the interpretive information of the set is provided by

the label. Thus, [*uF*] can be assigned the interpretation through the label of the set that contains [*uF*]. In the interrogative clauses found in (6), the moved *wh* operators provide the label  $\langle Q, Q \rangle$  with interrogative C, as a result of which the set is interpreted as interrogative. [*uQ*] contained in the interrogative set can also be interpreted as interrogative at the interfaces. Let us now see the structures of (3) – (5).

- (8)  $\{\delta \ v^* \ \{\gamma \ \text{him}[\text{phi}] \ \{\beta \ \sqrt{\text{let}}[u\text{phi}] \ \{\alpha \ \text{be him}[\text{phi}] \ \text{a good man} \ \}\}\}\}$   
 $(\alpha=\text{be}, \beta=\text{R}, \gamma=\langle \text{phi}, \text{phi} \rangle, \delta=v^*)$  (cf. (3))  
 (9)  $\{\delta \ \text{Juma}[\text{phi}] \ \{\gamma \ \text{T}[u\text{phi}] \ \{\beta \ \text{Juma}[\text{phi}] \ \{\alpha \ v^*[u\text{phi}], \text{food} \ \}\}\}\}$   
 $(\alpha=\beta=v^*, \gamma=\text{T}, \delta=\langle \text{phi}, \text{phi} \rangle)$  (cf. (4))  
 (10)  $\{\gamma \ \text{look for} \ \{\beta \ \text{snake} \ \{\alpha \ \text{grass}[\text{loc}] \ \}\}\}$   
 $(\alpha=\text{grass}, \beta=\text{snake}, \gamma=\text{look for})$  (cf. (5))

The predicate nominal in (8) is contained in the set with label  $\gamma=\langle \text{phi}, \text{phi} \rangle$ , which assigns a nominal accusative at the SM interface. Label  $\delta=\langle \text{phi}, \text{phi} \rangle$  in (9) explains the participle agreement with the subject. In (10), assuming that the verbal label assigns accusative in this language because of the lack of phi agreement, *grass* is located where it can receive accusative. To allow suffixaufnahme (case stacking), we do not postulate [*u*case]. Nominals receive any of the cases they can receive, and the realization varies in accord to the externalization parameter. Before discussing the externalization, we will go through a previous analysis that attempts to capture one-to-many relations.

## 3. Previous Analysis of Concord in Syntax

Norris (2014) explains the case concord in Estonian. His analysis is based on the bare phrase structure (Chomsky (1995)), by which the label carries the same information as the

head. He argues that the label can inherit [case] on the head and that it is copied to other nominals. Consider the following examples:

- (11) a. enamik inimesi  
majority people.PL.PAR  
b. Enamiku-l inimes-te-l pole  
majority-ADE person-PL-ADE NEG.be  
selle-ks raha.  
this-TRL money.PAR  
'A majority of people do not have  
money for this.'  
(Estonian; Norris (2014: 180))

The partitive case in (11b) is overwritten by the adessive case assigned by the higher head.

Norris's analysis differs from ours in the following ways i) in his framework, agreement and case assignment must be carried out in syntax so that the label shows the relevant information; and ii) while he assumes "overwriting" of features, we do not, which is problematic in terms of the no-tampering condition (Chomsky (2008)). The following section offers an analysis without it.

#### 4. Some Parameters at the Externalization

This section discusses how case is externalized. As assumed in (7a), we assume that case is required at the SM interface. Then, what happens if a nominal receives more than one case? Some possibilities are as follows:

- (12) a. Externalize all cases.  
b. Externalize only one case.

(5) is the manifestation of (12a). (12b) has further subcategories: i) Externalize the same exponent of multiple cases, ii) Externalize the most marked case, iii) Externalize the outermost

case, and iv) Externalize any case. We do not discuss (12biii) here (see Pesetsky (2013)).

(12bi) is also known as the matching condition or case syncretism. Consider the following examples.

- (13) a. \*Wen du liebst ist ein  
who.ACC you love.2SG COP.3SG a.NOM  
Halunke.  
scoundrel  
'Who you love is a scoundrel.'  
b. Was du liebst ist  
what.NOM/ACC you love.2SG COP.3SG  
Pasta.  
pasta  
'What you loove is pasta.'  
(German; van Riemsdijk (2021: 133))

- (14) {<phi, phi> {FR (DP) wh[phi] {C {EA {T {v\* {<phi, phi> wh[phi] {R[uphi], ...}}}}}} {T[uphi] {v\*, ...}}}}

Both the free relatives in (13a, b) have the same structure as (14), where the *wh* operator shows double agreement both in the embedded relative clause as well as in the matrix clause. In (13a) with *wen* 'who', nominative and accusative have different forms, which is incompatible with (12bi). Since the nominative and accusative forms of *was* 'what' are the same, (13b) is well-formed. However, there is a speaker variation. Vogel (2001: 343) observes that either nominative or accusative yields a well-formed sentence in examples like (13a). Such people opt for the option (12biv) rather than (12bi).

We argue that the genitive of negation in Russian is an instance of (12bii).

- (15) a. Ivan vseгда est mjaso.  
I.NOM always eats meat.ACC  
'Ivan always eats meat.'

b. Ivan nikogda ne est mjaso.  
I.NOM never NEG eats meat.GEN  
'Ivan never eats meat.'

c. Bogatyje nikogda ne zavidujut  
the.rich.NOM never NEG envy  
bednym/\*bednyx.  
the.poor.DAT/the.poor.GEN  
'The rich never envy the poor.'

(Russian; Babby (1987: 95))

(16) {C {EA {T {NEG NEG {v\* {...IA...}}}}}}

In (15a), accusative is assigned by the verb. (15b, c) have the structure like (16). What is relevant in (16) is the case of IA. It is located in the set labeled NEG, by which it receives genitive as well as another case assigned by the verb. In (15b), the negation also assigns genitive, and the more marked genitive is expressed. In (15c), the IA with the lexical dative cannot express genitive. We argue that Estonian examples in (13) also fall under this option, and [case] features need not be assumed. In the GB era, [case] is assumed for the visibility condition, which states that a nominal can receive theta-role only if it is assigned (structural) Case (Chomsky (1986: 94)). However, as McFadden (2004: 18) argues, there is no a priori reason for the relation between Case and theta-relation. Ideally, we want to discard the visibility condition and construct a simple theory based on the morphological case, not the syntactic Case. The condition works for the following examples:

(17) a. \*It seems Mary to be believed *t* likes John.

b. \*It seems Mary to be *t* here.

(18) a. Mary seems to hit John.

b. \*Mary seems to hit *t*.

In (17a, b), there is no Case position in the chain

(Mary, *t*), leading to the derivation to crash. However, (17a, b) also face the labeling problem. Since *Mary* and *to* have no agreement, the set lacks the label. (18a, b) are also discussed in terms of Case. The problem in (18b) is the movement from a Case position to another Case position. However, we have already seen that a nominal with multiple cases is not problematic in principle. We argue that (18b) has the problem of theta-theory, independent of Case. Following Chomsky (2021), we just assume that a nominal cannot receive two theta-roles from one predicate. If we explain the ungrammaticality of these examples in terms of labels and theta-roles, we can deduce the visibility condition without Case, as EKS (2014) deduce the properties of Merge-over-Move from labeling. However, we leave further discussion for future research.<sup>2</sup>

## 5. Further Extension

This section will bring out the other consequences of our analysis. First, let us consider the following examples:

(19) a. Nosotros com-emos las manzanas.

we.M.PL eat-1PL the apples

'We eat the apples.'

b. Nosotras com-emos las manzanas.

we.F.PL eat-1PL the apples

'We eat the apples.'

c. Nosotros estamos list-o-s.

we.M.PL COP.1PL ready-M-PL

'We are ready.'

d. Nosotras estamos list-a-s.

we.F.PL COP.1PL ready-F-PL

'We are ready.'

(Spanish; adapted from Baker (2008: 8))

The subjects show full agreement with T. In contrast, post-copular adjectives in (19c, d) do

(20) Ni            altxa-tze-n    probatu.  
          me(ABS) lift-NMZ-LOC attempted  
          [na-Ø-u-te]<sub>aux</sub>  
          1.ABS-SG.ABS-√-3PL.ERG  
          (Basque; Preminger (2011: 920), cf.  
          Preminger (2009: 627))

(21) Relative Aptitude for Failed Agreement  
          (RAFA)                            (Preminger 2011: 922)  
          person at-a-distance » number at-a-distance  
          ( » any agreement at close range)

(22) Interpretation by Contain (Hayashi in press)

Given the structure

$$\{_{\gamma} \{_{\beta} Z[F], \dots \} \{_{\alpha} X[uF] \{ \dots Y \dots \} \} \}$$

$$(\alpha=X, \beta=Z, \gamma=\langle F, F \rangle)$$

i) Y, contained in the set labeled  $\langle F, F \rangle$ , may be given the relevant interpretation according to the label at the interfaces.

ii) X, immediately contained in the set labeled  $\langle F, F \rangle$ , must be given the relevant interpretation according to the label at the interfaces.

receive the interpretation in accordance with the label. In contrast,  $Y$  can be interpreted in accordance with the label, while other interpretations are also available since it does not participate in the labeling of  $\gamma$ . The generalization follows from (22) that local agreement must be the full agreement, while the long-distance agreement can fail.

(23) Aba-kali ni ba-kuhi.  
2-women PRED 2-short  
'The women are short.'  
(Kinande; Baker (2008: 171))

(24) a. Gianni non ha detto niente a  
G. NEG has said n-thing to  
nessuno.  
n-body  
'Gianni didn't say anything to anybody.'  
b. [Gianni non[*i*NEG]-ha [ditto  
niente[*u*NEG] a nessuno[*u*NEG]]]  
(Italian; Zeijlstra (2012: 519))



Zeijlstra argues that n-words with [*u*NEG] agree with the higher NEG head via upward Agree. Our analysis also deduces this effect. Since the NEG head provides the label, the n-words contained in the set can receive the interpretation by using the label. This is more than a directional difference. If we attempt to deduce Agree from Minimal Search just like Chomsky (2015: 6) and EKS (2017) did, Agree should be downward.

## 6. Concluding Remarks

We propose a new way to deduce the agreement and case assignment phenomena in terms of the interpretation of the label at the interfaces. This is a natural consequence of Chomsky's (2013) view that the label is the interpretive instruction at the interfaces. Relegating (part of) the agreement and case assignment phenomena to the SM interface pushes the view that the parameter at externalization explains language variation.

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## NOTES

<sup>1</sup> The following abbreviations are used in the glosses: 1, 2, 3...=person/noun class (Bantu), ACC=accusative, ADE=adessive, COP=copular, DAT=dative, F=feminine, GEN=genitive, LOC=locative, M=masculine, NEG=negation, NOM=nominative, PAR=partitive, PERF=perfect, PL=plural, PRED=predicative, PRES=present, PST=past, SG=singular, TRL=translative

<sup>2</sup> A potential problem is the following example:

- (i) a. \*who does it seem [*e* to be intelligent]  
(Chomsky (1986: 95))
- b. {<Q, Q> who C...{<phi, phi> it {<sub>T</sub> T ... {<sub>to</sub> ~~who~~  
{<sub>to</sub> to ....}}}}}

There is no labeling problem with *who* and *to* since the copy is invisible for labeling. Moreover, our analysis does not expect the problem of the case of *who*. Since the copy of *who* is contained in the set labeled <phi, phi>, it would receive nominative, and the derivation would converge, contrary to fact. The complete discussion must involve the licensing condition of expletives, which may explain the ill-formedness.

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the vase!

(Mack (2010: 244))

## 英語の道具主語構文と日本語の対応構文の 共通点と相違点: 言語使用の三層モデルの 観点から\*

(The Commonality and Difference between  
English Instrument Subject Constructions and  
Their Japanese Counterparts: From the  
Perspective of the Three-Tier Model of  
Language Use)

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キーワード: 言語使用の三層モデル, 道具主  
語構文, 文末名詞構文, 特徴づけ, 間接把握

### 1. はじめに

英語では、(1a)のように with 句で生起させられる道具名詞句を、(1b)のように人の代わりに主語位置に生起させることができる。本稿では(1b)の単純過去形で表されたものを英語の道具主語構文と呼ぶ。

- (1) a. John opened the door with the key.  
b. The key opened the door.  
(Fillmore (1968: 25), 以下下線は執筆者)

従来の研究では、英語の道具主語構文は単文でも容認されると指摘されたが、最近の研究では、(2)で示すように通常の平叙文と同じように扱うことができないとされる。

- (2)a. Mother: What happened today?  
b. Babysitter: Henry broke the crystal vase  
with a baseball bat!  
c. Babysitter: #A/The baseball bat broke

(2a)では、母親が「今日何があったか」という事象報告を尋ねる質問に対して、ベビーシッターは(2b)を使用できるが、(2c)は使用できない。このことから、英語の道具主語構文は、有標的な表現として語用論的な分析が必要であることがわかる。

一方、日本語の場合を確認する。

- (3)\* この鍵がそのドアを開けた。  
(岸本・影山 (2011: 279))  
(4) この鍵がそのドアを開けたものだ。  
(石川 (2020: 256))

従来、(1b)に対応する日本語表現は、容認されない(3)とされた。しかし、石川 (2020)は文脈上容認される英語の道具主語構文に対応する日本語構文は、軽名詞を含む文末名詞表現 (i.e. 「ものだ」)を加えた(4)とみなしている。本稿では(4)を文末名詞構文と呼ぶ。

石川 (2020)は、(1b)と(4)の並行性から、日英語の各々の構文は、道具主語の指示対象を特徴づけ、同定する機能を持つと主張する。

以上を踏まえると、2 点の問いが生じる。

- (5) a. (1b)と(4)の共通概念 (i.e. 特徴づけ、同定)は、どのように規定できるのか。  
b. 道具主語を特徴づける際に、英語の場合とは異なり、なぜ日本語の対応構文には文末名詞表現を加える必要があるのか。

(5a)は日英語各々の構文に共通する概念上の問い、(5b)はその共通概念に伴う文法形式上の違いについての問いである。

本稿は、(5a)について、「特徴づけ」という概念を、状況を把握する認知モードの一つとして規定することを試みる。また当概念が

Hirose (2015)、廣瀬 (2017)で提案されている「言語使用の三層モデル」に位置付けられることで、(5b)の問いにも適切な説明を与えることができるということを論じる。

本稿の構成は以下の通りである。第2節で石川 (2020)を概観し、追加のデータを加え、日英語各々の構文における共通点と相違点を明らかにする。第3節では、「言語使用の三層モデル」を導入し、第4節では、(5)の問いに対してどのように理論的に説明できるかを示す。第5節は結論である。

## 2. 英語の道具主語構文と日本語の対応構文

石川 (2020)では、英語の道具主語構文を分析した Mack (2010)の観察を援用しながら、日本語の場合と対照させている。

### 2.1. 特定構文における道具主語の並行性

まず、英語の場合を確認する。

(6)a. # This bullet killed Joyce Alexander.

b. ..., and it was this bullet that killed Joyce Alexander.

(7)a. # The pen wrote love letters to my mother, signed all my report cards, ....

b. This is the pen that wrote love letters to my mother, signed all my report cards, ....  
(Mack (2010: 247), 一部修正)

英語の道具主語構文は、(6a)(7a)の単文では容認されない。しかしながら、主語位置に生起する道具名詞句は、(6b)の it-分裂文、(7b)の制限的關係節の意味上の主語として機能できることを Mack (2010)は観察している。

次に、日本語の場合を確認する。

(8) \* この鍵がそのドアを開けた。 (= (3))

(9) a. It was this key that opened the door.

b. そのドアを開けたのはこの鍵だ。

(10) a. the key that opened the door

b. そのドアを開けた鍵

(石川 (2020: 254), 一部修正)

(8)の日本語の道具主語構文は、英語の場合と同様に容認されない一方、英語の it-分裂文に対応する(9b)や制限的關係節に対応する(10b)のように、道具名詞句はそれぞれの構文の意味上の主語として機能でき、その点において日英語では並行性が見られる。

### 2.2. 文脈における構文の相違点

次に石川 (2020)は、文脈における英語の道具主語構文と日本語の対応構文の振る舞いを観察する。(11)の対話は、中世ヨーロッパ博物館に訪れた来観客が、展示ブースの前で立ち止まり、ガイドが当時どのようにコインが作成されたかを説明する場面である。

(11) GUIDE: In medieval Europe, a craftsman pounded the metal and made these coins.

VISITOR: Many kinds of coins.

GUIDE: Yes. Look at the tools next to the metal coins. This hammer pounded the metal flat.

(12) a. # このハンマーがその金属を叩いて平らにしました。

b. このハンマーがその金属を叩いて平らにしたものです。

(石川 (2020: 255), 一部修正)

(11)における下線部の道具主語構文は容認される一方、同じ文脈内において日本語の(12a)では容認されず、(12b)の文末名詞構文にしなければ容認されないことが観察される。石川 (2020)では、(12b)を同定文とみなし、「金属を叩いて平らにした」という過去に起きた出来事情報に基づいて、道具にどのような性質や特徴があるのかを叙述する属性文とみなす。そして当該使用文脈の並行性から、日

英語の各々の構文は、道具主語を特徴づける機能があると主張する。

## 2.3. Topic Question との親和性

2.2 を踏まえ、さらに観察を進めたい。

- (13) John kissed Mary Queen of Scots.  
(14) a. What happened today?  
b. Who is John?  
(15) John is the one who kissed Mary Queen of Scots.  
(Ishikawa (to appear), 一部修正)

(13)は、(14ab)の疑問文への返答として使用できる。しかし、(14a)が過去に起きた出来事を問い、事象文の返答を要請しているのに対し、(14b)は「ジョンがどのような人物なのか」を問う Topic Question である。興味深いことに、(14b)に対して(13)を使用した場合、ジョンがどのような人物なのかを「メアリ女王にキスした」という過去の出来事情報に基づいて特徴づける解釈があり、(15)に言い換えることができる。(15)は事象文ではなく、同定文で表された属性文に該当する。

(13)-(15)の観察は、石川 (2020)が言う英語の道具主語構文の特徴づける機能との共通性が伺えることから、(11)の文脈に使用される当該構文は、(15)のような言い換えが可能であると予測されるが、(16)のように可能である。また、道具主語構文は(17)の Topic Question の応答としても使用可能である。

- (16) This hammer is the one that pounded the metal flat. (cf. Ishikawa (2019))  
(17) Topic test:  
Q: Tell me about this pen. / What is special about this pen?  
A: This pen/It signed the Declaration of Independence.  
(Fellbaum and Rappoport (2013: 48))

つまり、英語の道具主語構文は(11)のような文脈や Topic Question の際に、道具主語への特徴づけが行われることで容認されており、解釈上は(16)のような意味内容を持つことがわかる。一方、日本語の対応構文は、(12b)のように文末名詞表現を文法的に明示しなければ特徴づけが行われないのである。

以上を踏まえると、1 節で確認した(5ab)の問いがより明確になるが、3 節以降では、それらの問いに答えるために、Hirose (2015)、廣瀬 (2017)で提案されている「言語使用の三層モデル」を概観する。

## 3. 言語使用の三層モデル

### 3.1. 公的自己と私的自己

「言語使用の三層モデル」は、文法と語用論の関係に関わる現象を扱う理論である。当該理論では、前提として「話し手」の概念を、(18ab)の2タイプに分解する。

- (18) a. 公的自己: 伝達・報告の主体。聞き手の存在を前提とし、伝達意図のある「公的表現行為」の担い手となる。  
b. 私的自己: 思考・意識の主体。聞き手の存在を前提とせず、伝達意図がない「私的表現行為」の担い手となる。  
(cf. Hirose (2015), 廣瀬 (2017))

「公的自己・公的表現 (行為)」と「私的自己・私的表現 (行為)」との最も重要な違いは、「聞き手の存在を前提として伝達を目的とするかどうか」である。

上記概念群を以下の例で確認したい。

- (19) a. Today is Friday.  
b. Today is Friday, {madam/ma'am/Mrs. Brown/Jane/darling/honey/etc.}.  
(20) a. 今日は金曜日だ。  
b. 今日は金曜日だ {よ/です/でございます}.

(廣瀬 (2017: 13-14))

英語は、(19a)を使用する場合、どのような聞き手に対しても伝達・報告できる。つまり、(19a)は公的表現として機能すると想定される ((19b)の説明は後ほど立ち戻る)。

一方、日本語では、聞き手に「今日は金曜」という情報を伝える場合、通常、(20a)では不自然さがあり、(20b)のように終助詞の「よ」、丁寧体の「です」などの、聞き手の存在をマークする「聞き手志向表現」を付加して表すのが自然である。つまり、日本語では独り言のように自分の思考を表す場合は、(20a)を使用し、私的表現として機能させる一方、他者に伝達する場合は(20b)のような表現を加えて、公的表現として表すのが自然となる。

このように英語は、聞き手の存在を前提として(19a)を使用することから、伝達性を持つ公的表現が無標の表現レベルになり、聞き手への志向性が強い「公的自己中心言語」と特徴づけられる。

一方、日本語は、聞き手を想定しない言語表現レベルが存在し、伝達・報告を行うためには、私的表現に聞き手志向表現をわざわざ付加する点から、無標の言語表現レベルが私的表現と考えられる。私的表現は、聞き手への意識が介在しない個人的な思考を表す表現のため、日本語は、自己への志向性が強く、自己と他者の区別に敏感である「私的自己中心言語」と三層モデルでは特徴づけられる。

以上の特徴づけから、三層モデルでは、日英語の無標の三層関係が異なるとする。

### 3.2. 日英語の三層関係

三層とは、(21)で示すように言語使用の中核となる機能を表したものであり、日英語では、その関係が異なるとされる (i.e. 図 1、2)。

(21) a. 状況把握層: 私的自己が状況を把握し思いを形成する。 (認知的側面)

b. 状況報告層: 公的自己が状況把握で形成した思いを伝える。(伝達的側面)

c. 対人関係層: 公的自己が聞き手との人間関係に配慮する。(社会的側面)

(cf. Hirose (2015), 廣瀬 (2017))

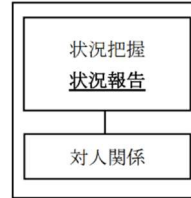


図 1: 公的自己中心の英語

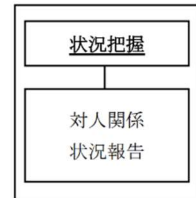


図 2: 私的自己中心の日本語

(廣瀬 (2017: 3), 修正))

図 1 の英語では、無標の直示的中心が太字下線部で示した状況報告層の公的自己に置かれる。状況報告層は状況把握層と一体化し、そこに対人関係層が付加する関係である。この関係は(19ab)の振る舞いを説明できる。英語は、日本語と違って、伝達する際に特定の表現を必要とはせず、聞き手が誰であろうと(19a)のままで伝達可能である。なぜこのように振る舞うのかというと、状況把握層と状況報告層が一体化しているため、と説明できる。さらに、伝達時には特定の対人関係に依拠しない情報伝達が可能であり、(19b)の呼称を使用し、対人調節は随意的となる。なぜ随意的かということ、対人関係層が他二層から独立しているためである。(英語の対人関係層では、特にイントネーションなどのパラ言語が果たす役割が大きく、この点については廣瀬 (2017: 20-22)を参照。)

一方、図 2 の私的自己中心言語である日本語では、無標の直示的中心が状況把握層の私的自己に置かれる。状況把握層は他二層から独立しており、対人関係層と状況報告層は一体化している。この関係は、先にも説明した(20ab)の振る舞いを説明できる。日本語では、(20a)を独立した言語表現レベルとしてなぜ使用するのかということ、状況把握層が、他二層から独立しているためである。一方、(20b)

では、さらに重要な観察がある。聞き手志向表現は、聞き手の存在を知らせると同時に、聞き手との特定の対人関係 (e.g. 後輩・同期・先輩)や、話し手と聞き手の知識状態に関する対人関係 (e.g. 命題情報を話し手だけが把握している場合など)を知らせるためにも使用される。つまり、聞き手への伝達を行う際には対人関係情報も言語的に表示する必要があることを意味する。なぜそのように振る舞うのかというと、対人関係層と状況報告層が一体化しているため、と説明できる。

### 3.3. 直接的・間接的状況把握モード

本節ではさらに状況把握層についてより深く確認していく。(22)(23)を見てみる。

(22) a. [The speaker is looking out the window.]  
Oh, it's raining.

b. It's raining (, because they are walking under their umbrellas).

(Shizawa (2015: 162))

(23) a. [話し手が窓から外を見て]

あっ、雨が降ってる。

b. (みんなが傘をさしているから)

雨が{降ってるんだ/ #降ってる}.

(廣瀬 (2017: 13), cf. Shizawa (2015))

(22a)(23a)は日英語ともに、話し手が直接窓の外を見て得た情報を表した表現であり、直接的に情報を把握する仕方を「直接把握モード」と呼ぶ。一方、(22b)(23b)のように、傘をさしている人を見て、推論プロセスを通して「雨が降っている」情報を把握する場合を「間接把握モード」と呼ぶ。両モードにおいて、英語は(22ab) *it's raining* と表現可能である一方、日本語では、間接把握モードにおいて、(23b)「のだ」などの表現を使用し、間接形を用いて言語的に区別する必要がある。

廣瀬 (2017: 12-13)の説明に従って、状況把握モードを定式化すると次のようになる。

(24) 直接把握モード

a. I EXPERIENCE *p(roposition)*.

b. I PERCEIVE (e.g. *see*) *p*.

c. I KNOW *p*.

(25) 間接把握モード

a. I INFER that *p*.

b. I HEAR that *p*.

(25)の範疇には、推論・伝聞・想像・願望モードなどがあり、英語とは異なり日本語ではどのモードで情報を得たのかを、「のだ」「らしい」「だろう」等のマーカーで文法的に表示する必要がある (廣瀬 (2017: 12-13), Kuroda (2019))。

## 4. 提案と分析

### 4.1. 特徴づけモード

本節では、3 節の内容を踏まえ、2 節で確認した「特徴づけ」という概念が、どのような概念かを規定する。そのために、(26)(27)の心理表現を確認したい。

(26) a. I am lonely.

b. He is lonely.

(27) a. 私はさびしい。

b.\*彼はさびしい。

c. 彼は{さびしがっている/さびしいらしい}.

(Hirose (2015: 132-3), 一部修正)

英語は(26a)のように話し手だけでなく、他者の心理状態も(26b)の形式で表現可能である。一方、日本語では、話し手の心理は(27a)で表せるが、他者の気持ちは、間接的にしか知り得ない遠い情報に当たるため (cf. 神尾 (1990)), (27c)のような間接形で表す必要がある。もし(27b)で表すと、直接的に把握した近い情報として表現することになり、「彼」の気持ちに寄り添ったり、自分のもののよう扱う印象が生じ、不自然になる。

この観察を踏まえて、「特徴づけ」概念に付随する文末名詞表現を考察する。(28)の願望を表す「たい」も他者の心理を表す。

- (28) a.\* 彼は教師になりたい。  
b. 彼は教師になりたいのだ。  
c. 彼は教師になりたい人だ。

(28a)は(27b)と同様に容認されない一方、推論を表す「のだ」、文末名詞表現「人だ」を加える(28bc)は容認される。つまり、文末名詞表現は、他の間接把握モードのマーカーと同じように振る舞うことがわかる。

さらに、その並行性を以下で示したい。

- (29) a.?? この本は言語の新しい側面を明らかにした。 (執筆者以外の場合)  
b. この本は言語の新しい側面を明らかにしたものだ。

先ほど間接把握マーカーがない(27b)において、「彼」の気持ちを自分の所有物のように扱う印象が生じると言及した。それを踏まえると、執筆者以外が(29a)を使用する場合、本の内容を近い情報として自分の所有物のように扱う印象が生じ、自然さが下がる。一方、評者や読者は、本の内容が執筆者に帰属し、遠い情報であることを表すために、(29b)を使用の方が自然になることが観察される。

以上から、文末名詞表現は、「特徴づけ」という認知プロセスが関わる間接把握モードのマーカーと捉え直すことができ、(30)の「特徴づけモード」として規定できる。当該モードを定式化すると、(31)のようになり、(25)に加える形となる ((5a)の問いへの説明)。

(30) 特徴づけモード:

間接把握モードの一つであり、話し手が、ある状況に関わる個体の、注目に値する特徴を客観的に把握し、その特徴でもっ

て個体を指定すること。

(31) I CHARACTERIZE the X as the one that p.

## 4.2. 分析

4.1 の提案を踏まえ、(32)の分析に移る。

- (32) a. (#) The key opened the door.  
b. この鍵がそのドアを開けた \*(ものだ)。

(32ab)は、特徴づけモードが関わる(11)のような文脈や(17Q)の Topic Question を発話する文脈で使用可能である。単文で(32a)が容認されない理由は、単純過去形で表された文形式上、事象文の解釈が優先され、事象を引き起こす担い手 (i.e. *agent*, cf. Schlesinger (1989))として道具主語を解釈できないためである。一方、文末名詞表現がなければ(32b)が容認されない理由は、(32a)と並行的であり、道具主語を動作主として認識できないためである。文末名詞表現が無ければ、単文でも文脈でも道具主語を特徴づけられない。つまり、英語の道具主語構文は語用論的に、日本語の対応構文は文法的に、特徴づけモードを保障することを通して、容認されることがわかる。

## 4.3. 特徴づけモードに伴う文末名詞表現の有無

最後に、「特徴づけ」概念が、間接把握モードに位置付けられたことで、最後に残った(5b)の問いに対して、三層モデルから次のように説明を与えることができる。

公的自己中心言語である英語は、状況把握層と状況報告層が一体化している。無標の場合には常に聞き手が想定され、聞き手との情報共有、つまり命題情報の真理性の共有に重きが置かれる。結果、どのように情報を得たか(直接的か間接的か)の区別は二次的となり、文末名詞表現を必要としない。



私的自己中心言語である日本語は、状況把握層と状況報告層が分離している。無標の場合には聞き手が想定されず、自分と自分以外(他者)の区別に敏感であることから、自分が直接得た情報とそうでないものを区別することに重きが置かれる。結果、推論、伝聞モードで得た情報と同様に、特徴づけモードで得た情報は、文末名詞表現を必要とする。

## 5. 結論

本稿では、英語の道具主語構文と日本語の文末名詞構文の容認性には、間接把握モードに位置付けられる特徴づけモードが関わるという共通点を示した。加えて、当該モードが関わる際に、英語の道具主語構文とは違って、なぜ日本語の対応構文は文末名詞表現を文法的に明示する必要があるのかについては、「言語使用の三層モデル」で仮定される日英語の三層関係の違いから説明を与えた。

\* 本稿は、Ishikawa (2020)を加筆、修正したものである。発表の準備に当たっては、廣瀬幸生先生、和田尚明先生、金谷優先生より貴重なご意見をいただいた。また、口頭発表当日は、多くの先生方より貴重なご意見やご質問をいただき、深く感謝申し上げます。本稿における不備や誤りは全て筆者の責任である。

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# WH 疑問文の容認性に対する構文文法アプローチ-前置詞 *about* を含む完全・縮約関係代名詞構文の意味の違いから\*

(A Constructionist Approach to the Acceptability of WH-Interrogatives: Analyzing Differences in Meaning between Full and Reduced Relative Clauses Containing the Preposition *about*)

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キーワード: 構文文法, 完全・縮約関係代名詞構文, WH 疑問文, 2 次的トピック, コーパス・アンケート調査

## 1. はじめに

本論文では複合名詞からの WH 取り出しに関してことなる容認性を示す 2 つの関係代名詞構文を取り上げ、その容認性の違いに対して構文文法の観点から分析を行い、コーパス調査およびアンケート調査によって論証を行う。

(1) a. \*Who did she see a report that was about?  
[完全形]

b. Who did she see a report about? [縮約形]  
(Goldberg (2006: 148))

(1a-1b)は、どちらの例文も「彼女は誰についての報道を目にしたのか?」という同じ意味を表すと一般的には考えられているが、形式的には(1a)では *that* という関係代名詞が明示的に含まれているのに対し、(1b)では含まれていない。本論文では前者を Goldberg (2006)

に従い、以降「完全形」と略す「完全関係代名詞構文」と呼び、後者を以降「縮約形」と略す「縮約関係代名詞構文」と呼ぶ。

そして注意すべきは(1a)が示すように完全形の疑問文は容認されないのに対し、(1b)の縮約形の疑問文は容認されるという、容認性の非対称性が存在するということである。この点に関しては、形式を重んずる生成文法分野において数多くの貢献がなされてきた。一方で構文文法のような意味的アプローチでは、後述のようにこのような現象に対して正しい予測を立てることができていない。よって本論文の目標は完全形と縮約形が異なる意味・語用論的側面を持つ構文であることを立証し、この容認性の非対称性が意味的アプローチより説明可能であることを主張することである。

## 2. 先行研究とその問題点

まず紙面の制約もあり、意味の観点から疑問文の容認性を予測しようとする先行研究に絞って概観し、その問題点を指摘する。

### 2.1. Goldberg (2006)

Goldberg (2006)は情報構造の観点から WH の制約を説明する。まず文を次の 3 つの要素に分類する、1) **トピック**: 既に話し手と聞き手との間で確立された関心事であるもの、2) **潜在的焦点ドメイン**: 文中で断定されている新情報である箇所、つまりは文否定によって否定されうる箇所、そして 3) **背景化された要素**: 上記 2 つのどちらにも属しない箇所。つまりは既に話し手と聞き手との間で前提となっている箇所であって、文否定のスコープに入らない箇所である。そして Goldberg は 3 要素のうち**背景化された要素は島である**と予測する。

これによって正しく予測できる例が完全形である(2)である。

- (2) a. She[トピック] /didn't see[焦点ドメイン] / the report that was about him. [背景化要素]

- b. \*Who did she see the report that was about? (Goldberg (2006: 132))

というのも複合名詞の *the report that was about him* は定冠詞 *the* が示唆するように、話し手と聞き手にはその指示対象の存在が前提とされており、文否定の *didn't* の否定スコープに入らない。つまりは背景化要素であり、「背景化された要素は島である」という予測により、正しく(2b)の疑問文が容認できないと予測できる。

一方で同じく完全形である(3)では、誤って(3b)が容認できると予測されてしまう。

- (3) a. Phineas[トピック] /doesn't know a girl who is behind him. [焦点ドメイン]

- b. \*Who does Phineas know a girl who is behind? (Ross (1967: 124))

というのも複合名詞の *a girl who is behind him* の不定冠詞 *a* が示唆するように、話し手と聞き手には複合名詞の指示対象の存在が前提とされておらず、「Phineas が知っているのは *a girl* ではなく *a boy* だ」のように、複合名詞は文否定の *doesn't* の否定スコープに入ってしまう。つまりは、焦点ドメインであり、Goldberg の予測によれば島ではないと予測されてしまうが、実際にはこの複合名詞からの取り出しは容認されない。同様の理由で Goldberg は誤って本発表で問題としている完全形疑問文(1a)も容認されると予測してしまうことが問題である。

## 2.2. Kuno (1987)

もう 1 つの代表的な意味的アプローチに Kuno (1987)がある。Kuno は 1.3 節で本論文が対象としている描写名詞 (picture noun)を

含む疑問文を取り上げ、なおかつ意味的な説明を与えている時点で、本論文の試みに近い。

具体的には以下のような動詞 *buy* と *lose* のように形式的には同じで例文の間で、なぜ容認される物とされない物が分けられるのだろうかと問い立てる。

- (4) a. What did you buy a book on?

- b. \*What did lose a book on?

(Kuno (1987: 19))

Kuno は(4a)の *on* の目的語はトピックになっているのに対し、(4b)ではなっていないことを、まず以下のような平叙文に言い換えて示した。

- (5) a. Yesterday, on my way home, I bought a book on John Irving.

- b. Yesterday, on my way home, I lost a book on John Irving.

- (6) He is one of the contemporary authors that I like, and I have all the novels that he has published. (Kuno (1987: 23))

(4a)は(5a)、(4b)は(5b)と対応しているとみてほしい。(5a)の発話直後に(6)の発話の続けるのは自然であると Kuno は言う。なぜなら(5a)で *Irving* が著した本を買うことは *Irving* を主題とする。一方で(5b)のように *Irving* が著した本をなくすことは *Irving* を主題としない。ここから一つの法則を Kuno は見出す。

- (7) 取り出しのためのトピック性条件：文のトピックとしてふさわしい文要素のみ、取り出しを許される。

(Kuno (1987: 23)訳は本論文執筆者による)

Kuno は描写名詞の問題に対して形式的な説明が圧倒的に存在する中で、意味的アプローチの代表として問題に一石投じたのは大

変価値のあることである。しかし、問題がないわけではない。その1つには今回問題としている縮約形と完全形がある。

- (8) a. Yesterday, on my way home, I bought a book **that** was about John Irving. [完全]  
b. Yesterday, on my way home, I bought a book about John Irving. [縮約]  
(9) He is one of the contemporary authors that I like, and I have all the novels that he has published.

(8-9)は Kuno の Irving の例を再現した物である。完全形(8a)と縮約形(8b)のどちらに(9)を続けても容認性は変わらないため、Kuno によればどちらの *about* の目的語も等しくトピックとなり、「取り出しのためのトピック性条件」により誤って両方とも取り出すことが可能であると予測してしまう。よって Kuno でも完全形(1a)と縮約形(1b)の違いを正しく予測することができない。

以上より、先行研究では縮約形と完全形の意味を区別できないことから、(1a-1b)の容認性の非対称性を説明できていないことが分かる。3節以降で示すように、縮約形と完全形がそれぞれ別個の意味をもった構文であることを示していく。

### 3. 構文文法による分析：完全形と縮約形の異なる機能

本発表では構文の定義を Goldberg (2006) に倣い、「記憶された形式と意味または談話機能の対である」とする。その上で、*about* を含む完全形と縮約形は、以下の形式と意味から成る構文であると主張する。<sup>1</sup>

- A) 完全形：[[NP<sub>1</sub> that is/was about NP<sub>2</sub>]/[NP<sub>1</sub> を NP<sub>2</sub> の性質で修飾する。また NP<sub>1</sub> を 2 次的トピック化する]]  
B) 縮約形：[[NP<sub>1</sub> about NP<sub>2</sub>]/ [NP<sub>1</sub> を NP<sub>2</sub> の

性質で修飾する]

A と B では、中央の斜線を挟んで左側の太括弧には形式を、右側には意味および談話機能を記載している。意味および談話機能に注目すると、完全形も縮約形も例えば“a report(NP<sub>1</sub>) that is about John(NP<sub>2</sub>)”のように「NP<sub>1</sub> を NP<sub>2</sub> の性質で修飾する」という共通の意味をもっている。一方で、「NP<sub>1</sub> を 2 次的トピック化する」という意味は、完全形に特有の意味であることが示されている。つまり、部分的に形式と意味を共有していることがみられる。2つの構文は同一ではないにしても無関係ではなく、部分関係リンクによって関連付けられている。

#### 3.1. 完全形に特有な 2 次的トピック化とはどういうものか

完全形に特有な「NP<sub>1</sub> を 2 次的トピック化する」ということはどういったことかをみていく。2 次的トピックは Lambrecht (1994: 119) で述べられており、文のはじめにおいてはトピックではなかったが、途中よりトピックとして機能するものを指す。

- (10) Q: What do Western artists and theorists do?  
A: They glimpse a non-Modernist abstraction (NP<sub>1</sub>=2 次的トピック) that is about addition and plentitude, not reduction. ((10)A は COCA より)

(10)では、質問文 Q に対する答えの A に完全形が使用されている。ここでは完全形の NP<sub>1</sub> である *a non-Modernist abstraction* がどのように 2 次的トピックとなっているかをみていく。質問の *What do Western artists and theorists do?* に対する答えとして、まず主語 They は代名詞になっていることから分かるように、話し手と聞き手との間に確立されたトピックであることが分かる。次にトピック

ク直後からコンマの直前までの部分 *glimpse a non-Modernist abstraction that is about addition and plentitude* は質問に対する答えとなっており、この時点では NP<sub>1</sub> を含む情報全体が、質問者の知らなかった新情報であるといえることができる。しかし、コンマ以降の *not reduction* の部分では、今度は NP<sub>1</sub> である *a non-Modernist abstraction* をトピックとしてそれに関して *addition and plentitude* であって *reduction* ではない、という新情報の付加が行われている。よってこの完全形の NP<sub>1</sub> は文途中よりトピックとして機能する、2 次的トピックと呼ぶことができる。

4 節のコーパス調査でも述べるように、完全形では(10)のように「NP<sub>1</sub>は A であって B でない」のように NP<sub>1</sub> を叙述する A と B とが *not*、*instead* のような語によって対比されるような形で現れることが多くある。よって本発表では対比の意味が存在することや *not*、*instead* のようなマーカーがあることをもって、2 次的トピック化の指標とする。

### 3.2. 2 次的トピック化は完全形に特有な意味といえるのか

前述の 2 次的トピック化がなぜ完全形に特有の意味であるといえるのかを考えてみる。このことはまず(11)と(12)のような例文を比べてみることで判明する。

- (11) a. I didn't read a book **that** is about the war.  
           I read a book about the post-war period.  
       b. \*I didn't read a book **that** is about the war.  
           I lived through it. [完全形]
- (12) a. I didn't read a book about the war. I read  
           a book about the post-war period.  
       b. I didn't read a book about the war I lived  
           through it. [縮約形]

まず完全形では、NP<sub>1</sub> である *a book* が 2 次的トピックとして後続文でも言及されること

が予測される。しかし、予測に反して(11b)における後続文 *I lived through it.* では *a book* に関する言及はなく、*a book* が 2 次的トピックとはなっていないためやはり容認されない。対する(11a)では *a book* についての言及が後続文でもなされているため、容認される。

一方で縮約形である(12a)と(12b)では、前述のような容認性の非対称性はなく、NP<sub>1</sub> である *a book* が 2 次的トピック化されていないことが分かる。

以上の事実観察に加え、次の 4 節で述べるように COCA においては完全形の 2 次的トピック化の用例が多数見られるのに対し、縮約形では皆無であることをみていく。

## 4. コーパス調査

完全形に NP<sub>1</sub> を 2 次的トピック化する意味が存在し、縮約形にはないという仮説をコーパスにより検証を行った。COCA を使用し、完全形に関しては *that is about* と *that was about* で検索し、それぞれ 1,000 例と 1,448 例がヒットした。そのうち 122 例が今回対象としている「NP<sub>1</sub>を NP<sub>2</sub>の性質で修飾する」という意味と合致するものとして抽出した。縮約形に関しては *NOUN about* で検索し、337,272 件がヒットした。縮約形は全数調査が不可能であるため、完全形と同数の 122 例をランダムに抽出した。

### 4.1. 完全形

まずは完全形の結果からみていく。結論としては NP<sub>1</sub> の 2 次的トピック化が完全形で多くみられる傾向にあった。完全形の *that is about* では 73 例中 41 例 (56.2%) で、*that was about* では 49 例中 20 例 (40.8%) [完全形合計 122 例中 61 例 (50.0%)] で 2 次的トピック化が見られた。

以下には一例を表示している。(13)では NP<sub>1</sub> である *a question* についての叙述が対比マーカー *more than* を挟んで、*Senate rules* と

Massachusetts law という構造がとられている。(14)には対比マーカーの存在はしないが NP<sub>1</sub> である「結婚という *institution*」が *the joining of man and woman* であって、*same-sex marriage* ではないという叙述の対比がやはりみられる。

#### MORE THAN

(13) I have **a question** that is about Senate rules more than Mass law.

意味的に対比あり

(14) Well, I think marriage is **an institution** that is about the joining of man and woman together... I oppose and many Americans oppose same-sex marriage.

#### 4.2. 縮約形

縮約形では NP<sub>1</sub> の 2 次的トピック化が全 122 例中 3 例 (2.5%) でしか見られなかった。一例では、(15) のように NP<sub>1</sub> である *a statement* つまり「主張」に対して「神」と「証明しようのない科学的発見」という 2 つの叙述が *about* の並列で示されているようなものがみつかった。しかし、こうした例は 3 例しか見られず完全形の用例数との差は圧倒的である。これは 2 次的トピック化が完全形に特有の意味であるということの証拠の 1 つとなっている。

#### ABOUT 並列

(15) If someone makes **a statement** about a higher power he is an irrational fool *But* if someone make **a statement** about an unproveable[sic] Scientific discovery he is “brilliant”.

#### 5. アンケート調査

次に 2 つの目的をもってアンケート調査を行った。1 つ目は、「NP<sub>1</sub> の 2 次的トピック化のコンテキストにおいては完全形が縮約形よりも多く選ばれるはずである」という仮説の正しさを証明することである。これは本発表で「調査 1」と呼ぶものに対応する。

2 つ目はこれまで平叙文で検証を行ってきたことが疑問文にも当てはまるかを検証するものである。つまり、「通常、単文では容認されないとされる完全形の疑問文であっても、NP<sub>1</sub> が 2 次的トピック化するコンテキストにおいては容認性の改善がみられる」ことを証明することである。これは本発表で「調査 2」と呼ぶものに対応する。それぞれ順を追ってみていく。

#### 5.1. 調査 1 : NP<sub>1</sub> の 2 次的トピック化と完全形の相関関係

調査 1 の目的はあえて証明したい命題とは逆のことを述べる帰無仮説「NP<sub>1</sub> の 2 次的トピック化のコンテキストにおいて完全形が縮約形よりも多く選ばれない」を棄却することにある。フィッシャー正確確率検定を用い、有意水準を 5% に設定した。手法としては Amazon Mechanical Turk 上でアンケート調査を行った。(16) のような「NP<sub>1</sub> の 2 次的トピック化のコンテキスト内にある完全形 (C あり)」を判断するグループを *that is about* と *that was about* の 2 チームに分けてそれぞれ 100 名を募集した。また同様に (17) のような「コンテキスト内にはない完全形 (C なし)」も 2 チームに分けて同数名を募集した。<sup>2</sup>

##### 【第 6 問】

NP<sub>1</sub> の 2 次的トピック化のコンテキスト内にある完全形

(16) I believe in **a real spirituality** that is about how you live and not how you don't live.

NP<sub>1</sub> の 2 次的トピック化のコンテキスト内にはない完全形

(17) I am looking for a book that is about a woman whose mother dies and her uncle takes her aboard the ship that he works on as a stow-a-way.

タスクは問題文が「1: 完全に不自然である」

から「5：完全に自然である」の5段階評定で回答するというものであった。被験者はアメリカ在住で英語を第一言語とする者に限定し、さらに調査の質を保証するために最初の5問では容認性の高低が明確な5つの文を用意し、著しく容認性が乖離する回答は無効とした。

第6問(=(16) or (17))ではCOCAの実例を使用し、「5：完全に自然である」以外の回答を選んだ者に対しては書き換えを行うように促した。その際にもともと完全形であったものを縮約形に書き換えるかを観察した。

表1 NP<sub>1</sub>の2次的化の有無と完全形縮約形の関係性

	<i>that is about</i>	
	完全形のまま	縮約形への修正
Cあり	22	3
Cなし	16	16
	<i>that was about</i>	
	完全形のまま	縮約形への修正
Cあり	48	19
Cなし	25	22

結果は表1に示す通りであり、*that is about* は  $p=0.0041$ 、*that was about* は  $p=0.0497$  が得られ、帰無仮説は棄却された。<sup>3</sup>つまり、完全形が2次的トピック化のコンテキストで現れた際には縮約形への書き換えは有意に行われずそのまま完全形の構文が好まれたということになる。よってNP<sub>1</sub>の2次的トピック化と完全形の相関関係は証明される。<sup>4</sup>

## 5.2. 調査2：NP<sub>1</sub>の2次的トピック化と完全形疑問文の容認性との相関関係

調査2の目的も帰無仮説「NP<sub>1</sub>の2次的トピック化のコンテキストにおいて完全形疑問文の容認性が改善されない」を棄却することであった。調査方法、被験者選別条件、第5問目までの質問は調査1と同様の物を使用した。違いは第6問において完全形疑問文

Who did Mary see a report that is/was about?を単文で「1：完全に容認できない」から「5：完全に容認できる」の5段階評定で回答させた後、第7問(=(18) or (19))にてNP<sub>1</sub>の2次的トピック化のコンテキストがあるものと、ないものを提示して第6問から容認性のスケールに改善が見られるか観察した。

### 【第7問】

NP<sub>1</sub>の2次的トピック化のコンテキスト内にある完全形

(18) If Mary didn't see a report about John or Jake, who did Mary see a report that is about?

NP<sub>1</sub>の2次的トピック化のコンテキストにない完全形

(19) Instead of watching movies, who did Mary read a book that is about?

表2 NP<sub>1</sub>の2次的化の有無と完全形疑問文の関係性

	<i>that is about</i>	
	容認性が改善	改善なし
Cあり	19	28
Cなし	4	25
	<i>that was about</i>	
	容認性が改善	改善なし
Cあり	22	17
Cなし	11	33

結果は表2に示す通りであり、*that is about* は  $p=0.02$ 、*that was about* は  $p=0.0066$  が得られ、帰無仮説は棄却された。つまり、完全形の疑問文は単文で提示された時よりもNP<sub>1</sub>の2次的トピック化のコンテキストで提示された時の方が、容認性が高くなる傾向があることが分かった。

## 6. 完全・縮約形の間にみられる意味の違いとWH疑問文にみられる容認性の非対称性

## との関係性

以上の調査により、完全形は NP<sub>1</sub> を 2 次的トピック化する構文であることが示された。その上で (1a) の完全形疑問文を再考すると、疑問文は *about* の目的語を次のトピックとする一方、完全形の構文は NP<sub>1</sub> を次のトピックとする。このように次のトピックとなるべき要素が一致しないことが、(1a) の容認性に影響を与えていると考えられる。このように、完全形の WH 疑問文が容認されないことは、情報構造に関して完全形の構文のもつ語用論的意味から説明される。

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当然ながら本論文における論証の妥当性、データの正確性等全ての責任は私にある。

## 注

<sup>1</sup> 本学会発表を聞いて下さっていた先生より (感謝お礼申し上げます)、本論文は *about* 以外の前置詞も含み得るのに、なぜ *about* を特別な構文として扱うのかとご指摘頂いた。

私自身ご指摘通り様々な前置詞を含んで検証を行いたかった。しかし、前置詞ごとに完全形と縮約形の量的比重に極端に偏りがあり統計上扱いにくい例が出てきた。例えば、前置詞 *on* では縮約形 *story on* は 4,559 件がヒットするところ、完全形 *story that is on* は 1 件しかヒットしない。

よって今回に限っては量的に完全形と縮

約形がそれぞれ 122 件と量的に満足に抽出できた *about* のみに絞って扱った。

<sup>2</sup> アンケート調査において母数が数百名であるのに、最終的に数十名しかないのは何故かとご質問頂いた。これはアンケートを謝金付きで行ったため、それ目的の質の低いデータが集まり多数無効となったためである。

<sup>3</sup> 発表時の表に間違いが見つかったため、訂正した。謹んでお詫び申し上げます。*that was about* の数値が左右逆転、上下反転していた。

<sup>4</sup> 例えば表 1、*that was about* の段の「C あり」の 19 という数値は、本発表の完全形の定義によれば 0 と出なければいけないのではないかというご意見を頂いた。

執筆者はそのご意見に全く同意した上で、本論文で提示した完全形の意味は完全形に最も特徴的と思われるものであり、本論文は完全形の全ての意味を網羅しようと意図したものではないと申し上げます。よって本論文で扱っていない何らかの意味によって 19 という数値が出ていることも考えられる。

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## コーパス

Corpus of Contemporary American English (COCA)



**SAI 再考：ラベル付けの観点から\***  
(Subject-Auxiliary Inversion Revisited in  
Terms of Labeling)

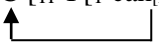
小池 晃次 (Koji Koike)  
愛知淑徳大学 (Aichi Shukutoku University)

キーワード：主語・助動詞倒置, ラベル付け,  
素性継承, 否定倒置文, Wh 疑問文

## 1. 導入

文頭へ否定要素が前置されると、主語・助動詞倒置 (SAI) が起きる。この現象は否定倒置と呼ばれ、今も有望なアプローチの 1 つに Haegeman (1995) の NEG-criterion が挙げられる。NEG-criterion によると、(1) で nothing が CP 指定部へ前置されると、NEG 素性を持った T はそれと Spec-head 配列を成すため C へ繰り上がり、この主要部移動の結果として SAI が生じると分析されてきた。

(1) [CP nothing C [TP I [T can<sub>[NEG]</sub> [VP do t<sub>nothing</sub>]]]]



しかし、なぜ否定要素と NEG 素性を持った主要部はそもそも Spec-head 配列でなければいけないのだろうか。1990 年代と違って、現行の生成文法の枠組みでは素性照合はすでに破棄されているので、もはや素性照合に訴えることはできない。さらに決定的なことに、criterion に代わる代案は 20 年以上ずっと提案されず、SAI の仕組みは実質的に未解明として手付かずの状態のまま残されてきた。このことを研究の背景として、本稿は英語における SAI のメカニズムを、現行の生成文法

の枠組みの下で、具体的にはラベル付けの観点から再考することを目的とする。


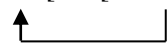
## 2. 理論的背景

### 2.1. ラベル付けアルゴリズム

Chomsky (2013, 2015) は、統語構造のラベルはラベル付けアルゴリズムと呼ばれる体系によって決定されると提案している。Chomsky 氏によると、ラベル付けには (2) の 3 つのパターンがある。

- (2) a. [<sub>H</sub> H XP]  
b. [ XP [<sub>Y</sub> t<sub>XP</sub> YP]]  
c. [<sub><F, F></sub> XP<sub>[F]</sub> YP<sub>[F]</sub>]

(2a) で H と XP が併合された場合、主要部である H がラベルになる。(2b) で句同士が併合されて XP が移動した場合、残った YP の主要部 Y がラベルになる。(2c) で句同士が併合され、それらの主要部が共通の素性 F を持つ場合、F がラベルになると主張している。Chomsky 氏はラベル付けのタイミングについて位相レベルや転送の一部などいくつかの可能性を示唆しているが、本稿は Bošković (2016) と共に、H-XP 構造は併合時にラベル付けされる一方で、XP-YP 構造は転送時にラベル付けされると想定する。この点について (3) で掘り下げて考えてみよう。

- (3) a. [ Y [<sub>α=H</sub> H XP]]  
b. [ XP [<sub>Z</sub> Z [<sub>α=Y</sub> t<sub>XP</sub> YP]]]
- 
- 

(3a) で H と XP が併合されると、(2a) に則って α のラベルはすぐに H と決定できる。次に、H がすぐ上の Y へ主要部移動したと仮定しよう。α はすでに H としてラベル付けされたおかげで、H が移動しても元位置でラベル付けの失敗は生じない。このような主要部



する事実を  $\phi$  素性が元は C にあった証拠と見なした。これと同じ筋で、本稿では NEG 素性は元々は C にあり、英語の場合にはそれが T へ継承されると主張する。<sup>2</sup>

### 3.2. 否定倒置文のラベル付け

C から T へ NEG 素性を DONATE することで、否定倒置文は(7)のようにラベル付けされると提案する。

(7) [ $\alpha$  <NEG, NEG> XP<sub>[NEG]</sub>[C <T<sub>[NEG]</sub>, C> [ $\phi$ ,  $\phi$ ] Subj [T t<sub>T</sub> [ ... ]]]] (NEG: DONATE)

(7)では、主要部移動（もっと最近の呼び方では internal pair-merge）によって T が C へ繰り上がる。この時、C のほうが接辞化し不可視になる。<sup>3</sup>すると、ラベル付けアルゴリズムは前置された否定要素の XP と繰り上がってきた T の間に共通素性として NEG を見つけ、 $\alpha$  のラベルが NEG に決まる。こうして、Never have I met him.のような SAI した文が生成される。なお、2.1 節で論じたように、H-XP 構造は主要部移動に先立ってラベル付けされるので、T が繰り上がっても元位置でラベル付けの問題は生じないことに注意していただきたい。<sup>4</sup>

C の接辞化を示唆する証拠として(8)が挙げられる。ベルファスト英語は埋め込み疑問節で SAI を許す言語だが、(8a)のように補文標識なしだと文法的である一方、(8b)のように if のような補文標識ありだと非文法的となる。

- (8) a. John asked Mary [was she going to the lecture]. (Belfast English)  
 b. \*John asked Mary [if was she going to the lecture]. (Belfast English)  
 (Henry (1995: 107))

本分析では internal pair-merge された C は接

辞なので(8a)で Pesetsky (1991)における類の意味で接辞である空の補文標識はこの C に挿入できるが、(8b)で if のような語は接辞であるこの C に挿入できないと説明される。<sup>5</sup>

対照的に、T が基底位置に留まった場合の派生は(9)である。

(9) [ $\alpha$ ?? XP<sub>[NEG]</sub>[C C [ $\phi$ ,  $\phi$ ] Subj [T T<sub>[NEG]</sub> [ ... ]]]] (NEG: DONATE)

決定的なことに、否定要素の XP と C の間に共通素性が存在しないので、 $\alpha$  のラベルを決定できない。このラベル付けの失敗によって \*Never I have met him.のような SAI していない文の非文法性が説明される。<sup>6</sup>

### 4. Wh 疑問文における SAI

SAI は否定倒置文だけでなく、Wh 疑問文でも観察される。Wh 疑問文の SAI に対する分析の代表格に Rizzi (1996)の Wh-criterion が挙げられる。Wh-criterion によると、(10a)の母型非主語 Wh 疑問文では CP 指定部に前置された who と Spec-head 配列を成すために、+WH 素性を持った T が C へ繰り上がることで SAI が生じる。(10b)の埋め込み Wh 疑問文では母型節の述語によって選択された C が +WH 素性を持ち、CP 指定部の who とそのまま Spec-head 配列を成すので SAI は生じない。(10c)の主語 Wh 疑問文では +WH 素性を持った T と同一指標付けによって連鎖を形成した C が CP 指定部の who と Spec-head 配列を成すので SAI は生じないと分析されてきた。

- (10) a. [CP who C [TP you [T will]<sub>[+WH]</sub> [VP invite t<sub>who</sub>]]]  
 b. I wonder [CP who C<sub>[+WH]</sub> [TP you will invite t<sub>who</sub>]]  
 c. [CP who C<sub>i</sub> [TP t<sub>who</sub> [T<sub>i</sub> will]<sub>[+WH]</sub> [VP come]]]

その下準備として、本稿では Chomsky (2000)に基づき、(11)のように疑問文の派生において C は *uQ* 素性を持ち、Wh 句が持つ *iQ* 素性と Agree することでその節の発話の力が疑問として確立されると考える。

- (13) [<sub>α=??</sub> XP<sub>[Q]</sub> [<sub>C</sub> C [<sub><φ, φ></sub> Subj [<sub>T</sub> T<sub>[Q]</sub> [ ... ]]]]]  
(Q: DONATE)

internal pair-merge によって T が C へ繰り上がると、C は接辞化した結果それが持つ Q 素性もラベル付けにとって不可視になる。このため、ラベル付けアルゴリズムは Wh 句の XP と C-T 融合体の間に共通素性を発見でき

ず、 $\alpha$  のラベルを決定できない。また、2.1 節で論じたように、 $\alpha$  は XP-YP 構造であり、転送時にラベル付けされるので、T が繰り上がってくる前に Wh 句と C の共通素性によって  $\alpha$  がラベル付けされる可能性は排除される。こうして、 $\alpha$  をラベル付けしつつ当該の語順を生み出す合法的な派生は存在しないので、\*I wondered what had Ted eaten. のような SAI した文は非文だと説明される。

#### 4.2. 主語 Wh 疑問文のラベル付け

C から T へ Q 素性を DONATE することで、主語 Wh 疑問文は(17)のようにラベル付けされる。

- (17) [ $\alpha < Q, Q > \& \langle \varphi, \varphi \rangle$  Subj]<sub>Q</sub>[T <T<sub>Q</sub>, C> [ ... ]]  
(Q: DONATE)

(17)では、external pair-merge によって T と C が併合され、C は接辞化し不可視になる。この時 Obata (2018)に従って、T と C の external pair-merge と同時に素性継承が行われる。ラベル付けアルゴリズムは主語 Wh 句と T の間に共通素性として Q と  $\varphi$  を見つけ、 $\alpha$  のラベルが Q 且つ  $\varphi$  に決定される。こうして、Who likes Susan?/I ask who likes Susan. のような母型/埋め込み主語 Wh 疑問文が生成される。

ここで、主語 Wh 疑問文において do 挿入が禁止される点に言及しておかねばならない。本稿は Bošković (2016)と共に、do 挿入は最終手段であり、時制接辞と動詞が隣接していない場合にだけ適用されると考える。(18)で C-T 融合体に具現化した時制接辞と R-v から形成された動詞複合体は音声的に隣接している。したがって、Affix Hopping で事足りるので do 挿入は阻止される。

- (18) [ $\langle Q, Q \rangle \& \langle \varphi, \varphi \rangle$  Subj]<sub>Q</sub>[T <T<sub>Q</sub>, C> [<sub>VP</sub> [<sub>v</sub> <R, v> ... ]]] O ----- O

こうして、\*Who does like Susan?/I ask who does like Susan. のような do が誤って挿入された文の非文法性が説明される。<sup>7</sup>

#### 5. 結語

NEG-criterion や Wh-criterion の下で生じたなぜ Spec-head 配列なのかという疑問は、NEG や Q を共通素性としたラベル付けのためだと説明された。また、NEG-criterion や Wh-criterion ではこれらの素性が T や C に付与されることは何らかの仕方で規定されていたが、本稿では DONATE や KEEP という素性継承の有無から派生されると提案した。こうして、ラベル付けと素性継承という現行の枠組みで利用できる道具立てを使って、今まで原理的説明に抗ってきた SAI の仕組みを解明することを試みた。

\* 本稿は第 39 回日本英語学会における口頭発表原稿に修正を施したものである。かつての指導教官である大室剛志先生と田中智之先生の教えが今も私の研究にとって大きな財産となっているため、ここに記して感謝の意を表する。また、発表前の審査時及び大会当日の発表時に質問やコメントを寄せてくださった査読者、先生、先輩、後輩の方々にも感謝申し上げます。本研究は日本学術振興会から資金的援助を受けている（課題番号: JP18K12415）。なお、本稿における誤りは全て筆者の責任による。

#### 注

<sup>1</sup> Chomsky (2015)に基づき、v\*のフェイズ性は常に R に継承されると仮定すれば、R の指定部へ繰り上がることで転送を逃れた目的語の高位のコピーは次の CP フェイズでも依然としてアクセス可能なままである。これによって、John said nothing. のような否定文でも T へ継承された uNEG 素性と否定目的語が持つ iNEG 素性は適切に Agree 関係を結ぶことができる。

<sup>2</sup> なぜブルトン語では NEG 素性は C に KEEP される一方で、英語では T に DONATE されるのかという疑問が残る。ブルトン語は NEG 素性を形態的に具現化する言語なので、DONATE されて T に具現化した n- という接辞が適切なホストに付加できず Stranded Affix Filter の類に違反し派生が破綻する。したがって、第二選択肢である KEEP が NEG 素性に適用される。対照的に、英語は NEG 素性を形態的に具現化しない言語なので、そうした違反は生じず DONATE で派生が収束する。したがって、第一選択肢である DONATE が NEG 素性に適用される。

<sup>3</sup> R が v\* へ繰り上がった場合、移動先のホストである v\* のほうが接辞化し不可視になるという主張のために Chomsky (2015) を参照。本稿は v\*P フェイズと CP フェイズの平行性に基いて、この考えを CP 領域にも適用する。加えて、Mizuguchi (2016) は、T と C が external pair-merge された場合、C のほうが接辞化し不可視になると主張し、このことを文主語や繰り上げ構文など SAI から独立した現象によって正当化している。internal pair-merge も external pair-merge も併合操作の一例に過ぎないことを踏まえると、一方に当てはまることが他方にも当てはまると仮定するのは妥当なように思われる。

<sup>4</sup> T が C へ繰り上がった後、どうやって転送時に TP は  $\langle \phi, \phi \rangle$  とラベル付けされるのかという問題が生じる。本稿は Epstein, Kitahara and Seely (2016) に従い、ある要素がラベル付けにとって可視的かどうかは、それと set-merge された姉妹要素によって定義されると想定する。(7)では、T と set-merge された姉妹要素は vP であり、vP の全ての occurrence が TP 内に含まれるので元位置に残された T のコピーはラベル付けにとって可視的となる。主要部移動した要素の元位置のコピーは可視的だという議論が正しければ、ラベル付けのタイミングの違いは破棄で

きるかもしれない、H-XP 構造も XP-YP 構造も一律に転送時にラベル付けされると仮定できるかもしれない。

<sup>5</sup> (i) のシンガポール英語では (8b) に相当する文が容認可能である。

(i) I asked if have you squeezed the Charmin.

(Singapore English)

この貴重なデータを快く共有してくださった佐藤陽介氏に拝謝する。McCloskey (2006) のアイルランド英語の分析をシンガポール英語にも適用すると、いくつかの英語方言では埋め込み疑問節でも CP recursion が許される。すると、if は高位の C に挿入され、SAI した have は低位の C に繰り上がることで (i) は生成可能であると説明付けられるかもしれない。

<sup>6</sup> (7) で示されたように NEG 素性を DONATE した派生が収束しているため、(9) で NEG 素性を C に KEEP した派生は原則利用不可能である。発表当日にこの点に関して質問してくださった坂本祐太氏に感謝申し上げます。DONATE した場合、その後 T が C へ繰り上がる必要があるが、これは派生が収束するために不可欠なステップである。加えて、自由併合仮説 (Chomsky (2013)) の下では、T-to-C 移動を含めた併合操作自体は無償で利用できるためコストはかからないと考えられる。これらの考慮に基づくと、(9) で NEG 素性への KEEP の適用は阻止される。

<sup>7</sup> (i) のように時制接辞と動詞の間に前置された XP 要素が割って入って両者の隣接性を妨げる場合、主語 Wh 疑問文であっても do 挿入が許容される。

(i) Who does for all intents and purposes serve as president? (Brillman (2017: 146))

この例を紹介してくださった田中祐太氏にお礼申し上げます。対照的に、never のような副詞は vP に付加した断片 (segment) であり、Affix Hopping を妨害しないという議論のために Bobaljik (2002) を参照いただきたい。

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# **Tough 主語としての日本語の主格目的語** (Japanese Nominative Objects as *Tough* Subjects)

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## 1. はじめに

基体動詞に接辞(-rar)e を付加することで派生される日本語の可能動詞は、その目的語を対格と主格の何れで標示することも許すが、主格目的語構文(NOC)と対応する対格目的語構文(AOC)には目的語の作用域解釈の点で違いがある。本稿は、かかる問題に対する先行分析が孕む問題を指摘し、極小主義の下でより妥当な分析を提示するものである。

最初に、可能構文(PC)の作用域についてはやや状況が込み入っている点を指摘しておきたい。焦点化接辞「-だけ」を伴う場合、-rare に対して(1a)の対格目的語(AO)は狭い、(1b)の主格目的語(NO)は広い作用域をそれぞれ非曖昧にとるという、(2a)に示す Tada (1992)の判断が広く受け入れられているが、(2b)のように AO に作用域の曖昧性を認める話者も一定数存在し、筆者ら自身の判断もこれに準じる。本発表ではかかる話者間の差異を取り込みつつ事実の説明を与えることとし、以下では(2a)と(2b)の判断を示す変種をそれぞれ「変種 A」と「変種 B」と呼ぶ。

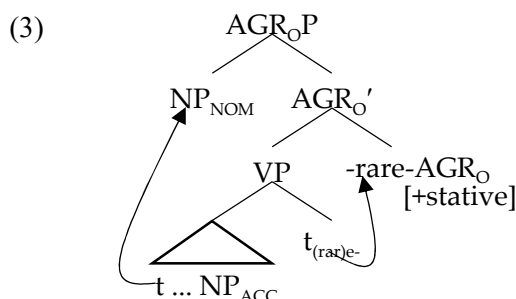
- (1) a. 太郎が右目だけをつむれる。  
b. 太郎が右目だけがつむれる。
- (2) a. (1a): ?\*だけ> -rare/-rare >だけ  
(1b): だけ> -rare/\*-rare >だけ  
b. (1a): ?だけ> -rare/-rare >だけ  
(1b): だけ> -rare/\*-rare>だけ

本稿では、まず 2 節で先行分析に見られる 3 つの接近法を概観し、3 節でその問題点を指摘した後、4 節で分析を提示する。5 節では、提案した分析がより複雑な例を適切に扱い得ることを示す。6 節は結論である。

## 2. 先行分析に見る 3 つの接近法

PC を扱う先行分析には、大きく分けて 3 つの異なる接近法が見られる。これらは何れも変種 A を説明の対象とするため、本節では変種 A の判断を前提に議論を行う。

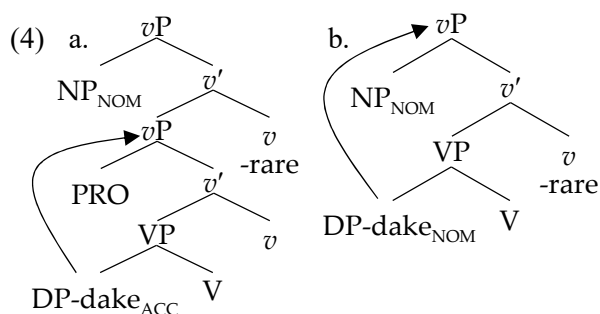
第 1 の接近法は、NO と AO の-rare に対する相対作用域の違いを主格と対格の付与子或いは照合子の違いに帰するもので、Tada (1992)、Koizumi (1994)、Ura (1996)等がこの立場を採る。例えば、Tada (1992)は、NO が格照合のために、(3)のように-rare を主要部とする VP を補部につけた Agr<sub>0</sub>P[+stative]の指定部へと繰り上がるのに対し、AO は-rare の補部内に留まると主張する。<sup>1</sup>



第 2 の接近法は、Bobaljik and Wurmbrand (2007)が採るもので、この場合、(2a)に見る作用域の差異は焦点助詞「-だけ」が解釈され得る位置と NOC と AOC の VP 構造の違いから導かれる。彼らは、対格付与を伴わない

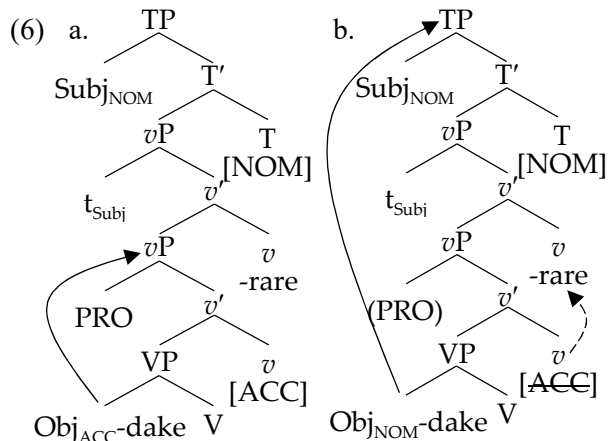


NOC では *-rare* の補部が基体動詞 VP のみからなるのに対し、対格を付与する AOC の基体動詞は自身の *vP* を投射すると主張するが、もし「-だけ」が解釈のために(4)に示すように LF で最も近い *vP* を標的とした QR を義務的に受けるなら、それが AOC でのみ *-rare* より低い作用域をとることが説明される。



第 3 の接近法を採る Takahashi (2011)は、上述の 2 つの接近法を折衷して格と「-だけ」の QR の両方の関与を認める分析を試み、(5)に述べるように「-だけ」が格付値領域を標的とした QR を受けると提案する。

(5) QR *dake* ‘only’ is bound to domains of Case-valuation. (Takahashi (2011: 763))



*-rare* が *v* の格素性を随意的に吸収するとすれば、AOC では、(6a)に見るように *dake* の QR の標的となる格付値領域は埋め込み *vP* であり、*-rare* より低い作用域が得られるのに対し、NOC では(6b)のように対格の吸収の結果埋め込み *vP* は最早格付値領域ではなく、*dake* の QR は TP を標的とし、*-rare* をその作

用域に収めることになる。

以上 3 つの接近法は、全て(2a)に示す変種 A の判断を正しく捉えるが、より広い範囲の事実を考慮に入れると、何れも困難に直面することが明らかとなる。

### 3. 先行分析の問題点

Takahashi (2011)は、格照合に基づく接近法に内在する問題を指摘している。即ち、それら第 1 の接近法の下では、(7)に見るように、格照合に関与しない PP も平行的な作用域の違いを示すことが説明できない。

- (7) a. 太郎が魚を胡椒だけで食べられる。  
(\*だけ > *-rare* / *-rare* > だけ)  
b. 太郎が魚が胡椒だけで食べられる。  
(だけ > *-rare* / ?*-rare* > だけ)  
(cf. Takahashi (2011: 761))

(7)の「胡椒だけで」は付加詞 PP であり、AGRoP や TP に移動する動機を持たないため、(a, b)で同じ作用域をとると予測されてしまう。一方、「-だけ」の作用域を QR によって説明する第 2 および第 3 の接近法は、付加詞も NO と等しく扱うことができるが、よく観察すると、3 つの接近法の全てにとって問題となる事実の存在が明らかとなる。

第 1 の問題は、3 つの接近法が何れも NOC が示す *tough* 構文に類似した振る舞いを捉えられない点である。つまり *tough* 構文と平行的に、NOC は(8)のような長距離の依存関係や、(9)のような PP に対応する NO を許す。

- (8) a. (太郎{が/に})その仕事<sub>i</sub>が<sub>i</sub>花子が *e<sub>i</sub>* 担当すると言{える/いやすい}。  
b. (太郎{が/に})その仕事<sub>i</sub>が<sub>i</sub>次郎が花子が *e<sub>i</sub>* 担当するよう決めたと信じ{られる/やすい}。  
(9) a. 東京が新幹線で行{ける/きやすい}。  
b. このペンが細かい字を書{ける/きや

すい}。

(8)の NOC では、NO は多重に埋め込まれており、-rare はそれを目的語にとる動詞には接辞化されていない。更に、(9)では後置詞目的語に相当する要素が主格で標示されている。3つの接近法は、何れも何らかの形で-rare による対格の吸収を仮定しているため、(8)–(9)のような NOC は許されないと誤って予測してしまう。

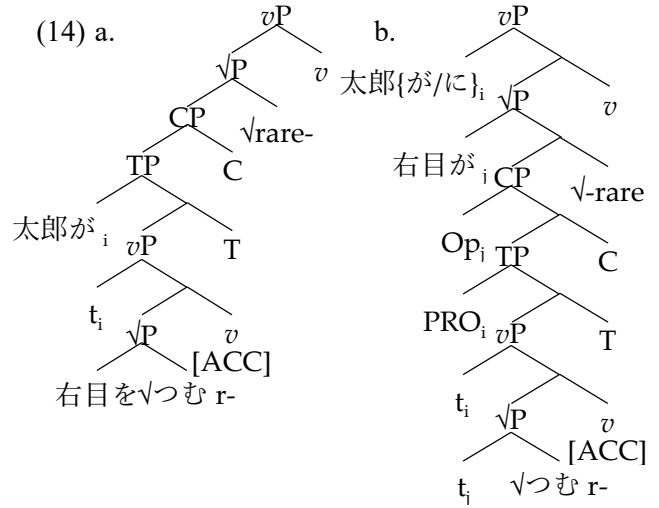
第2の問題は、接辞-rare がとる補部の大きさである。3つの接近法は何れも可能動詞の形成を比較的局所的な過程と考えており、-rare は VP レベルの範疇を選択すると想定しているが、-rare の補部はより大きな構造を含んでいると考えられる。(10)–(11)に見るように、-rare の補部には頻度副詞や主語指向副詞、ある種の文副詞さえも生起することができるからである。また、Kosuge (2016)が言うように、「-ている」が Asp 上位の機能主要部を占めるなら、(12)のような例も-rare の補部が VP より大きいという見解を支持する。

- (10) a. 太郎が酒が頻繁に飲める。  
(<sup>ok</sup>-rare > 頻繁に)  
b. 花子はその本がときどき借りられる。  
(<sup>ok</sup>-rare > ときどき)
- (11) a. 太郎が秘密が抜け目なく聞き出せる。  
(<sup>ok</sup>-rare > 抜け目なく)  
b. その医者がガンが必ず発見できる。  
(?-rare > 必ず)
- (12)?花子が本が読んでいられる。

#### 4. tough 移動分析

本稿では、tough 構文との類似性に基づき、(13a)の NOC とそれに対応する AOC の(13b)にそれぞれ(14a, b)の構造を提案する。

- (13) a. 太郎が右目がつむれる。  
b. 太郎が右目をつむれる。



まず、(14)の構造が変種 A の判断を正しく導くことを見る。(14b)では、NO は埋め込み節内に生成された空演算子と同定された後、主格を付与されるために主節 T と Agree し、その指定部へと移動する。従って NO は必ず -rare よりも高い位置を占める。一方、(14a)の AO は埋め込み節内で対格を付与されるため、-rare よりも低い位置に現れ得る。

そして(1)のような例では、更に「-だけ」句の QR という要因が関与する。「-だけ」が Rooth (1985)が only に与える(15)に等しい意味表示を持つなら、それを付加された DP は QP 同様、意味解釈のために命題的範疇を標的とした QR を受けることになる。命題的範疇が位相だとすると、NO と AO は(16)のようにそれぞれ主節と埋め込み節 vP への QR を受けるが、この QR は-rare との階層関係を変えず、結果として(2a)の判断が得られる。

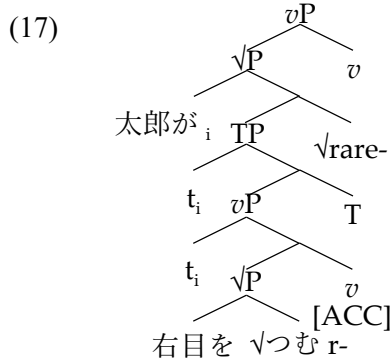
$$(15) \llbracket \text{only} \rrbracket = \lambda x. \lambda P. \forall y [P(y) \rightarrow y = x]_{\langle e, \langle \langle e, t \rangle, t \rangle \rangle}$$

(cf. Rooth (1985: 28))

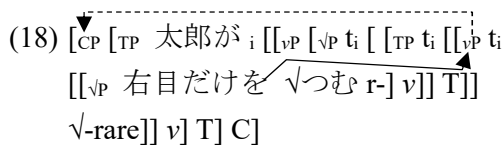
- (16) a.  $[_{TP} \text{ 太郎が } i \text{ } [_{vP} t_i [_{CP} \text{ 右目だけが } [_{vP} t_i [_{vP} \text{ 右目だけを } \sqrt{\text{つむる}} \text{ r-}] v]] T]]$   
b.  $[_{TP} [_{vP} [_{vP} [_{CP} [_{TP} \text{ 太郎が } i \text{ } [_{vP} t_i [_{vP} \text{ 右目だけを } \sqrt{\text{つむる}} \text{ r-}] v]] T]] C] \sqrt{\text{rare}}] v] T]$

では、変種 B の判断はどのように説明されるだろうか。「-だけ」が-rare より広い作用域をとり得ることは、前者が主節へと繰り上

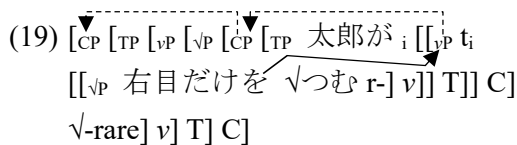
がれることを意味する。本稿では、変種 B の話者にとって **tough** 形容詞は繰り上げ TP を選択し得る語彙特性を有し、(1b)は(17)の構造を持ち得ると主張する。



TP は位相を構成しないため QR の着地点とはならず、-rare が投射する vP についても同様である。<sup>2</sup> 従って、(18)に示すように「右目だけを」の QR が次に標的とするのは主節の CP であり、この移動は-rare を跨ぐため、両者の作用域関係は逆転することになる。



では何故、変種 A の場合対応する QR が不可能なのだろう。即ち、(19)に示すような連続循環的な移動は何故排除されるのだろう。



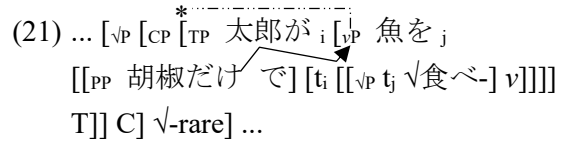
ここで、「-だけ」句の QR が、QP について Miyagawa (2006)が主張するのと同様に、(20)に示す Fox (2000)の作用域の経済性に従うと仮定しよう。だとすると、(18)に見るように、(17)では埋め込み vP から主節 CP への「-だけ」句の QR は-rare との相対作用域を変化させ、従って許容される一方、(14b)の構造の場合、(19)の埋め込み vP から CP への QR は

作用域関係に何ら変化を与えないため、(20)の下で認可されないことになる。

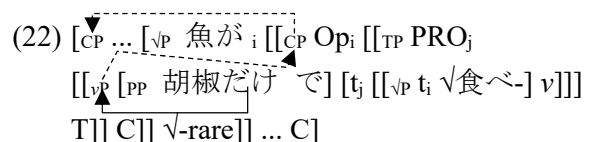
## (20) Scope Economy

[Scope Shifting Operations] that are not forced for type considerations must have a semantic effect. (Fox (2000: 23))

次に、(7)のような付加詞が「-だけ」をとる例の解釈が如何に説明されるかを、先ず変種 A の場合から検討する。(7a)の例は(1a)と同様に説明可能である。「胡椒だけで」が埋め込み vP への付加詞として基底生成されるなら、「で」の目的語「胡椒だけ」は、(21)に示す通り意味タイプが整合するよう vP を標的とした QR を受け、それ以上の移動は動機づけを持たない。従って、「胡椒だけ」は-rare より低い作用域のみをとることになる。



では(7b)の曖昧性はどのようにして導かれるだろうか。NOC の場合も、「胡椒だけ」は(22)のように PP の目的語位置から先ず vP 周端部へと義務的に QR を受けるが、Op が作用域を担うと見なされるなら、AOC と異なり次の段階の QR が意味効果を持つ。従って、「胡椒だけ」の CP への移動は認可され、更に QR を適用されることで-rare との作用域が逆転する。結果として、NOC では「胡椒だけ」と-rare の相対作用域は曖昧となる。



一方、(23)に示すように、変種 B の話者にとっては、NOC だけでなく AOC でも「胡椒

だけ」と -rare の相対作用域は曖昧である。

- (23) a. 太郎が魚を胡椒だけで食べられる。  
(だけ> -rare/-rare >だけ)  
b. 太郎が魚が胡椒だけで食べられる。  
(だけ> -rare/?-rare >だけ)

AOC で「胡椒だけ」の広い解釈が得られるのは、(24)のように、それが埋め込み vP の周端部に義務的 QR を受けた後、-rare の存在により主節 CP へと一挙に移動することで、-rare との階層関係が逆転し得るからである。

- (24) [CP [TP 太郎が<sub>i</sub> [[vP [vP t<sub>i</sub> [[TP t<sub>i</sub> [[vP 魚を<sub>j</sub> [[PP 胡椒だけで] [t<sub>i</sub> [[vP t<sub>j</sub> √食べ-] v]]]] T]] √rare]] v] T] C]

## 5. より複雑な事例

### 5.1. 二重 tough 構文

(11)で見たように、可能構文及び tough 構文では、本来対格で現れる目的語以外の要素が主格を担い得るが、(25)–(26)のように、加えて更に主格目的語が現れることもできる。

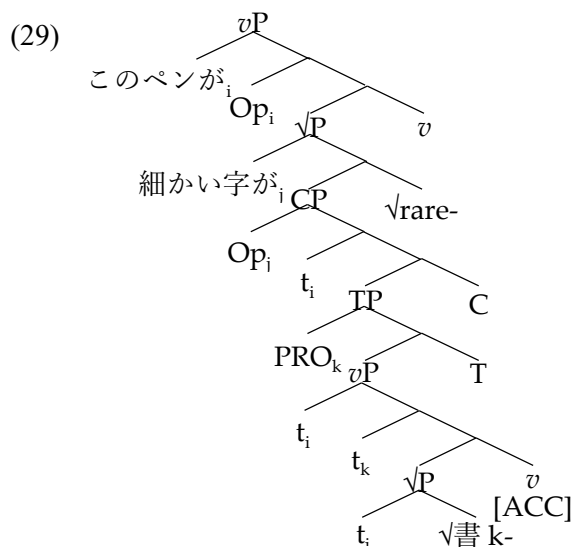
- (25) a. このペンは細かい字が{書ける/書きやすい}。  
b. このテーブルが花瓶{を/が}置ける。  
(26) このテーブルが花瓶{を/が}置きにくい。  
(Tada (1992: 96))

(25)–(26)の最初の主格名詞句が tough 主語ならば、2 つ目の主格名詞句はどのような位置付けを持つのだろう。注目すべき点の 1 つは、第 2 の名詞句も「-だけ」を付したとき主格か対格かで作用域解釈が異なる点である。

- (27) a. このペンは細かい字だけを書ける。  
(だけ> -rare/-rare >だけ)  
b. このペンは細かい字だけが書ける。  
(だけ> -rare/\*-rare >だけ)

- (28) a. このテーブルが花瓶だけを置ける。  
(だけ> -rare/-rare >だけ)  
b. このテーブルが花瓶だけが置ける。  
(だけ> -rare/\*-rare >だけ)

(27b)と(28b)で「-だけ」が狭い解釈を持たない事実は、それが主節に基底生成されていることを示唆する。本稿では、(25a)は(29)のように 2 つの空演算子の移動を伴う二重 tough 構文の例だと主張する。



上位の主語が主節 vP の周端部に位置することは、(30)–(31)に見る事実から確認できる。つまり、(13a)の主語が(14a)に示すように主節の vP 指定部にあるなら、それに最初の NO は先行、第 2 の NO は後続するはずだが、この予測は正しい。

- (30) a. このペンは太郎{が/に}細かい字が{書ける/書きやすい}。  
b. ??太郎{が/に}このペンは細かい字が{書ける/書きやすい}。  
(31) a. このテーブルが次郎{が/に}花瓶が{置ける/置きにくい}。  
b. \* 次郎{が/に}このテーブルが花瓶が{置ける/置きにくい}。

しかし、(29)の構造が正しいなら、何故(32)

のような例は容認されないのだろうか。

- (32) a. ??細かい字がこのペンが{書ける/書きやすい}。  
 c. \*花瓶がこのテーブルが{置ける/起きにくい}。

もし2つの演算子移動が共存し得るなら、2つのNOの語順は逆でもよいように思える。このことは、(33)に示すPesetsky (1982)の経路包含条件(PCC)の観点から理解できるように思われる。Richards (2001)が観察するように、日本語ではPCCの述べるところと丁度逆に、2つの経路は交差しなければならない。そして、VPレベルの付加詞がvPの周端部に位置すると仮定すると、(34)に示すように、本来の対格名詞句が先行すれば、その移動経路は付加詞の経路に包含され、これが(32)の不適合性の原因だと考えることができる。

### (33) Path Containment Condition (PCC)

If two paths overlap, one must contain the other. (Pesetsky (1982: 309))

- (34) [<sub>VP</sub> 細かい字が<sub>i</sub> [<sub>Op<sub>i</sub></sub> [<sub>VP</sub> このペンが<sub>j</sub> [<sub>CP</sub> <sub>Op<sub>j</sub></sub> ... [<sub>VP</sub> <sub>t<sub>j</sub></sub> ... [<sub>VP</sub> <sub>t<sub>i</sub></sub> 置く<sub>k</sub>-] v]]] T]] C]]  
 √-rare]] v]]

## 5.2. 多重埋め込み補文

(8)で見たように、可能構文はtough構文と同じく長距離依存関係、つまり空演算子の長距離移動を許す。本節では、ここでの分析が(35)のようなNOCと対応するAOCの振る舞いを正しく予測することを見る。

- (35) a. (太郎{が/に})花子はその仕事を担当するよう決められる。  
 b. (太郎{が/に})その仕事が<sub>i</sub>Op<sub>i</sub>花子が<sub>t<sub>i</sub></sub>担当するよう決められる。

最初に、(35b)のNOは(35a)のAOと異な

り、埋め込み主語「花子が」に先行している点に注意したい。これは前者が長距離の空演算子移動を伴うことの当然の帰結であり、NOが埋め込み主語に後続する(36a)は予測通り排除される。一方、(35a)でAOはかき混ぜ可能なので、(36b)の語順は許容される。

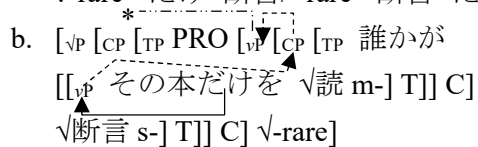
- (36) a. \*(太郎{が/に})花子はその仕事が担当するよう決められる。  
 b. (太郎{が/に})その仕事を花子が担当するよう決められる。

次に作用域解釈について見る。筆者らが変種Bの話者のため、以下変種Bについて検証を行う。筆者らの判断では、(37a)のAOCでは作用域を担う3つの要素のうち、「-だけ」が最も低い解釈のみが許される。このことは次のように説明可能である。つまり(38)に見るように、「その本だけ」はQRによって最も深い節のvP周端部に繰り上がるが、更なるCPへの移動は作用域関係に変化を与えないため、(20)の経済性条件によって排除され、「その本だけ」は上位の節に辿り着けない。

- (37) a. 太郎が花子はその本だけを読んだと断言できる。 (\*だけ>-rare>断言/  
 \*-rare>だけ>断言/-rare>断言>だけ)  
 b. 太郎がその本だけが花子を読んだと断言できる。 (だけ>-rare>断言/  
 \*-rare>だけ>断言/\*-rare>断言>だけ)

- (38) [<sub>VP</sub> [<sub>CP</sub> [<sub>TP</sub> PRO [<sub>VP</sub> [<sub>CP</sub> [<sub>TP</sub> 花子が  
 \*[[<sub>VP</sub> その本だけを √読 m-] T]] C]  
 √断言 s-] T]] C] √-rare]

また、この説明は1つの予測をもたらす。即ち、もし「その本だけ」がCPへと繰り上がることで何か作用域を担う要素を跨ぐなら、それがより高い作用域をとることが可能となる筈である。(39a)と(40)に示す通り、この予測は正しく思われる。

- (39) a. 太郎が誰かがその本だけを読んだと断言できる。 (?\*だけ> -rare > 断言/ ?-rare > だけ>断言/ -rare >断言>だけ)
- b. 
- (40) 誰もが誰かがその本だけを読んだと断言できる。 (だけ> -rare >断言/ -rare >だけ>断言/-rare >断言>だけ)

(39a)では、(39b)に見るように、最下位の vP 周端部から CP への移動は QP「誰かが」を超えるために相対作用域が変化し、(20)の下で容認されることとなる。それにより、作用域を担う「断言」を跨ぐ次の vP への QR が更に可能となり、「その本だけが」が-rare と「断言」の間の作用域をとる読みが得られる。しかし、次の CP への移動は作用域関係を変えないために許されず、「だけ」が最も高い解釈は得られない。一方、(40)のように最上位の主語も QP の場合は、予測通り「だけ」の最も高い読みも得られる。

これに対し、(37b)の NOC で NO が最も広い作用域を持つ読みしか持たない事実は、(41)に示すように、それが主節に基底生成されることから直ちに導かれる。

- (41)

## 6. 結論

本稿では、日本語の主格目的語構文の中でも可能構文を扱い、そこに見られる NOC/AOC の交替現象と作用域解釈に関する事実に対し、NO が tough 主語であるとの主張の下で原理的説明を与えた。また、異なる判断を示す 2 つの変種を扱い、その違いが如何にして生じるのかを明らかにした。

## 注

<sup>1</sup> 同様に、Ura (1996)は NO は LF での素性移動によって T と照合関係を結び、そこで作用域解釈を受けるとする。

<sup>2</sup> 後者の見解は(7)の NOC で「-だけ」が否定より高い作用域をとること、及び変種 B の話者にとっては(i)のように AOC でも同じ解釈が可能なることによって支持される。

- (i) 太郎が右目だけをつむれない。  
 だけ>ない> -rare/\*ない>だけ> -rare/  
 ない> -rare >だけ)

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対比焦点及び後焦点縮約の統語・音韻構造\*  
(The Syntactic and Phonological Structures of  
Contrastive Foci and the Post-Focal Reduction)

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## 1. 導入

日本語や英語では、対比焦点要素 (Contrastive Focus: CF) のピッチアクセントが強調され、後焦点要素が音声的に弱化を受ける。特にこの後焦点要素の弱化を、後焦点縮約 (Post-Focal Reduction: PFR) と呼ぶ (Sugahara 2003, Ishihara 2003)。(1)を見られたい (以降、対比焦点要素を太字で表し、後焦点要素を下付き文字で示す)。

### (1) 日英語における CF 及び PFR の例

- a. John bought **Paul's** new album, (not George's).
- b. ジョンは (ジョージではなく) **ポー**  
**ルの** 新しいアルバムを買った。

Nagahara (1994)は、このようなCFによるPFRの効果はCFによる後続する音韻句( $\varphi$ )境界の削除によるものだと主張している(最適性理論 (Optimality Theory) の枠組みにおける同様の考察については、Büring (2016)を参照)。具体的に、日本語では、 $\varphi$  が基礎周波数  $f_0$  のピッチ圧縮 (いわゆる「ダウンステ

ップ」) の生じる範囲であると考えられており、ダウンステップは $\varphi$ の左端境界ごとにリセットされる(特に、Selkirk and Tateishi 1988を参照されたい)。Nagahara (1994)によると、CFはそれに後続する $\varphi$ 境界を削除し、CFを左端に含む単一の $\varphi$ を形成する効果があると論じている。以上の提案に従うと、(1b)における「ポールの新しいアルバムを買った」は、以下の音韻構造を持つ。

### (2) ( $\varphi$ ポールの 新しいアルバムを買った)

(2)に示されているように、Nagahara の提案によると、PFRはCFによる $\varphi$ 境界削除に伴うダウンステップによるものだと結論づけられる。

しかしながら、Ishihara (2003), Sugahara (2003), Kratzer and Selkirk (2020)他多数の研究では、ピッチリセットなどの経験的な証拠を元に、CFそのものが音韻句の(左端)境界の削除を引き起こすわけではないことが示されている。これらの観察に基づくと、Nagahara による「PFRの $\varphi$ 境界削除分析」は経験的に支持されないことがわかる。

以上から、本稿では、「なぜPFRという現象が生じるのか」という問いは依然として残っていると考え、この問題の原理的説明を試みる。特にこの問題を、統語・音韻におけるインターフェイスの観点から考察し、Richards (2016)で提案されている「隣接理論」 (Contiguity Theory) の枠組みから説明を試みる。そのため、次節で隣接理論を概観する。

## 2. 隣接理論

Richards (2016)は、Richards (2010)の提案を拡張した「隣接理論」を提案している。隣接理論は、その骨組みとしてSelkirk (2009, 2011)の照合理論 (Match Theory) を採用し、統語構造の構築と並行的に、音韻構造の基本

構造も構築されると主張する。照合理論の中心命題を(3)に掲載する(Richards (2016: 115))。

- (3) a. 全ての統語主要部は韻律語 (prosodic word)  $\omega$ に対応する。
- b. 全ての最大投射 XP は音韻句 (phonological phrase)  $\phi$ に対応する。
- c. 全ての節はイントネーション句 (intonational phrase)  $\iota$ に対応する。

(3)に見られるような照合理論を基盤に、Richards (2016:115)は選択・一致などの文法関係の構築に際して、(4), (5)に挙げる条件が、統語・音韻のインターフェイスにおいて課せられると提案する。

- (4) ある主要部H と (一致や選択などの) 関係を結ぶ句XP は、一つの音韻句のみに支配されねばならず、XPはその音韻句の中で隣接的に卓越していなければならない。
- (5)  $\alpha$ が韻律的に活性化された音韻句の端に隣接する時、 $\alpha$ は隣接的に卓越している。

特に、「韻律的に活性化された音韻句の端」について、Richards (2016)はRichards (2010)を踏襲し、ある言語の音韻句の端で観察される現象の有無から、当該の言語における韻律的に活性化された音韻句の端が決まると主張する。例えば、先に見たように日本語ではダウンステップの効果が韻律句の左端でリセットされることが知られており、この効果から日本語は活性化された音韻句の左端を持つと考えられる。さらにRichards (2018)は、英語でも日本語と同様のダウンステップに関する振る舞いやHLアクセントが観察されることから、英語も同様に左端が活性的な言語であると提案している。

これらを念頭に、(4)-(5)がいかんして各言語の振る舞いを予測するのかを、(6)に挙げた具体例とともに見ていく。

- (6) a. What did you buy?
- b. あなたは何を買ったの？

まず、(6a)から見よう。(6a)は、*did you buy what*を基底構造に持つ。照合理論に従うと、この基底構造は(7)の音韻構造を基底に持つ(議論に関係する活性化された音韻句の端を、下線で示す)。

(7) ( $\iota$ did<sub>C</sub> ( $\phi$ you) ( $\phi$ buy ( $\phi$ what)))

Wh要素である*what*は、Cとwh素性について一致を起こす。(4)-(5)によると、 $\phi_{what}$ の左端が、 $\iota_C$ の左端について(4)を満たさなければならない。しかしながら、(7)ではこの条件は満たされていない。

英語ではwh要素がCP指定部に移動することで、この問題を回避できる。(8)に見られるように、wh移動が起こった場合、(4)の条件は問題なく満たされる。

(8) ( $\iota$ ( $\phi$ what) did<sub>C</sub> ( $\phi$ you) buy)

よって、隣接理論では、英語が顕在的wh移動を要求する事実が、統語・音韻のインターフェイス条件から説明される。

続いて、(6b)にある日本語の例を見られたい。(6b)の基底音韻構造を(9)に示す。

(9) ( $\iota$ ( $\phi$ あなたは) ( $\phi$ 何を) 買ったの<sub>C</sub>)

(9)でも、(7)と同様に(4)-(5)は満たされていない。Richardsによると、日本語の場合、wh要素の移動以外に、郡化 (Grouping) という操作を適用することで、正当な音韻構造を構築することができる。群化とは、H とXP を直接支配するような $\phi$ を形成する操作である。(9)において、HとXPはそれぞれCとwh要素「何を」に対応する。そのため、(9)に群化



を適用すると、 $\phi_{\text{あなたは}}$ が音韻構造から切り離され、以下の構造が構築される。

(10) ( $\phi_{\text{あなたは}}$ ) ( $\phi_{\text{何を}}$ ) 買ったの $c$ )

さらに、切り離された $\phi_{\text{あなたは}}$ が $i$ に付加されることで、(11)が出力される。

(11) ( $\phi_{\text{あなたは}}$ ) ( $\phi_{\text{何を}}$ ) 買ったの $c$ )

(10)-(11)において、 $\phi_{\text{何を}}$ の左端と $i_c$ の左端が隣接している。よって、日本語では、CP指定部への $wh$ 移動を伴わずとも $wh$ の一致を認可する音韻構造が群化によって形成される。

この分析のもとでは、日本語では $wh$ -in situが認可される事実と、英語では $wh$ 移動が義務的であることが統一的に説明される。

さらに、隣接構造を構築するもう1つの手段を見る。(12)にある、右端活性かつ主要部後置型言語の抽象的音韻構造を見られたい(V-T-Cは動詞複合体を示す)。

(12) ((XP $\phi$ ) ( $wh$ -phrase $\phi$ ) V-T-C $i$ )

この構造では、(4)-(5)は認可されない。なぜならば、V-T-Cが常に $\phi_{wh\text{-phrase}}$ の右に位置するためである。

このような場合、Richards (2016)によると、隣接付加 (Contiguity Adjunction) という操作によって正当な音韻構造を構築することができる。隣接付加とは、韻律階層において下位に位置する要素を、それに隣接する韻律階層的に上位の要素の一部として扱うように、前者を後者に文字通り「付加」する操作である。これに従うと、 $\omega$ であるV-T-Cが $\phi_{wh\text{-phrase}}$ に付加されることで、(13)を派生させることができる。

(13) ((XP $\phi$ ) ( $wh$ -phrase V-T-C $\phi$ ) $i$ )

(13)を見れば明らかなように、この構造では(4)-(5)が満たされる。Richardsによると、バスク語などの言語ではこのような隣接付加を用いることで $wh$ の一致を認可する音韻構造が構築される。

以上が隣接理論の骨子である。特に隣接条件(4)-(5)を満たす際に重要な役割を果たす操作を(14)にまとめた。

- (14) a. XP指定部への移動  
b. 群化  
c. 隣接付加

次節では、本節で概観した隣接理論を用いて、CFがどのように認可されるのかを概観し、PFRという現象に対する原理的説明を試みる。

### 3. 提案

本節では、前節で概観した隣接理論をCFにも拡張する。前節で見た $wh$ の一致については、 $i_c$ レベルで(4, 5)が満たされねばならないことを見た。では、CFはどのレベルで隣接条件を満たさなければならないのだろうか。

この問題に関して、本稿では、Reinhart (2006), Selkirk (2002), Szendrői (2017)などの観察・主張をもとに、CFは $i_{TP}$ のレベルで認可されると主張する。Selkirk (2002)は、日英語を含む様々な言語において、CFのアクセントはall new sentenceの主強勢の担うアクセントがより強調されたもので、この強調は $i$ レベルでCF要素が最も卓立していなければならないというインターフェイス条件によるものだと論じている。Reinhart (2006)は、このインターフェイス条件を強勢焦点一致原理 (Stress Focus Correspondence Principle) と呼ぶ。

Szendrői (2017)はこれらの主張における $i$ がどのように定義されるのかを考察し、

Hamlaoui and Szendrői (2015)に基づいて、統語構造と $\iota$ レベルの照合についての柔軟なアプローチを提案している。その提案によると、主節 $\iota$ は定形の動詞の生起する位置によって定義される。したがって、日英語のようにTが接尾辞である言語では、TPが $\iota$ に写像される。そのため、(3)の照合理論も踏まえると、日英語は以下の基底音韻構造を持つ。

(15) ( $\iota_{CP}$  ( $\iota_{TP}$  ... ) )

以上をもとに、CFについての隣接条件として、本稿では(16)を提案する。

(16) CFは $\iota_{TP}$ で隣接条件を満たさねばならない。

(16)は、CFの意味論からも支持される。Rooth (1985, 1992)以来、文レベルのCFは命題、すなわちTPレベルで代替集合を意味計算に惹起する“Alternative Semantics”が、焦点意味論における主流のアプローチとなっている。このアプローチが正しいと考えると、CFは統語と音韻のインターフェイスにおいても、統語と意味のインターフェイスにおいても、TPレベルで処理されることになる。

この事実を、(16)を概念的に支持する根拠と考え、以下で実際に日英語のCF隣接がどのようにして認可されるのかを確認する。

### 3.1. 英語のCF隣接

Richards (2019)に従い、英語は一般に左端が活性化された言語であると想定すると、(1a)は以下の統語および音韻構造を持つ。

(17) a. [ $_{CP}$  C [ $_{TP}$  [ $_{DP}$  John] T [ $_{VP}$  bought $_{V-V-T}$  [ $_{DP}$  Paul's [ $_{NP}$  new album] ] ] ] ]  
b. ( $\iota_{CP}$  C ( $\iota_{TP}$  ( $\phi$ John) bought $_{V-V-T}$  ( $\phi$ Paul's ( $\phi$ new album))))

(17b)では、 $\phi_{John}$ が介在しているため、CFである $\phi_{Paul's}$ が $\iota_{TP}$ の中で隣接条件(4)-(5)を満たしていない。しかし、(14b)を適用することで、介在している $\phi_{John}$ を切り離し、(18)を形成することができる。

(18) ( $\iota_{CP}$  C ( $\phi$ John) ( $\iota_{TP}$  bought $_{V-V-T}$  ( $\phi$ Paul's ( $\phi$ new album))))

しかし、(18)においてもCF隣接は形成されない。Tを含む動詞複合体 $\omega$ が介在するためである。この場合、ちょうど(12)-(13)で見たように、(14c)を当該の複合体に適用することで、(19)を形成する。

(19) ( $\iota_{CP}$  C ( $\phi$ John) ( $\iota_{TP}$  ( $\phi$  bought $_{V-V-T}$  Paul's ( $\phi$ new album))))

(19)の構造において、CFである $\phi_{Paul's}$ の活性化された左端は $\iota_{TP}$ に隣接しており、したがってCFの隣接条件が認可される。

### 3.2. 日本語のCF隣接

日本語についても、英語同様左端が活性化された言語である。このことに注意した上で、(1b)の統語および音韻構造(20)を見られたい。

(20) a. [ $_{CP}$  [[ $_{DP}$  ジョンは] [ $_{DP}$  ポールの [ $_{NP}$  新しいアルバムを] 買った $_{V-V-T}$ ] C]  
b. ( $\iota_{CP}$  ( $\iota_{TP}$  ( $\phi$ ジョンは) ( $\phi$ ポールの ( $\phi$ 新しいアルバムを)) 買った $_{V-V-T}$ ) C)

(20b)についても、(10)-(11)に見たように(14b)を適用することで、(21)の構造を構築できる。

(21) ( $\iota_{CP}$ ( $\phi$ ジョンは) ( $\iota_{TP}$ ( $\phi$ ポールの ( $\phi$ 新しいアルバムを)) 買った $_{V-V-T}$ ) C)

(21)において、CFである $\phi_{\text{ポール}}$ のは $t_{\text{TP}}$ の中で隣接的に卓越しているため、CF隣接条件が満たされ、したがってCFも認可される。

### 3.3. CF隣接とPFRの領域

(19)においてCFの隣接条件が満たされている範囲を示した(22)に注目されたい。

(22) ( $t_{\text{TP}}(\phi_{\text{bought}}_{\text{V-V-T}} \text{ Paul's } (\phi_{\text{new album}}))$ )

(22)からわかるように、隣接条件が満たされる範囲（隣接範囲） $t_{\text{TP}}$ の内部に、CF及びPFRを受ける要素が包含されている。

日本語の例(21)についても、(23)に見るように、 $t_{\text{TP}}$ の内部にCFとPFRを受ける要素が含まれている。

(23) ( $t_{\text{TP}}(\phi_{\text{ポール}} \text{の } (\phi_{\text{新しいアルバムを}}) \text{ 買った}_{\text{V-V-T}})$ )

これらの事実から、PFRの範囲と隣接範囲が一致することが導かれる。よって、(24)が導出される。

(24) PFRの範囲は、隣接範囲に対応する。

ここで、(24)の持つ概念的及び経験的利点について述べておく。まず、Ishihara (2003)が詳細に論じるように、東京方言における $wh$ 要素は対比焦点同様PFRを引き起こす。Ishiharaによると、このような $wh$ 要素によって引き起こされるPFRもまた、 $wh$ 要素とC主要部を含む韻律句と定義される。本稿の枠組みのもとでは、この観察はそのまま(24)によって説明される。すなわち、 $wh$ 要素によるPFRは、 $t_{\text{CP}}$ に対応する。

加えて、Ishihara (2003)他多数において、PFRの範囲は焦点/ $wh$ 演算子の作用域に対応することが報告されている。この事実もまた、(24)によって原理的な説明を与えられる。す

なわち、作用域は音韻構造における隣接範囲に対応しており、したがってCF、 $wh$ 要素の双方において、それぞれ $t_{\text{TP}}$ と $t_{\text{CP}}$ の外部の要素はPFRを受けず、作用域に含まれない。

以上、本稿では、隣接理論の枠組みのもとで、CFの認可とそれによるPFRの効果について、統語・音韻のインターフェイスの観点から原理的説明を与えた。本提案のもとでは、PFRの範囲と意味論的作用域が対応する事実もまた自然に導出される。

次節では、本稿の枠組みを対比話題（Contrastive Topic: CT）にも拡張できる可能性を探る。

## 4. 拡張

代替集合を意味計算に導入する要素はCFだけではない。Tomioka (2010a, b)やConstant (2014)などで詳しく論じられているように、(25)において太字で標示されているCTもまた、代替集合を導入する。

(25) (ハービーとパットは？何をパーティに持ってきたの？)

a. Harbie<sub>CT</sub> brought the piano<sub>CF</sub> and Pat<sub>CT</sub> brought the guitar<sub>CF</sub>.

b. ハービー<sub>CT</sub>はピアノ<sub>CF</sub>を持ってきて、パット<sub>CT</sub>はギター<sub>CF</sub>を持ってきた。

CTもCF同様代替集合を生成するのであれば、隣接理論の観点からもCFと類似した形で振舞うことが期待される。

Richards (2016)は、自身の隣接理論をCTにも拡張して、英語のCTの振る舞いを簡単に論じている。Richardsは、Constant (2014)による詳細な分析をもとに、CTはC主要部と文法関係を結ぶため、これら2つの間で隣接条件が満たされなければならないと提案している。特に、Richardsによると、英語のCTと $t_{\text{CP}}$ はそれぞれL+H\*とL-H%で実現され、例外的に韻律句の右側を活性化すると主張してい

る。そのため、英語のCTは韻律句の右側で隣接条件を満たさねばならない。(25a)の簡略化された基底音韻構造を(26)に示す。

(26) (C (t<sub>TP</sub> (Harbie<sub>CT</sub>φ) brought<sub>V-V-T</sub> (φthe piano<sub>CF</sub>)t<sub>CP</sub>))...

(26)では、φ<sub>Harbie</sub>が介在しているため、CF隣接が形成されない。加えて、φ<sub>Harbie</sub>もt<sub>CP</sub>の右端で隣接的に卓越していないため、CT隣接も満たされない。

ここで、CTをCP指定部に移動させると、CT、CF双方の隣接条件が満たされる音韻構造が生成可能になる。まず、CP指定部へとCTが移動した結果生成される、(27)の構造を確認する。

(27) ((Harbie<sub>CT</sub>φ) C (t<sub>TP</sub> brought<sub>V-V-T</sub> (φthe piano<sub>CF</sub>)t<sub>CP</sub>))...

(27)から、*brought*に隣接付加を適用し、加えてCをCTに隣接付加すると、(28)が得られる。

(28) ((Harbie<sub>CT</sub>φ) Ct<sub>CP</sub>) (t<sub>TP</sub>(φbrought the piano<sub>CF</sub>) ...

(28)では、CTがt<sub>CP</sub>の右側で(4)-(5)を満たし、CFがt<sub>TP</sub>の中で隣接的に卓越しているため、CT及びCF隣接が認可される。

日本語の例(5b)についても、これまでと同じような説明が与えられる。まず、日本語のCTは基本的にCFと同じH\*+Lアクセントを受けすることに注意されたい。つまり、日本語のCTは、英語のそれとは異なり、通常通り韻律句の左端を活性化させる。したがって、日本語では、CT、CFの双方が韻律句の左端で認可される。

この点を踏まえた上で、(25b)の簡略化された基底音韻構造(29)を見られたい。

(29) (t<sub>CP</sub>(t<sub>TP</sub>(φハービー<sub>CT</sub>)は) (φピアノ<sub>CF</sub>を) 持ってきた<sub>V-V-T</sub>) C)...

第3節で見たように、CF隣接を満たすために、CTのφが群化によって切り離され、(30)は派生する。

(30) (t<sub>CP</sub>(φハービー<sub>CT</sub>)は) (t<sub>TP</sub>(φピアノ<sub>CF</sub>を) 持ってきた<sub>V-V-T</sub>) C)...

(30)からわかるように、CF隣接が認可される構造ではそのままCTの隣接条件も満たされる。したがって、本分析のもとでは、日本語においてもCTに関して隣接理論の観点から特定の振る舞いが予測される。

特に、日本語について、CTの隣接範囲はt<sub>CP</sub>であり、したがってこの隣接範囲の中でCTによる韻律効果が確認されることが予測される。実際、Nakanishi (2001)によって、日本語のCTは、後続要素のPFRを引き起こすことが確認されている。

本分析のもとでは、このようなCTによるPFRの効果についても、(24)の観点から説明できる。すなわち、CTによるPFRは、CTの隣接範囲であるt<sub>CP</sub>によって規定される。

## 5. 結論

本稿では、日英語におけるCF及びPFRという現象に対して、極小主義の観点から原理的説明を試みた。特に、Richards (2016)の隣接理論を採用し、両言語においてCFがt<sub>l</sub>の中で最も卓立したアクセントを担わなければならないという観察をもとに、CFはt<sub>TP</sub>の内部で隣接条件を満たさねばならないと提案した。加えて、この提案のもとでは、PFRと作用域の関係についても簡潔な説明を与えられることを見た。さらに、同様の説明をCTにも与えられる可能性についても論じた。

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## disinclination を表す言語表現の使い分けの 基準について

(On Factors Influencing the Choice of  
Expressions Pertaining to Disinclination)

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キーワード : disinclination, inclination,  
NEG-Raising, confidence, pragmatic strategy

### 1. はじめに

disinclination とは、subject (主節主語が I の場合は conceptualizer [概念化者]) が命題 *p* を一時的に「偽」と判断している心的状態 (対命題態度) を表す言葉である。

- (1) ... an inclination stage (in the epistemic control cycle), where the subject inclines toward a positive or negative judgment (i.e. inclination or disinclination) without yet being able to definitely resolve the matter.  
(Langacker (2009: 261) : 括弧は筆者加筆)

disinclination (以降、**d** 表記もある) を表す表現には、以下のようなものがある。

- (2) **Disinclination:** *doubt, don't {believe / think / suppose / imagine / ...}*  
(Langacker (2009: 316))

disinclination 及び inclination (以降、**i** 表記もある) が生じる inclination stage は NEG-Raising 現象と密接に関わっている。

- (3) Sumnicht (2001) argues persuasively that negative raising is only found with the inclination stage, where the matter is still at issue.  
(Langacker (2009: 262))

つまり、(2)の述語が主節述語 (特に 1 人称単数現在) として使われた場合の共通点は、従属節を *p* と表記した場合、本来の①【*p* に対する disinclination (緩和的な否認)】を表すことに加えて、(多少の例外があるが)、②【 $\neg p$  に対する inclination (否定命題の緩和的な主張)】を表すことができる (否定辞繰り上げ解釈) ということである。

NR 構文の統語論的証左としては、①従属節中の強 NPI (例えば、until) の認可、②特異な付加疑問形成、③主語・助動詞倒置(Horn Clause)をあげることができる。

- (4) NR constructions exhibit very peculiar syntactic behaviors. Among the most famous are the licensing of (strong /strict) negative polarity items occurring in the embedded clause, the particular formation of tag questions, and subject-auxiliary inversion.  
(Mori (2009: 10))

同等の振る舞いをする言語表現として、I don't know that を挙げることができる。

- (5) a. I don't know that Santa comes around these parts until Christmas Eve.  
(Horn (2014: 191))  
b. I don't know that it's very important, {is it / \*do I}?  
(Cattell (1973:623))  
c. I don't know that EVER before had all three boys napped simultaneously.  
(Horn (2014: 190))

さらに、(6)-(7)のような記述も見られる。

- (6) Both I don't think that P and I'm not sure that P conventionally convey, via SCI, a weak assertion of  $\neg P$ . (Kay (2000: 16))
- (7) I'm not certain that your dog is ill. [non-factive; the dog may not be ill]
- (Langacker (2009: 279))

(5)-(7)より、disinclination に関わる述語として、(8)の述語を加えることができる。

- (8) Other Expressions Pertaining to **d**:
- I don't know that, I am not {sure / certain} (that)*

ここで注意すべきは、(9)に示す関係である。

- (9) I {don't know that / am not {sure / certain} (that)}  $p$ .  $\neq$  I {know / am {sure / certain} (that)}  $\neg p$ .

したがって、I {doubt (that) / don't {think / believe / suppose} (that) / I don't know that}  $p$  の【原義】及び【拡張義】は下記のように示すことができる。

- (10) I {doubt (that) / don't {think / believe / suppose} (that) / I don't know that}  $p$  の意味：

【原義】 disinclination toward  $p$

【拡張義】 inclination toward  $\neg p$

ここで問題となるのが、**d**/**i**を表す言語表現がどのように使い分けられているかということである。したがって、本発表の目的は、**d**/**i**を表す言語表現の使い分けの基準(選択要因)を明らかにすることである。

## 2. NEG-Raising 現象に関する認知言語学的考察

### 2.1. Langacker (2009)

Langacker (2009)では、**i** / **d** (および non-inclination) を(11)のように説明した上で、図1~3を提案している。

- (11) One possible outcome is a **positive inclination** (which I will simply call **inclination**). As shown in diagram (b), this results when  $C_1$ 's projection of  $RC_1$  (dashed-line ellipse) leads to  $P$ 's incorporation. The opposite outcome, labeled **disinclination**, is when the projection specifically does not include  $P$ . These two possibilities, illustrated by *believe* and *doubt*, are of course instances of capture and avoidance. There is however a third outcome, where mental projection does not result in either. (中略) I will call this **non-inclination**. (Langacker (2009: 315))

inclination

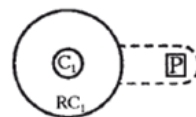


図1 (Langacker (2009: 315))

disinclination

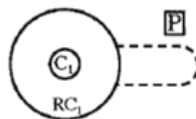


図2 (ibid.)

non-inclination

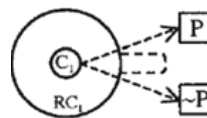


図3 (ibid.)

そして、主節否定が従属節否定の意味を有するようになる認知的メカニズムを(12)の

ように説明している。

(12) (21) a. I don't {believe / think / suppose / ...} she can trust him.

b. I {believe / think / suppose / ...} she can't trust him.

...To account for the rough equivalence of (21)a–b, all we need say is that the negation in (21)a affects the polarity of the inclination, changing it from (positive) **inclination** (capture) to **disinclination** (avoidance). That is, it affects the direction of  $C_1$ 's mental projection of  $RC_1$ , the result being that it does not reach  $P$  (the case of inclination) but instead reaches its alternative ( $\sim P$ ). On that interpretation (21)a is “logically” equivalent to (21)b, which specifies a positive inclination toward  $\sim P$ . The expressions represent alternate ways of **construing** (i.e. conceiving and portraying) the same situation. (Langacker (2009: 317))

## 2.2. Mori (2009)

Mori (2009)では、NEG-Raising 現象を(13)のように説明し、図 4～9 を提案している。

(13) In Chapter 6, we have proposed that the NR phenomenon is cognitively motivated by a shift of focus (profile shift) from the recognition of the distance between the main subject ( $C_1$ ) and the positive proposition  $p$  to that of the distance between  $C_1$  and its negative counterpart  $\neg p$  on the scale of the psychological distance between  $C_1$  and  $p / \neg p$ , and that the profile shift is a cognitive basis leading to a pragmatic inference like the following: the subject's disinclination toward  $p$  may/must be caused by his inclination toward  $\neg p$ ,

i.e. the subject's inclination toward  $\neg p$  may/must block his inclination toward  $p$ .

(中略) In addition, we have proposed that the shift from D-mode cognition to I-mode cognition, *that*-deletion and the Reducing Effect play crucial roles in the development of *I don't {think/believe/suppose}* to an epistemic marker that indicates the speaker's positive judgment (inclination) toward  $\neg p$ . (Mori (2009: 233))

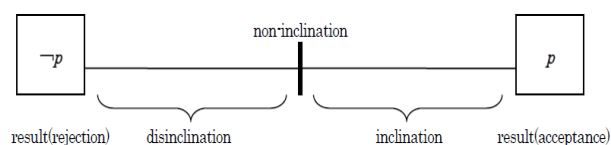


図 4

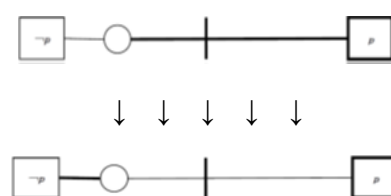


図 5

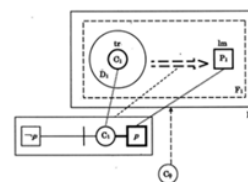


図 6

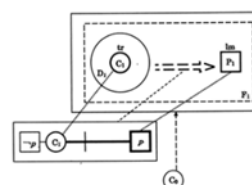


図 7

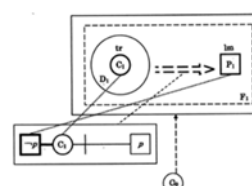


図 8



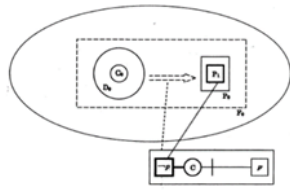


図 9

図 4: Propositional Attitude and Psychological Distance (Mori (2009: 118)の改訂版)

図 5: Profile Shift on Psychological Distance Scale (Mori (2009: 119))

図 6:  $C_1$ 's **i** toward  $p$  (Mori (2009: 119))

図 7:  $C_1$ 's **d** toward  $p$  (Mori (2009: 119))

図 8:  $C_1$ 's **i** toward  $\neg p$  [via profile shift] (Mori (2009: 120))

図 9:  $C_0$ 's **i** toward  $\neg p$  [epistemic marker] (Mori (2009: 132))

### 3. I don't {believe / think / suppose} (that) の使い分けの基準

Wierzbicka (2006)では、I {believe / think / suppose} (**inclination** の表現)には、confidence の違いがあることが指摘されている。

(14) If we compare it with *I suppose*, *I believe* sounds more confident. If we compare it with *I think*, *I believe* also sounds more confident, although the difference is not as sharp as in the case of *I suppose*.

(Wierzbicka (2006: 214))

(15) The component “I don't say I know” explains why *I believe* sounds more confident than *I suppose*: *I suppose* implied “I don't know,” whereas *I believe* implies only “I don't say I know.”

(Wierzbicka (2006: 215))

このことから、I don't {believe / think / suppose...} (that)  $p$  は、【( $p$  に対する) disinclination / ( $\neg p$  に対する) inclination】に

おける概念化者（話者）の confidence の度合いに応じて、使い分けがされていると推測することができる。

(16) confidence の度合い：

弱 ← I don't suppose (that) — I don't think (that) — I don't believe (that) → 強
--

(16)は、心理的距離尺度(Mori 2009)上では、図 10～13 のように図示される。

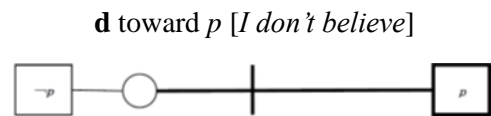


図 10

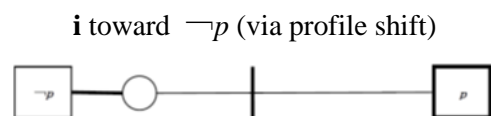


図 11

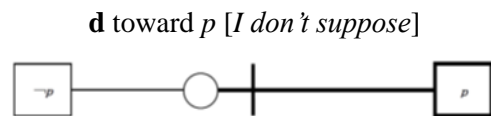


図 12

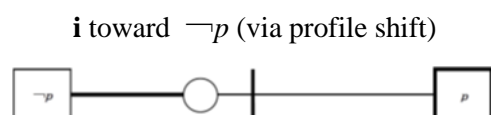


図 13

### 4. I don't know that と I doubt (that) の使い分けの基準

毛利(1980)では、I know that  $p$  に関して、(17)のように説明している。

(17) I know that  $p$  は、命題  $p$  と言語外世界のチェックをして、事実確認を経ている、つまり、客観的裏づけがある。

(毛利 (1980: 202))

上記の指摘が正しいとすると、I don't know that  $p$  には、 $p$  に incline するだけの証拠・根拠がないということになる。この心的状態は、 $p$  に対する disinclination ( $\neg p$  に対する inclination) を誘発する (消極的な disinclination / inclination)。

(18) T. POLING: ...I don't know that she had a mitochondrial disorder prior to July 19th of 2000. I had **no evidence** of it in any biological tests.

(CNN LARRY KING LIVE, 2008/03/06)

(19) WECHT: I doubt that they will release that information at this time, because they may want to wait for DNA, which is another thing we could talk about.

(CNN TALKBACK LIVE, 2002/05/22)

(20)では、I don't know that  $p$  と I doubt that  $p$  が but で連結している。

(20) Mark Henderson looked somewhat startled, obviously unused to such bluntness. He retained his smile, but it became a trifle forced. "I don't know that I can make you happy, Captain, but I doubt that you'll be bored. It concerned two of your men, Detective Starsky and Detective Huchinson."

(William Blinn, *Starsky and Hutch*)

I doubt (that) に関して、but による連結を勘案すると、直後の (Because) It concerned two of your men, Detective Starsky and Detective Huchinson を根拠として、 $p$  に対する disinclination ( $\neg p$  に対する inclination) を表明している (積極的な disinclination / inclination) と考えられる。この心的態度は、I doubt  $p$  の semantic components (Wierzbicka (2006: 260)) の一つである、[I say this because

I want to say what I think when I think about it]に通じるものである。

以上のことから、I don't know that  $p$  は、話者が  $p$  に incline できるだけの根拠 (Basis) を持っていないと認識している場合 (図 14) に、他方、I doubt (that)  $p$  は、話者が  $p$  に対して decline する ( $\neg p$  に incline する) だけの根拠を持っていると認識している場合 (図 15) に、用いられると予測できる。

*I don't know that  $p$  (-B = without Basis)*

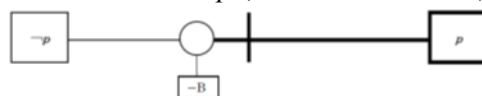


図 14

*I doubt (that)  $p$  (+B = with Basis)*

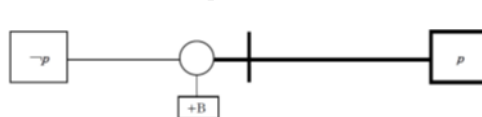


図 15

## 5. I don't think (that) と I doubt (that) の使い分けの基準

話者は、 $p$  に対して disinclination (あるいは  $\neg p$  への inclination) の対命題態度を取る場合、その判断材料 (根拠) を有しているはずである (I don't know that  $p$  に関しては、前節を参照のこと)。

Aikhenvald (2004: 64)では、evidentiality に寄与する推量に、inference (知覚に基づく推量) と assumption (知識に基づく推量) の2種類があるとされている (一般的に、前者の方が、confidence との親和性が高い)。

(21) The domain of 'inference' is subdivided differently in different systems. A major distinction appears to exist between an inferred evidential covering inferences made on the basis of visible or tangible results, and an assumed evidential

involving general knowledge and assumption based on reasoning.

(Aikhenvald (2004: 64))

例えば、*I don't think / I doubt* の場合、(22) / (23) のような実例がヒットする。

(22) BUCHANAN: ... and why is it, in your judgment, that the American people by almost two to one believe NAFTA was failure?

MATSUI: I don't think that poll is necessarily accurate because I've seen other polls that indicate the American public slightly favors the NAFTA.

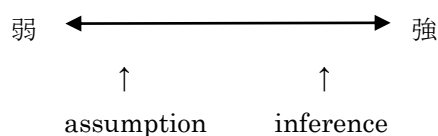
(CNN CROSSFIRE, 1997/11/06)

(23) STUART TAYLOR: I doubt a grand jury member would do that, because grand jurors tend to do what the prosecutors ask them to with very rare exceptions.

(CNN LARRY KING LIVE, 1998/07/01)

以上の考察から、【(話者が認識する) 判断材料(根拠)と判断の結びつきの強弱】—強弱の度合いは、同一話者、同一根拠であっても、発話時における根拠(の強弱)の捉え方で変化する—が、選択基準に関与している可能性が高いと考えられる

(24) confidence の強弱との相関：



○ *I don't think*: inference, (assumption)

○ *I doubt*: assumption

## 6. Counterexamples に対する語用論的説明

(25)-(27) ((26)-(27)は『否認』のコンテキスト下での使用) はいわゆる反例である。

(25) I would recommend this class to anyone. It was straight forward, organized, and I thought that the labs were actually very interesting, rather than confusing. I had a bit of trouble remembering test due dates but I appreciated that homework was due on an easy schedule. I don't know that I have any recommended changes for you because I think you have run your class very fairly. (Student Comments)

(<http://home.miracosta.edu/jturbeville/online%20student%20comments.htm>)

(26) CALLER: Hi, Anne Marie, I have a question to you: what really attracted you? His looks, his power, or his wealth? KING: I don't know that he is wealthy that is – I don't think he is. ROBINSON: I don't believe he is, no.

(CNN LARRY KING LIVE, 2001/07/13)

(27) Ms. IFILL: ...How is that more orderly? Mr. McLARTY: Well, Gwen, first, I don't know that I said -- and I don't believe I did -- that it was more orderly than the prior selection process... Ms. IFILL: Oh, it wasn't?

(CBS FaceNation, 1994/05/15)

こうした反例に対して、(28)を提案する。

(28) Politeness Strategy (FTA の軽減)：

The use of expressions pertaining to weaker {disinclination/inclination}

⇒ The use of expressions pertaining to stronger {disinclination/inclination}

『否認』はいわゆる FTA であり、その軽減として、まず「弱い否認の表現」を用い、相手の反応(顔の表情等)次第で、(本意に近い)「より強い否認の表現」の使用に移行する方略を取るという見立てである。

上記の方略の妥当性を補強する実例とし

て(29)-(30) (いずれも『否認』のコンテクスト下での使用) を挙げる。

(29) CALLER: ...Maybe health-wise, I could do some things that could prevent it.

PHILLIPS: I don't know whether it can—I don't think at this point that it can be prevented.

(CNN LARRY KING LIVE, 2002/09/20)

(30) NOVAK: ... His campaign manager. Joe Trippi, predicts that the doctor will leave the DNC before 2008 to run for president again... What about what Joe Trippi says?

BEGALA: I don't know whether Governor Dean is going to run. He says he's not.

(CNN CROSSFIRE, 2005/02/09)

I don't know whether の方が、I don't know that よりも、「より弱い否認の表現」であり、(28) の方略の一環に位置付けることができる。

以上の考察から、包括的には、下記の confidence の尺度における位置を基軸に、使い分けが行われる方向に機能変化(語彙的意味の漂白)していると予想することができる。

(31) confidence の度合い：

弱 ←	I don't know whether	—	I don't
know that	—	I doubt (that)	— I don't
suppose (that)	—	I don't think (that)	— I
don't believe (that)	→	強	

## 7. おわりに

本発表の目的は、I doubt (that) *p*, I don't {think/believe/suppose} (that) *p*, I don't know that *p* 等の disinclination を表す言語表現の使い分けの基準を探ることであった。

先行研究を元に、{*p*/¬*p*} に対する {disinclination/inclination} 段階時における①【confidence の強弱】、②【根拠の有無】、③【間接証拠性としての inference, assumption

との親和性】の3つの選択要因を想定し、その想定に妥当性があることを例証した。

反例の存在に関しては、語用論の観点—【confidence の強弱】を基軸とした FTA の軽減を意図した言語使用の観点—から説明可能であることを論じた。

文代名詞(so/it)との共起環境も含め、さらなる精緻化については、今後の課題としたい。

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(付記) 実例(18)(19)(22)(23)(26)(29)(30)は、インターネットの CNN.com – Transcripts のサイト(<https://transcripts.cnn.com/>)から、掲載 transcripts をダウンロードして自主作成した CNN Transcripts Corpus (1996-2010)を KWIC 検索して得られたものである。実例(27)は、The Corpus of Contemporary American English (COCA)の検索により得られたものである。

助動詞 **ought** の文法化について\*  
(On the Grammaticalization of the English  
Auxiliary *Ought*)

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キーワード : *ought*, 文法化, 非人称構文, 人  
称構文

### 1. はじめに

義務を表す助動詞 *ought* は、(1)に例示される所有を表す古英語の本動詞 *agan* を起源に持つ。そして(2)に示されるように、義務を表す *ought* の用法は古英語から観察される。

- (1) þa Deniscan **ahton** wælstowe  
the Danes had of-battle-field  
geweald  
power  
'Danes had power (control) of the battle  
place'  
(ChronE (Irvine) 833.1 (Plummer  
63.9-11) / Kaita (2015: 110))
- (2) nan man hit **nah** to  
no man it not-ought to  
geahnianne  
claim as one's own  
'no man ought to claim possession of it'  
(colaw2cn, LawIICn:24.3.79 / YCOE)

現代英語では観察されない *ought* の特性として、再構成と非人称構文が挙げられる。再構成とは、通常は節境界を越えて適用されない統語操作が、特に不定詞節を越えて適用さ

れている現象を指す。(2)では *to* 不定詞節内の目的語 *hit* が主節の領域に移動しており、かつては *ought* が再構成を許していたことが分かる。Mori (2020)は、このような目的語移動が消失した原因は(3)から(4)への構造変化であると提案している。

- (3) [VP ought [PP to [vP Venne/en/e-v [VP tV ...  
Obj ...]]]] (vP is not a phase)  
(Mori (2020: 76))
- (4) Subj ... [ModP ought [InfP to [vP tSubj V-v  
[VP tV ... Obj ...]]]] (vP is a phase)  
(Mori (2020: 76))
- (5) The infinitival morpheme functions as an  
argument iff its Case feature is licensed  
(via Agree or inherent Case assignment).  
(Tanaka (2007: 48))

(3)-(4)において、*ought* はそれぞれ本動詞(V)と法助動詞(Mod)として位置づけられる。補部不定詞節としてそれぞれ PP と Inf(initival)P が選択されている。<sup>1</sup> (3)について、不定詞節がかつて PP として位置づけられていたことは、*to* 不定詞節が前置詞句と等位接続可能であったこと、また、*to* が不定詞に格付与(古英語：与格-*enne*、中英語：目的格-*en/e*)していたことにより支持される。<sup>2</sup> Mori が依拠する Tanaka (2007)の提案(cf. (5))によれば、不定詞形態素は格の認可を受けることで項として機能するが、(3)では前置詞としての *to* による格付与の下で不定詞形態素が外項として機能するため vP はフェイズではない。一方で、(4)では文法化を経た *ought* が機能範疇 Mod として自身の項構造をもはや持たず、表層の主語(Subj)が補部不定詞の外項として導入されることになるため、vP はフェイズである。ゆえに、再構成に関わる目的語移動がフェイズの末端を経由しない

A 移動であるとする (cf. Tanaka (2009)), フェイズ不可侵条件 (cf. Chomsky (2000)) により、(3) の構造においてのみ再構成が許されることになる。したがって、(3) から (4) への構造変化の完了に伴い再構成が消失すると説明される。

Mori によれば当該の構造変化は 14 世紀中に完了したが、そのような分析にとって、15 世紀を含む中英語の *ought* が (主格主語を伴う人称構文に加え) (6) に示されるような非人称構文にも現れることが問題となる。

- (6) [...] any thyng for which hym oghte  
anything for which him ought  
to pleyne.  
to lament  
'anything for which it behooves him to  
lament.'  
(CMCTPARS, 288.C2b.12 / PPCME2)

(6) において、斜格の代名詞 *hym* と *to* 不定詞節はそれぞれ *ought* の経験者項 (EXperiencer) と主題項 (THeme) として解釈される。本論文では、非人称構文と人称構文における *ought* の主語をそれぞれ斜格経験者、主格経験者と呼ぶ。このような非人称構文が 15 世紀においてもなお観察されることは、14 世紀中に *ought* の文法化が完了して項構造が失われたとする Mori の分析とは対照的に、*ought* の項構造が完全には失われていない場合があることを示唆する。

本論文では、歴史コーパス YCOE, PPCME2, PPCME を用いた調査により、*ought* の非人称構文が 15 世紀中に消失したことを示し、その原因は同時期までに完了した *ought* の助動詞化であると提案する。さらに、本発表の提案に基づき、*ought* の歴史的発達の全体像を示す。

## 2. *ought* における非人称構文の消失

Ono (1989) や田島 (2016) によれば、*ought* の非人称構文は中英語期に出現したが、調査範囲が同時期までであるため消失時期が厳密には明らかでない。そこで、この構文の歴史的発達を明らかにするために、Mori (2021) は斜格経験者を伴う *ought* について調査している。中英語では既に名詞の屈折が衰退していることをふまえ、代名詞の斜格経験者を伴う (7)-(10) のような例を収集した。斜格経験者、*ought*、*ought* が従える不定詞節である主題項は、それぞれ囲み線、太字、下線を用いて示されている。(7)-(9) に示されるように、*ought* が従える節には、*to* 不定詞節に加え、*for-to* 不定詞節や原形不定詞節も含まれる。また、(10) に示されるように、不定詞節が省略されている例も存在する。最後に、通常の非人称構文とは異なり、全例において虚辞 (h)it が現れない。このことは、主題項が節である非人称構文において虚辞の生起が随意的であることと対照的である。

表 1: *ought* の非人称構文の歴史的発達

古英語 (-1150)	初期中英語 (1150-1350)
0	0
後期中英語 (1350-1500)	近代英語 (1500-1710)
46 1350-1420: 24 1420-1500: 22	0

(Mori (2021: 49))

- (7) me ought to preyse and loue it  
me ought to praise and love it  
'It behooves me to praise and love it'  
(CMREYNAR, 14.275 / PPCME2)
- (8) 'Sir,' he seyde, 'I have nothyng done  
sir he said 'I have nothing done  
but that me ought for to do  
but what me ought for to do  
“Sir,” he said, “I have done nothing but

what it behooves me to do”

(CMMALORY,198.3059 / PPCME2)

- (9) Wherfore us **oghte** [...] have pacience  
wherefore us ought have patience  
‘for which reason it behooves us to have  
patience’

(CMCTMELI,218.C1.37 / PPCME2)

- (10) if man love Jhesu Crist lasse than  
if man love Jesus Christ less than  
hym **oghte**  
him ought  
‘if a man loves Jesus Christ less than he  
ought’

(CMCTPARS,298.C1.416 / PPCME2)

表 1 に示す調査結果から、ought の非人称構文は後期中英語に観察され始め、同時期の終わりまでに消失したことが分かる。通常の非人称構文は 16 世紀に消失したため(cf. 大門 (1987))、非人称の ought は自身に固有の語彙的要因により 1 世紀早く消失したと考えられる。

### 3. 通常の非人称構文の消失

非人称の ought の歴史的発達について論じる前に、通常の非人称構文の派生、および 16 世紀に消失した理由について議論する。特に前者について、定形動詞が三人称単数の屈折を常に示す理由から議論する。

Nawata (2011)によれば、「斜格 EX+非人称動詞+TH 節」型の非人称構文は(11)のように派生される。まず、虚辞 it が vP 指定部に基底生成される場合、T が持つ値未付与の φ 素性([uφ])が虚辞と一致して値付けられ、定形動詞は三人称単数の屈折を示す。

- (11) [TP T<sub>[uφ]</sub> [vP it/pro v [VP EX V<sub>Impersonal</sub>]]]  
[NOM] [ACC]  
TH<sub>Clausal</sub>]]] (cf. Nawata (2011))

一方、格と一致素性を持たない空の虚辞 pro が vP 指定部に生起すると、[uφ]には一致する候補が存在せず三人称単数の値がデフォルトとして与えられる。どちらの場合も定形動詞は三人称単数の屈折を示す。

以上の分析に基づけば、虚辞 it を伴わない非人称構文の消失は 16 世紀における pro の消失に還元される。一方、it を伴う構文は現代英語まで存続する。しかし、このシナリオは ought にはあてはまらない。非人称の ought は現代英語において it を伴う形式で存在していないだけでなく、観察される時期においても虚辞を伴うことがない。さらに、消失時期についても、16 世紀を待たず中英語の終わりまでに消失した。

### 4. 非人称の ought の歴史的発達

ought の非人称構文の構造として(12a)を提案する。(3)-(4)とは異なり、文法化を経た ought が v の位置に基底生成され、不定詞節を補部にとる。経験者項はその指定部に導入され、ought から内在格として斜格を付与される。ゆえに、虚辞 it/pro が vP 指定部に生起することはない。ought は Mod の位置へと移動して複合主要部(cf. (13))を形成する。後期中英語において通常 ought は現在の義務を過去形で表していたため(cf. Ono (1989))法助動詞的である一方、非人称の ought は自身で経験者項を導入する点で語彙動詞的でもある。この中間的性質は複合主要部を仮定することにより説明される。

- (12) a. [TP T<sub>[uφ]</sub> [ModP Mod [vP EX [v ought]]]  
[TH<sub>Clausal</sub>]]] (impersonal ought)  
b. [TP T<sub>[uφ]</sub> [ModP Mod [vP EX [v ought]]]  
[NOM] [ACC]  
[TH<sub>Clausal</sub>]]] (personal ought)
- (13) [Mod [v ought]+Mod]

そして、非人称構文と共存する時期の人称構文の構造として(12b)を提案する。(12b)においても *v* に基底生成された *ought* が指定部に経験者項を導入するとともに、Mod へと移動して複合主要部を形成する。(12a)とは、T が持つ[uφ]について派生が異なる。(12a)では [uφ] に三人称単数の値がデフォルトとして与えられるのに対し、(12b)では *vP* 指定部に導入された経験者項が[uφ]との一致の結果として主格を付与される。

以上の議論が正しければ、非人称構文は *ought* の文法化により構造が(3)から(12a)へと変化したことにより出現した。また、*ought* がさらなる文法化を経て項構造を完全に失うと、経験者項を導入することができなくなり非人称構文は消失した(cf. (4))。この一連の変化の動機として時制パラダイムの衰退が挙げられる。表 2 に示されるように、*ought* はもともと古英語における *agan* の過去形であったが、12 世紀末から現在形としても利用可能になり、15 世紀までに *ought* が *owe* を駆逐した。以上の観察に基づき、非人称の *ought* は助動詞化の過渡期である後期中英語に現れたが、15 世紀の終わりまでにさらなる文法化を経て(通常の非人称構文よりも 1 世紀早く)消失したと主張する。

表 2: *owe/ought* の時制パラダイム

中英語	
現在	過去
<i>owe, oughte</i>	<i>oughte</i>
初期近代英語	
現在	過去
<i>ought</i>	

(cf. 宇賀治 (2000: 233))

最後に、*v* に位置付けられる時期の *ought* が非人称用法を持つ理由について、同時期に非人称用法で用いられた動詞との類推が考

えられる。個々の動詞が他の動詞にどのような影響を具体的に与えたかは今後の研究課題とするが、たとえば Gregersen (2020) は表 3 に示す類推による発達を提示している。<sup>3</sup> 古英語期に既に非人称構文をとる (GE)BYRIAN との類推により BEHOVE が非人称用法を得た後、後期中英語期には義務や必要性を表すさらに多くの動詞へと用法が拡大している。この時期に OUGHT もまた非人称用法が利用可能となった。

表 3: 各動詞における非人称用法の獲得

OE		12th c.		14th c.
(GE)BYRIAN	→	BIREN	→	BIREN
(GE)DAFENIAN	→	BEHOVE	→	BEHOVE
...		(THARF?)	→	OUGHT
		...		MOT
				(NEED?)

(Gregersen (2020: 161))

## 5. *ought* の文法化

以上の議論に基づき、*ought* の歴史的発達の全体像を以下に示す。

表 4: *ought* の発達の年代関係

	時制パラダイムの衰退				現代 英語
	初期 中英語	~1300	~1400	~1500	
人称 <i>ought</i> (V cf. (3))	——				
非人称 <i>ought</i> (v cf. (12a))	---	——	——	——	
人称 <i>ought</i> (v cf. (12b))	---	——			
弱変化 本動詞 <i>owe</i>				——	
人称 <i>ought</i> (Mod cf. (4))				——	



人称構文は英語史を通して観察されるが、その位置付けは各時期で異なる。現在の義務を現在形で表す初期中英語までは本動詞として位置付けられるが(cf. (3))、時制パラダイムが衰退し始め後期中英語に入ると過去形で表すようになり、法助動詞的位置付けを持つようになった(cf. (12b))。この段階においても外項は *ought* により導入されるため、(3)の時期に引き続き再構成が許されていた。時制パラダイムの衰退自体は 15 世紀末まで続いたが、本来の現在形 *owe* が 15 世紀に弱変化の新たな本動詞用法を発達させる際に、*ought* は再分析を受け純粋な法助動詞として分化したため、再構成が許されなくなった(cf. (4))。

一方、非人称構文(12a)は後期中英語に出現したが、これは *v* への文法化に際して類推の影響を受けた結果である。その後、人称構文(12b)とは異なり、屈折の衰退が完了する 15 世紀末まで残存した。人称構文における発達とは異なり、非人称の *ought* が 15 世紀の終わりまで文法化を免れたことは、非人称構文の斜格経験者項が再分析の可能性と相容れないからであると考えられる。2 節の調査で収集した 46 例のうち、補部不定詞節に非人称用法をとる *repente* ‘*repent*’が生起する 1 例が存在するため、これは透明性(Warner (1993))の例として繰り上げ構造への再分析の余地があるが、その他の例については斜格経験者項が *ought* によって導入されていることが明らかであり再分析の適用が妨げられる。しかし、16 世紀までに *ought* が Mod として一本化され項構造を完全に失うと、経験者項を導入することができなくなり、非人称構文は消失したのである。

## 6. 結語

本論文では、*ought* の非人称構文が 15 世紀中に消失したことを示し、その原因は同時期までに完了した *ought* の助動詞化であると提

案した。さらに、(非)人称 *ought* の歴史的発達の全体像を、段階的な文法化という観点から提示した。

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## 注

<sup>1</sup> 本論文では詳細に議論しないが、(4)の統語構造は Harwood (2014)により提案された精緻化された動詞句領域を *ought to* の構造に拡張したものである。Mod 主要部に導入される *ought* が選択する補部不定詞節(InfP)の主要部を不定詞標識 *to* が占めている。このような構造を提案する理由については、Mori (2020)を参照されたい。

<sup>2</sup> (3)では不定詞標識 *to* が前置詞として動詞句を補部にとるが、このような構造を仮定する根拠については、Tanaka (2007)を参照されたい。

<sup>3</sup> 表 3 において、矢印と縦棒付き矢印はそれぞれ‘*changes into*’と‘*influences*’を表す。

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## 知覚動詞の受動態補文に出現する不定詞の 通時的研究

(A Diachronic Study on Infinitives in the  
Passive Complement of Perception Verbs)

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キーワード：知覚動詞, 受動態, 不定詞, ア  
スペクト, 証拠性

### 1. はじめに

現代英語における知覚動詞は、(1) に示すように、能動態補文に原形不定詞、現在分詞と to 不定詞を取る。このうち、原形不定詞は知覚事象の完結性を、現在分詞は非完結性を表す一方、to 不定詞は間接知覚や直接知覚に基づく推量を表すという。

- (1) a. I **saw** him **walk** across the road.  
(Allen (1974: 186))  
b. I **saw** him **walking** across the road.  
(ibid.)  
c. I **saw** the figure **to be** that of a woman.  
(Bolinger (1975: 399))

その一方で、受動態補文では、(2) のように、to 不定詞と現在分詞が用いられるが、原形不定詞の出現は認められない。

- (2) a. The dog **was seen** {**\*cross** / **to cross**}  
the road. (Gisborn (2010: 122))  
b. Carl **was seen reading** Barriers.  
(Miller (2002: 253))

田中 (1990: 227) のインフォーマント調査では、このような受動態が好まれるのは行為者がわからないか、示したくない、あるいはその必要がない場合であり、能動態で表せる場合は能動態を用いるという。また鷹家・林 (2004: 53) のインフォーマント調査によると、see や watch など to 不定詞を伴う受動態はあまり使用しないという回答が多く、英語母語話者にとってこの受動態は不可能でなくてもあまり自然ではなく、特に理由がない限りは能動態が用いられるという。さらに、柏野 (2010: 410) は、to 不定詞を伴う知覚動詞の受動態の多くは客観性を表す内容で、犯罪捜査に関する証言や新聞報道などに用いられるという。(2a) の容認可否について調査した村岡 (2020) によれば、(3) に示すように知覚動詞補文の準動詞はそのアスペクトを反映した証拠性を表すという。

- (3) I **saw** him {**walk** / **walking** / **to be walking**} across the road. (直接知覚)  
【直接証拠性：強 / 中 / 弱】

さらに、村岡 (2020) は (4) に示すように受動態補文に出現する準動詞もまたそのアスペクト特性を反映した証拠性を表すと述べ、知覚動詞の受動態は知覚情報の出所である知覚者（主語）が省略され、間接知覚や推量（弱い証拠性）を表すが、be seen Inf では原形不定詞が完結のアスペクトを反映した強い直接証拠性を表し、言語運用上の矛盾をきたすため、容認されないという。その一方、現在分詞や to 不定詞は原形不定詞よりも弱い証拠性を表し、知覚動詞の受動態と意味的に矛盾することがなく、容認されるという。

- (4) He **was seen** {**\*walk** / **walking** / **to walk**}  
across the road. (間接知覚)  
【直接証拠性：強 / 中 / 弱】

しかし、小野・伊藤（2009: 141）によれば、(5) のように、村岡（2020）の反例となる例が 17 世紀まで存在するという。

- (5) through the gloom **were seen** Ten thousand Banners **rise** into the Air.  
(Milton, PL. 1, 544-5)

本研究では、(5) の例が村岡（2020）の反例になり得るのか、後期中英語から初期近代英語までのデータを収録したコーパスである Early English Book Online (EEBO) を用いて調査を行い、17 世紀までの知覚動詞補文に出現する準動詞は現代英語に見られるアスペクト特性を表していないことを明らかにし、(5) の原形不定詞もまた現代英語に見られるようなアスペクトを持たず、そのアスペクトを反映した証拠性を持たないため、文法的であった可能性について議論していく。

## 2. 受動態補文における to 不定詞の出現

まず知覚動詞の受動態補文における to 不定詞の出現について、村岡（2020）は、この to 不定詞は推量や間接知覚を表すと主張する。その証拠として、(6) から (11) に示す言語事実が挙げられる。知覚動詞の能動態補文における原形不定詞は直接知覚を表すために、(6a) に示すように知覚不可能な状態を表す動詞を補文に取ることができない。しかし、(6b) のように推量を表す受動態補文においては、そのような制限が課されず、状態動詞を用いた例も文法的とみなされる。

- (6) a. \*I **saw** John **know** French.  
(Hornstein et al. (2008: 200))  
b. John **was seen to know** French. (ibid.)

また知覚動詞の能動態補文における原形不定詞は直接知覚を表すために、知覚対象は知覚行為と同時に存在していなければならない

い。そのため、(7a) のような完了不定詞を補文にとれないが、(7b) のように推量を表す to 不定詞補文においては、能動態の原形不定詞補文と異なり、知覚事象と知覚行為が同時である必要がなく、容認される。

- (7) a. \*John **saw** the lawn **have been mown**.  
(井上 (1984: 96))  
b. The lawn **was seen by** John **to have been mown**. (ibid.)

さらに (8) に示すように BE + 現在分詞は能動態の原形不定詞補文に出現できないが、to 不定詞補文ではそれが可能である。状態受動を表す BE + 過去分詞もまた (9) に示すように能動態補文の原形不定詞では非文法的とみなされているが (cf. (6))、推量を表す to 不定詞補文では容認されている。

- (8) a. \*We **saw** John **be drawing** a circle.  
(Felser (1999: 26))  
b. He **was seen to be walking** away.  
(Palmer (1987: 189))  
(9) a. \*I **saw** him **be rejected**.  
(Bolinger (1974: 69))  
b. The children **were seen to be beaten**.  
(Palmer (1987: 199))

(10a) のように直接知覚を表す能動態の原形不定詞補文は通例、生じていない事柄を補文にとることができない。その一方で、受動態の to 不定詞補文は推量を表すため、(10b) のように否定辞を伴う表現が後続できる。

- (10) a. \*We **saw** only John **not run** away.  
(井上 (1984: 96))  
b. Only John **was seen not to run** away.  
(ibid.)

また Bolinger (1974) や 柏野 (1989: 425) に

よれば、to 不定詞を伴う知覚動詞の受動態補文は、(11) のように、apparently とパラフレーズ可能であるという。これらの言語事実から受動態補文の to 不定詞は能動態補文における原形不定詞と異なり、間接知覚あるいは直接知覚に基づく推量を表すと考えられる。

- (11) John *is seen to be* their best hope.  
 = John is apparently their best hope.  
 (Bolinger (1974: 80))

### 3. 受動態補文における原形不定詞の非出現と村岡 (2020) の分析

前節において、受動態補文における to 不定詞は間接知覚や推量を表すことについて見てきたが、なぜ原形不定詞を用いた例は非文法的とみなされるのだろうか。このことについて、村岡 (2020) は、知覚動詞の補文に出現する準動詞はアスペクトだけでなく証拠性も表すと分析する。Aikhenvald (2015) によれば、証拠性の選択はアスペクトの選択に影響されるとし、Abraham (1998) は証拠性は完了相により生じる場合が多いと述べるが村岡 (2020) は、非完了相もまた証拠性を表しうると分析する。前述の通り、知覚動詞の能動態における原形不定詞補文は、完結性だけでなく、知覚事象の開始点と終結点、つまり全体を見聞きしたことを含意するため、(12) のように原形不定詞補文はそのアスペクトに応じた強い証拠性を表し、知覚者がその知覚事象に対して十分な証拠や確信度を持っていることを表す。その一方で、現在分詞補文は一時性を表すとともに知覚事象の一部のみを見聞きしたことを含意するため、そのアスペクトに応じて、原形不定詞よりも弱い証拠性を表し、知覚者がその知覚事象に対して限られた証拠しか持っていないことや原形不定詞よりも弱い確信度を表す。さらに、直接知覚に基づく推量や間接知覚を表す能動態の to 不定詞補文は、to のも

つ未来指示性により、弱い証拠性を表す。

- (12) I *saw* him {*walk* / *walking* / *to be walking*} across the road. (直接知覚)  
 【直接証拠性：強 / 中 / 弱】

その証拠として、村岡 (2020) は以下の例をあげている。原形不定詞補文は前述の通り、それがもつ完結性の相を反映した強い直接証拠性を表すため、その知覚事象を打ち消す表現は後続できない。しかし、原形不定詞よりも弱い証拠性を表す現在分詞補文や to 不定詞補文においては、その知覚事象を打ち消す表現が後続できる。

- (13) a. I *saw* John {*\*enter* / *entering*} the room, but I didn't know whether he actually got inside.  
 (柏野 (2010: 408))  
 b. Martha *saw* Fred *to be driving* too fast, but he actually wasn't.  
 (Moulton (2009: 129))

この証拠性は受動態補文に出現する準動詞にも当てはまる。受動態補文は知覚情報の出所である知覚者および主語が省略され、間接知覚や推量 (弱い証拠性) を表すため、原形不定詞よりも弱い直接証拠性を表す現在分詞や to 不定詞を補文にとることができる。しかし、be seen Inf では原形不定詞が完結のアスペクトを反映した強い直接証拠性を表し、受動態が表す推量や間接知覚 (弱い証拠性) の意味と言語運用上の矛盾をきたすため、容認されない。

- (14) He *was seen* {*\*walk* / *waking* / *to walk*} across the road. (間接知覚)  
 【直接証拠性：強 / 中 / 弱】

Bolinger (1974: 87) もまた (14) の原形不定

詞は知覚者がいないのに受けた印象が聞こえない耳や見えない目に漂ってくるような表現となり、容認できないという。しかし、

(14) の原形不定詞は通時的にその存在が確認されており、小野・伊藤 (2009: 141) はそのような例は 17 世紀まで存在するという (cf. (5))。このことについて、EEBO を用いて調査を行ったところ、表 1 のように同様の結果が得られた。

表 1. EEBO における be {seen/heard} Inf

15c	16c	17c	TOTAL
8	45	288	341

それらのうち、be seen Inf の原形不定詞には往来発着を、be heard Inf には発話を表す動詞が用いられていた。このような例はなぜ通時的に存在しえたのだろうか。次節以降、近代英語の知覚動詞補文に出現する準動詞は現代英語に見られるアスペクトを表しておらず、そのアスペクトを反映した証拠性をも表していなかったために、このような例が容認されていたという可能性を論じていく。

#### 4. 知覚動詞補文に出現する準動詞のアスペクト特性の出現時期

前述の通り、知覚動詞補文に出現する準動詞として、原形不定詞は知覚事象の完結性を、現在分詞は知覚事象の非完結性を表すとされている。しかし、EEBO を用いて調査を行った結果、(16) に見られる例が検出された。これらの例は補文に人の手によって移動可能な素性を持つ無生物主語と位置動詞の原形不定詞が用いられている例である。これらの例は、(17b) のように、現代英語では非文法的とみなされている。

- (16) wee haue *seene the axe lie* at the roote of our greatest cedars, (1606. EEBO)

- (17) a. I *saw* Bill {*lean / leaning*} against the side of the house.  
(Kirsner and Thompson (1976: 220))  
b. I *saw the ladder* {*\*lean / leaning*} against the side of the house. (ibid.)

吉良 (2006: 46) によれば、原形不定詞補文は完結を表し、自発的移動や自発的变化が認められるため、(17a) のように補文主語が有性の場合には、原形不定詞と現在分詞のどちらも用いられるが、無生物主語の場合 (= 17b) には自発性が認められず、原形不定詞は容認されない。そのため、補文主語が無生物主語の場合、静止している瞬間を捉える現在分詞の選択が義務的になるという。さらに EEBO では (18) のように、人の手によって移動不可能な素性を持つ無生物主語と位置動詞の原形不定詞が用いられている例も検出された。これらの例もまた (19) のように、現代英語では非文法的とみなされている。

- (18) a. whensoever wee *see the church stand* in neede of our helpe, (1583. EEBO)  
b. you shall *see a castle stand* at the foote of the hill then you come to the Towne of santos, (1625. EEBO)  
(19) !We *saw Rome stand* on the Tiber.  
(Gisborne (2010: 206))

吉良 (2006: 46) は、(19) の知覚動詞の原形不定詞補文における状態動詞の出現について、状態的な出来事は終結点を持つ完了した事象とは捉えられず、容認できないとする。また (18) のような例が現在分詞補文で用いられている例も検出された。

- (20) and then you shall *see a church standing* vpon a hill which is called saint bent,  
(1625. EEBO)

しかし、現代英語では (20) の現在分詞は (21) のように非文法的とみなされる。

- (21) a. \*New Orleans *is lying* at the mouth of  
the Mississippi River.  
(Dowty (1991:174))  
b. \*I saw the Statue of Liberty *standing*  
on Bedloe's Island. (村岡(2021c))

柏野 (1999: 128) によれば、この種の進行形は、主語が「いつまでもその位置にない」という「一時性」を表すため、主語になる名詞は、人間のように自ら動けるものか、物品(物、帽子、新聞など)のように人間が手を加えることによって動けるものでなければならぬという。また (21a) のように、建物など通常、動かないものが主語にくると、姿勢を表す動詞が進行形では使えない理由として、主語が移動しないにもかかわらず、進行形の表す「一時性」により、主語がやがてその位置を離れるという含みを持つからであるという。さらに、(21b) の例を調査した村岡 (2021c) によれば、(21b) の例が文法的になる場合も存在するが、自然災害や爆撃などにより一時性を含意する場合に限られるという。これらの言語事実から、近代英語の知覚動詞補文に出現する準動詞のアスペクト、つまり (非) 完結の意味の違いは曖昧であったと考えられる。また表 2 に見られるように、(16)、(18) や (20) といった例は現代英語において容認されている例 (人の手によって移動可能な素性を持つ無生物の補文主語と現在分詞補文) よりも多く検出されている。なお、表 2 において黒塗りになっている箇所は現代英語では非文法的とみなされる例を示す。

表 2. EEBO における“see + 無生物主語 (±movable) + 位置動詞の準動詞” (cf. 村岡 2021a)

±movable	stand		lie		hang	
	+	-	+	-	+	-
Inf	35	31	66	29	45	2
-ing	25	23	78	13	37	55

そして現代英語において非文法的とみなされる例を時代毎に表示したものが表 3 である。一見すると、現代英語では容認されない用例が 17 世紀に一気に増加したように見えるが、これは 15~16 世紀までの収録語数が少ないことが起因していると考えられる。

表 3. EEBO における現代英語で容認されない例 (cf. 村岡 2021a)

15c	16c	17c	TOTAL
2	58	184	244

さらに、(23) のような表現も検出された。

- (23) ...see all doores *be shut*, (1611. EEBO)

これらの例は現代英語では容認されないが、get + -en や (being +) -en は容認されている。

- (24) a. I saw him {*\*be* / *get*} *rejected*.  
(Bolinger (1974: 69))  
b. I saw the children (*being*) *beaten* by  
their rivals. (Palmer (1987: 199))

(24a) の容認可否性は動作受動か状態受動かが問題になると考えられる。このような知覚動詞の原形不定詞補文における状態動詞の出現については、前述の通り、状態的な出来事は終結点を持つ完了した事象とは捉えられず、非文法的とみなされる (cf. 吉良 (2006: 46))。このことについて、BNC や

COCA を用いて調査を行った結果、表 4 の結果が得られ、英米ともに being + -en が一般的であるが、be + -en はかなり少数であった。

表 4. BNC および COCA の知覚動詞補文における受身表現 (cf. 村岡 (2021b))

	BNC		COCA	
be + -en	4	1.1%	335	8.8%
<b>being + -en</b>	<b>354</b>	<b>96.5%</b>	<b>2394</b>	<b>62.8%</b>
get + -en	4	1.1%	879	23.0%
getting + -en	5	1.4%	207	5.4%
Total	367	100%	3815	100%

同様の調査を EEBO を用いて行った結果、表 5 に示すように、表 4 と異なり、being + -en と be + -en の分布が逆転していた。

表 5. EEBO における see NP be -en と see NP being -en (cf. 村岡 (2021b))

	15c	16c	17c	Total
see NP be -en	3	33	170	206
see NP being -en	0	9	32	41

これらの言語事実から知覚動詞補文に出現する準動詞のアスペクト特性は 17 世紀においては確立しておらず、(1a-b) で見たアスペクトの違いは曖昧であったと考えられる。また現代英語では非文法的とみなされる be seen Inf が存在していた時期と (1a-b) で見たアスペクトの違いが曖昧であった時期が重なることから、(5) や (15) で見た be seen Inf のような表現における原形不定詞は現代英語に見られる完結性のアスペクト特性を持っておらず、またそのアスペクト特性を反映した強い直接証拠性を表していなかったため、容認されていたと考えられる。

## 5. まとめ

村岡 (2020) によれば、知覚動詞補文の準動詞はそのアスペクトを反映した証拠性を表す。原形不定詞は完結性を表し、出来事の終着点を見聞きしたという意味になるため、直接証拠性が強い表現になる。一方、to 不定詞は元来、未来指示性を表し、間接知覚や推量などの弱い直接証拠性を表す。知覚動詞の受動態は、情報源となる知覚者をぼかして、知覚された出来事を証拠性の弱いものとして表現している。そのため、知覚動詞の受動態では、原形不定詞より直接証拠性の弱い現在分詞や to 不定詞が用いられる。その一方、be {seen/heard} Inf では、原形不定詞が知覚された出来事の直接証拠性を強める為、知覚動詞の受動態が表す弱い証拠性と原形不定詞が表す強い直接証拠性とで意味的整合性が取れず、言語運用上の矛盾をきたすため、容認されないという。この分析の反例となる例について、小野・伊藤 (2009) は 17 世紀まで確認されるというが、EEBO を用いて知覚動詞の補文に出現する準動詞のアスペクトについて通時的に分析を行った村岡 (2021a) によれば、近代英語には現代英語では容認されない例が多く、当時の原形不定詞と現在分詞は意味的に曖昧であった可能性を指摘している。また小野・伊藤 (2009) の例が散見される時期と知覚動詞補文に出現する準動詞のアスペクトが曖昧であった時期が重なることから、17 世紀までに見られる be {seen/heard} Inf の原形不定詞は、現代英語に見られるようなアスペクトを持たず、その相を反映した証拠性を持たないため、現代英語とは異なり文法的であったと推測される。

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**Morphological Marking in Nominal  
Modification:  
A Comparative Study of Japanese and  
English Based on Morphological Markedness  
Hypothesis and Competition Theory\***

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Keywords : relational adjectives, nominal  
predicates, morphological marking,  
Morphological Markedness Hypothesis,  
Competition Theory

**1. Introduction: The Encoding of  
Relationality and Nominal Modification**

Adger (2013) analyzes the functional head  $\bar{\nu}$  as relating two nouns to encode relationality in nominal phrases. According to this analysis, *edge of the table* has the following structure:

(1) [ $\bar{\nu}$  edge [ $\bar{\nu}$  of the table [ $\bar{\nu}$   $\sqrt{\text{PART}}$ ]]]

The relation-denoting head is covert and hosts a light root to name the relation between two nouns. In (1), it hosts  $\sqrt{\text{PART}}$  to denote that *edge* is in part-whole relationship with *table*. A common assumption is that a set of nouns known as relational nominals (e.g. *edge*) takes PPs (e.g. *of the table*) as its arguments to encode relationality. Against this assumption, Adger argues that the relevant PPs are arguments of  $\bar{\nu}$ .

Shimada and Nagano (henceforth, S & N) (2018) apply Adger's (2003) analysis to nominal modification by a set of denominal adjectives

known as relational adjectives (RAdjs) (e.g. *nuclear (electricity)*). These adjectives relate their base nouns to their head nouns to classify the latter. In this sense, they are parallel to relational nominals. In fact, RAdjs can be paraphrased into PPs (e.g. *nuclear physics* = *physics of the nucleus*). S & N analyze the nominal modification *nuclear electricity* as in (2), where the covert  $\bar{\nu}$  hosts  $\sqrt{\text{KIND}}$  to denote the *kind* relation between *nuclear* and *electricity*; *nuclear electricity* is a kind of electricity.

(2) [ $\bar{\nu}$  nuclear [ $\bar{\nu}$  electricity [ $\bar{\nu}$   $\sqrt{\text{KIND}}$ ]]]

Interestingly, S & N point out that the kind-denoting  $\bar{\nu}$  is covert in English but overt in Japanese. Observing that RAdjs correspond to nominal predicates (e.g. *gensiryoku-gata* 'lit. nuclear power-type = nuclear') in Japanese, S & N analyze their classifiers (e.g. *-gata* 'type') as overtly-realized forms of  $\bar{\nu}$ . This analysis tells us that nominal modification by nominal predicates also hosts  $\sqrt{\text{KIND}}$  in  $\bar{\nu}$ . Thus, the nominal modification *gensiryoku-gata no denki* 'nuclear electricity' can be represented as in (3).

(3) [ $\bar{\nu}$  gensiryoku [ $\bar{\nu}$  denki [ $\bar{\nu}$   $\sqrt{\text{KIND}}$  (= *-gata*)]]]

This paper aims to explore why the covert  $\bar{\nu}$  in English is overtly realized in Japanese. A key to our exploration is Morphological Markedness Hypothesis, which is proposed by Miyake (2011, 2015). This hypothesis is a descriptive generalization of the contrast between English and Japanese. In terms of the hypothesis, we claim that the 'covert-overt' contrast in the realization of  $\bar{\nu}$  can be considered to reflect the general contrast between the two languages. Another aim is to conduct a theoretical exploration for the descriptive generalization

given by Morphological Markedness Hypothesis. Adopting Competition Theory (Ackema and Neeleman (2004)), we demonstrate that the general contrast in question can be best analyzed as resulting from the competition between two grammatical modules: morphology and syntax.

This paper is organized as follows. Section 2 observes that English and Japanese contrast in their realization of heads beyond nominal modification. In terms of Morphological Markedness Hypothesis, Section 3 examines this observation to reveal that the ‘covert-overt’ contrast can be captured as an instance of the general contrast between English and Japanese. Relying on Competition Theory, Section 4 gives a theoretical explanation for the general fact described by the relevant hypothesis. Section 5 makes concluding remarks.

## 2. Covert vs Overt: Beyond Nominal Modification

Beyond nominal modification, we can see that covert heads in English are overtly realized in Japanese, as illustrated in (4).

- (4) a. He walked to the station.  
 b. Kare-wa eki-ni  
     he-Top station-Goal  
     {\* arui-ta / aruite-it-ta}.  
     walk-Past walk-go-Past  
     ‘He walked to the station.’  
 (Miyake (2011: 182), with slight modifications)

Manner-of-motion verbs, such as *to walk* and its Japanese counterpart *aruku*, cannot encode motion events. However, in English, these verbs can occur with goal PPs to encode directed motion, as shown in (4a). Zubizarreta and Oh (2007: 135-141) analyze a covert motion verb as heading VPs in constructions like (4a), which

are called directed-motion constructions (DMCs), to encode directed motion. In contrast, in Japanese, the verbal head is overtly realized as *iku* ‘to go,’ as shown in (4b).

Another example can be found at a discourse level. The examples given in (5) show that speech act requires a special form in Japanese but not in English.

- (5) a. Your home is very close to the campus.  
 b. Kimi-no ie-wa daigaku-ni  
     your home-Top campus-to  
     zuibun tikai\*(-ne).  
     very close  
     ‘Your home is very close to the campus.’  
 (Miyake (2015: 248), with slight modifications)

(5a) can be interpreted as requiring the hearer to agree with the speaker. This interpretation needs the sentence-final particle (SFP) *-ne* in (5b). A cartographic assumption is that speech act is licensed by its dedicated projection in the CP domain. It is known that languages differ in the overtness of the head. For example, Tenny (2006: 256) observes that the head is overt in languages having morphemes like SFPs but covert in those having no such morphemes. This observation means that English has a covert head for licensing speech act because it does not possess morphemes like SFPs; on the other hand, the head is overt in Japanese, which has SFPs such as *-ne* in their overtly-realized forms.

## 3. Analysis Based on Morphological Markedness Hypothesis

### 3.1. Morphological Markedness Hypothesis

Section 2 confirms that the ‘covert-overt’ contrast is attested in a wide range of English-Japanese translation pairs. Miyake

(2011, 2015) formulates this general fact as Morphological Markedness Hypothesis:

- (6) Japanese is strongly inclined to be morphologically marked, while English can likely be morphologically unmarked. (Miyake (2011: 180), my translation)

This hypothesis captures the fact that a particular meaning needs a corresponding morpheme in Japanese but not in English. Miyake notices that quite a few construction pairs share this contrast, which is exemplified in motion expressions like (4) and speech act like (5).

### 3.2. ‘Covert-Overt’ Contrast in Nominal Modification: A View from Morphological Markedness Hypothesis

The present analysis is true of nominal modification. Morphological Markedness Hypothesis tells us that English can encode the meaning of ‘kind’ without morphological marking, which allows  $\bar{p}$  to be covert; in contrast, because of its morphological markedness, Japanese requires the same meaning to be morphologically marked, which results in the overt realization of  $\bar{p}$  as classifiers. S & N (2018) assume that the selection of either a covert or an overt  $\bar{p}$  is a mere coincidence. However, the hypothesis maintains that this selection is inevitable because it depends on the morphological markedness of English and Japanese.

The point is that the ‘covert-overt’ contrast seen in nominal modification is an instance of the general contrast in morphological markedness between English and Japanese. In this sense, the contrast essentially parallels those seen in motion expressions like (4) and speech act like (5). As parallel phenomena, the

‘covert-overt’ contrasts ranging over different construction pairs can be given a unified account under Morphological Markedness Hypothesis.

### 3.3. Motivations for the Present Analysis

The present analysis is independently motivated because the covert existence of a head parallels and accounts for puzzles in different constructions. S & N (2018) point out that the exceptional occurrence of RAdjs can be explained by the covert existence of  $\bar{p}$ . If different instances of a covert head in different constructions are parallel in reflecting the morphological unmarkedness of English, then the covert existence of heads may explain exceptional phenomena beyond nominal modification by RAdjs. In fact, an exceptional interpretation in DMCs can be accounted for by the covert existence of a verbal head.

Characteristically, RAdjs cannot be predicative, as shown in (7a). Nevertheless, a predicative RAdj seems to be allowed in (7b).

- (7) a. \*My relatives are all chemical.  
(Levi (1978: 256))  
b. 75% of French electricity is nuclear.  
(S & N (2018: 63))

Levi (1978: 249-269) analyzes seemingly predicative RAdjs as resulting from the deletion of their head nouns, as shown in (8).

- (8) 75% of French electricity is nuclear  
~~electricity~~.

Levi observes that the deletion is licensed in contrastive contexts. For example, in (8), 75% invokes a contrast in that it implies the contrast between 75% of electricity and the remaining 25%. S & N (2018) examine why the deletion

needs such contextual support to be licensed. According to their examination, this is due to the covert  $\bar{p}$ , which needs contextual support to recover the deleted head noun because of its covert nature.

Parallelism can be found in DMCs. In (9), *to walk* occurs with *in* to form a DMC. This means that *in* can be directional and is interchangeable with *into*.

- (9) He walked {in/ into} the room.  
(Nikitina (2008: 178))

Nikitina (2008) points out that the directional *in* is licensed only if the directional meaning can be contextually inferred:

- (10) John walked in the room from the outside.  
(Namiki et al. (2013: 197))

In (10), the directional meaning is inferable from *from the outside*, which denotes a starting point.

Head nouns can be deleted in nominal modification by nominal predicates as well as by RADjs, as exemplified in (11a).

- (11) a. Fransu-no denki-wa  
France-Gen electricity-Top  
gensiryoku-??(gata)-~~no~~  
nuclear-type-Gen  
~~denki~~-da.  
electricity-Cop  
'French electricity is nuclear.'  
b. Fransu-no denki-no  
France-Gen electricity-Gen  
75%-wa gensiryoku-(gata)-~~no~~  
75%-Top nuclear-type-Gen  
~~denki~~-da.  
electricity-Cop  
'75% of French electricity is nuclear.'

S & N (2018: 65) observe that nominal predicates' classifiers license the deletion. Therefore, in (11a), the omitted *-gata* 'type' induces ungrammaticality because nothing licenses the deletion of *denki* 'electricity.' However, (11b) shows that the addition of 75% to (11a) licenses the deletion without the classifier. This fact leads S & N (2018: 86) to the claim that contrast-invoking elements like 75% are parallel in function to the relevant classifiers.

In Japanese, the interpretation of directed motion can also be licensed without motion verbs. Thus, *-ni* 'to' is directional even without *-iku* 'to go' in (12).

- (12) Byoogatyuu-no gokenin-wa  
sick-Gen servant-Top  
dairi-no mono-o yakata-ni  
substitute-Gen person-Acc castle-Goal  
hasira-se-ta.  
run-make-Past  
'The sick servant made the substitute run to the castle.'  
(Namiki et al. (2013: 197))

Shibatani (1976) observes that causative sentences like (12) imply accomplished events. Based on this observation, Namiki et al. (2013) claim that the causative (*sa*)*se*- 'to make' implies an accomplished motion event to license the directional *-ni* 'to.' In this case, we can assume that the causative morpheme is functionally parallel to a motion verb.

#### 4. Toward a Theoretical Explanation: A Competition-Theoretic Approach

Our consideration so far has confirmed that Morphological Markedness Hypothesis is valid because it properly describes the general contrast between English and Japanese.

Nevertheless, as Miyake (2011: 191, 2015: 268, n. 9) himself admits, this hypothesis is merely a descriptive generalization, which seeks a theoretical explanation; the ultimate reason for the generalization in question to be valid remains unexplained. This section explores a possible theory regarding why the kind-denoting  $\bar{p}$  is morphologically marked in Japanese but not in English.

Here, we return to Morphological Markedness Hypothesis, which is given in (13), and consider the underlined part.

- (13) Japanese is strongly inclined to be morphologically marked, while English can likely be morphologically unmarked.  
(= (6), underline mine)

The part implies that English can be morphologically unmarked but does not have to be so. Thus, morphological marking, that is, an overt realization, is possible in English.

#### 4.1. Covert vs. Overt = Syntax vs. Morphology

The following paraphrase confirms that English can overtly realize the kind-denoting  $\bar{p}$  as nouns like *type*:

- (14) nuclear electricity = nuclear type of electricity  
(S & N (2018: 82))

Combinations like *nuclear type* in (14) are normally analyzed as nominal phrases. Therefore, if nouns like *type* are overtly-realized forms of  $\bar{p}$ , it is plausible that this head forms nominal phrases with RAdjs. Additionally, given that the overtly-realized forms are free-standing nouns, we can take  $\bar{p}$  as a free form. It is the smallest syntactic unit. On the other hand,

Shimada (2004) observes that nominal predicates are compounds most of which consist of bound classifiers, as illustrated in (15).

- (15) \* (gensiryoku)-gata ‘lit. (nuclear) type’  
\* (komugi)-see ‘lit. (wheat) made’  
\* (sankaku)-kee ‘lit. (triangular) form’

A bound form is the smallest morphological unit.

These facts suggest that the contrast in morphological markedness has something to do with the distinction between syntax and morphology. If so, Competition Theory is helpful for our exploration because it is a unified approach to cross-linguistic variations and a morphology-syntax distinction.

#### 4.2. Competition Theory

The core assumption of Competition Theory is that morphology and syntax compete for structural realization, which results in cross-linguistic variations. Under this assumption, languages are classified into syntax-preferring and morphology-preferring languages. The former prefer to morphologically realize an abstract morphosyntactic structure. The latter prefer a syntactic realization of the same structure.

Nishimaki (2018) analyzes English as syntax-preferring, and Japanese as morphology-preferring, observing that phrases in English consistently correspond to compounds in Japanese. Thus, the English nominal phrase *old friend* ‘long-standing friend’ corresponds to the Japanese A-N compound *kyuu-yuu* ‘old friend.’ Both share the structure of nominal modification by an adjective. In our competition-theoretic approach, the above correspondence means that this shared structure

is syntactically realized as a nominal phrase in English because it is syntax-preferring; on the other hand, the same structure is morphologically realized as an A-N compound in Japanese, which is morphology-preferring.

#### 4.3. How Can the ‘Unmarked-Marked’ Contrast Follow from Competition Theory?

Given Morphological Markedness Hypothesis, Competition Theory points towards the possibility that the unmarkedness of English results from syntactic realization while the markedness of Japanese is due to morphological realization. In what follows, focusing on nominal modification, we pursue this possibility to demonstrate how the ‘unmarked-marked’ contrast can follow from Competition Theory.


Competition-theoretically, the selection of either an unmarked or a marked option must be consistent with the realization pattern required in a particular language. If so, the selection of an unmarked option in English, that is, a syntax-preferring language, means that this selection is consistent with syntactic realization; the selection of a marked option in Japanese, which is morphology-preferring, means that this selection fits in with morphological realization.

The unmarkedness of the kind-denoting  $\bar{p}$  in English does not conflict with syntactic realization. This head and RAdjs are free forms. As such, the former needs no morphological support by the latter, and vice versa. In addition,  $\bar{p}$  has no lexical content because it is a functional head. That is, the head has neither morphosyntactic nor semantic motivation to be overt in English. As a covert free form, it constitutes nominal phrases with RAdjs to satisfy the requirement of syntactic realization. Therefore,  $\bar{p}$  can be morphologically unmarked.

On the other hand, the markedness of the

same head in Japanese comes from the fact that it must be compounded with nonheads for morphological realization. Compounding requires overt lexical items. As a result, the kind-denoting  $\bar{p}$  is overtly realized as classifiers in Japanese. Since many classifiers are bound forms (see Section 4.1.), they must combine with other elements to form morphological units, such as compounds. Thus, bound classifiers necessarily trigger morphological realization. S & N (2018: 84) state that “[t]he morphological amalgamation co-occurs with word-order inversion” in nominal modification by nominal predicates. This statement means that *gensiryoku-gata no denki* is derived as in (16).

(16) [ $\bar{p}$  gensiryoku-gata-no [ $\bar{p}$  denki [ $\bar{p}$         ]]]



Competition-theoretically, this derivation is a natural consequence of the morphology-preferring nature of Japanese. The morphological amalgamation naturally follows if we assume that a classifier as an overt  $\bar{p}$  involves compounding to meet the requirement of morphological realization in Japanese.

#### 5. Concluding Remarks

Adopting Adger (2013), S & N (2018) postulate the kind-denoting head  $\bar{p}$  in nominal modification by RAdjs. This head is covert in English but overt in Japanese. RAdjs correspond to nominal predicates in Japanese. S & N analyze their classifiers as overtly-realized forms of  $\bar{p}$ . The ‘covert-overt’ contrast is widespread in English-Japanese translation pairs. This fact is formulated as Morphological Markedness Hypothesis. Under this hypothesis, we demonstrate that the ‘covert-overt’ contrast in the realization of  $\bar{p}$  can be captured as an

instance of the general contrast between English and Japanese. Furthermore, our exploration points to the possibility that Morphological Markedness Hypothesis follows from Competition Theory. This theory suggests that the descriptive generalization given by the hypothesis comes from a morphology-syntax competition, which results in the fundamental distinction between English and Japanese.

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**Form and Meaning of the *How about Let's VP*  
Construction: Through Comparison with  
*What about*\***

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Keywords : the *how about let's VP* construction,  
information structure, politeness

## 1. Introduction

The typical element following *how about* is NP, as shown in (1).

- (1) How about a break / going for a meal?  
(OALD (s.v. *how*)) (All underlines in this paper are added.)

Nontypical elements are also observed. For example, in (2a, b), a sentence starting with *we* and *you*, respectively, follows *how about*. In (3a, b), a *when*-clause and an *after*-clause, respectively, follows *how about*. In (4a, b), *how about* is followed by AdjP and AdvP, respectively.

- (2) a. "How about we do a sampling next week?" (Michael Gates Gill, *How Starbucks Saved My Life*)  
b. How about you stay home for the rest of this week, [...]. (R. J. Palacio, *Wonder*)  
(3) a. How about when I'm 40 and you're 80?  
(Sumiyoshi (2016: 81))  
b. "How about after Eleanor goes to bed?"  
he suggested.

(Gretchen Rubin, *Better Than Before*)

- (4) a. How about a little shorter? [said by a hairstylist]  
(Culicover and Jackendoff (2005: 236))  
b. How about a little later?  
(Sumiyoshi (2016: 81))

As far as we are aware, the following type of sentence where *let's VP* follows *how about* has not been sufficiently evaluated.

- (5) [...], how about let's talk about something else.  
(iWeb)<sup>1</sup>

In this paper, we call this type of sentence the *how about let's VP* construction and compare it with the *what about let's VP* construction. The *how about let's VP* construction includes examples where a comma occurs after *how about* (see Section 2).

This paper is organized as follows: Section 2 describes the lexico-grammatical characteristics, frequency, and acceptability of the *how about let's VP* construction. In Section 3 we examine the semantics of the construction and discuss the function of *how about* in our target construction. Section 4 presents the conclusion.

## 2. Lexico-Grammatical Characteristics: The Frequency and Acceptability of the *How about Let's VP* Construction

This section describes the lexico-grammatical characteristics, frequency, and acceptability of our target construction, using data from iWeb and judgements by eight informants.<sup>2</sup> Unless otherwise noted, the sentences and frequencies in the following sections all come from iWeb.

### 2.1. Lexico-Grammatical Characteristics

First, we observe the punctuation mark at the end of sentences in the construction. The regular expression `(?!)\bhow about let\b` extracted 62 examples from iWeb. After removing irrelevant examples, 48 examples remained,<sup>3</sup> which were divided into five groups shown in (6a–e) based on the punctuation mark.

- (6) a. period: 21 examples
- b. exclamation mark: 2 examples
- c. question mark: 16 examples
- d. with no explicit mark: 7 examples (e.g. *“Here, how about let’s play this thing this way, and then [...],” he said.*)
- e. cannot be judged because of ciphers: 2 examples (e.g. *How about let’s put our money in a hole in a ground and rest easy because @ @ @ @ @ @ @ @ @ @ @.*) [To read the parts replaced with “@,” texts were checked online, but two examples could not be found.]

With the regular expression `(?!)\bhow about ?, ?let\b`, examples with a comma immediately after *how about* and followed by *let* were extracted. Two examples in (7), which are both our target, were extracted.

- (7) a. Okay, so how about, let’s get rid of it?
- b. How about, let’s go with the industry standard (lumens) for the same reason all auto shift lever positions on the planet are the same; [...]!

In (7a), the punctuation mark is a question mark, but in (7b), the *how about let’s VP* construction has no explicit mark. Of the 50 examples with and without a comma after *how about*, 17 end with a question mark and 23 with a period or an exclamation mark. Since *how about* marks an

interrogative sentence, a question mark is expected with *how about*. In our target construction, however, there are fewer sentences with a question mark than with non-interrogative punctuation marks (e.g., a period).

Next, in (8), we show verbs that occur after *how about(,) let’s* in a positive sentence without *not* after *how about(,) let’s*. The numbers in [ ] represent the frequencies.

- (8) go [5], try [4], make [3], stop [3], see [3]<sup>4</sup>  
(words whose frequency is more than two)

The verb *go*, which is the most frequent in (8), also occurs frequently in the normal *let’s* construction without *how about* before *let’s* in both American and British English (Biber et al. (1999: 1118)). According to Biber et al., in the normal *let’s* construction, the most frequent verbs following *let’s* are *have* and *see* in British and American English, respectively; however, in the *how about let’s VP* constructions collected, there is only one sentence with *have*. As for *see*, in Biber et al., usages like “*Um, let’s see, ...*” are included, although this usage is not our target. In (9), the following words/phrases occur after *how about(,) let’s* in negative sentences:

- (9) not and say we did [1], not advertise [1],  
not insult [1]

As (8) and (9) show, our target construction is likely to occur in a positive sentence, which is the same tendency as in the normal *let’s* construction (Biber et al. (1999: 1117)).

Finally, we focus on elements that occur immediately before the *how about(,) let’s VP*. Biber et al. (1999: 1117–8) state, “The [normal] *let’s* construction occurs infrequently with question tags [...], or with other peripheral

elements [...]. In one regard, the addition of peripheral elements is much more frequent: this is in the occurrence of inserts and other utterance launchers before *let's*. In AmE, the most common utterance launchers are: *well*, *okay*, *yeah* in that order [...]. In BrE, the utterance launchers *come on* and *right* have a higher frequency than *okay* and *yeah*.” In (10), we list the utterance launchers, coordinate conjunctions, and adverbial phrases that occur immediately before *how about(,) let's* VP:

(10) so [3]<sup>5</sup>, but [2], here [1], yeah [1], well [1]

The other 42 examples do not have any elements such as utterance launchers before *how about(,) let's* VP, which means our target construction has the same tendency as the normal *let's* construction.

## 2.2. The Frequency and Acceptability

Here, we observe the rate of occurrence of the *how about let's* VP construction in iWeb. The frequency of the sequence *how about* itself is 154,806. The frequency of our target is 50. Therefore, the frequency of our target construction is approximately 0.032%.<sup>6</sup>

Now let us compare *how about* with *what about* with the explanations below.

(11) When suggestions are being made, both forms [*what about* and *how about*] seem more or less equally available (*How about a walk before lunch?*) [...].

(Carter and McCarthy (2006: 15))

(12) Both *What about ...?* and *How about ...?* are used to make suggestions and to bring up points that have been forgotten.

(Swan (2016: §31, 492.4))

Swan (2016: §31, 492.4) shows the following examples. All the emphases in the following quotations from the literature are in the original.

- (13) a. **What/How about** eating out this evening?  
 b. **What/How about** the kids? Who's going to look after them?

Based on (11)–(13), it could be said that *how about* has basically the same functions as *what about*. If so, we might expect the same rates of occurrence of *what about(,) let's* VP and *how about(,) let's* VP. With the regular expression `{(?!)\bwhat about let\b}`, seven examples without a comma after *what about* were extracted from iWeb. Five examples were regarded as our target. Here are some examples.

- (14) a. What about let's call it prestige?  
 b. What about let's talk about the state of dams across the US in general.  
 c. But what about let's say BestInsurance.

Like *how about let's* VP, the regular expression `{(?!)\bwhat about ?, ?let\b}` extracted five examples with a comma immediately after *what about* and followed by *let*. After removing irrelevant examples, three (15a–c) were regarded as our target. (15d) is one of the irrelevant examples.

- (15) a. What about, let's talk about the family issues.  
 b. And then what about, let's touch on communication [...].  
 c. What about, let's go back to what you said earlier [...].  
 d. And what about, let's say, stabbings?

Now we observe the rate of occurrence of *what about*(,) *let's* VP in iWeb. The frequency of the sequence *what about* itself is 254,370. The frequency of *what about*(,) *let's* VP is eight. Therefore, the frequency of our target form is approximately 0.003%, which is one digit off from *how about*(,) *let's* VP (0.032%). Thus, *how about* and *what about* differ in frequency when followed by *let's* VP. We now consider the judgements of (16a, b) by our informants. (16b) was made by the author based on (16a), which was found in iWeb.

- (16) a. How about let's try it one more time.  
 b. ? What about let's try it one more time.

All eight informants judged (16a) as acceptable, although there were comments as follows: It is used in spoken English; it is more natural without *how about*; and the acceptability depends largely on the intonation, stress, tone, etc. As for (16b), four informants judged it as acceptable while the other four regarded it as less acceptable than (16a). We conclude that *how about* and *what about* differ in acceptability when followed by *let's* VP. This qualitative fact is parallel with the quantitative facts.

### 3. Semantic Characteristics of the *How about Let's VP* Construction

Here, we describe semantic characteristics of the *how about let's VP* construction to elucidate the differences between *how about* and *what about*. We also discuss the meaning and function of the normal *let's* construction and the functions of *how about* in our target construction.

#### 3.1. The Differences between *How about* and *What about* from the Viewpoint of Information Structure

This section focuses on the differences between *how about* and *what about*, based on the difference in whether they can be followed by *let's* VP. Huddleston and Pullum [henceforth H&P] (2002: 910) present (17)–(19).

- (17) A: The car's in fine shape now.  
 B: What about the tyres?  
 (18) A: I've invited Peter.  
 B: And what about Paul?  
 (19) What about a game of squash?

As for (17) and (18), H&P state that “*What about* is often used to introduce a new but related topic,” which is classified as “INFERABLE” in Prince’s (1981) taxonomy. As for (19), H&P say “*What about* can also be used to make suggestions.” H&P suggest that in (17)–(19), “*how about* could be substituted.” Thus, so far, *how about* and *what about* are interchangeable. However, one difference can be observed in (20).

- (20) A: You know that knife I found?  
 B: Yes, what about it? (H&P (2002: 910))

H&P say that “In [20] the topic marked by *about* is not new, but old information,” which is classified as “EVOKED” in Prince (1981). Importantly, H&P do not suggest that *how about* could be substituted in (20) even though they mention the possibility of substitution in (17)–(19). Although this evidence that *how about* is not compatible with old/evoked information is indirect, it is reinforced by the following comments of one informant. Our informants were asked about the differences between (21a) and (21b) and (22a) and (22b) (see (13a, b)). The statements after the arrows are the comments of one informant.

- (21) a. How about eating out this evening?  
 → I think this is the first time to suggest something.
- b. What about eating out this evening?  
 → Maybe a new option—the 2nd or 3rd suggestion in a series of suggestions.
- (22) a. How about the kids? Who's going to look after them?  
 → Again, maybe "How about ..." is used for the first suggestion.
- b. What about the kids? Who's going to look after them?  
 → "What about ..." seems to be a new suggestion or new option to me.

In (21a) and (22a), "the first" is what Prince (1981) classifies as "NEW," while "a new" is what Prince classifies as "INFERABLE." In sum, *how about* is likely compatible with new or inferable information, while *what about* is likely compatible with inferable or old/evoked information. This is a tendency, and some informants do not admit any differences.

O-LEX (s.v. *let*<sup>1</sup>) says, "*Let's* ... is an expression used when the addresser's opinion will agree with the addressee's opinion and is not used to make sure what has already been decided," which means that the normal *let's* construction is compatible with new information but not with old/evoked information. We could say that *how about* and *let's* VP are compatible because both are compatible with new information while *what about* and *let's* VP are not because *what about* is not compatible with new information.

### 3.2. The Meaning of the Normal *Let's* Construction

Here, let us focus on the meaning of the

normal *let's* construction. Based on H&P, the meaning of the normal *let's* construction can be divided into three groups: "a proposal for joint action" (23), "1st inclusive *let-imperative*" (24), and a special case "where the action is in fact to be carried out by just one (typically the speaker)" (25). Look at the examples below. H&P (2002: 936) say when *let's* is used, "a verbal response is normally expected, indicating agreement or refusal," as illustrated (H&P (2002: 936)) in the conversation in (23).

(23) A: Let's go for a walk.

B: Okay, just let me put some shoes on. /  
 Not just now: I must finish this letter.<sup>7</sup>

H&P (2002: 936) then suggest that "the force is thus of a proposal for joint action, which the addressee can accept or reject." In addition, H&P (2002: 936) point out "one use where no verbal response is expected: agreement is taken for granted." The sentence in (24) is an example.

(24) Let's consider now the effect of increasing the velocity. [1st inclusive *let-imperative*]

Furthermore, H&P (2002: 936) state that "A special case is where the action is in fact to be carried out by just one (typically the speaker)." As one example, H&P show (25).

(25) *Let's open the window* [with the aim of securing your agreement to my opening it].

### 3.3. The Meaning of the *How about Let's* VP Construction

The three types of meaning of the normal *let's* construction are carried over to the meaning of the *how about let's* VP construction. Let us examine the examples in (26–28), extracted

from iWeb.

(26) How about let's all go out to dinner?

(27) How about let's try it one more time. And this time try actually quoting the Court and providing proper pin cites.

(28) Well, how about let's bring it back today! Here is the latest- ePSXe emulator with all the newest plugins bundled altogether in a [sic] 8 MB package.

In (26), as the word *all* shows, the sentence functions as “a proposal for joint action.” In (27), the addresser is telling the addressee what they should do next time. As the second sentence is the imperative, the *how about let's VP* construction functions as a “1st inclusive *let*-imperative.” In (28), the addresser is telling us about how technology has advanced. The addresser alone can decide the progression of the discussion, which means that in (28) the action is to be carried out by the addresser.

### 3.4. The Function of *How about* in the *How about Let's VP* Construction

Now, let us look at some informant comments about the function of *how about* in our target construction. The informants were shown (29a, b) and (30a, b) and asked about the differences in each set. (29a) and (30a) were made by the author based on (26) and (27). (31a, b) are comments by two American informants.

(29) a. Let's all go out to dinner.

b. How about let's all go out to dinner?

(30) a. Let's try it one more time.

b. How about let's try it one more time.

(31) a. [...] Unsure in (29b, 30b) whether the HOW ABOUT is perfect English by the textbook, but seems a circuitous way to

say something to me.

b. [...] (29b) is a little more tentative, less insistent, than sentence (29a). That is, (29b) makes it easier for the other people in the group to refuse or to make an alternative suggestion (e.g. “No, let's phone and get some pizza delivered”). [...] Similar to sentence (29b), (30b) is more polite in a specific sense of the word “polite”: it allows the other people to express their preferences and to refuse my suggestion more easily.

LDOCE (s.v. *let's*) explains that “**Let's** is used to suggest in a fairly firm way that you and someone else should do something together and is usually used when you think the other person will agree.” Taking the description of LDOCE into consideration, politeness or being circuitous is an important aspect of the function of *how about* in the construction, as stated in (31a, b).<sup>8</sup>

### 4. Conclusion

In this paper, lexico-grammatical and semantic characteristics of the *how about let's VP* construction were described and the importance of information structure and politeness in this construction were highlighted.

In future research, we will focus on spoken and historical data of this construction. We would also like to reinforce the analysis of the theoretical meaning of *how about* in this construction and discuss its *raison d'être*.

\* I would like to thank all the people who commented on this research and all the informants who cooperated with me in judging the acceptability of the sentences shown in this paper. Of course, all remaining errors are mine.

### NOTES

<sup>1</sup> iWeb is the Intelligent Web Corpus (“14 billion words / 22 million web pages / ~100,000 websites”). We use the full text data, where “[e]very 200 words, ten words are removed and are replaced with “@,” making “the text rather useless for anyone who wanted to read it as a text.” For more information about iWeb, see <https://www.corpusdata.org/limitations.asp>.

<sup>2</sup> Seven are from the U.S. and the other one is from the U.K.

<sup>3</sup> Out of 62 examples, *let's* VP does not follow *how about* in 14.

<sup>4</sup> Of the three examples of *see*, one is coordinated with *wait*: *wait and see*.

<sup>5</sup> Of the three examples of *so*, one is used after *Okay* (= (7a)).

<sup>6</sup> The frequency of *how about we* is approximately 2.813%. See (2a).

<sup>7</sup> We need to be careful that the second response cannot be a true refusal but rather refuses the timing: Person B is going to join person A later.

<sup>8</sup> Another informant said, “Depending on tone, (30b) could be stronger or weaker than (30a).” *How about* itself has the function of a directive (H&P (2002: 909)), and (30b) belongs to the type of “1st inclusive *let*-imperative.” *How about* in our target construction might not always function as a marker of politeness. Our future research will further describe the function of *how about* in this construction.

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## CORPUS

The Intelligent Web Corpus Full Text (iWeb)

## DICTIONARIES

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## Optional Movement and an Economy Condition \*

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Keywords : optional movement, rightward movement, economy condition, string-vacuity

### 1. Introduction

This paper argues that a locality constraint on rightward movement (RM) is explained by an output economy condition. It is known that RM is restricted by the constraint in (1), which is not imposed on leftward movement (LM).

#### (1) Right Roof Constraint (RRC)

Rightward movement may move and right-adjoin an element X to the cyclic node (vP/CP/PP phase) in which X is merged, but no further. (cf. Sabbagh (2007))

This means that RM cannot extract any element out of a phase. I demonstrate the constraint below. First, DP cannot be extracted out of a PP phase.

- (2) a. John looked  $t_i$  in the living room yesterday [at the man who lived next door]<sub>i</sub>.

(Drummond, Hornstein and Lasnik (2010: 689))

- b.\* John looked at  $t_i$  in the living room yesterday [the man who lived next door]<sub>i</sub>. (ibid.)

- c. [The man]<sub>i</sub>, John looked at  $t_i$ .

While RM allows pied-piping, it prohibits P-stranding (DP-movement out of a PP phase), as shown in (2a, b). In contrast to RM, LM can strand a preposition, as shown in (2c).

Next, RM cannot raise an argument out of a vP/CP phase that immediately contains the base position of the argument.

- (3) a. Sam [<sub>vP</sub> read  $t_i$  yesterday [the book about English linguistics]<sub>i</sub>].  
 b. \*Max [<sub>vP</sub> described  $t_i$  for Bill] drunk, [a popular Broadway musical]<sub>i</sub>.  
 (Sabbagh (2007: 350))  
 c. \*John claimed [<sub>CP</sub> that Sam loves  $t_i$ ] yesterday [the new headmaster]<sub>i</sub>.  
 (Bachrach and Katzir (2009: 286))  
 d. [The book about English linguistics]<sub>i</sub>, John said that Sam read  $t_i$ .

RM to a vP-internal position is grammatical, as shown in (3a). In contrast, RM to a vP-external position or to a CP-external position is ungrammatical, as shown in (3b, c). On the other hand, LM can cross vP phases and CP phases, as shown in (3d).

Drummond, Hornstein and Lasnik (2010) (henceforth, DHL (2010)) attempt to explain the locality constraint, on the basis of Fox and Pesetsky's (2005) Cyclic Linearization. They assume (i) that the linearization operation applies to a whole phase domain phase-by-phase, (ii) that linearization statements must be consistent through the derivation, and (iii) that movement passes through the left edge specifier of a phase. These assumptions give the sentence in (2b) the derivation in (4), with the assumption that PP/vP(/CP) is a phase.

- (4) a. Syn(PP) : [<sub>PP</sub> DP<sub>i</sub> [<sub>P'</sub> at  $t_i$ ]]  
 Lin(PP) : DP < at



- b. Syn(vP) : [<sub>VP</sub> John v look at t<sub>i</sub> in the living room yesterday DP<sub>i</sub>]

Lin(vP) : John < look < at < in the living room < yesterday < DP

The moved DP precedes the preposition at the step of the PP-level linearization (since it moves via the left edge specifier of the PP phase), but it follows the preposition at the subsequent vP-level linearization. The former linearization statement is inconsistent with the latter, and therefore the P-stranding RM is blocked. DHL also explain that RM with intermediate movement to the left edge of a vP/CP phase is prohibited in the same way.

Although DHL's explanation is insightful, it is not enough because it cannot capture some exceptional cases. Sentence (5a) shows that RM with a parasitic gap (PG) allows P-stranding, and sentence (5b) shows that RM with a PG crosses a CP.

- (5) a. I talked to t<sub>i</sub> yesterday without actually meeting pg<sub>i</sub> [all the members who voted against Hinkly]<sub>i</sub>.  
(Postal (1994: 104))
- b. I claimed [<sub>CP</sub> that I liked t<sub>i</sub>] in order to get you to rent pg<sub>i</sub> [that movie with Fred Astaire and Audrey Hepburn]<sub>i</sub>.  
(Overfelt (2015: 14))

For example, DHL's analysis gives the sentence in (5a) the derivation in (6).

- (6) a. Syn(PP) : [<sub>PP</sub> DP<sub>i</sub> [<sub>P'</sub> to t<sub>i</sub>]]  
Lin(PP) : DP < to
- b. Syn(CP) : [<sub>CP</sub> I<sub>j</sub> T t<sub>j</sub> v talk to t<sub>i</sub> yesterday withoutP DP<sub>i</sub>]  
Lin(CP) : I < T < talk < to < yesterday

< withoutP < DP

It incorrectly predicts that the sentence is ungrammatical because the linearization statements in (6a, b) are inconsistent. Thus, DHL's analysis is problematic.

This paper proposes a new explanation of the locality constraint on RM, from the perspective of an economy condition. This paper is organized as follows. Section 2 shows my proposal and analysis. Section 3 provides a consequence of the proposal. Section 4 concludes this paper.

## 2. Proposal and Analysis

In this section, I adopt some assumptions, and provide a new analysis. The analysis focuses on the optionality of RM, which is demonstrated by (7a, b).

- (7) a. John read the book about English linguistics yesterday.  
b. John read t<sub>i</sub> yesterday [the book about English linguistics]<sub>i</sub>.

The sentences are grammatical with or without RM. This means that RM is not obligatory for convergence.

It has been claimed that optional movement is constrained by some economy conditions. Among them, I adopt an output economy in (8a) and Shortest Move in (8b), in order to explain the constraint on RM.

- (8) a. Optional operations must affect the output.  
(Chomsky (1995), Fox (2000), Reinhart (2006))
- b. Movement must target the position where a moved element is interpretable.  
(cf. Fox (2000))

(8a) means that movement must affect PF output or LF output. (8b) requires the closest movement step whose resulting representation is compositionally interpretable, which forces movement to target the closest sentence-type position.

In addition, I adopt some assumptions about linearization in (9a-c).

- (9) a. Linearization applies at every phase (CP/vP/PP).  
(cf. Fox and Pesetsky (2005), Sabbagh (2007))
- b. Linearization targets a whole phase.  
(cf. Fox and Pesetsky (2005))
- c. LM proceeds via the left edge of a phrase, and RM proceeds via the right edge of that.

The assumptions in (9a, b) are the same as DHL's. In contrast, (9c), which comes from many previous studies on RM, is different from what DHL assume.

On the basis of the above assumptions, I argue that RM is regulated at each stage of cyclic Spell-Out by the following condition:

- (10) Optional RM must change linear order (preceding relation).

This condition means that RM is prohibited if it is a string-vacuous step.

Then, let me turn to the analysis of the locality constraint observed in Section 1. To begin with, I analyze the PP-level derivation of the P-stranding sentence, as schematized in (11). In the following schemas, copies are numbered just for the expository purpose.

- (11)\* John looked at  $t_i$  in the living room yesterday [the man who lived next door] $_i$ .

Syn(PP) : [<sub>PP</sub> [<sub>P'</sub> at DP<sup>1</sup>] DP<sup>2</sup>]

Lin(PP) : at < DP<sup>1</sup> < DP<sup>2</sup>

The RM to the right edge of the PP phase is string-vacuous, and therefore it violates (10). Hence, the P-stranding RM is banned.

In contrast, pied-piping movement proceeds as follows:

- (12) John looked  $t_i$  in the living room yesterday [at the man who lived next door] $_i$ .  
Syn(vP): [<sub>vP</sub> John v look PP<sup>1</sup> in the living room yesterday PP<sup>2</sup>]  
Lin(vP): John < look < PP<sup>1</sup> < in the living room < yesterday < PP<sup>2</sup>

The movement satisfies (10) because it changes the preceding relation between the moved PP and the vP-internal adjuncts. Therefore, This sentence is grammatical.

The PP-level derivation of P-stranding LM is as follows:

- (13) [The man] $_i$ , John looked at  $t_i$ .  
Syn(PP): [<sub>PP</sub> DP<sup>2</sup> [<sub>P'</sub> at DP<sup>1</sup>]]  
Lin(PP) : DP<sup>2</sup> < at < DP<sup>1</sup>

The movement also satisfies (10) because it changes the preceding relation between the moved DP and the preposition. Thus, the distinction between RM and LM is explained (I will show further derivation of LM in (16)).

Next, let me turn to the analysis of the movement to a vP-external position. Before moving on to the analysis, I provide a structural assumption about the verbal spine, on the basis of Overfelt (2015).

- (14) [<sub>YP</sub> [<sub>XP</sub> [<sub>vP</sub> Subj v V Obj Low Adjunct <sub>vP</sub>] XP] High Adjunct <sub>YP</sub>]

I divide adjuncts adjoined on the verbal spine into two types: vP-internal low adjuncts and vP-external high adjuncts. More specifically, I assume that high adjuncts are adjoined to YP, which is separated from vP by XP. (XP may correspond to FocusP in Overfelt (2015).)

With this assumption, RM to a vP-external position proceeds as follows:

- (15) Max [<sub>vP</sub> described  $t_i$  for Bill] drunk, [a popular Broadway musical]<sub>i</sub>.  
 Syn(vP): [<sub>vP</sub> Max v describe DP<sup>1</sup> for Bill DP<sup>2</sup>]  
 Lin(vP): Max < describe < DP<sup>1</sup> < for Bill < DP<sup>2</sup>  
 Syn(CP): [<sub>CP</sub> C [<sub>TP</sub> Max T [<sub>YP</sub> ... [<sub>XP</sub> ... [<sub>vP</sub> Max v describe DP<sup>1</sup> for Bill DP<sup>2</sup>] DP<sup>3</sup>] drunk DP<sup>4</sup>]]]  
 Lin(CP): Max < T < ... < Max < describe < DP<sup>1</sup> < for Bill < DP<sup>2</sup> < DP<sup>3</sup> < drunk < DP<sup>4</sup>

In this case, movement in the vP phase satisfies (10) because it crosses the low adjunct (Note that the movement to a vP edge is banned if the low adjunct does not exist). However, movement from DP<sup>2</sup> to DP<sup>3</sup> (i.e. movement from the vP edge to the XP edge) violates (10). Notice that this step cannot be avoided because of the Shortest Move requirement. That is, RM to a vP-external position is always prohibited because at least movement from a vP edge to an XP edge violates (10). In the same way, movement to a CP-external position is also prohibited since the derivation includes the same step. Thus, the RRC is explained by the current proposal (I omit the analysis of movement to a vP-internal position because I have already shown it in (12)).

In contrast, LM crossing a vP/CP phase is

derived as follows.

- (16) [The book about English linguistics]<sub>i</sub>, John said that Sam read  $t_i$ .  
 Syn(vP): [<sub>vP</sub> DP<sup>2</sup> Sam v read DP<sup>1</sup>]  
 Lin(vP): DP<sup>2</sup> < Sam < read < DP<sup>1</sup>  
 Syn(CP): [<sub>CP</sub> DP<sup>5</sup> that [<sub>TP</sub> DP<sup>4</sup> Sam T ... [<sub>XP</sub> DP<sup>3</sup> Sam X [<sub>vP</sub> DP<sup>2</sup> Sam v read DP<sup>1</sup>]]...]]]  
 Lin(CP): DP<sup>5</sup> < that < DP<sup>4</sup> < Sam < T < ... < DP<sup>3</sup> < Sam < DP<sup>2</sup> < Sam < read < DP<sup>1</sup>

Here, I assume that optional LM from DP<sup>1</sup> to DP<sup>4</sup> proceeds with successive cyclic A-movement of the subject. Given this, these movement operations apply as follows. Firstly, movement from DP<sup>1</sup> to DP<sup>2</sup> applies. Secondly, the A-movement of the subject crosses DP<sup>2</sup>. Next, movement from DP<sup>2</sup> to DP<sup>3</sup> crosses the moved subject. Then, the shortest move of the topicalized DP applies so that it crosses the A-moved element. Since the steps satisfy (10), at least movement to DP<sup>4</sup> is allowed. In addition, movement from DP<sup>4</sup> to DP<sup>5</sup> is also possible because it changes the preceding relation between the moved DP and *that*.<sup>1</sup> Thus, LM can cross a vP/CP phase.

Then, let me turn to the fact that RM with PG is grammatical even if it violates RRC. This is explained by focusing on the obligatoriness of the movement. Notice that the discussion in this section has shown that RRC is derived from the economy condition on “optional movement.” Remember from (7) that the target of RRC is not obligatory for convergence. In contrast to the ordinary RM, RM with a PG is obligatory, as demonstrated below.

- (17) a. I talked to  $t_i$  yesterday without actually meeting  $pg_i$  [all the members who voted against Hinkly] $_i$ .  
 a'. \*I talked to [all the members who voted against Hinkly] $_i$  yesterday without actually meeting  $pg_i$ .  
 b. I claimed [<sub>CP</sub> that I liked  $t_i$ ] in order to get you to rent  $pg_i$  [that movie with Fred Astaire and Audrey Hepburn] $_i$ .  
 b'. \*I claimed that I liked [that movie with Fred Astaire and Audrey Hepburn] $_i$  in order to get you to rent  $pg_i$ .

This means that movement with a PG is not the target of the constraint in (10). Therefore, it is natural that this kind of movement does not obey RRC.

In this section, I have proposed an economy condition and shown that it explains RRC. Then, I will show a consequence of my proposal in the next section.

### 3. Consequence

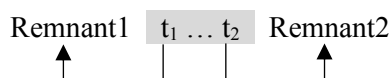
It has been argued that some limitations of multiple sluicing/gapping/pseudogapping are related to constraints on RM. One of the limitations is that a complement of a preposition cannot appear as a remnant without pied-piping the preposition, as shown in (18b, e, h), and another is that a remnant cannot appear if it is basegenerated within an embedded finite clause, as shown in (18c, f, i).

- (18) a. ?Someone talked about something, but I can't remember [who ~~talked~~ about what]. (Lasnik (2014: 8))  
 b. ?\*Some linguist spoke about some paper on sluicing, but I don't know [which linguist ~~spoke about~~ which paper on sluicing]. (ibid.: 9)

- c. \*Someone claims that John talked about something but I don't know [who ~~claims that John talked~~ about what].  
 d. John talked about Bill and [Mary ~~talked~~ about Susan]. (Abe and Hoshi (1997: 101))  
 e. ?\*John talked about Bill and [Mary ~~talked about~~ Susan]. (ibid.: 102)  
 f. \*Mary claims that Jill likes apples and [Ann ~~claims that Jill likes~~ oranges]. (Grano and Lasnik (2018: 466))  
 g. John likes apples and [Bill does ~~like~~ oranges]. (ibid.: 470)  
 h. \*You can't count on a stranger, but you can ~~count on~~ a friend. (Fetters and White (2016: 206))  
 i. \*John claims that Mark likes apples and [Bill does ~~claim that Mark likes~~ oranges]. (Grano and Lasnik (2018: 470))

Some authors try to explain these limitations by assuming RM of the second remnant, as schematized in (19). That is, they attempt to reduce the limitations on the ellipses to those on RM. Here, halftone dot meshing refers to a deletion site.

### (19) Movement and Deletion Analysis



(cf. Lasnik (2014), Jayaseelan (1990))

According to this approach, a remnant cannot be extracted out of a PP or a finite clause because such RM is impossible.

Although some studies argue for this approach, others argue against it because some of the ellipses require RRC-violating RM. For example, consider the case of multiple sluicing.

(20) [<sub>CP</sub> who<sub>i</sub> C [<sub>TP</sub> ... [<sub>VP</sub> t<sub>i</sub> talked t<sub>j</sub>] ... ] [about what]<sub>j</sub>]

The derivation of (20) requires the second remnant to cross a vP phase so that it can be extracted out of the deletion site. Since this movement is impossible for ordinary RM, it is problematic to reduce the limitations on the ellipses to those on RM.

However, the current proposal can solve this problem. I assume that linearization statements are deleted as a by-product of ellipsis (cf. Fox and Pesetsky (2005)), and that VP-ellipsis (cf. Sato (2013)) applies at a vP phase and TP-ellipsis (Lasnik (2014)) applies at a CP phase. Then, the derivation of multiple sluicing proceeds as follows:

(21) Syn(vP) : [<sub>VP</sub> who<sup>1</sup> v [<sub>VP</sub> talk PP<sup>1</sup>] PP<sup>2</sup>]  
 Lin(vP) : who<sup>1</sup> < talk < PP<sup>1</sup> < PP<sup>2</sup>  
 Syn(CP) : [<sub>CP</sub> who<sup>3</sup> C [<sub>TP</sub> who<sup>2</sup> T ... [<sub>VP</sub> who<sup>1</sup> v [<sub>VP</sub> talk PP<sup>1</sup>] PP<sup>2</sup>] ... PP<sup>3</sup>] PP<sup>4</sup>]  
 Lin(CP) : who<sup>3</sup> < C < who<sup>2</sup> < T < ... < who<sup>1</sup> < talk < PP<sup>1</sup> < PP<sup>2</sup> ... < PP<sup>3</sup> < PP<sup>4</sup>

The RM of the second remnant at the vP-level is string-vacuous. However, the violation of (10) can be avoided because VP-ellipsis deletes the lower copy of it, and the resulting statement does not violate (10). In the same way, movement to the CP edge is also allowed due to TP-ellipsis. Thus, RM crossing a phase is possible in multiple sluicing (and gapping/pseudogapping).

On the other hand, this kind of derivation is impossible in the ungrammatical cases: P-stranding movement and movement crossing a finite clause. This is because a complement of P or embedded finite C cannot be elided.

(22) a. Syn(PP) : [<sub>PP</sub> [<sub>P'</sub> about DP<sup>1</sup>] DP<sup>2</sup>]  
 Lin(PP) : about < DP<sup>1</sup> < DP<sup>2</sup>  
 (cf. \*John talked about the student, and Mary talked to ~~the student~~.)  
 b. Syn(CP) : [<sub>CP</sub> that [<sub>TP</sub> John T ... [<sub>VP</sub> John v [<sub>VP</sub> talk PP<sup>1</sup>] PP<sup>2</sup>] ... PP<sup>3</sup>] PP<sup>4</sup>]  
 Lin(CP) : that < John < T < ... < John < talk < PP<sup>1</sup> < PP<sup>2</sup> ... < PP<sup>3</sup> < PP<sup>4</sup>  
 (cf. \*John wonders whether Mary passed the exam, but Bill claimed that ~~Mary passed the exam~~.)

Thus, the limitations of the ellipses can be explained by the current proposal.

#### 4. Conclusion

This paper argues that RRC is explained by an economy condition. Specifically, I propose that RM must affect its PF output (preceding relation) and string-vacuous RM is banned. My proposal explains the ban on ordinary RM crossing a phase, and some exceptional cases with a PG. In addition, I also show that the current proposal can account for some limitations of multiple sluicing/gapping/pseudo-gapping.

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## NOTE

<sup>1</sup> This analysis cannot apply to the case without the overt C, because movement from DP<sup>4</sup> to DP<sup>5</sup> is string-vacuous as exemplified below.

- (i) [The book]<sub>i</sub>, John said Sam read t<sub>i</sub>.  
 Syn(CP) : [CP DP<sup>5</sup> C [TP DP<sup>4</sup> Sam T ...  
 Lin(CP) : DP<sup>5</sup> < DP<sup>4</sup> < Sam < T < ...

One of the solutions is that the C is originally overt and deleted after evaluation (satisfaction) of (10). However, this raises a new problem because I assume in Section 3 that deletion in multiple sluicing /gapping /pseudogapping applies before evaluation (violation) of (10). A potential solution is that the two kinds of ellipses apply at different timing. In fact, some studies propose ellipsis of syntactic constituents that applies at an early stage, and that of phonological constituents that applies at a late stage (see Güneş and Lipták (to appear)). I assume that deletion in multiple sluicing/gapping/pseudogapping, which targets syntactic constituents (phrase), applies earlier than evaluation of (10), and that deletion of C, which does not target the same kind of syntactic constituent, applies later than evaluation of (10).

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## An Analysis of Partial Control from Label and Merge\*

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### 1. Introduction

This paper attempts to explain partial control (henceforth, PC) based on Movement Theory of Control (hereafter, MTC), as proposed by Hornstein (1999). Specifically, we argue that the existence of the C label, which plays an important role in discourse-related construal at the interfaces, is necessary for the PC interpretation. Under our proposal, the derivation of complement clauses with PC involves topicalization, which eliminates the stipulated assumption and further supports the validity of MTC.

### 2. Movement Theory of Control (MTC)

Hornstein (1999) proposes to derive control constructions with the movement analysis: under the Minimalist Framework, nothing prevents movement into theta positions (cf. Chomsky (1981)). Hence, just like raising, control constructions can be derived by A-movement:

- (1) a. John tried to win.  
b. John<sub>i</sub> tried [~~John~~<sub>i</sub> to win].

As Hornstein argues, the attempt to derive control constructions with A-movement is theoretically desirable because it does not require a stipulated grammatical element: PRO. There remain, however, some unsolved issues to be explained in this approach. Though the analysis itself is intriguing, MTC has been criticized in literature (e.g. Landau (2000, 2003, 2013)). This paper focuses on one of the most famous counterarguments to MTC: i.e., PC.

### 3. Partial Control vs. Exhaustive Control

Landau (2000, 2003) presents the following example as a strong counterexample to MTC:

- (2) We thought that...  
The chair<sub>i</sub> preferred [PRO<sub>i</sub> to gather at 6]. (Landau (2003: 493))

The representation PRO<sub>i</sub> in (2) indicates that the antecedents of PRO in the embedded clause contain not only a DP subject in the main clause, but also a contextually determined person. In other words, discourse information is necessary for the interpretation of PC. Landau (2000, 2003) points out that MTC cannot account for PC because the trace left in the position of PRO in (2) needs to be strictly identical to the main clause subject if the movement analysis is used.

Then, let us consider exhaustive control (henceforth, EC). Landau (2000) observes that PRO in EC does not take the 1+ interpretation unlike PC: in EC type, PRO must be strictly identical to the antecedent of the main clause:

- (3) We thought that . . .  
\*John<sub>i</sub> managed [PRO<sub>i</sub> to gather at 6]. (Landau (2013: 157))

Landau (2000) observes that [+tense] is required

for control complements to obtain the PC interpretation, and EC complements, which do not allow 1+ interpretation, are [-tense].<sup>1</sup> Landau (2000, 2013) argues that the presence of tense is indicated by a temporal adverb, as in the difference in grammaticality in (4) (see Landau (2013: 158) for comprehensive lists):

- (4) a. \*Yesterday, John managed to solve the problem tomorrow.  
 b. Yesterday, John wondered how to solve the problem tomorrow.  
 (Landau (2013: 158))

As (4) shows, the only the control complements, which allow the PC interpretation, can have a tense independent of the main clauses.

Furthermore, Landau (2000) points out that PRO in PC is semantically plural, but syntactically singular, based on the following fact:

- (5) \*John told Mary that he preferred to meet each other at 6 today.  
 (Landau (2000: 48))

As shown in (5), PRO in PC cannot license the reciprocal pronoun *each other*. From this fact, Landau (2000) concludes that PRO in PC is semantically plural but syntactically singular. This property is clearly different from the one of split control (henceforth, SC):

- (6) John<sub>i</sub> proposed to Mary<sub>j</sub> PRO<sub>i+j</sub> to meet each other at 6.  
 (Landau (2000: 53))

In (6), the antecedents of PRO are the two DPs in the main clause. Unlike the case in PC, PRO in SC can license the reciprocal pronoun *each*

*other*: PRO is both syntactically and semantically plural. Thus, PC and SC have been considered to have different properties (Landau (2000, 2013)). This paper also attempts to derive the difference between PC and SC from the movement analysis. Interestingly, the interpretation of PRO can be either PC or SC, depending on the context (Barrie and Pittman (2004)):

- (7) John was discussing with Bill where he should kiss his girlfriend. John couldn't decide whether to kiss in the library or in the parlour. Bill persuaded John<sub>i</sub> e<sub>i+</sub> to kiss in the library.

(Barrie and Pittman (2004: 77))

The verb *persuade* in (7) can take a SC complement. However, Barrie and Pittman (2004) observe that under the context of (7), the interpretation of PC is more natural. Therefore, PRO in *Bill persuaded John to kiss in the library* can be interpreted as either PC or SC.

Furthermore, Landau (2000) observes that PC cannot arise in raising constructions:

- (8) \*John is likely to meet tomorrow.  
 (Landau (2000: 30))

## 4. Previous Analyses and their Problems

### 4.1 The Problems with PRO Analysis

One empirical problem with the PRO analysis is that PC cannot appear in adjunct clauses (Hornstein (2003)). The presence of the temporal adverb in the adjunct clause in (9) shows that the adjunct clause is [+tense]:



- (9) John saw Mary yesterday (in order) to  
leave early tomorrow.  
(Hornstein (2003: 43))

However, as Hornstein (2003) points out, the PRO analysis cannot explain why adjunct clauses cannot have the PC interpretation (see Landau (2007) for the objection):

- (10) \*John saw Mary after/without PRO  
meeting/gathering at 6. (*ibid.*)

Another problem is the specialty of PRO. As Hornstein (2003: 39) argues, “PRO is unique among lexical items in having its number specification contextually specified.” If PRO has the property of the pronoun, it is not clear why only PRO can have the PC interpretation, unlike normal pronouns.

To support the PRO analysis for PC, Grano (2015) argues that PRO in PC is a bound pronoun (see also Landau (2016b)). He observes that the bound pronoun, *they* in (11a) expresses a meaning similar to that of PRO in (11b).

- (11) a. Every committee head<sub>*i*</sub> hoped that they<sub>*I*+</sub>  
would gather at noon.  
b. Every committee head<sub>*i*</sub> hoped PRO<sub>*I*+</sub> to  
gather at noon.  
(Grano (2015: 41, partially modified))

PRO in PC is syntactically singular, while a bound pronoun is syntactically plural, and Grano (2015) claims that this is the only difference between PRO and a bound pronoun.

However, the analysis, which considers PRO in PC as a bound pronoun, raises some problems. First, it is not clear why there is a difference in syntactic number between PRO in PC and an

overt bound pronoun. Second, as can be seen in (12), a bound pronoun can appear in an adjunct clause unlike PRO in PC:

- (12) Every committee head<sub>*i*</sub> would like to  
study syntax when they<sub>*i*</sub> gather at  
noon.

Third, if PRO in PC is syntactically singular, as Grano (2015) argues, then it is necessary to assume the different kind of PRO for SC, which is syntactically plural, as indicated in (6). Based on these, it is doubtful to consider PRO in PC as a bound pronoun.

## 4.2 Null Element Analysis

Previous studies (from either the movement analysis or PRO analysis) have assumed the existence of null pro or the null Associative Morpheme (AM) for explaining the peculiar behavior of PC: null comitative (e.g. Hornstein (2003)), and the null associative morpheme (or pro) (Rodrigues (2007), Madigan (2008), and Landau (2015, 2016b)). In this paper, we refer to these analyses as “null element analyses.”

Null element analyses appear to accommodate the peculiar properties of PC, but as Landau (2007, 2013) and Grano (2017) argue, they cannot explain the distribution of PC (see also Grano (2017) and Landau (2013, 2016a, b)). For example, Landau (2013) points out that Rodrigues’ (2007) approach cannot account for why raising complements do not show PC.<sup>2</sup> This paper attempts to explain its distribution by focusing on the role of the label in C.

## 5. An Alternative Analysis

Before going on to our proposal, let us introduce some fundamental ideas for our

proposal from previous research.

### 5.1 Restructuring

As mentioned in the preceding discussions, the complement that takes PC is [+tense], while EC is [-tense] (Landau (2000)). This difference in the properties of C implies that EC complements lack C, unlike PC. In connection with this difference of PC and EC, Wurmbrand (2001), Barrie and Pittman (2004), Grano (2015), and Matsuda (2017), among others argue, based on cross-linguistic evidence, that verbs classified as EC in Landau (2000) undergo restructuring, indicating the lack of C in EC clauses. Following Wurmbrand, the restructured structure looks like the following:

- (13) John<sub>i</sub> [<sub>VP</sub> managed [<sub>VP</sub> to gather at 6]].

We consider that the argument concerning restructuring is persuasive and adopt it for explaining the peculiar behavior of PC under MTC.

### 5.2 The Role of Labels and Topicalization

Chomsky (2013, 2015) claims that all syntactic objects must have a label at the interfaces for interpretation. For instance, the Q feature of C becomes a label, so that the clause is interpreted as a Yes/No question. On the other hand, the shared feature (<Q, Q>) with the *wh*-phrase gives a relative, exclamative, or interrogative interpretation at the interfaces (Chomsky (2015: 13, ft. 16)). Hayashi (2021) further pursues the role of the label argued in Chomsky (2013, 2015), and proposes that the interpretation of a syntactic object is defined based on the identification label of the set containing it. This paper adapts the idea of the label along these works.

In addition, previous studies have argued that C(P) plays a crucial role in discourses, such as topic and focus (see Chomsky (1995), and Rizzi (1997), among others). For example, the elements fronted to the CP position in (14a, b) are interpreted at the interface as topic and focus, respectively:

- (14) a. This book, I like. (Topicalization)  
b. THIS BOOK, I like *t*. (Focalization)

Moreover, the importance of the C label (especially Fin(P)) for the PC interpretation is also emphasized in Landau (2015) and Matsuda (2017).<sup>3</sup> Clearly, it is necessary to have a C label for discourse-related interpretation in the interfaces. Since PC construal is closely interrelated with discourse, as we discussed above, the C label is indispensable for the PC interpretation.

As for topicalization, it is assumed in several previous studies that a null operator moves to the CP spec position and gets a discourse (topic) interpretation there (see Chomsky (1977), Rizzi (1997), Miyagawa (2017), among others):

- (15) [<sub>TopP</sub> this book [<sub>CP</sub> OP<sub>i</sub> C [<sub>TP</sub> I like *t<sub>i</sub>*]]]

Given that the antecedents in PC are determined by discourse information, this paper extends this idea of topicalization to the derivation of PC, which results in the elimination of PRO (and pro).

### 5.3 Analysis: The Derivation of PC

Given the background in the proceeding subsection, we propose an alternative analysis for the derivation of PC under MTC. As discussed in Section 5.1 and 5.2, the presence of the [+tense] feature observed in PC

complements suggests that there is a C label that plays a discourse-related role at the interfaces. Given this, we propose (16b) as a derivation of PC in (2), which is repeated as (16a) here:

(16) We thought that...

- a. The chair preferred to gather at 6].
- b. The chair preferred  $\{\alpha=\langle \text{Top}, \text{Top} \rangle \text{ OP}_{\{\text{uTop}\}} \{C_{[\text{Top}]} \text{ to } \{\text{the chair}, \text{OP}\} \text{ gather at 6}\}\}$ .

Based on the idea of Free Merge (Chomsky (2013, 2015), topicalization, and extending Complex DP in Rodrigues (2007), we propose that DP (*the chair*) and the null operator (OP) form a single set.<sup>4</sup> In the derivation of the embedded clause in (16b), the operator moves to the specifier position of C in the embedded clause (topicalization), and by agreement /labeling, the label of  $\alpha$  is determined and interpreted as Topic in the interfaces (see Tanigawa (2018) for the Topic label). At the stage of narrow syntax, an operator does not have any value and will get its discourse (Topic) interpretation at the interfaces based on the information from the Topic label, which guarantees the PC interpretation.<sup>5</sup> Without the C label, there is no [+tense], and the operator could not be able to get the Topic interpretation, so the PC interpretation cannot be obtained. This analysis does not appeal to the notion of PRO (and pro) and can account for the relationship between [+tense] and PC under MTC.

As we have seen in Section 4.1, EC does not have a C label, so the operator cannot get an interpretation as Topic at the interfaces:

- (17) a. \*John<sub>i</sub> managed [to gather at 6]. (= (3))
- b. John<sub>i</sub>  $\{_{VP} \text{ managed } \{_{VP} \{ \text{John}, \text{OP} \} \text{ to gather at 6} \} \}$ .

The raising complement (= (8)) also cannot have the PC interpretation simply because the C label is not present in raising constructions (see Chomsky (2001) and Mizuguchi (2019), among others for lack (or defectiveness) of C(P) in the raising constructions):

In the proposed analysis, the singular DP moves from the embedded clause to the matrix clause, and the empty operator has no value in syntax but gets semantic value at the interfaces (cf. Rodrigues (2007)). Thus, if we follow Landau's (2000) argument that plural anaphors are licensed by syntax, we can also explain why the plural anaphor cannot be licensed in PC:

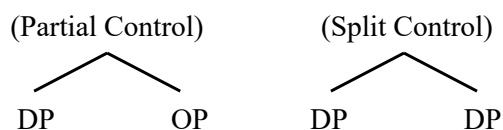
- (18) \*John told Mary that he preferred [to meet each other at 6 today]. (= (5))

Finally, let us move onto the difference between PC and SC. Based on Free Merge (Chomsky (2013, 2015), Sakumoto (2021) proposes a novel derivation for SC where two DPs form one set (see Landau (2000, 2013, 2015), Fujii (2006), and Sakumoto (2021) for the property of SC):

- (19) a. John asked Mary [whether to get themselves a new car].  
(Landau (2000: 53))
- b.  $\{\beta=\langle \varphi, \varphi \rangle \text{ John T } \{_{v^*P} \text{ asked } \{\alpha=\langle \varphi, \varphi \rangle \text{ Mary } \{\text{whether to } \{\{\text{John}, \text{Mary}\} \{_{v^*P} \text{ get...}\}\}\}\}\}$  (Sakumoto (2021))

In (19b), *John* and *Mary* form one set, and then each moving to the matrix clause, the clause can get labeled properly. He argues that two DPs in the same edge of  $v^*P$  can license the plural anaphor (see Fujii (2006) and Rodrigues (2007) for the plurality of two DPs). Let us then illustrate the structures of PC (our proposal) and SC (Sakumoto (2021)) as the following:

(20)



Following (20), the difference between PC and SC can be reduced to Merge. In the case of PC, DP is merged with an operator to form a set, and in the case of SC, two DPs form a single set (Sakumoto (2021)). This analysis allows us to readily explain the fact that the structure of SC can also have the interpretation of PC (= (7)). According to (20), PC is syntactically singular, and SC is syntactically plural: if the operators are merged with DP, the PC interpretation is obtained based on the topic label (our proposal here), but if two DPs form a single set, the SC interpretation is gained (Sakumoto (2021)).

## 6. Conclusion

This paper has proposed a novel derivation of PC under MTC and accounted for its peculiar behavior by focusing on the role of the C label.

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## NOTES

<sup>1</sup> Landau (2015) restates the distinction between PC and EC in Landau (2000) from whether it expresses attitudes or non-attitudes. This paper simply adopts Landau's (2000) distinction between PC and EC.

<sup>2</sup> More specifically, Rodrigues (2007) argues that not a tense but a modal licenses PC, and Complex DP (pro+DP) induces the PC interpretation. See Landau (2013, 2016a) for more problems of her analysis.

<sup>3</sup> Specifically, Matsuda (2017) proposes that certain infinitival complements which take the PC interpretation are embedded imperative. Then, she claims that it is necessary to have PRO, FinP, and independent logophoric center for the PC interpretation, and also argues that EC complements may lack them given the idea of restructuring (see Section 2.1). Her proposal is very intriguing, but as she recognize, some infinitival complements which take PC are not imperative (see Matsuda (2017: 371) and reference therein), so further research is needed for validating her proposal. This paper pursues the different possibility to derive PC.

<sup>4</sup> Several studies argue that PRO is an operator, see Landau (2015) and references therein.

<sup>5</sup> See Landau (2015) and Matsuda (2017), who focus on the role of Fin(P).

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## On a New Type of *Out*-Prefixed Verbs in English\*

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### 1. Introduction

The status of prefix in English and the notion of head have been controversial topics in the field of morphology. This study focuses on the formation of *out*-verbs with a comparative meaning. Previous studies (e.g. Bresnan (1982)) have established that *out*- attaches to intransitive and transitive verbs and derives transitive verbs which compare two elements in subject and object position in terms of action or state. Consider the following examples:

- (1) a. John outran Peter.
- b. John outkilled Fred.
- c. John outlived his son.

The sentences in (1) denote that John surpassed other people in running, killing, and longevity, respectively. As shown in these examples, *out*-verbs can differ from the base verbs in argument structure. This is an issue concerning *out*-prefixation. The change is explained with a semantic operation called lexical subordination (Levin and Rapoport (1988)). See Nagano (2011: 75) and Yumoto (1997: 194) for details on analyses of the change in argument structure.

Another issue concerning the prefix is whether it determines the category of a complex word or not. *Out*- is often treated as one of the prefixes violating the Righthand Head Rule (RHR) (Williams (1981: 248)), which states that the element in the rightmost position determines the syntactic category of a morphologically complex word. Let us observe the sentences below. *Outtongue* ‘to talk better than someone’ in (2a) and *outsmart* in (2b) are apparently derived from a noun and an adjective.

- (2) a. John outtongued Peter.
- b. John outsmarted Peter.

However, it has been revealed that they are not counterexamples to the RHR. Based on the Marchand’s (1969) and Kastovsky’s (1986) views that such forms are also righthand headed, Nagano (2011) shows that they are formed by the combination of Noun/Adjective-to-Verb conversion and Verb-to-Verb prefixation. As she points out, most denominal or deadjectival *out*-verbs have a converted counterpart and the base-converted verb precedes its *out*-form. For instance, in *The Oxford English Dictionary* (OED), *outfool* is attested in 1638 whereas *to fool* is found in 1593 (Nagano (2011: 72)). The *out*-verbs in (2) are thus based on denominal or deadjectival converted verbs, not on a noun or an adjective. In fact, these verbs compare John’s action with Peter’s action in the same way as the *out*-verbs in (1).

However, cases have been recently found where the conversion analysis cannot apply. Unlike *outtongue* and *outsmart*, the following *out*-verbs cited from Kotowski’s (2021) study and *The Oxford English Dictionary Online* (OED online) lack their converted counterpart.

- (3) out-technology, out-human, out-macho, outshowmanship, out-guttural, out-royal, out-modern, out-infinitive  
(Kotowski (2021), *OED online*)

Referring to such kinds of *out*-verbs, Kotowski (2021: 81) claims that *out*- can attach to nouns and adjectives and derive verbs relatively freely and rejects Nagano's (2011) account. If they are not derived through conversion, how are they formed? This study argues that they are formed on the basis of existing *out*-verb and not by category-changing prefixation.

This paper is organized as follows: Section 2 points out that the *out*-verbs in (3) share a common semantic property. Taking the position that they are not formed randomly, I propose a mechanism to form this type of *out*-verbs in Section 3. Specifically, *out*-verbs concerning measurement (e.g. *outnumber*, *outrank*) underlie the formation of this type of *out*-verbs. Section 4 offers a conclusion.

## 2. A Semantic Property of a New Type of *Out*-Verbs

To begin with, let us observe how *out*-verbs to which the conversion analysis cannot apply are used:

- (4) a. There was an old boy with 'a lifetime of badges' on his hat. Excuse me, but we have those too. (Step forward Lil Kemp who could outbadge him any day.)  
b. Global big data competitors can out-technology you, but they can't out-human you.  
c. [...] he outboxed, outpointed and outshowmanshopped a long-reigning middleweight champion despite

serious disadvantages in height [...] (Kotowski (2021: 79), with slight modification)

- d. Some Dutch ladies, out-gutturaling even the Swiss themselves.  
e. A beggar on horseback, with the retinue of three kings behind him, outroyalling royalty.  
(*OED online*, underlining mine)

When focusing on the meaning, we find that unlike the *out*-verbs in (1) and (2), those in (4a) do not compare actions or states. For example, *outbadge* in (4a) compares *old boy* and *Lil Kemp* in terms of the number of badges they have, not their action of presenting a badge. It denotes that she has more badges than him. In a similar vein, *out-technology* and *out-human* in (4b) make a comparison in terms of the level of technology and human intelligence. These examples indicate that all the *out*-verbs in (4) have a reading which compares in terms of quantity or degree.

The observation of the *out*-verbs above shows that they semantically differ from other common *out*-verbs (e.g. *outrun*, *outtongue*) and form a natural class by themselves. *Out*-verbs to which the conversion analysis can apply have the action comparison reading while *out*-verbs which resist the analysis have the quantity/degree comparison reading. Kotowski (2021) points out that denominal and deadjectival *out*-verbs make a comparison in terms of degree and quantity, too, but he misses their common characteristics and describes them as if they are formed freely.

## 3. Proposal

In this section, I propose a mechanism for the formation of *out*-verbs with the quantity/degree comparison reading. Specifically,

this study argues that they are formed on the basis of existing *out*-verbs which are based on linking verbs (e.g. *number*, *rank*). This is a word-formation process that has not received much attention.

### 3.1. *Out*-verbs Based on Linking Verbs

Let us first consider the properties of verbs on which this type of *out*-verbs are based. Bauer and Huddleston (2002) mention *outnumber* and *outrank* as one of the representative types of *out*-verbs.

- (5) a. X outnumber Y  
 b. X outrank Y  
 (Bauer and Huddleston (2002: 1679))

*Outnumber* in (5a) means ‘x surpasses y in number’ and *outrank* in (5b) ‘x ranks higher than y’. The conversion analysis can apply to these *out*-verbs because they have converted counterparts (*to number*, *to rank*). What is remarkable about these *out*-verbs is that their converted counterparts have a use of linking verbs. To be more precise, the verbs in (5) denote that x surpasses y in the sense that x reaches a certain number or degree. The following sentences in (6) are examples of *to number* as a linking verb. It has a SVC construction and requires its complements to fulfil the meaning.

- (6) a. The party numbers 15 men in all.  
 (GENIUS)  
 b. He numbers more than eighty years.  
 (KNEJD)  
 c. The men on strike now number 5% of the workforce.  
 (LDOCE)

In (6a), *numbers* takes *15* and *men* as its

complements. Similarly, *numbers* in (6b) and *number* in (6c) take the numerical value (*eighty*, *5%*) and the information on what is counted (*years*, *workforce*). The same is observed in the case of other linking verbs, such as *to rank*. This indicates that linking verbs need to take both the numerical value and specific information on the object of measurement as their complements.

When *out*- attaches to linking verbs, derivatives take different elements as their object. Let us consider the case of *outnumber*. In contrast to the converted counterparts in (6), *outnumber* in (7a) takes *houses*, the object being compared with *flats*, as its object instead of the number of flats in this area. In the same way, it takes *men* in (7b) and not the number or the proportion of women in nursing.

- (7) a. Flats outnumber houses in this area.  
 b. In nursing, women still outnumber men by four to one. (LDOCE)

These examples show that the numerical values which input verbs take as their complement do not occur in their *out*-forms. Instead of the specific numerical value, a thing that is compared with the element in the subject position occurs in the object position. This is the result of the change in argument structure by *out*-prefixation (i.e. lexical subordination).

Note that the suppression of an element occurs in other types of *out*-verbs as well. When the base is a transitive verb, its object is suppressed in the *out*-verb. For example, the object of *to kill* is suppressed in *outkill*, as we saw in (1b). Similarly, a complement is suppressed in *outnumber* in (7). When a base is a linking verb, a numerical value (e.g. *15* in (6a)) is suppressed, not a measurement object. In the next subsection, I claim that the new type of



*out*-verbs are formed on the basis of these linking verb-based *out*-verbs.

### 3.2. The Formation Process of a New Type of *Out*-Verbs

I argue that *out*-verbs, which are not formed through conversion are formed by the following word-formation processes in (8). The pairs of representation illustrate the forms (F) and meanings (M) of the three types of *out*-verb. The Lexical Conceptual Structures (LCS) below are depicted based on the representation in Nagano (2011). The first and second embedded brackets in the LCSs are the LCSs introduced by *out*- and base verbs, respectively.

- (8) a. F: [out-[kill]<sub>v</sub>]<sub>v</sub>  
 M: [[x SURPASS y] IN [x/y KILL Ø]]
- b. F: [out-[[number]<sub>N</sub>]<sub>v</sub>]<sub>v</sub>  
 M: [[x SURPASS y] IN [x/y NUMBER Ø IN SOMETHING]]  
 ↓ Substitution by a specifying element
- c. F: [out-[[badge]]]  
 M: [[x SURPASS y] IN [x/y NUMBER Ø IN BADGE]]

The pair in (8a) illustrates the form and meaning of the most basic type of *out*-verb, which are formed without conversion. Due to the lexical subordination, the LCS of the base is “semantically subordinated” to the new LCS of *out*- (Nagano (2011: 75)). Based on this type of *out*-verbs, the conversion type of *out*-verbs is formed, as in (8b). The LCS component of a base-converted verb is subordinated in the same manner as the basic type of *out*-verb. These are the word-formation processes of *out*-verbs discussed by Nagano (2011). *Out*-verbs that this study takes up are formed on the basis of the conversion type of *out*-verbs by substituting

their verb stem with a specifying element, as shown in (8c). In the case of *outbadge*, for instance, the right-hand element of *outnumber* is replaced with *badge* and the form denotes that *x* surpasses *y* in the number of badges.

This study also assumes that the morphological process of forming the *out*-verbs in (8c) from those in (8b) is a word-formation rule similar to the insertion strategy discussed by Muysken (2000: Chapter 7). Observe the following verbs in (9) from Dutch:

- (9) a. *ge-save-d* ‘saved (pp)’ (of computer files)  
 b. *interview-de* ‘interviewed (past sg)’  
 c. *crawl-t* ‘2sg/3sg crawl’ (swimming)  
 (Muysken (2000: 192))

These verbs include English-derived elements but have Dutch inflection. Muysken (2000) argues that the verbs borrowed from English (*to save*, *to interview*, *to crawl*) are inserted in the verb stems.

We can find similarly formed words in English as well. It is well known that the adjective-forming suffix *-able* in English was originally borrowed through Old French from Latin. Thus, stems of most *-able* derivatives are Latinate and the hybrid type of *-able* derivatives (a native base + *-able*) were not made at first. Regarding this suffix, Koma (2013: 64) observes that *-able* derivatives tend to “expand its territory depending on semantic network” at the phase of producing new derivatives in its historical development. Let us see some *-able* derivatives found in the corpora of texts written in Late Middle English and Early Modern English. Those on the left are hybrids and those in the parenthesis are Latinate.

- (10) a. answerable (vs. accomptable, accountable, responsible, chargeable)  
 b. forbearable (vs. warrantable, acceptable, allowable, tolerable)  
 c. unspeakable (vs. (un)expressible)  
 (Koma (2013: 64–65))

For instance, all the *-able* derivatives in (10a) mean to ‘be responsible for something’. When the hybrid *answerable* was formed, synonymous Latinate *-able* derivatives already existed. The other hybrids in (10) also have Latinate derivatives that precede them. These examples indicate that hybrid *-able* derivatives are formed based on existing synonymous Latinate *-able* derivatives.

This study assumes that a morphological process similar to these processes is involved in the formation of the new type of *out*-verbs. Precisely, *outbadge* is formed on the basis of *outnumber* and *out-technology* and *out-guttural* are formed on the basis of *outrank*. Elements realized on the right, such as *badge* and *technology*, specify the information on what number and what rank one surpasses in the sentences with *outnumber* and *outrank*. This is why this type of *out*-verbs have the quantity/degree comparison reading. Accordingly, their structure does not violate the RHR since they are based on converted verb-based *out*-verbs, as shown in (11).

(11) *out-technology*: [out-technology]<sub>v</sub>

The relation between *outnumber* and *outbadge*, and *outrank* and *out-technology* is similar to that between a lexeme (e.g. LIKE) and its inflected words (e.g. *likes* and *liked*). Both the new types of *out*-verbs and inflected forms occur in an appropriate word form, depending on

environments, by applying a process to existing elements.

The insertion analysis thus predicts two types of denominal/deadjectival *out*-verbs: the conversion type (formed through conversion) and the substitution type (formed through conversion and substitution). In the next subsection, I will examine this prediction.

### 3.3. Supporting Evidence

If this analysis is correct, an *out*-verb can be formed by two processes. Let us consider the case of *outbadge*, observed in Section 2. Under the present analysis, *outbadge* ‘to have more badges’ in (4a) is formed (based on *outnumber*) by substitution. However, there should be another *outbadge* based on the converted verb because *badge* is used not only as a noun but also as a verb. This type of *outbadge* is, in fact, observed by Kotowski (2021). In contrast to *outbadge* in (4a), *out-badged* in (12a) appears to be formed on the converted verb *to badge* (‘to attach/present a badge’). It denotes that a person with more authority shows a badge.

- (12) a. I went downtown to check out the crime scene, but that douche from the FBI out-badged me!  
 (Kotowski (2021: 79), with slight modification)  
 b. ... (Step forward Lil Kemp who could outbadge him any day.) (= (4a))

These examples indicate that an *out*-verb can have different meanings depending on whether it is formed only by conversion or not, which is what is expected in this analysis. The insertion analysis enables us to explain both of the *out*-verbs in (12). One is the conversion type of *out*-verb in (8b) and the other is the substitution

type of *out*-verb in (8c).

This holds true for other *out*-verbs with their converted counterpart. Recall from Section 1 that *outtongue* is derived by prefixation to the denominal converted verb *to tongue*. As the analysis predicts, it can have quantity/degree comparison readings as well as the action comparison reading. Observe the examples below, where the notation ♪ indicates that they are made-up examples.

- (13) a. ♪ Chameleons outtongue other animals.  
b. ♪ Lemurs outtongue other animals.

*Outtongue* in (13a) and (13b) are formed by the insertion of a noun *tongue* into the verb stems. When it is based on *outrank*, it means ‘*x* surpasses *y* in the length of a tongue’, as in (13a). Conversely, when it is based on *outnumber*, it means ‘*x* surpasses *y* in the number of tongues’, as in (13b). The sentence describes lemurs, an animal with two tongues. *Outtongue* has the quantity/degree comparison reading in either case.

Similar judgements are made regarding *out*-verbs that lack converted counterparts like *out-technology* and *out-guttural*. For example, *out-natality* in (14), in whose verb stem the noun *natality* is inserted, is interpreted with the intended reading comparing birth rates. It occurs in the past form due to the syntactic environment in addition. My informants accepted *out-contagious* in (15a) and *out-contagion* in (15b) as well. Both *out*-verbs mean ‘*x* surpasses *y* in the rank of infectivity’.

- (14) ♪ The U.S. out-natalitied Japan in 2018.  
(15) a. ♪ The Delta variant of COVID-19 is assumed to out-contagious other variants.

- b. ♪ The Delta variant of COVID-19 is assumed to out-contagion other variants.

Furthermore, we can find this semantic difference in *out*-verbs whose right-hand element has different word forms depending on if it is a verb and a noun. For instance, *out-technologize* in (16a) (conversion type) has the reading that make a comparison between actions of making something technological. In contrast, *out-technology* in (16b) (substitution type) makes a comparison in terms of the technology level. The meanings are similar but slightly different.

- (16) a. ♪ Amazon out-technologize you.  
b. ♪ Amazon out-technology you.

Thus, the semantic difference of these two types of *out*-verbs is attributed to their distinct word-formation processes. The additional data support the insertion analysis.

#### 4. Conclusion

This study showed that *out*-verbs to which the conversion analysis cannot apply form a different type of *out*-verb. They are formed on the basis of existing linking verb-based *out*-verbs by inserting a noun or an adjective into their verb stems. The right-hand elements of this type of *out*-verbs further specify the information on the object of measurement the base verbs originally take. This type of *out*-verbs always has a reading that makes a comparison in terms of quantity and degree. Since they are not formed by category-changing prefixation, they do not violate the RHR.

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# Time Adverbs in Chinese: Evidence for the Chinese as an Underlyingly Head-Final Language Hypothesis\*

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Keywords: Chinese, head parameter, *Shiji* (史記), time adverb, word order

## 1. Introduction

Mulder and Sybesma (1992), based on previous studies such as Mullie (1932), Chao (1968) and Li and Thompson (1975), among others, state that in Chinese, objects may appear on either side of the verb at S-structure, and the postverbal object tends to be indefinite, while the object in preverbal (topic) position tends to be definite, as shown in (1) and (2), respectively.

- (1) 我 卖 猪 了。  
Wo **mai** zhu le.  
I sell pig Asp  
'I have sold pigs.' SVO
- (2) 我 猪 卖 了。  
Wo zhu **mai** le.  
I pig sell Asp  
'I have sold **the** pigs.' SOV  
(Mulder and Sybesma (1992, 440))

There are two views on the basic word order in Chinese. Some scholars claim that the basic word order in Chinese is SVO, and others claim

that it is SOV.

- (3) SVO  
Mulder and Sybesma (1992), Shi (2004)
- (4) SOV  
Tai (1973), Li and Thompson (1974, 1975), Li (1990), Shen (2007)

Shi (2004) claims that Chinese has been an SVO language throughout its history. To our knowledge, Tai (1973) is the first researcher who claims that Chinese is an SOV language. Li (1990) claims that Chinese is a head-final language, and only for the sake of Case assignment, the language becomes head-initial.

To argue for either one of the two basic word orders, researchers tend to use structures with S, O and V. However, little attention has been paid to the positions of time adverbs in Chinese. As shown in Section 2, positions of time adverbs in SOV, SVO and VSO languages show particular patterns. This paper then investigates where time adverbs appear in classical Chinese writings such as Sima Qian's (司馬遷) *Shiji* (史記), which is considered to have been completed in 91BC. Based on the data obtained, we claim (5).

- (5) The underlying structure of Chinese has been SOV, and head-final throughout its history.

The organization of this paper is as follows. Section 2 shows positions of time adverbs in SOV, SVO and VSO languages as background to the subsequent sections. Section 3 investigates the positions of time adverbs in three pieces of classical Chinese writings from 91 BC to the early 18th century. Finally, Section 4 discusses what the findings in Section 3 might suggest for the theory of (Chinese) syntax.

## 2. Background: Positions of Time Adverbs in SOV, SVO and VSO Languages

Let us start by examining SOV languages such as Japanese.

### 2.1 SOV: Japanese

First, let us consider Japanese examples. In (6)–(8), the time adverb *kinoo* ‘yesterday’ is placed at the non-sentence-final position. In (9), the same adverb is placed at the sentence-final position. While (6)–(8) are perfectly grammatical, (9) is totally ungrammatical.

- (6) [**kinoo** Hanako-ga kono hon-o  
[yesterday Hanako-Nom this book-Acc  
read] fact  
yonda] koto  
‘the fact that Hanako read this book  
yesterday’
- (7) [Hanako-ga **kinoo** kono hon-o  
[Hanako-Nom yesterday this book-Acc  
read] fact  
yonda] koto
- (8) [Hanako-ga kono hon-o **kinoo**  
[Hanako-Nom this book-Acc yesterday  
read] fact  
yonda] koto
- (9) \* [Hanako-ga kono hon-o yonda,  
[Hanako-Nom this book-Acc read  
**kinoo**], koto  
yesterday] fact

These examples clearly indicate that the time adverb *kinoo* ‘yesterday’ cannot be placed at the sentence-final position.

### 2.2 SVO: English

Let us turn to SVO languages such as English. In English, the time adverb *yesterday* can be placed at the sentence-final position or at

the sentence-initial position, as shown in (10)–(13).

English (Richard Albert (p.c.))

- (10) The fact that [Mary read this book  
**yesterday**] surprised me.
- (11) \*The fact that [Mary read **yesterday** this  
book] surprised me.
- (12) \*The fact that [Mary **yesterday** read this  
book] surprised me.
- (13) The fact that [**yesterday** Mary read this  
book] surprised me.

### 2.3 VSO: Irish

Finally, let us consider Irish, a VSO language. In Irish, an adverb cannot be placed at the sentence-initial position, as shown in (14)–(17).

Irish (Dónall P. Ó Baoill (p.c.))

- (14) mar gur [léigh Seán an leabher  
the.fact that [read Seán the book  
**inné**  
yesterday]  
‘the fact that Seán read the book  
yesterday’
- (15) mar gur [léigh Seán **inné** an  
the.fact that [read Seán yesterday the  
leabher]  
book]
- (16) \*mar gur [léigh **inné** Seán an  
the.fact that [read yesterday Seán the  
leabher]  
book]
- (17) \*mar gur [**inné** leigh Seán an  
the.fact that [yesterday read Seán the  
leabher]  
book]

Where time adverbs may appear in SOV, SVO

and VSO languages are summarized in (18).

(18)

	Sentence-Initial	Sentence-Middle	Sentence-Final
SOV	✓	✓	*
SVO	✓	*	✓
VSO	*	✓/*	✓

This fits Greenburg's Universal 7 (1966: 80): in SOV or head-final languages, in principle, adverbs precede the verbs. What is important is the fact that SOV languages do not allow sentence-final time adverbs, while SVO or VSO languages allow sentence-final time adverbs.

### 3. Data

Let us now examine possible positions in which time adverbs may appear in the history of Chinese. In this study, we use three texts: (i) Sima Qian's (司馬遷) (91BC) *Shiji* (史記), (ii) Wei Shou's (魏收) (554) *Weishu* (魏書) and (iii) Kong Shangren's (孔尚任) (1708) *Taohuashan* (桃花扇). The following examples are representative examples that show that time adverbs appear at the sentence-initial position or at a pre-verbal position. We found more than 30 examples for each type of structure. In this paper, we provide one example with a sentence-initial time adverb and one example with a pre-verbal time adverb for each of the three pieces. However, we could not find any instance that has a time adverb at the sentence-final position.

Let us start by Sima Qian's (91BC) *Shiji*. This piece was written in the 1st century B.C. In (19), a time adverb appears at the sentence-initial position.

**Sima Qian (司馬遷) (91BC) *Shiji* (史記)**

(19) 今年 祖龙 死。

**jinnian** zulong si  
this year emperor die  
'The emperor will die this year.'

In (20), a time adverb appears right after the subject and before the predicate.

(20) 吾 今日 见 老子, 其 犹 龙 邪!  
wu **jinri** jian Laozi qi you long ye  
I today saw Laozi he like dragon Exc  
'I saw Laozi today, he is like a dragon!'

However, no instance was found in which a time adverb appears at the sentence-final position in this piece.

Next, let us turn to a piece written in the 6th century. In (21), a time adverb appears at the sentence-initial position.

**Wei Shou (554) *Weishu***

(21) 明年 上 崩,  
**mingnian** shang beng  
the next year emperor die  
后 废 为 尼。  
hou fei wei ni  
empress relegate to nun  
'The emperor died the next year, and the empress was relegated to a nun.'

In (22), a time adverb appears right after the subject and before the predicate.

(22) 吾 今年 已 衰暮。  
wu **jinnian** yi shuaimu  
I this year already old  
'I am already old this year.'

However, again, no instance was found in which a time adverb appears at the sentence-final

position in this piece.

Finally, let us examine a piece written in the 18th century. In (23), a time adverb appears at the sentence-initial position.

#### **Kong Shangren (1708) *Taohuashan***

- (23) 今日 小生 重 来。  
**jinri** xiaosheng chong lai  
today I again come  
'Today I came here again.'

In (24), a time adverb appears right after the subject and before the predicate.

- (24) 山 河 今日 崩塌。  
shan he **jinri** bengjie  
mountain river today collapse  
'Mountains and rivers collapse today.'

Again, no instance was found in which a time adverb appears at the sentence-final position in this piece.

## **4. Discussion**

Let us now examine what the findings in the above section might suggest for the theory of (Chinese) syntax.

### **4.1 Old Chinese Shows the SOV Pattern.**

First, the examples in the three pieces of old Chinese clearly indicate that time adverbs in principle do not appear at the sentence-final position. This fact suggests that in spite of the fact that it has an SVO order, old Chinese is characterized as an SOV language in terms of time adverb placement, as shown in (18).

Furthermore, the same is true to modern Chinese as well, as shown in (25)–(28).

- (25) 昨天 张三 读 这 本 书

**zuotian** Zhangsan du zhe ben shu  
yesterday Zhangsan read this Cl book  
的 事  
de shi  
DE fact  
'the fact that Zhangsan read this book yesterday'

- (26) 张三 昨天 读 这 本 书  
Zhangsan **zuotian** du zhe ben shu  
Zhangsan yesterday read this Cl book  
的 事  
de shi  
DE fact

- (27) \*张三 读 昨天 这 本 书  
Zhangsan du **zuotian** zhe ben shu  
Zhangsan read yesterday this Cl book  
的 事  
de shi  
DE fact

- (28) \*张三 读 这 本 书, 昨天,  
Zhangsando zhe ben shu **zuotian**  
Zhangsan read this Cl book yesterday  
的 事  
de shi  
DE fact

In modern Chinese, a time adverb cannot appear after the predicate. It seems then that old Chinese had an underlying SOV order in terms of the positions of time adverbs, and modern Chinese has an underlying SOV order in terms of the positions of time adverbs. Therefore, the observed facts seem to suggest that the underlying structure of Chinese has been SOV.

### **4.2 The Claim Matches Zhang et al's (2019) Claim That Sino-Tibetan Languages Must Have Emerged Around 5,900 Years Ago.**

Second, the claim made above that the underlying structure of Chinese has been SOV



matches Zhang et al's (2019) claim that Sino-Tibetan languages must have emerged around 5,900 years ago.

It has been a debate where and when the Sino-Tibetan language family emerged. Zhang et al (2019) conducted a statistical analysis of root-meanings for words in a lexicon of 109 Sino-Tibetan languages, and conclude that Sino-Tibetan languages must have emerged around 5,900 years ago, and the languages then split into two groups: one group migrated west into Tibet and south into Myanmar, and another group moved east and southward, ultimately becoming the Han Chinese.

The fact that Tibetan has been a head-final language, as shown in (29) and (30), and the fact that Tibetan and Chinese constitute a language family seem to suggest (5).

- (29) Bkashis-kyis [dpecha-de-ø nyos].  
Bkrashis-Erg [book-that-Abs bought]  
'Bkashis bought that book.' (verb)
- (30) Bkrashis-ø [nyihong-la] budsong.  
Bkrashis-Abs [Japan-to] went  
'Bkrashis went to Japan.' (postposition)

Li (1990) claims that the underlying structure of Chinese has been head-final throughout its history, and answers the question why V and P are head-initial in Chinese by proposing that Case assignment in Chinese is to the right, which puts V and P in the left of the objects.

#### 4.3 Hypothesis (5) Poses the Interesting Question Whether Functional Categories in Chinese Are Consistently Head-Final.

Third, hypothesis (5) poses the interesting question whether functional categories in Chinese are consistently head-final. Lexical categories N and A are head-final, as shown in

(31) and (32).

- (31) [Zhangsan de **shu**]  
[Zhangsan DE book]  
'Zhangsan's book' (noun)
- (32) Zhe ben shu [hen **youqu**].  
this Cl book [very interesting]  
'This book is very interesting.'  
(adjective)

Also, functional categories C and Asp are head-final, as shown in (33) and (34).

- (33) [Zhangsan xingqiliu mai-le zhe ben  
[Zhangsan Saturday buy-Asp this Cl  
shu **ma**]?  
book C]  
'Did Zhangsan buy this book on  
Saturday.'
- (34) [Zhangsan mai zhe ben shu **le**].  
[Zhangsan buy this Cl book Asp]  
'Zhangsan bought this book.'

How about functional category D in Chinese? Simpson (2002) and Saito et al (2008) claim that D is head-initial in Chinese. To be more specific, *de* 'DE' is D, and it takes CP as its complement in examples such as (35).

- (35) [wo zuotian kanjian]de ren  
[I yesterday see] DE person  
'the person I saw yesterday'  
(Saito et al (2008: 262))

Simpson (2002) originally proposes an anti-symmetry analysis of relative clauses in Chinese based on Kayne (1994). Under this analysis, (35) is derived, as shown in (36).

- (36) a. [<sub>IP</sub> I yesterday see person]

- b. [<sub>CP</sub> person<sub>1</sub> [<sub>IP</sub> I yesterday see t<sub>1</sub>]]  
 c. [<sub>DP</sub> DE [<sub>CP</sub> person<sub>1</sub> [<sub>IP</sub> I yesterday see t<sub>1</sub>]]]  
 d. [<sub>DP</sub> [<sub>IP</sub> I yesterday see t<sub>1</sub>]<sub>2</sub> DE [<sub>CP</sub> person<sub>1</sub>] t<sub>2</sub>]

First, the head noun *person* moves to the Spec of C. Second, D is merged to CP, and DE is inserted under D. Finally, the relative clause moves to the Spec of D.

Making use of this analysis, Saito et al (2008) provide an elegant account for N'-deletion facts in Chinese and the fact that some nominal elements are adjuncts, so that they cannot be merged to the Spec of D in Chinese. (37) shows that N'-deletion is possible in Chinese, eliding the identical noun *nanhai* 'boy' without deleting *de* 'DE.' For them, *de* is under D, and the entire relative clause is in the Spec of D. Therefore, the two elements are in Spec-Head agreement, and the noun *nanhai* 'boy' can be elided. This indicates that the relative clause is an argument, which can be merged to the Spec of D.

- (37) [[Wo zuotian kanjian] de nanhai ]  
 [[I yesterday see] DE boy]  
 bi [[ni zuotian kanjian] de  
 than [[you yesterday see] DE  
 (nanhai)] geng youqian.  
 (boy)] more rich  
 'The boy I saw yesterday is richer than the  
 boy you saw yesterday.'

(Saito et al (2008: 263))

At the same time, Saito et al (2008) provide a natural account for the contrast in (38a) and (38b).

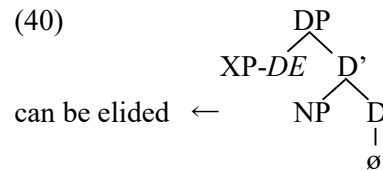
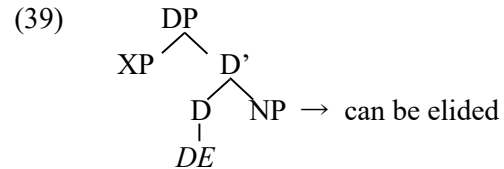
- (38) a. yu tian b. \* yu de tian

rain day rain DE day  
 'rainy day' 'rainy day'

In (38b), *yu* 'rain' is a nominal adjunct. Therefore, it cannot move to the Spec of D, which only takes an argument.

If this analysis is correct, D in Chinese is head-initial. However, given hypothesis (5) that the underlying structure of Chinese has been head-final throughout its history, D must be head-final as well. We are in trouble now.

Note here that XP in the Spec of D and *de* are always adjacent, and the former is followed by the latter. Then, we may reinterpret (39) as (40) without losing the core effects of Saito et al's (2008) analysis of DE as a head. In (40), D has no phonetic content, and XP in the Spec of D is attached by the particle *de* 'DE.' Then, XP in the Spec of D and the particle *de* are always adjacent, and the former is followed by the latter. The particle *de* then seems to function as a nominalizer when it attaches to a relative clause.



It is necessary to examine whether this proposal has the same effect on N'-deletion facts as Saito et al's (2008) analysis. If it does, hypothesis (5) that the underlying structure of Chinese has been head-final throughout its history will be defended.

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**to victory 構文の構成性について\***  
(On the Compositionality of the *to victory*  
Construction)

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キーワード: *to victory* 構文, 非下位範疇化  
名詞句, 単一事象化, 着点句

## 1. はじめに

英語には(1)に示すように、一見すると *to victory* が結果句のような役割を果たしている文があり、本稿では *to victory* を文末に伴う表現を *to victory* 構文と呼ぶ。Iwata (2020) では *to victory* は主語指向の結果述語であることから、このタイプの結果構文を直接目的語制約に従わない新しいタイプの結果構文として分析している。

- (1) a. He rode the horse to victory.  
b. Princess Anne rides to victory  
(Iwata (2020: 385, 387))

本稿では、語彙意味論の立場から *to victory* 構文を考察し、特に動詞を中心とした意味構造を観察することで、*to victory* は結果句ではなく着点句として機能している点を明らかにする。具体的には、*to victory* の指向性を正しく予測できる点を事象構造の単一事象化の観点を交えて示し、*to victory* は結果句ではなく着点句であり、経路と到達の意味を保持している点、そして非下位範疇化名詞句を伴う *to victory* 構文は、動詞 *lead* が基底構造に

ある点を動詞の意味構造やコーパスデータ、*One's Way* 構文との比較の観点から論じ、本構文に観察される様々な経験的事実に説明を与える。

## 2. 先行研究: 岩田(2019)と Iwata (2020)

筆者の知る限り、これまでの結果構文研究の中で *to victory* 構文を取り上げた先行研究は岩田(2019)と Iwata (2020)のみである。Iwata (2020)によると、(1a)は通常、*to victory* は主語 *He* の結果状態を表しており、目的語の *the house* には動詞による力の伝達 (*force-transmission*) が及ばない点を指摘している。また、この *to victory* が主語指向であるという根拠として、動詞 *ride* は(1b)のような自動詞文でも適格となり、*to victory* は主語の結果状態のみを描写している点を挙げている。

Iwata は(2)で示す概念メタファーを想定することで、本来は「ゴールへの到着」を表す *to victory* がメタファー拡張によって「ゴールの達成」を表すことができ、結果句としての解釈が立ち上がると指摘している。

### (2) 概念メタファー: ACHIEVING A GOAL IS REACHING A GOAL (Iwata (2020: 392))

次に、Iwata (2020)では、*to victory* が非下位範疇化名詞句と共起する例についても分析を与えている。(3a)では、非下位範疇化名詞句の *England* は自動詞 *bowl* の *force-recipient* となることから使役移動文の解釈となり、自動詞結果構文と同様、*to victory* は目的語位置の *England* の結果句として機能すると説明している。<sup>1</sup> 一方、(3b)の目的語 *the horse* は行為の働きかけの対象とならないため単純移動の解釈となり、主語の結果句として機能する点で両構文は異なるとしている。

- (3) a. He bowled England to victory.  
b. He rode the horse to victory. (=1a)  
(Iwata (2020: 394))

Iwata (2020)の議論が結果構文研究に新たな観点を提示した点は高く評価されるが、force-recipient に基づく分析の問題点として以下の2点が挙げられる。まず、動詞 ride においても to victory が目的語指向になる場合があり、使役移動文として目的語への動作の働きかけが観察される例が存在する点である。次に、非下位範疇化名詞句を伴うパターンでは、(4a)が示すように to victory 構文は目的語位置に再帰代名詞の生起を容認せず、通常の自動詞結果構文とは異なる振る舞いをすることから、新たに説明が必要となる。

- (4) a. \*?He {bowled/ swam} himself to victory.  
b. He {ate/ drank} himself to death.

### 3. 考察

#### 3.1. 二つのタイプの ride (NP) to victory

本節では、動詞を中心とする意味構造を明らかにすることで to victory の指向性が正しく予測でき、その指向性の違いを Rappaport Hovav and Levin (2001)が提唱する事象構造と意味表示を用いて記述できる点を論じる。

まず、動詞 ride を取り上げる。Iwata (2020)の主張とは異なり、to victory 構文は(5)のように受動文として用いられる例があり、to victory は競走馬である Prince of Penzance を叙述していることは明らかである。一方、(6a)を受動化した(6b)は容認されないことから、常に ride が受動化を容認するとは限らない。

- (5) Weir trained the New Zealand thoroughbred Prince of Penzance, which was ridden to victory at the 2015 Melbourne Cup by the first female jockey to win the race, Michelle Payne. (Google)<sup>2</sup>
- (6) a. Republicans successfully mobilized their own core voters and rode an anti-incumbent vote to victory. (COCA)

- b. \*The anti-incumbent vote was ridden to victory by the candidate.

辞書の定義によると、「馬やその他の乗り物に跨り/乗り、それを操りながら移動する」意と、「水や気流によって浮かぶ/支えられる」意が記載されている。この辞書の定義から二つの事実が浮かび上がる。まず一つは、ride の目的語として HORSE タイプと WAVE タイプがある点。次に、両方の意味において自動詞用法と他動詞用法があることから、目的語が顕在化する場合としない場合がある点である。

- (7) ride: [T, I] to sit on a horse, etc. and control it as it moves  
[T, I] to float or be supported on water or air (OALD<sup>9</sup>)

HORSE タイプの場合では、騎手が馬をコントロールして移動する/させることから、主語と目的語のどちらが前景化するかによって、単純移動と使役移動の違いが生じると考える。実例からは、馬術競技では主語の競技者が、競馬では目的語の競走馬が前景化しやすい傾向が見て取れる。一方、WAVE タイプは波や気流に後押しされて進む移動を表すことから、目的語に対するコントロール性は低く、意識的な行為が目的語に及んでいない点で受動化を容認しないと説明づけることができる。

次に to victory の指向性の違いについて、事象構造と意味表示を用いた記述を試みる(Rappaport Hovav and Levin (2001), 出水 (2018))。従来、(8a)のような裸 XP を取る結果構文は、複合事象で表記されてきたが、Rappaport Hovav & Levin (2001)では(8b)のような意味表示を与え、複合事象の単一事象化を提案している。この事象の同一認定が行われるための条件として Levin & Rappaport

Hovav (1999)で規定したものが(9)である。

- (8) a. Kim ran into the room.  
 b.  $\exists e$  [RUN-INTO (e) & AGENT-THEME (e, KIM) & GOAL] (e, room)]  
 (Rappaport Hovav & Levin (2001: 782))
- (9) 事象の同一認定が行われるための二つの条件：1) The subevents must have the same location and must necessarily be temporally dependent. 2) One subevent must have a property that serves to measure out that subevent in time; this property is predicated of an entity that is necessarily a participant in both subevent.  
 (Levin & Rappaport Hovav (1999: 213))

出水(2018)では、Rappaport Hovav & Levin (2001)の主張を具体的な事例分析に落とし込み、複合事象の単一事象化を試みている。出水によると、(10a)が示すように従来 walk の主語は下位事象 1 では x 項、下位事象 2 では y 項でそれぞれ示されていたが、この x と y が同一指示物であり、かつ to the park が時間的尺度となっていることから、(10b)のように下位事象が統合されて単純事象として表示することが可能となる。

- (10) walk to the park の意味表示：
- a.  $[[x \text{ ACT}_{\langle \text{WALK} \rangle}] \text{ CAUSE } [\text{BECOME } [y \text{ } \langle \text{TO} \rangle \text{ } z]]]]$   
 b.  $[x-y \text{ ACT}_{\langle \text{WALK} \rangle} - \text{BECOME } [\langle \text{TO} \rangle \text{ } z]]$   
 (出水 (2018: 136, 145))

本稿では、出水 (2018)で提案された意味表示に基づき、to victory 構文にも複合事象の単一事象化が適応すると考える。そこで、動詞 ride は the horse を意味に内包できることから、目的語位置の the horse は行為が及ぶ対象ではなく、手段(様態)を表す要素として動詞の内部に組み込まれる意味表示を提案する。

(11)では、下位事象 1 の x 項と下位事象 2 の y 項が同一指示物であり、to victory が時間的尺度となることから事象が結合して単一事象化する。その際に下位事象 1 の y 項は ACT-AS-RIDE- $\langle y \rangle$ として動詞の意味関数の中に現れるため、z 項に到着するのは動作主である x 項となる。これにより「x が馬に乗る」事象と「x が着点に到達する」事象を同一事象として見なすことができ、図 1 に示す因果連鎖を単純事象構造で記述できる。

- (11) He rode the horse to victory. (=1a)  
 $[[x \text{ ACT}_{\langle \text{RIDE} \rangle} \text{ ON } y] \text{ CAUSE } [\text{BECOME } [y \text{ } \langle \text{TO} \rangle \text{ } z]]]$   
 ACT

He  $\longrightarrow$  to victory  
 $[x \text{ ACT-AS-RIDE-}\langle y \rangle - \text{BECOME} \langle \text{TO} \rangle \text{ } z]$   
 図 1. 単純事象の因果連鎖と意味表示

一方、to victory が目的語指向になる場合は、図 2 の因果連鎖が示すように、動詞 ride の行為が直接的に the horse に加えられる使役移動文の解釈となる。この場合、下位事象 1 の x 項と下位事象 2 の y 項の参加者が一致せず、(9)の条件を満たさないため、図 2 のような複合事象で表示できる。

- ACT ON                      CHANGE  
 He  $\longrightarrow$  the horse  $\longrightarrow$  to victory  
 $[[x \text{ ACT}_{\langle \text{RIDE} \rangle} \text{ ON } y] \text{ CAUSE } [\text{BECOME } [y \text{ } \langle \text{TO} \rangle \text{ } z]]]$   
 図 2. 複合事象の因果連鎖と意味表示

以上から、事象構造の単一事象化を想定することで、to victory の指向性の違いを単純事象と複合事象の意味表示を用いて適切に記述できると考える。

### 3.2. その他の動詞と共起する to victory

本節では、ride 以外に to victory と共起する動詞を観察することで、to victory が着点句としての意味機能を果たしている点を論じ

る。WB を用いて生起頻度と動詞の分布を調査したところ、自動詞では上位 10 語は *cruise* (191), *storm* (131), *romp* (88), *sweep* (70), *stroll* (41), *roar* (38), *ease* (37), *ride* (30), *lead* (29), *power* (28)であった。*sweep* と *lead* 以外は全て特定の様態を伴った移動を表す自動詞が高頻度で生起している。

また、他動詞では *lead* (321), *help* (88), *guide* (61), *captain* (56), *inspire* (53), *ride* (47), *bowl* (36), *carry* (34), *steer* (32), *propel* (28)が上位 10 語を占めており、その特徴として対象を勝利へと導く意の動詞が多く現れることが分かる。特に *lead* は全体の 26%を占めており、他の動詞に比べて突出した生起数となっている。この点については次節で検討することとする。

これらの量的調査から *to victory* と動詞の共起傾向として、自動詞は *cruise* など移動の意を表す動詞、他動詞は *lead* など対象を勝利へと導く意を表す動詞が典型的に現れており、これは *to victory* が着点句として機能している可能性を示唆している。

Iwata (2020)が指摘しているように、*to victory* 構文は移動を伴わない動詞にも現れる。例えば、*battle* タイプの動詞は(12b)が示すように *to victory* と共起することで抽象的な移動を表す解釈となるとしている。

(12) a. *run to the store* (=spatial motion)

b. *battle to victory* (=metaphorical motion)  
(cf. Iwata (2020: 393))

以下では、同じ *battle* タイプである動詞 *beat* を取り上げ、移動を伴わない動詞においても *to victory* と共起することで物理的な移動を表出する実例を取り上げ、*to victory* が動詞によって導かれる結果句ではなく、着点句であることを明らかにする。

前節で論じた動詞 *ride* と同様、*beat* に関しても *to victory* の指向性に違いが見られる。

(13)は共に受動文であるが、(13a)ではレースに勝利したのは *by* 以下の *Lewis Hamilton* であるのに対し、(13b)では競走馬の *Ballabriggs* が勝利した解釈となる。

- (13) a. Although Max Verstappen was beaten to victory in the F1 season opener by Lewis Hamilton's Mercedes, Red Bull thinks the pace it showed throughout the Sakhir event has put it in the frame for a title challenge.  
b. Two horses died in last year's race and the exhausted Ballabriggs was beaten to victory by his jockey Jason Maguire, who was banned for five days for excessive use of the whip. (Google)

辞書の定義を確認すると、動詞 *beat* は *beat 1* として競技で「打ち負かす、打ち破る、勝る、凌ぐ」という意味を持つことから、(15)が示すように複合事象と単純事象のそれぞれの構造で表記できることが分かる。特に(15a)の複合事象に注目すると、「打ち負かす」意味では、動詞 *beat* によって相手が「負かされる」という結果状態を内包することから、結果項 *z* には *BEATEN* が入ることになる。したがって、*to victory* は動詞から導き出される結果述語ではないと判断できる。

(14) *beat* の辞書的意味：

- beat 1* : COMPETITION/ELECTION [T] to defeat or do better than  
*beat 2* : HIT [T] to hit someone or something many times with your hand, a stick etc  
(LDOCE<sup>6</sup>)

(15) *beat 1* の意味表示：

- a. [[x ACT ON y] CAUSE [BECOME [y <BEATEN>]]]  
b. [x ACT-<BEAT> ON y]

この辞書的意味を考慮しながら(13a)に立ち

返ると、この記事が F1 レースに関することから、Hamilton が Verstappen とのマッチアップを制して優勝したことが分かる。つまり、経路を伴うレース競技の場合、競技者は経路に渡って他の選手との競い合いを凌いで (beat) 勝利する (to victory) ことから、この経路を伴う解釈は to victory が結果項ではなく着点項として z 項に現れる根拠となる。この場合、下位事象 1 の x 項と下位事象 2 の y 項が同一指示物である Hamilton を指すことから単一事象化が可能となり、Verstappen は y 項として動詞の動詞 beat の中に様態の一部として表記される。これにより、例文(13a)の意味表示として単純事象[x ACT-AS-BEAT-<y>-BECOME <TO> z]と示すことができる。

一方、beat 2 は打撃接触動詞であることから(16)のような意味表示で記述できる。(13b)は、x 項の騎手が y 項の馬を鞭で叩いて勝利に導いていることから使役移動文の解釈となり、複合事象[[x ACT-<BEAT> ON y] CAUSE [BECOME [y <TO> z]]によって示される。

(16) beat 2 の意味表示 : [x ACT-<BEAT> ON y]

同様の議論は他の動詞にも当てはまる。(17)が示すように、kick 自体に移動の意味は内包しないが、to victory と共起することで「力強くバタ足をする、地面を蹴る、ペダルをこぐ」などのように、競技特有の様態を伴ってゴールまでの経路を移動する解釈となる。この解釈は動詞 kick が to victory と共起して初めて生まれるものであり、to victory が経路の着点を表す意味機能を果たすことで本来的には kick に含まれない競技特有の様態が解釈の段階で付与されると考える。

(17) a. So we're really hoping :PERSON: kicks to victory today in the women's 400m freestyle, defending the gold she won four years ago. (WB)

- b. Schneider, Avila kick to victory at the USATF 1 Mile Road Championships presented by Toyota (Google)
- c. The 56th presidential cycling tour of turkey Mark Cavendish kicked to victory in general individual category (Google)

#### 4. 非下位範疇化名詞句を伴う to victory 構文

本節では、to victory 構文が非下位範疇化名詞句と共に起する要因に関して、動詞 lead が基底構造にあり、その意味構造を保ったまま動作の様態として様々な競技に関する動詞が<LEAD>の位置に代入するという立場を取る。以下ではその根拠を三つの観点から示す。

##### 4.1. 通時的観点

通時的観点から OED で動詞 lead を調べると、「司令官が先頭に立って兵隊の動きを指揮する」という軍事的な意味で使われる lead が 900 年に初出している。このことから、COMPETITION IS WAR という概念メタファーが成立し、「人がチームを勝利へ導く」と言うフレームが立ち上がることで競技への転用が可能となったと考えられる。

(18) lead: Of a commander: To march at the head of and direct the movement of. (OED)

(19) COMPETITION IS WAR  
(cf. Lakoff & Johnson (1999))

##### 4.2. WB による量的分析と動詞 lead の意味

前節で示したように、WB を用いて to victory 構文が他動詞と共に起するパターンを調べると lead は全体の約 26%を占めており、他の動詞と比べて高頻度で生起している。また、1、2 例しか生起しない極めて頻度の低い動詞群が全体のおよそ半数を占める。この量的特徴は to victory が構文化している可能性を示唆している。すなわち、make を基底構



造に取る One's Way 構文と同様、プロトタイプとなる動詞の意味構造が定着し、動詞の意味自体が希薄化することで様々な動詞が代入できるようになり、言語使用者が言葉遊びやユーモアなどを交えて意識的に特徴的な動詞を使用することから、これらが構文化の指標として重要な意味を持つと考えられる。

次に、動詞 lead の意味構造に注目してみよう。Levin (1993)でも示されているように、他動詞の lead は「x が y をある場所へ導く」という意味から、2つの参与者が構文項として設定されているため、主語と目的語はそれぞれ NP<sub>i</sub> と NP<sub>j</sub> のように異なる語彙要素が必要となる。この lead の意味構造から、原則的に下位事象 1 の x 項と下位事象 2 の y 項とが同一指示物になることはないため、lead は常に y 項の着点として to victory が現れることになる。これにより、非下位範疇化名詞句を伴う to victory は常に y 項の着点項となることから目的語指向の解釈のみ可能となる。

動詞 lead の意味構造の妥当性はコーパスデータからも裏付けられる。WB で[NP<sub>i</sub> lead NP<sub>j</sub> to victory]の生起パターンを検索すると、全部で 101 件検出された。興味深いことに、検出された全ての例で NP<sub>i</sub>には有生の動作主またはチーム名が現れており、無生物を主語に取る例は検出されなかった。また NP<sub>j</sub>の位置に再帰代名詞が生起するパターンについても一例も見られない事実は注目に値する。

以上から、to victory 構文が非下位範疇化名詞句と共起するパターンでは(20)のように動詞 lead の意味表示を基底構造とし、その動詞の位置に競技特有の動詞が代入することによって、(21)のような非下位範疇化名詞句を伴う表現が可能になると考える。また、(4a)で示した不適格性も説明づけることができ、to victory 構文が自動詞結果構文とは異なる振る舞いをする根拠となる。

(20) [NP<sub>i</sub> lead NP<sub>j</sub> to victory]の意味表示：

[[x ACT<LEAD> ON y] CAUSE [BECOME [y <TO> victory]]]

(21) [NP<sub>i</sub> bowl NP<sub>j</sub> to victory]の意味表示：

[[x ACT<BOWL> ON y] CAUSE [BECOME [y <TO> victory]]]

#### 4.3. One's Way 構文との棲み分け

WB で非下位範疇化名詞句と to victory が共起するパターンを検索すると、目的語に one's way を伴う例が多く検出される。また、動詞に注目すると非下位範疇化名詞句を伴う to victory 構文と One's Way 構文とでは、競技における特定の動作を表す動詞の多くを共有しており、両構文の親和性の高さが垣間見える。動詞 swim を例に挙げると、(22a)のように主語と目的語とが一致しない場合は to victory 構文が使用されるが、(23a)のように主語と目的語が一致する際には One's Way 構文が使用されるという棲み分けが見られる。すなわち、to victory が目的語位置に再帰形を取る場合、再帰代名詞ではなく one's way が使用されることから to victory の着点句としての意味機能を保持していることは明らかであり、これらの事実は以上で論じた本稿の主張を裏づけるものとなる。

(22) a. [NP<sub>i</sub> V<sub>non-sub</sub>NP<sub>j</sub> to victory]

b. Dube, Li swim Natick to victory

(23) a. [NP<sub>i</sub> V<sub>non-sub</sub>NP<sub>i</sub> to victory]

b. Headington Prep girls swim their way to victory (Google)

#### 5. おわりに

本稿では語彙意味論や語法的な分析手法を基に、to victory 構文の構成性を明らかにし、to victory の指向性は動詞の意味によって正しく計算できる点、その指向性の違いを意味表示の違いで記述できる点、さらに非下位範疇化名詞句のパターンでは動詞 lead が基底構造として存在し、競技特有の動作を表す動詞

が代入している点を明らかにした。

本稿で示したように、従来の語彙意味論の枠組みに語法的な意味分析を取り入れることにより、結果構文研究の進展とさらなる理論の精緻化に大きく貢献できると考える。

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#### 注

<sup>1</sup> Iwata (2020)では(a)のような自動詞結果構文を(b)のようにパラフレーズしている。the predator eat the lake が示すのは捕食動物が湖から生物を口に入れ、咀嚼し、飲み込む一連の行為を表し、「捕食動物が湖から生物を食べることで取り除く」という行為を the lake に与えることから、the lake は動詞 eat の force-recipient として解釈される。

- (i) a. The predator ate the lake clean.  
b. The predator did an 'EAT-AS-REMOVE FROM' action on the lake, and as a result the lake became clean.

(Iwata (2020: 142))

<sup>2</sup> 本稿で採用する Google の例は原則的に WB で検出されたものを使用している。WB は近年ノンフィクションの分野において個人名や団体名を匿名化していることから、原典の記事を Google より引用している。

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## 語彙部門から生じる言語間変異：

### 英語獲得に基づく検討

(Parametric Variation in the Lexicon:

A View from Child English)

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キーワード：パラメータ，他動詞 *need*，  
*wh* 不定詞節，母語獲得

## 1. はじめに

生成文法におけるミニマリスト・プログラムでは、ヒトの言語の起源・進化を解き明かすことを目指し、母語獲得のための生得的な仕組みである UG に固有の属性を最小化することに取り組んでいる。この取り組みの一環として、言語の可能な異なり方を生得的に規定する「パラメータ」に関して、その所在を統語演算システムの内部に求めるのではなく、外在化(externalization)のプロセスや語彙部門(lexicon)に限定する可能性が追求されている(Borer (1984), Chomsky (1995, 2017))。本講演では、語彙部門から生じる言語間変異に関する近年の提案として Harves & Kayne (2012)および Sabel (2020)による研究を取り上げ、英語を母語として獲得中の幼児の自然発話を詳細に分析することによってそれらの提案の妥当性を検討した。

## 2. 他動詞 *need* の言語間変異と獲得

Harves & Kayne (2012)によると、英語の *need* に相当する「他動詞」(主語が主格を担い、目的語が対格を担ってかつ前置詞を伴わずに現れる動詞)は H(ave)言語の一部におい

てのみ観察され、B(e)言語にはみられない。H 言語とは、英語の *have* に相当する所有を示す他動詞を持つ言語であり、B 言語とは、英語の *have* に相当する他動詞を持たず、*be* 動詞に相当する語を用いて所有を表現する言語である。Harves & Kayne (2012)による言語間変異に関する観察の一部を(1)に示した。

### (1) *have* と *need* の言語間変異

言語	所有	他動詞 <i>need</i>
英語	<i>have</i>	あり
スペイン語	<i>have</i>	あり
フランス語	<i>have</i>	なし
ロシア語	<i>be</i>	なし
アイルランド語	<i>be</i>	なし

「*need* に相当する他動詞を持つ言語は H 言語の一部に限られる」という一般化を英語の獲得の観点から述べ直すと、他動詞 *have* に関する知識が他動詞 *need* に関する知識の真部分集合(proper subset)を成していることになる。このことから、英語の獲得においては、①*have* を *need* よりも先に獲得する幼児と②*have* と *need* をほぼ同時に獲得する幼児は存在しうが、③*need* を *have* よりも先に獲得する幼児は存在しないことが予測される。

CHILDES データベース (MacWhinney 2000)に収められた英語を母語とする幼児 10 名分の自然発話コーパスを詳細に分析した結果、上記の①のタイプの幼児が 4 名、②のタイプの幼児が 6 名観察され、③のタイプの幼児は観察されなかった。したがって、英語の獲得過程から得られた事実は、Harves & Kayne (2012)の他動詞 *need* の言語間変異に関する提案を支持するものである。

## 3. *wh* 不定詞節の言語間変異と獲得

Sabel (2020)によると、*wh* 句によって導かれる不定詞節が埋め込み文として現れるこ

とができるか否かは言語によって異なり、英語はこのような *wh* 不定詞節を許容するが、ドイツ語は許容しない。

(2) a. 英語

Lisa has decided [*whom* to visit *t*].

b. ドイツ語

\* Lisa hat entschieden

Lisa has decided

[ *was* Tom *t* zu sagen ].

what Tom.DAT to say

‘Lisa has decided what to say to Tom.’

Sabel (2020)は、*wh* 不定詞節を許容する言語は、(3a) のような前置詞的補文標識 (prepositional complementizer; PC)によって導かれた不定詞節(PC 構文)を持つ言語の一部に限られると提案した。Sabel (2020)による言語間変異に関する観察の一部を(4)に示した。

(3) a. 英語

I want [<sub>CP</sub> (for) [<sub>TP</sub> John to win]].

b. ドイツ語

\* ... dass sie versuchte

that she.NOM tried

[<sub>CP</sub> um [<sub>TP</sub> das Buch zu lesen ]].

COMP the book to read

‘... that she tried to read the book.’

(4) *wh* 不定詞節と PC 構文の言語間変異

言語	<i>wh</i> 不定詞節	PC 構文
英語	あり	あり
スペイン語	あり	あり
中英語(ME)	なし	あり
スウェーデン語	なし	なし
デンマーク語	なし	なし

「*wh* 不定詞節を許容する言語は PC 構文を持つ言語の一部に限られる」という一般化を英語の獲得の観点から述べ直すと、PC 構文

に関する知識が *wh* 不定詞節に関する知識の真部分集合を成していることになる。このことから、英語の獲得においては、①PC 構文を *wh* 不定詞節よりも先に獲得する幼児、および②PC 構文と *wh* 不定詞節をほぼ同時に獲得する幼児は存在しうるが、③*wh* 不定詞節を PC 構文よりも先に獲得する幼児は存在しないことが予測される。

CHILDES データベースに収められた英語を母語とする幼児 20 名分の自然発話コーパスを詳細に分析した結果、コーパスの終わりまでに両方の性質を獲得した幼児は 9 名であった。そのうち、上記の①のタイプの幼児が 1 名、②のタイプの幼児が 8 名観察され、③のタイプの幼児は観察されなかった。したがって、英語の獲得過程から得られた事実は、Sabel (2020)による *wh* 不定詞節の言語間変異に関する提案の予測と一致するものである。

#### 4. 結論

上記の 2 つの英語獲得に基づく事例研究は、言語間変異の源が語彙部門に存在する可能性を高めるだけではなく、母語獲得過程が言語間変異に関する理論的提案の妥当性を検討する際に重要な資料となりうることを示すものである。

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公開特別シンポジウム  
今、英語教育を考える  
-英語にかかわる研究の視点から-  
(What Can/Should We Do Now on  
English Education?:  
Proposals from English-Related Studies)

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キーワード: 文法, ポライトネス, 仲介, 翻訳, プロソディ

## 1. はじめに

本シンポジウムは、大学入学共通テストへの民間試験導入にかかわる議論が錯綜していた中で、英語を対象とする研究者の集団であり、多くの会員が大学等で英語を教える立場にある日本英語学会として、今の英語教育に対する発信が必要ではないかという意識のもとに企画され、日本英文学会との共催という形で実現したものである。当初、2020年度の大会で実施の予定であったが、感染拡大の影響で1年延期してオンラインでの開催となった。

民間試験導入にまつわる騒動の根底にあったのは「4技能をバランスよく育成する」という教育目標であった。民間試験導入は正式に見送ることが公表されたものの、「4技能」のバランスが良いとは何を意味するのか、「4技能」のすべての基本となる基礎力（文法力、語彙力）の養成が疎かになっていないか、といった英語教育の根幹にかかわる議論は依然として尽くされていない。

新指導要領に従って教育を受けた学生を大学に迎える準備が本格化する今こそ、改めて英語教育の本質を問うことに意味がある。その思いが共有されたことが、高校生を含めて約280名の非会員の参加登録、当日参加者約400名という本シンポジウムの「盛会」につながったものと考えている。参加者の皆さんに、この場を借りて感謝したい。

本シンポジウムは、英語にかかわる様々な研究分野から英語教育を見るという趣旨で、以下のような構成をとった。

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### 講師1 長谷川信子

文法研究の立場から

### 講師2 井上逸兵

コミュニケーション研究の立場から

### 講師3 阿部公彦

英文学研究の立場から

### 指定討論者1 白畑知彦

第二言語習得研究の立場から

### 指定討論者2 水口志乃扶

L2音声習得研究の立場から

以下に、各講師・指定討論者の発表の要点をまとめる。

## 2. (講師1) 句構造と機能語、主語 vs. 主題 (長谷川)

この発表では、英語教育の現状と問題点を

俯瞰した上で、「文法への依存」のより大きい指導にシフトすることによって、認知的に複雑な内容をも扱うことのできる英語の運用力を養成することができると提案した。

言語には、(i)感情や気持ちを表現する、(ii)思考を形成し、伝達するという役割があるが、コミュニケーション重視の英語教育の中で(ii)が軽視されてきている。(i)は場面への依存が大きく、(ii)は文法（つまり、文の構造およびその構築に関わる前置詞や助動詞などの機能範疇の理解）への依存が大きい言語使用であると言える。(i)を重視することによって、CEFRのAレベルでの「言語使用による成功体験」をもたせることに成功しているが、そこから「より高度な認知活動」に移っていくことが難しい。大学レベルで、文法知識が不十分であるために、内容語だけを並べて総合的に理解している者が多い。

文法体系としての階層構造を考えると、思考（命題）を表現するTP領域、さらに発話行為的意味を表すCP領域の理解が、(ii)の言語機能を身につけるためには必須である。

教室外での英語使用の機会が限定的であり、授業時間数も多くない日本の英語教育には、第二言語として英語に日常的に接する欧米の英語教育モデルを、そのままの形で導入することは適切ではない。

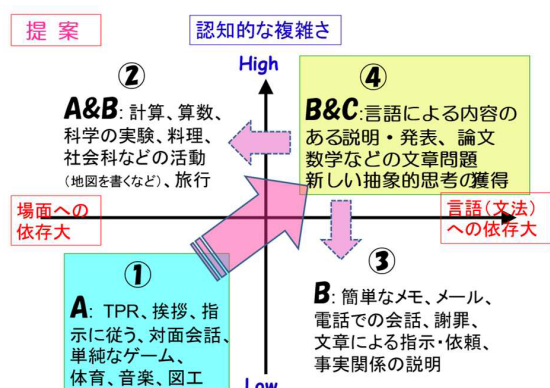


図1：日本型英語教育の提案

図1のように、「場面への依存」と「文法

への依存」を横軸に、認知的な複雑さを縦軸に取った場合に、①→②and/or③→④と進んでいく欧米のモデルではなく、文法知識をしっかりと身につけることを基盤として①から④に進み、必要に応じて②・③に進むプログラムが望ましい。

### 3. (講師 2) いわゆる「AI 時代」の英語教育 (井上)

AI による機械翻訳の質が飛躍的に向上していると言われる今、「英語は勉強しなくて良いのではないか」という問いが生じている。本発表では、その問いにどう答えるべきか、「AI 時代」の英語教育は何を目指すべきかを、機械翻訳と、人間（翻訳者）による翻訳との比較を行うケーススタディを通して検討した。ケーススタディの題材として TED の講義を用い、文字テキストで表すことのできる情報に加え、イントネーション、ポーズ等のプロソディも検討材料に含まれている。

人の手による翻訳と比較すると、機械翻訳は、特に(i)対人的な配慮の理解や(ii)慣習化された副次的シグナルの理解を必要とする翻訳において、質が低下することがわかる。たとえば、失礼に当たる直接的な表現を避ける言い回しが、機械翻訳では訳し落とされていたり、文脈やイントネーションによって相手に同意しているのではないことが明白な“OK”を機械翻訳は「OK」と訳してしまう、といったことが観察された。社会言語学の基本であるポライトネスやコンテクスト化の合図（contextualization cues）が、機械翻訳は苦手だと言ってもよい。

一方、取扱説明書やマニュアルなどの説明的な文章については、機械翻訳はかなり質が高いことが知られている。機械翻訳には得手・不得手があるのである。

このように考えると、「AI 時代において英語学習は必要か」という問いの答えは、「何を目的とするのか」によって異なってくること

がわかる。簡単な道案内をできるようになるために、四苦八苦して英語を学ぶ必要はないかもしれないが、真に相互の意図を理解できるようなコミュニケーションを目的とするなら、機械翻訳は（少なくとも、「まだ」）不十分である。学ぶ側の必要に応じてカスタマイズした英語教育の重要性が示唆される。

#### 4. (講師 3)「4 技能均等」の限界とその先(阿部)

2020 年の大学入試の大混乱は教育行政が「入試いじり」などの制度改革にとらわれすぎ、肝心の教育内容については「4 技能をバランス良く」といったキャッチフレーズを掲げるばかりで十分な吟味を行わなかったことに大きな原因がある。

日常生活で英語を使う機会がほとんどない日本の多くの若者に対して、一律に「均等な 4 技能」を求めることに意味はあるのか。中等教育においては技能を 4 つに分ける以前の「体幹」を鍛えることが大事ではないのか。基礎力が身につくのであれば、将来、それぞれの必要に応じてさまざまな技能を伸ばしていくことができるのではないか。

この「体幹」とあわせて大事なものは、母語と異なる言語を学ぶことによって身につく「母語を相対化する」力である。この力は、ものの考え方、世界を把握するための枠組みの作り方などにおいて柔軟な切り換えを可能にし、異なる価値観への寛容さを育む。その意味で、将来的に英語を実際に使う機会をもたないような学習者にとっても、極めて重要な意義をもつ。

このような切り換えの能力は、一つのシステムのコードを別のシステムのそれに変換する広い意味での「翻訳」あるいは「仲介」の作業を通して鍛えられる。本発表ではそうした作業の典型例とみなせる文学作品中の自由間接話法に着目した。作家が登場人物の内面に踏み込み、その「心の声」に表現を与

える自由間接話法においては、直接話法と間接話法を折衷することによって、「外の声」と「内の声」という二つの異なるシステム間の「翻訳」に光が当てられるのである。

このような「翻訳」に困難が伴い、しばしばズレが生じること、しかしそのズレこそが表現の可能性を生むことを文学研究は明らかにしてきた。日英語という異なる言語間の翻訳も、翻訳の困難や翻訳によって生じるズレについて学んだり、他者に歩み寄ることで自己を相対化したりする機会を提供するはずである。

#### 5. (指定討論者1) 第二言語習得研究からの英語教育への示唆(白畑)

学習時間も教室外での英語の使用の機会も限られている日本の英語教育の現状を踏まえれば、海外、特に欧米の英語指導法をそのまま導入することは賢明とは言えない。

日本でかつて中心的であった文法・訳読式の指導は、「英語を話せない」ことの要因として批判されてきたが、文法・訳読式の授業が話せないことの原因であるとは言えない。話す練習をすることは重要であるが、同時に、抽象的な思考を支える複雑な文構造を理解するために、母語（日本語）を介在させる指導も必要である。

母語の助けを借りる指導法の一つに、「和訳先渡し指導」がある。リーディングで扱う英文の和訳をあらかじめ配布しておくことで概要の理解を助け、授業では英語そのものを読み、質問に答えたり、内容について自分の意見をまとめたりする活動を活発に行うことができる。しかし、自分で考えること、自分の力で日本語と英語という異なる言語間の翻訳を試みることにいった外国語教育の根幹部分を損なう可能性があるという批判もある。賛否両論ではあるが、このような指導法を検討していくことに意味があるのではないか。

そして、冒頭に述べた日本の英語教育の環境を考えれば、文法を明示的に教えることが適切な指導法であると考え。ただし、一方通行で教えるのではなく、グループワークなどで学習者自身が例文から文法の規則を見出していくことができるような、興味を持たせる工夫が必要である。

## 6. (指定討論者2) 脱「日本人の英語」に向けて (水口)

「伝わる英語」を話すためには、正しいプロソディ (音調、音調句(以下IP (intonation phrase))、卓立) を身につけることが重要であるが、現状ではプロソディ教育はほとんどなされていない。

英語自然発話の知覚実験では、日本語を母語とする英語学習者は、英語母語話者と比較して、上位統語範疇 (文/補文標識、接続詞) と非統語範疇 (談話標識、言いよどみ) をIP認識の手がかりとして用いる傾向が弱いことがわかっている。また、日本語母語話者の英語発話では、卓立を誤配置する傾向がある。英語の卓立はデフォルトでIPの最後の内容語に置かれるので、IPを正しく認識しなければ卓立を正しく置くことはできない。IP認識にも、ヘッダの認識にも、文法力が必須であり、つまり自然発話を聞き取るためにも、発話において正しく卓立を置くためにも、文法力が重要である。

「日本人の英語」の特徴は、(1)正確な音素産出ができない、(2)卓立の概念がなく、卓立を誤配置する、また卓立を置く母音の時間長が短い、(3)ピッチレンジが狭い、などが顕著であるが、これらは、音声学を理解している教員が適切に訓練することで改善する可能性が高い。たとえば、ピッチレンジは訓練によって広くなることが実験で確認されている。また、音素とプロソディの学習順序には順序効果があることがわかっており、訓練の順序についても検討が必要である。

## 7. まとめ

本シンポジウムでは、英語を対象とするさまざまな研究分野の視点から英語教育を捉えようとした。異なる立場からの提案がなされたが、以下のような共通項も浮かび上がってきた。

- ・教室外で英語を使う機会の少ない日本に、欧米の英語教育モデルをそのまま導入することの是非を問うべき

- ・学習者それぞれの目的、必要性に合致するように力を伸ばしていくことができるシステムが重要で、そのためには根幹となる基礎力を学校教育で鍛えておくのが良い

- ・基礎力の要となるのは文法の力と、母語と異なる言語との間で行うコードの変換 (翻訳) である

- ・母語が確立した段階で英語学習を始める日本にあっては、母語を介在させる指導法が効果的である

質疑応答では、チャット欄に書き込んでいただいた質問・コメントをスプレッドシートに転記して画面共有した。会員だけでなく、高校生、大学生や高校の先生方などからも様々な反応をいただいた。日本の英語教育の環境が欧米とは異なるという認識の重要性への共感が多く表明され、また、発音指導や文法指導のあり方、どのような目標を設定して授業を行うべきか、といった点についての質問やコメントなどが寄せられた。時間の制約で十分に議論できなかったことが残念であるが、論点の共有はできたと考えている。

今、英語教育を考えるにあたって、本シンポジウムの議論が少しでも役に立てば幸いである。



## Issues on Heads and Labeling\*

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Keywords: head, labeling, V-V complex,  
interface

## 1. Introduction

Labels of phrases and compounds have been playing a central role in generative linguistics since its onset: PS-Rules and X-bar theory are category-dependent (C-selection, for instance) and many phonological rules are sensitive to categories (labels) of the input (Chomsky (1965), Chomsky and Halle (1968), etc). In the traditional sense, the head of the phrase/compound is the element that determines the label, and word order is directly reflected by the position of the head. Chomsky (2013, 2015) propose that labels are identified by minimal search and are motivated by the interfaces. Notice, however, that part of the Chomsky's new implementation of labeling algorithm is not compatible with the traditional notion of heads. English  $T^0$ , for example, is a "head" in that it is  $X^0$  but it is not the label of a sentence (Chomsky (2013). Likewise, there are cases, both in Japanese and in English, where the role of the "head" is not straightforward in V-V complexes.

In this symposium, we raised the following issues to be explored about heads and labeling.

- (1) What is the role of labels at the interfaces?
- (2) Is the label of the same syntactic object the same across languages?
- (3) Is the label of the same syntactic object the same at the PF and the LF interfaces?
- (4) What is the function of the head (or the label) in [V + V] compounds?

## 2. Head of V-V Compounds in Japanese

The syntactic functions of  $V_1$  and  $V_2$  in a  $[V_1+V_2]$  compounds pose interesting questions concerning the role of the “head.” In some cases of “syntactic” verbal compounds (Kageyama (1993)), it is clear that  $V_1$  (e.g., *tabe*) assigns both Case and  $\theta$ -role to the object NP as in (5).

- (5) [VP<sub>2</sub> [VP<sub>1</sub> [NP gohan-o] [V<sub>1</sub> tabe]] [V<sub>2</sub> oeru]]  
 rice-Acc eat finish  
 ‘finish eating rice’

With “lexical” verbal compounds in (6), however, the syntactic functions of  $V_1$  and  $V_2$  seem to be complicated in some cases as in (7).

- (6) [VP NP [V V<sub>1</sub> V<sub>2</sub>]]
- (7) a. [VP [NP mozi-o][V [V<sub>1</sub> kaki][V<sub>2</sub> naguru]]]  
letters-Acc write punch  
'write letters roughly/carelessly'
- b. [VP [NP PC-o][V [V<sub>1</sub> moti][V<sub>2</sub> kaeru]]]  
PC-Acc bring go.home  
'bring the PC home'

In (7a),  $\theta$ -role is assigned by  $V_1$  *kaki* ‘write’, not by  $V_2$  *nagur* ‘punch’, to the NP *mozi* ‘letter’ (which is clear from the semantic selection) but ACC Case can be assigned by either  $V_1$  or  $V_2$  (since both are ACC Case assigners lexically). In (7b), in contrast, both  $\theta$ -role and ACC Case are assigned to the NP by  $V_1$  *moti* ‘bring’ since  $V_2$

*kaeru* ‘go.home’ is not an ACC Case assigner and does not select PC semantically. Nakamura, then, suggests that some “lexical” V-V compounds such as those in (7) are to be reanalyzed as “syntactic” compounds; specifically,  $V_1$  selects and Case-assigns to the object NP and the  $VP_1$  is then selected by  $V_2$ .<sup>1</sup>

Nakamura next observes the complex behaviors of passivization of V-V compounds. When we passivize lexical V-V compounds in (7a-b), the passive morpheme *-(r)are* is attached to  $V_2$ , not to  $V_1$ , as shown in (8) and (9).

- (8) a. *mozi-ga ... [v<sub>1</sub> kaki] [v<sub>2</sub> nagu]-rare-ta*  
 letters-Nom write punch-**Pass**-Pst  
 ‘letters were written roughly’  
 b. \* *mozi-ga ... [v<sub>1</sub> kak-are] [v<sub>2</sub> nagut]-ta*  
 letters-Nom write-**Pass** punch-Pst
- (9) a. *PC-ga ... [v<sub>1</sub> moti] [v<sub>2</sub> kaer]-are-ta*  
 PC-Nom bring go.home-**Pass**-Pst  
 ‘PC was brought home’  
 b. \* *PC-ga ... [v<sub>1</sub> mot-are] [v<sub>2</sub> kaet]-ta*  
 PC-Nom bring-**Pass** go.home-Pst

Note that  $V_2$  *kaeru* ‘go.home’ in (9) is not an ACC Case assigner. How is the passivization of  $V_2$  possible?<sup>2</sup> Nakamura further points out that there are three patterns of passivization observed with “syntactic” V-V compounds as in (10-12).

(10)  $V_2$  passivization

- a. *gohan-ga ... [v<sub>1</sub> tabe][v<sub>2</sub> oe]-rare-ta*  
 rice-Nom eat finish-**Pass**-Pst  
 ‘the rice was finished eating’  
 b. \* *gohan-ga ... [v<sub>1</sub> tabe-rare][v<sub>2</sub> oe]-ta*  
 rice-Nom eat-**Pass** finish-Pst

(11)  $V_1$  passivization

- a. \* *hon-ga ... [v<sub>1</sub> yomi][v<sub>2</sub> kake]-rare-ta*  
 book-Nom read start-**Pass**-Pst

- b. *hon-ga ... [v<sub>1</sub> yom-are][v<sub>2</sub> kake] -ta*  
 book-Nom read-**Pass** start-Pst  
 ‘The book was started to (be) read’

(12)  $V_1$  or  $V_2$  passivization

- a. *Seeto-ga...[v<sub>1</sub>home][v<sub>2</sub> tuduke]-rare-ta*  
 student-Nom praise keep-**Pass**-Pst  
 b. *Seeto-ga...[v<sub>1</sub>home-rare][v<sub>2</sub> tuduke]-ta*  
 student-Nom praise-**Pass** keep-Pst  
 ‘The student was keep (being) praised’

Nakamura introduces the representative previous research on the passivization of V-V compounds (Case transfer (from  $V_1$  to  $V_2$ ) approach by Miyagawa (1989) and Nishigauchi (1993), Argument Structure transfer approach by Rosen (1989), and  $\theta$ -mark doubling approach by Kageyama (1993)), and discusses that none of these alone may not be able to solve the issues of syntactic behaviors of V-V compounds. Nakamura suggests that it is important to incorporate these insights and explore a new solution based on the current labeling perspective.

### 3. How Labels Affect Morpheme Realization: A Study of V-V Sequences

Sugimura and Obata take up the morphophonological realization of tense affixes in V-V compounds in English, specifically focusing on the “go buy” construction as in (13).

- (13) John will go buy a book.

The construction must satisfy *inflection condition* ( $V_1$  and  $V_2$  must be a bare form) and *identity condition* ( $V_1$  and  $V_2$  must be morphologically identical) (Pullum (1990)).

- (14) \*He has gone bought ... /gone buy ...  
 (15) \*I go am /go be cheerful once a week ...

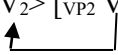
(16) Jacob has come shut the door.

(14) violates *inflection condition* and (15) violates *identity condition*. (16) is grammatical, satisfying both conditions (Bjorkman (2010)). Bjorkman proposes the following structure to explain the “go buy” construction, assuming that [Infinitive] feature of  $V_1$  spreads over  $V_2$ .

(17)  $[_{VP} \text{ go } [_{VP} V [_{VP} \text{ buy DP}]]]$

Sugimura and Obata point out two problems of Bjorkman’s proposal; (i) two VPs in (17) behave independently with respect to *do so* replacement but not with respect to VP-fronting; (ii) we need to postulate *inflection condition* and *identity condition* separately. To solve these problems, Sugimura and Obata propose that the V-V complex is derived from (18a) by  $V_2$  moving to  $V_1$  through Set Merge as in (18b). The label of the complex is  $\langle V_1, V_2 \rangle$ .

(18) a.  $[T \dots [_{V1} V_1 [_{VP2} V_2 DP] \dots ]]$   
 b.  $[T \dots [\langle V_1, V_2 \rangle \langle V_1, V_2 \rangle [_{VP2} V_2 DP] \dots ]]$



Assuming that T and V must be one-to-one relation in order to realize tense affix features on V, tense affix cannot be morphologically realized on verbs when the label is  $\langle V_1, V_2 \rangle$ . The phonetic form of the verbs cannot be determined and thus the structure is illegitimate at SM-interface with the examples in (19). The structure is grammatical only when tense feature realization is phonetically null as in (20) or tense remains on T as in (21).

(19) \*goes get/\*go gets/\*went get/\*go got/  
 goes gets/\*went got

(20) I go get ... /You go get ...

(21) has come hit/did not go get

*Do so* replacement is possible targeting  $VP_2$  in (18), but VP-fronting is not allowed because if  $VP_2$  is fronted, the trace of  $V_2$  will not be properly bound.

#### 4. Labeling for Interfaces

Concerning questions (2) and (3) above, Oku argues that the answer to (2) is positive and the answer to (3) is “not necessarily.”

Given Uniformity Principle (Chomsky (2001)) that languages should be uniform especially on the LF side, it would be ideal that the label of the same syntactic object is the same on the LF side across languages. Further, given that labels are motivated by interfaces (Chomsky (2013, 2015)), labels necessary for PF and those for LF can (should) be different since properties of both interfaces are quite different.

To illustrate the latter point, Oku takes up the contrast between English and Japanese in terms of scrambling and QR. Scrambling is possible in Japanese as in (22), and Saito (2016) argues that the contrast is explained by labeling: Japanese suffixal particles are anti-labeling device and thus the scrambled QP in (22), for example, is invisible from the labeling algorithm. The label of  $\alpha$  is uniquely identified as the label of the other constituent TP.

(22)  $[_\alpha [_{QP} \text{ dono ko-mo}]_i [_{TP} \text{ onnanokoga hitori } t_i \text{ every boy-MO girl one kisusita}]]$   
 kissed

(23)  $*[_\alpha [_{QP} \text{ every boy}]_i [_{TP} \text{ a girl kissed } t_i]]$

In English, in contrast, the label  $\alpha$  is not identified: Scrambling is not available as in (23). However, LF movement (i.e., QR) is possible in English: If the movement in (23) is covert, there

is no problem of labeling of  $\alpha$ . How can this be the case? Oku claims that on LF side, the universal quantifier *every* in (23) is semantically most salient (behaving a higher-order predicate taking TP as its complement) and is identified as the label  $\alpha$ , although the label cannot be identified on the PF side. This analysis, if on the right track, shows that labels necessary for PF and those necessary for LF can be different.

Lastly, Oku points out that the label of a sentence is  $\langle \phi, \phi \rangle$  in English (Chomsky (2013)) while it is TP in Japanese (Saito (2016)). That is, the same syntactic object (e.g., declarative sentence) has different labels on the LF side between Japanese and English, which is not desirable. Oku, extending Chomsky (2015), claims that “weak” T in English becomes “strong” by means of the feature sharing with the subject, and thus the label  $\langle \phi, \phi \rangle$  of a sentence eventually becomes TP in English, too.

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#### NOTES

<sup>1</sup> Nakamura assumes that  $V_1$  is actually a  $[\text{Root} + v_1]$  complex and  $V_2$  is a  $[\text{Root} + v_2]$  complex but here we just omitted these V-internal structures for the purpose of exposition.

<sup>2</sup> Note that (9a) does not necessarily have the adversative meaning, and thus it exemplifies a regular (not adversative) passivization which requires an ACC Case assigning transitive verb.

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## タスク指向対話データが拓く発話理解と 相互行為の言語研究

(Linguistic Research for Understanding  
Utterances and Interactions Driven by  
Task-Oriented Dialogue Data)

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キーワード：タスク指向対話コーパス，相互  
行為，合意形成，マルチモーダル，異文化理  
解

### 1. はじめに：趣旨説明（吉田）

自然な発話データの収集やコーパス構築は言語研究で欠かせないものとなりつつあるが、コーパスを利用しても日常のやりとりを網羅的に分析することは容易ではない。自然な発話データには、タスク指向型と非タスク指向型（雑談、自由会話など）がある。本シンポジウムでは、タスク指向型対話に焦点を当て、発表者らがこれまで取り組んできた研究で利用したコーパスについて、構築の目的やデザイン設計の多様性を概観し、その優位性と課題について検討した。

それぞれの発表では、日英の地図課題対話

（川端・吉田）、Mr. O コーパス（野村）、レゴ課題による多人数・異文化会話（谷村）、日英の救急医療場面のやりとり（土屋）を取り上げた。研究手法としては、ボトムアップで進行する発話のプロセスに注目した分析を行い、コーパスに共通する特徴である相互性、共同構築、知識の非対称性などを明らかにしつつ、発話理解と相互行為の言語研究に寄与することを目指した。

### 2. （発表1）共有信念の更新と構築—課題達成プロセスに特化する言語表現—（川端・吉田）

本発表の目的は、地図課題対話において、参与者間の共有信念が構築されるプロセスの一端を言語活動から明らかにすることである。地図課題対話は、2名の共同的課題遂行活動に基づく対話コーパスであるが、課題の遂行状況を参与者が視覚的に確認することができないという制約がある。このため、課題の進行に伴う物理的な状況の変化を両者で共有するためには、「共有信念の更新」というプロセスが重要であり、視覚的情報を補う多様な言語表現が課題遂行を促すための基盤となっていることを主張した。従来モデルの予想 (Grosz and Sidner (1990)) は異なるプロセスも観察されており、実際のデータから証拠を提示しながら、課題達成プロセスを検討した。

具体的には、英語コーパスからは、発話冒頭部で *new entities* として導入される名詞句表現や、従属節の主節化として分析される条件節などの逸脱的な文法事例の解釈を紹介した (Miller and Weinert (2009)、Yoshida (2011))。日本語コーパスでは、地図課題対話におけるタラ・ト・バ・ナラ条件節の使用を分析し、それぞれの条件節の使用傾向に明確な違いがあることを明らかにした。

タスク内の条件節の形式を話者別に集計した結果、ナラ節は頻度が少なく（分析から

除外)、タラ・ト・バの3種類について条件節の内容と主節の内容の分類を行なった。条件節の内容で見ると、タラ・ト・バ共に「経路説明」が多かった。一方、主節の内容を見ると、タラは「次の行為」、トは「行為実行の結果」、バは「評価」のように異なる使用傾向が見られた。

さらに、対話の参加者にとって非共有信念の対象を対話の中で参照する場合には、名詞の後に「って」や「という」等の引用形式（メタ用法）が用いられるという従来の説（田窪（1989））について、地図課題対話を用いた検証を行なった（川端（2021））。その結果、共有信念になっているランドマークを2回以上参照する場合は、引用形式を使用しない表現（Nonメタ用法）が使用されており、従来理論と整合的な結果が得られた。一方、ランドマークが非共有信念である場合、KU（自分は知っているが相手は知らない）の話者の方が、UK（自分は知らないが相手は知っている）の話者よりもメタ用法を用いており、従来理論からの予想とは異なる結果となった。

### 3.（発表2）引用から見る課題達成談話における合意形成場面の相互行為—日英語母語話者の談話データからの一考察—（野村）

本発表では、課題達成時の日英語母語話者の相互行為を、引用の観点から分析し、その特徴を明らかにした。引用は、ある者のある時点での発話を別の時点での発話に引いてくる行為（鎌田（2000）、山口（2009）他）である。本研究で利用する Mr. O コーパスは、母語話者2名（日本語/英語）が、絵カード（図1参照）を並べ替えて物語を作る課題遂行型の談話データである。参加者は、作業の進め方、絵の解釈、物語の展開に関して、提案・合意・確認を繰り返しながらタスクを進める。

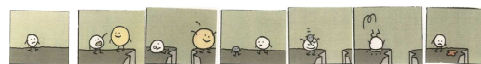


図1 Mr. O コーパスの絵カード例

Mister O より抜粋（Lewis Trondheim 著、講談社、2003年）

日英語の談話を比較すると、英語談話では、提案・受諾に引用がみられることが多く、引用が相互理解の確認に寄与していた。一方、日本語談話では提案・受諾だけでなく、参加者間での合意形成完了のための納得を求める特徴やオーバーラップするタイミングが観察された。そして、日英語いずれの談話においても、必ず合意形成がなされ課題を達成しており、これは日英語母語話者による積極的で協力的な参加の結果と言える。

しかしながら、そこで使用される引用を比較すると、日英語で異なる合意形成プロセスの特徴が浮き彫りになった。日本語データでは二者が類似した形で引用し、ともにキャラクターを演じるように語りながら課題を進行させたが、英語データでは二者が引用を共同構築し、ともに絵カードを実況中継するかのように語りながら進行させた。このような違いは、それぞれの言語の話者が、課題とどのように関わるのかの違いであると言える。つまり、日本語話者は、課題対象である絵カード内の物語に視点を移しながら共鳴して課題を達成するのに対し、英語話者は課題対象とは対峙したまま課題を進行させるのである。このように日英同一の状況下で収集された課題達成談話を特定の言語使用に着目して分析することにより、両言語話者の課題への取り組みや協力の在り方の違いを見出すことが可能となった。

### 4.（発表3）目的指向の多人数・異文化会話コーパスにおけるスタンスの表明と調整—人称代名詞 I, we, you の相互行為上の役割—（谷村）

本発表の目的は、現話者の発言が他の参与

者との関係においてどのような「スタンス」(Du Bois (2007))を提示し、時間の経過によって変化するかに焦点を当て、直示的な人称代名詞である I, we, you の使い分けを分析し、その相互行為上の役割を明らかにすることである。スタンスとは、話し手の確信度を示す概念で、その表明と調整のやり方が、直接参加者らの関係や課題の達成度合いに影響する。分析には、レゴ・ブロックを用いた目的指向型の多人数・異文化会話コーパスデータを使用した。参加者として、英語を母語としない学習者4人が1組になり、指定された6つの抽象的な概念について、英語でストーリーを作成し、レゴ・ブロックで表現する。



図2 LEGO タスク作業場面(谷村他 (2019))

I, we, you と共起する義務的スタンスを示す言語形式が、意思決定を伴う目的志向会話においてどのような相互行為上の役割を果たしているかを量的分析と質的分析から検討した。この義務的スタンスは、発話の形式選択(例. must, can, will, have to, could, would, had better, need to, want to など)によって主張される義務的権利の相対的な強さを指す(Stevanovic (2011))。結果、we can X, we need X, (you) X, we should X の使用頻度が高く、特定の表現を固定的に使用する傾向が見られた。このことは特定の表現が塊として記憶されていることを示唆している。一方で、ELF (English as a Lingua Franca) 特有の形式はデータに見られなかった。

また時間の経過に関わらず we の使用が多くみられたことから、参加者による共同的

行為への志向性が明らかになった。同時に課題を行う過程で共有される知識をリソースとして利用し、義務的スタンスを確立させていることも明らかになった。物語生成のなかで出現する登場人物の義務的スタンスの例も、今後検討を要することがわかった。

## 5. (発表4) 配信型・伝播型情報共有と再帰的共通基盤—日英救急医療シミュレーションでのリーダーの発話・視線を含むマルチモーダル分析—(土屋)

救急医療では医療者チームが複数の医療行為を同時に協働で行い、現場でのチーム内コミュニケーションは診療の安全に大きく関わる。本発表では、日英共同による救急医療コミュニケーション研究プロジェクトの成果の一部を報告する(Tsuchiya, Coffey and Nakamura (forthcoming))。日英にて救急医療シミュレーション訓練を撮影、視線解析メガネでリーダーの視線情報を収録し、相互行為分析を進めている。本発表ではチーム内情報共有と共通基盤化に着目し、共同行為の過程について考察した。

まず UK データにみられる配信型の情報共有 (timed recap) では、リーダーが明示的に診療のフェーズ (operation frame) を区切り、チーム全体に対する情報発信のフェーズ (recap frame) を創り出す。メンバーは情報の受け手として割り当てられ、リーダーは情報共有の最後に、これまでの報告の中で見落とされている懸念事項や医療行為があれば提示するようメンバーに求める。一方 JP データでは、主に患者の頭に立ち処置を行っている上級医 (SD) が、対面の少し離れた場所で記録を行っている看護師 (N2) に対して患者の状況や医療行為の状況を伝えると同時に、情報の直接的な受け手ではなく聞き手 (hearer) として参加しているリーダーや他のメンバーにも情報を共有している。また上級医が伝達する内容で重要な事項を、リー

ダーが即時に繰り返すこと (repetitive chain) で情報の伝達を確かなものとしている。

配信型・伝播型情報共有のそれぞれで、伝達される命題が共有された共通基盤 (CG-shared) から再帰的な共通基盤 (CG-reflexive) へ移行するが (Clark (1996))、後者では直接的な情報の受け手ではない聞き手 (hearers) への情報伝達行為 (informative) が多用されていることが観察された (Clark and Carlson (1982))。日英データでの情報共有実践の違いは、それぞれの文化的背景の違い、つまり自他を客観化し間主観性を求める西洋的哲学思想 (Duranti (2010)) と、自他が区別なく埋没する場 (primary ba) と自他が客観化された場 (secondary ba) との双方を重視する禅を中心とする東洋哲学思想 (Hanks et al. (2019)) に起因するものといえるかもしれない。共通基盤の概念を援用した医療チーム内情報共有実践に関するマルチモーダル研究が、チームの集団的能力 (collective competence) を解明する可能性を示した。

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## **Copy, its Related Mechanisms and the Empirical Consequences\***

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Keywords : copy formation, copy identification,  
copy visibility, labeling algorithm,  
Merge

### **1. Introduction**

The purpose of this workshop named “Copy, its Related Mechanisms and the Empirical Consequences” is to examine the mechanisms that are significantly related to the notion of copy from a theoretical point of view (Chomsky (1993, 2004, 2013)). We discussed (i) labeling, (ii) the roles of copies at the interfaces, and (iii) the identification of copies. With these theoretical issues in (i)-(iii) in mind, we also discussed specific constructions from both synchronic and diachronic perspectives.

The sections below show the content of the presentations with the titles of the presentations corresponding to those of the sections.

### **2. Extraction out of Adjuncts and Head**

### **Movement**

Kanno discussed extraction out of (non-)finite adjuncts (Huang (1982), Ross (1967)). He proposed a phase-based approach, focusing on the phasehood of CP. These transparent adjuncts do not have specific features on CP. As for the infinitival adjuncts, they do not have [Tense] features. As for the finite adjuncts, he argued, following the insights of Haegeman (2003 and her subsequent work) that they do not have [Force/Focus] features. Therefore, even when the adjunct CP is adjoined to the matrix spine, a *wh*-phrase can move out of the adjunct without violating the Phase Impenetrability Condition. Finally, he argued for a reprojection approach, showing that the structural effects of pair-Merge come from the combination of set-Merge and head movement (Cecchetto and Donati (2015), Koenenman (2000), Surányi (2008)).

### **3. Copy Formation and Movement Theory of Control/Binding**

Otsuka attempted to reevaluate the Movement Theory of Control (MTC) and of Binding (MTB) (see Hornstein (2001)) under Chomsky’s (2021) proposal of Copy Formation (CF). Chomsky (2021) offers an account of the Control Constructions under CF. Based on Chomsky’s (2021) discussion, Otsuka pursued a possibility of unifying the MTC and the MTB under CF. Departing from Chomsky (2021), Otsuka assumed that a special *pro* plays a crucial role in the relevant constructions and claimed that “Obligatory PRO” turns out to be *pro* in the CF relation with its antecedent without its case feature being valued, whereas “Non-Obligatory PRO” is *pro*

without CF nor case valuation. In terms of the MTB, anaphors and bound pronouns are *pro* with CF and case feature valuation, realized in the different forms according to the English-specific phonological rule.

#### 4. On (In)Visibility of Copy

Tanaka discussed inverse scope in the framework of the Labeling Algorithm (LA) (Chomsky (2013, 2015)). Inverse scope has several prominent properties: Invisibility of the higher copy at the syntax, the phonetic realization of the lower copy, clause-boundedness, and its absence in Japanese. Tanaka proposed a condition to the effect that copy visibility at the syntax and the SM interface is determined on the basis of unvalued features that get valued in the derivations ( $\{\text{uF}\}$ s). More specifically, it was argued that copies which possess  $\{\text{uF}\}$ s become invisible to the LA and that the copy which possesses the largest number of  $\{\text{uF}\}$ s undergoes the phonetic realization at the SM interface. He argued that the proposed condition solves the aforementioned properties of inverse scope, extending its empirical coverage to the (im)possibility of remnant movement in Japanese.

#### 5. On the Historical Changes of the (Anti-)That-Trace Effects in English

Kondo discussed the historical changes of the *that*-trace effect and the anti-*that*-trace effect in English in terms of reprojection (Section 2) and copy identification (Hayashi (2020)). Subject extraction was possible from *that*-clauses until Early Modern English (Nawata (2013)) while subject zero relatives were possible

until Early Middle English (Uchida (2021)). It was assumed that English underwent a typological change in the transition from Early to Late Middle English (Nawata (2016)), and it lost verb movement to T in Early Modern English. Appealing to the typological change and the loss of verb movement, he provided a reprojection-based account of the two historical changes and their difference: Subject zero relatives became ungrammatical as the result of the typological change whereas the loss of verb movement to T made impossible subject extraction from *that*-clauses.

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## Strong Minimalist Thesis を満たす UG の説明理論：その輪郭と概念的根拠\*

(Explanatory Theory of UG to Satisfy Strong Minimalist Thesis: Its Contours and Conceptual Basis)

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キーワード：極小主義，コピー形成，シーケン  
ス形成，主要部パラメータ，日本手話

### 1. はじめに

言語機能の生得的な基盤として仮定される普遍文法 (Universal Grammar: UG) が満たすべき条件は、(1)刺激の貧困を克服できるだけ十分に豊かであること、(2)進化の過程で人類に発生したと考えられるだけ十分に単純であること、そして、(3)すべての可能な言語にたどり着けるだけの普遍性を担保すること、に集約される。生成文法の極小主義的研究では、自然界に存在する UG がこれらの条件を満たす最適解だとする Strong

Minimalist Thesis (SMT; Chomsky (2000, 2004)) を掲げ、そこからの逸脱に分析の再考を要求し、理論を構成する仮説群の見直しが行われてきた。本ワークショップは、SMT を徹底することによって行きついた現状を説明理論の全体像として、主として Chomsky (2020) と Chomsky (2021) に拠って描き出すとともに、今後の研究課題を多面的に洗い出すことを目的として行われた。

### 2. 基礎的仮説群とその適用

基本特性としての構造依存性を説明するために、基本的操作として併合 (Merge) が仮定されるが、これは作業領域 (workspace: WS) に適用して、それを更新するように定義された。移動操作によって従来捉えられてきた現象は Internal Merge (IM) として、併合によって統一的に捉えられることになるが、結果として、構造上生じるコピー関係は、IM の場合だけに付随する操作等によって特徴づけることができない。このため、解釈システムによるコピー形成 (Copy Formation: CF) を仮定することで、コピー関係の認定を構造構築から切り離し、結果として IM によらないコピー、すなわち IM-gap の存在が導かれた。この効果として、(1) のコントロール構文では、John<sub>2</sub> が External Merge (EM) によって導入されるものの、CF によって John<sub>3</sub> とコピー関係に認定される。

(1) John<sub>1</sub> INFL [John<sub>2</sub> tried [John<sub>3</sub> to win]]

ワークショップでは、同様の分析が、ATB 構文や寄生空所構文などにも自然な説明を与えられることを議論し、(2) のような日本語 tough 構文の分析においては、いくつか検討すべき課題があることを論じた。

- (2) a. この山が[登るの]が困難だ。  
b. この机が[作業をするの]が難しい。

また、(3) に示すような、階層的でない連鎖を特徴づけるためのシークエンス形成 (Form Sequence) という概念を取り上げ、その定義に関わる課題を洗い出した。

(3) John, Bill, Tom, ... ran, danced, sang, ...

### 3. 日本手話 (JSL) における構造構築

ワークショップでは、従来階層的な埋め込み構造を観察することが難しかった手話言語を取り上げ、(3) に相当する JSL の (4) などを検討して、順序情報を持たない解釈から、このような構造がシークエンス形成の前提として必然的に要請される統語操作であるセット形成 (Form Set) によって構築されている可能性を指摘した。

\_\_\_\_\_TOP

(4) YESTERDAY PARTY TANAKA SATO

\_\_\_\_\_hn1

HAYASHI DANCE SING DRINK

‘At yesterday’s party, Tanaka, Sato, Hayashi, danced, sang, drunk.’ ≠ ‘(3)’

また、JSL の等位接続構造をシークエンス形成によるものと論じ、それが主語となる場合に英語と同様の述語との数素性一致が見られる事実を提示して、自然言語におけるセット形成およびシークエンス形成による構造構築の可能性を論じた。

### 4. 言語間の相違

言語の中核的な計算システムに普遍性が確立されると、個別言語の多様性は、外在化の過程に説明が求められることになる。本ワークショップでは、主要部パラメータを隣接性という概念で捉え直した土橋 (2021, 印刷中) の提案を紹介し、さらに、その提案を発展させる形で、外在化によって主要部移動に関する言語間の違いを捉える可能性を示した。

\* 本発表は発表者全員による共同発表の形式をとったが、日本語の *tough* 構文に関する瀧田担当部分の中村太一氏、前田雅子氏との共同研究に、日本手話に関する内堀担当部分には上田由紀子氏との共同研究に基づく。また、それぞれの担当部分について、JSPS 科研費 19K00612 (研究代表者：北原久嗣)、JSPS 科研費 20K00678 (研究代表者：小町将之)、JSPS 科研費 17K02815 (研究代表者：葛西宏信)、JSPS 科研費 18K00659 (研究代表者：瀧田健介)、JSPS 科研費 17K02691 (研究代表者：内堀朝子) の助成を受けている。

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## Basic Research in Cognitive Grammar\*

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philosophy of linguistics

### 1. Introduction

This workshop was organized to discuss the philosophical foundations of Cognitive Grammar (CG) and render it more accessible to researchers of other theoretical persuasions. The first four presentations addressed these issues: What is linguistic knowledge like and how is it shaped? What entities are involved in language and linguistics? What is the subject matter of the discipline of linguistics? The fifth presentation offered evidence for some of the philosophical claims made in the preceding presentations.

### 2. Fictional Entities and *Don't be That Guy*

In the first presentation, Rana Sato, drawing on the CG notion of virtual instance (Langacker (1999)), made two ontological claims: (i) that our perception of the “real” world relies heavily on fictional entities, which can only be found in

mental events such as predictions and generalizations, and (ii) that we have knowledge of entities that are waiting to be established as generalized types, though they have not yet been conventionalized as linguistic expressions. By way of illustration, she showed that the usage of an English idiom *Don't be that guy* hinges on our encyclopedic knowledge of virtual entities in familiar episodes and anecdotes.

### 3. A Dynamic View of Morphemes

The second presentation, given by Keigo Ujiie and Daiki Hagisawa, proposed defining morphemes as products of our constant mental activities where we find links, often creatively, between all sorts of entities (Hagisawa (2020)). This definition represents an even more dynamic and encompassing view of lexical phenomena than Langacker's (2019). He rejects the classical conception, which tacitly assumes that linguistic signs are discrete, object-like entities (the “building-block metaphor”), in favor of a more dynamic view where they reside in patterns of cognitive activities. Though his model solves intractable problems such as morphological residues, there still remains what U&H term the problem of “wild” variants of words. Those words find their natural place in the radically dynamic view put forward in their presentation.

### 4. A Philosophical Analysis of UBM

In the third presentation, Daiki Hagisawa examined the usage-based model (UBM) from a Kantian philosophical perspective and concluded that linguists cannot enjoy the privilege of ignoring what have been called the frame problem and causal determinism. UBM is a model of linguistic knowledge first introduced by Langacker (1988), where exemplars, rules and judgement play crucial roles (called “usage

events,” “schemas” and “categorization” in CG parlance). As it happens, these three concepts have been critically discussed in *Critique of Pure Reason*, which thus serves as a useful point of reference to assess whether UBM is a well-grounded framework.

## 5. Towards a Philosophy of CG

Linguistic or otherwise, a theory lacking philosophical underpinnings is not fully viable. Thus if one is to ensure that CG *is*, one has to do a philosophy of CG. This makes the question posed in the fourth presentation worth asking: Is it the brain or the person that the discipline of linguistics is about? Or, equivalently, which of the two is it that uses language? Taichi Tanaka explored what CG has to offer regarding this issue and concluded that it is not a matter of choosing one to the exclusion of the other. This conclusion is in line with our strong intuition that we human agents are not mere “puppets” manipulated by our own brains.

## 6. Dephilosophizing the Philosophies

In the fifth session, Shinya Hirasawa presented several sets of data attested in English to corroborate some of these philosophical claims. Consider *bulltrue* and *real shit*, novel expressions from different movies. The meaning is along the lines of ‘I made the right assertion.’

(1) X: [ASSERTION]

Y: Bullshit.

X: {**Bulltrue** / **Real shit**}.

Since *bull*, *shit* and *bullshit* are all established as words meaning ‘nonsense,’ the building-block view of morphemes would lead us astray as to whether X is saying that his original assertion represents nonsense or the truth. This is not so

with U&H’s radically dynamic view, where semantic composition is a matter of the speaker (not) discerning potentially discernible links between parts of the expression at hand and the mentally stored meanings of those parts.

## 7. Conclusion

We hope that we were successful in drawing attention to the very notion of basic research in CG and giving shape to it through the individual presentations, as well as in convincing the audience that any linguistic theory can and should be evaluated in light of its philosophical foundations. We also wish to emphasize that philosophical discussion of this depth was possible within the limited time frame because we did not dwell on the by-now routinized comparison of CG with generative grammar and each of us delved right into the core of the matter and reviewed CG in its own right.

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## **Tense and Intention**

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Keywords : Dialect, Hokkaido, Chinese

### **1. Introduction**

Accurately communicating intentions requires using a variety of expressions. In sentences, changes in verb tense are driven not only by changes in time but also by changes in intention. Such subtle changes increase the sophistication of our utterances. As with languages, these expressions differ by location. These differences in expressions are found in the dialects of specific areas. In this workshop, we examined Japanese and Chinese expressions from the point of view of tense and intention.

### **2. (Discussant 1) Usage of Hokkaido dialect -*saru* (Nakaike)**

In this section, Nakaike analyzed the usage of the Hokkaido (Japan) dialect -*saru*, which is principally used in the past tense to express unintended actions and is typically attached to the inflectional forms of a verb. From previous research, she found that -*saru* can be classified into three subclasses in meaning, namely,

“spontaneous,” “possibility,” and “result”. Furthermore, she proposed a hypothesis that the usage of -*saru* has been constantly changing from the past up to the present day (Shu (2019)). From her research, it is found that the younger generation often use -*saru* to mean “result” but rarely in the sense of “spontaneous.” This unique verb conjugation -*saru*, which is mainly used in the past tense to convey unintended actions, has unalterable nuance that can convey (especially blamable) meanings and intentions more precisely.

### **3. (Discussant 2) Analysis of *deshita* in Hokkaido Dialect of Japanese (Ozawa)**

In this section, Ozawa analyzed a Hokkaido dialect *deshita*, which is a sentence-final declarative form in Japanese to express politeness as past tense. Even so, Hokkaido people often use it while answering the phone.

Ozawa proposed two hypotheses on this. One of them is that temporal distance brings about psychological distance (Lyons (1977)), so the past tense is uttered to express the intention of politeness. The second hypothesis is to assume that things or situations already exist but without certainty. During a phone conversation between two people, when they say *moshi-moshi* (the first greeting on the phone) to each other, they speak without knowing who the other person is. For this reason, people say *deshita* to reveal the speaker, mentioning back to the past fact, which was hidden at first. People in Hokkaido tend to be generous and are not suspicious of people. So, they pick up the phone without any misgivings and do not keep note after the phone call. But in fact, they are guessing who the caller is when they receive a phone call. They are also aware that others wonder who the caller could be when they receive phone calls, so they say *deshita* to

show appreciation for picking up the phone. *Deshita* gives an answer to the question “Who was she/he?” retroactively.

#### 4. (Discussant 3) Shifty Indexicals in Chinese (Guo)

In this section, Guo examined context-change functions over indexicals in Chinese. Interpretations of indexicals in sentences depend on the context. In Chinese, pronouns (*I, you, me, he, his...*) can be ambiguous and are determined by context.

(1) 昨天/李/说/我/前天/种的/花/开了。  
Zuotian/Li/shuo/wo/qiantian/zhongde/hua/kaile.  
Yesterday/Li/said/I/the day before  
yesterday/planted/the flower/bloomed.  
‘Yesterday, Li said the flower I planted the day before yesterday bloomed.’

In this case, it could be translated to mean both “The flower was planted by Li” and “The flower was planted by me.” Related to this, tense adverbs (*yesterday, tomorrow...*) are shiftable when there is another tense adverb in the sentence.

(2) 昨天/李/说/我/前天/种的/花/开了。  
Zuotian/Li/shuo/wo/qiantian/zhongde/hua/kaile.  
Yesterday/Li/said/I/the day before  
yesterday/planted/the flower/bloomed.  
‘Yesterday, Li said the flower I planted the day before yesterday bloomed.’

In Chinese, 前天(*qiantian*) ‘the day before yesterday’ can only mean “two days ago from now” and not “two days ago from ‘yesterday.’” The reference of 明天(*mingtian*) ‘tomorrow’ is also influenced by the timing of the conversation. Temporal adverbs and location (*here, there...*)

are also shiftable.

(3) 李/说/他/昨天/在这/种的/花/开了。  
Li/shuo/ta/zuotian/zai/zhe/zhongde/hua/kaile.  
Li/said/he/yesterday/here/planted/flower/bloomed.  
‘Li said the flower he planted here bloomed.’

In this sentence, 这 ‘here’ can only mean the place the speaker is standing now. If the speaker is standing on his balcony now, the flower was not planted in Li’s balcony.

#### 5. Conclusion

Based on the aforementioned three topics, we examined tense and intention in Chinese and Japanese languages. Changing tense can change intentions, leading to sophisticated expressions. Tense can also be combined with specific meaning and used in specific situations. We can find several variations in the usage of tense and intention depending on specific areas.

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**[II]**

## **Fourteenth International Spring Forum**

**A Corpus-Based Analysis of Independent  
*Although* and *Though* Clauses:  
Their Commonalities and Differences\***

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Keywords: concessive clause, insubordination,  
discourse marker, grammaticalization

## 1. Introduction

This paper compares independent *although* and *though* clauses in terms of their discourse functions. *Although* and *though* clauses have traditionally been considered as subordinate adverbial clauses. However, it has recently been reported that they can occur independently without their main clause (cf. Mizuno (2018, 2020)), as exemplified in (1) and (2) below:

- (1) CRUZ: (...) And CBO, in fact,  
projected that, in the first  
two years, premiums would  
rise 10 to 20 percent.  
DICKERSON: **Although** it did say then  
they would go down.  
(COCA)
- (2) HANSON: Yeah, they're well aware of  
that  
STOSSEL: **Though** some don't. (COCA)

Such independent (*al*)*though* clauses can be counted as “insubordination,” which is defined by Evans (2007: 367) as “the conventionalized main clause use of what, on prima facie grounds,

appear to be formally subordinate clauses.”

It is generally assumed that *although* and *though* are “alternants” or “synonymous” when they are used as subordinators (cf. Biber et al. (1999: 845), Huddleston and Pullum (2002: 736)). According to König (1994), both *although* and *though* can express “standard concessive,” “rhetorical concessive,” and “rectifying concessive” relations. One of the differences between *although* and *though* pointed out in the literature is that the latter is “slightly more informal” (Huddleston and Pullum (2002: 736)). However, almost no study has compared *although* and *though* clauses with respect to the following two points:

- (A) How frequently (*al*)*though* clauses occur independently without their main clause.
- (B) What kind of discourse functions independent (*al*)*though* clauses have.

The goal of this paper is to examine the commonalities and differences between independent *although* and *though* clauses in spoken discourse with regard to (A) and (B) above.

## 2. The Data

The data were collected from the spoken section of *the Corpus of Contemporary American English* (COCA) compiled from 1990 to 2019. The spoken section of the corpus contains a total of 11,836 tokens of *although* and 45,747 tokens of *though*. To obtain independent *although* and *though* clauses, I first manually extracted all the tokens of *although* and *though* which appeared in utterance-initial position. As a result, I obtained 1,183 tokens of *although* and 518 tokens of *though*. Then I classified them into two types, i.e., independent clauses without their main clause, as exemplified in (1) and (2) above, and subordinate clauses which accompany their main clause, as illustrated in (3) and (4) below:

- (3) **Although** I'm small, I'm powerful. (COCA)  
 (4) **Though** adolescence is still years away, these girls are already imagining the future.  
 (COCA)

As a result, I obtained 481 independent *although* clauses and 103 independent *though* clauses.<sup>1</sup> Following Fraser (1999: 938), I will refer to the segment of discourse introduced by (*al*)*though* as S2, and the prior segment of discourse as S1, and represent the use of independent *although* and *though* as <S1. Although S2> and <S1. Though S2>, respectively.

### 3. Results

#### 3.1 Frequency

This section compares independent *although* and *though* clauses with respect to the frequency of their usage in the data. As Table 1 shows, independent *although* clauses are far more frequently used than independent *though* clauses. The difference in frequency cannot be predicted by simply analyzing *although* and *though* as synonymous.

Table 1. The Frequency of Independent (*Al*)*though* Clauses in the Data

<i>Although</i>	481	82.4%
<i>Though</i>	103	17.6%
Total	584	100.0%

#### 3.2 Discourse Functions

This section compares independent *although* and *though* clauses with respect to their discourse functions. My investigation of the data found that independent (*al*)*though* clauses are used either in conversation or in narration, and that the (*al*)*though* clauses used in conversation can be classified into two large groups, i.e., those related to the prior utterance by the same

speaker and those related to the prior utterance by the addressee, as shown in Tables 2 and 3 below. The following subsections will observe the discourse functions of each type shown in Table 3.

Table 2. Independent (*Al*)*though* Clauses

	<i>Although</i>	<i>Though</i>
Conversation	451 (93.76%)	54 (52.43%)
Narration	29 (6.03%)	49 (47.57%)
Unclear	1 (0.21%)	0 (0%)
Total	481 (100%)	103 (100%)

Table 3. Independent (*Al*)*though* Clauses in Conversation

	<i>Although</i>	<i>Though</i>
Related to the prior utterance by the same speaker	104	6
Related to the prior utterance by the addressee	347	48
Total	451	54

##### 3.2.1 Independent *Although* Clauses

I found that independent *although* clauses related to the same speaker's prior utterance can fulfill at least three functions, i.e., standard concessive, rectifying concessive, and self-correction.

First, in standard concessive, the speaker asserts S1 and S2 against the background assumption that S1 and S2 "are instances of situations that do not normally go together (König (1994: 681))." This assumption can be stated as follows: if S2, then normally not S1 (ibid. 679). An example of this type is given in (5):

- (5) GIFFORD: So I-- both of my in-laws are dead. So—

KOTB: Any who, all right, let's move on. She is hot in Cleveland.

GIFFORD: They've been dead for a long time, it's not my fault, okay.

KOTB: Hot in Cleveland.

GIFFORD: **Although** Frank says I did kill his mother. (COCA)

In (5), we may assume that if Frank says his wife killed his mother, the death of his mother is his wife's fault. However, this assumption is denied by Gifford's utterances.

Second, in rectifying concessive, the *although* clause weakens the content of the speaker's previous utterance (cf. König (1994)), as illustrated in (6):<sup>2</sup>

(6) KOTB: (...) how about Melissa McCarthy for "Bridesmaids"?

GIFFORD: Best Supporting Actress nomination. (...)

KOTB: I think that's Oscar-worthy. By the way, she's very, very, very funny. (...)

GIFFORD: But it's hardly Meryl Streep and "Iron Lady," right?

KOTB: Yeah.

GIFFORD: **Although** they're not in the same category, so she may win. (COCA)

In (6), the *although* clause weakens the content of the speaker's preceding utterance by cancelling an evoked assumption. Gifford's second utterance *it's hardly Meryl Streep and "Iron Lady"* evokes the assumption that it may be difficult for Melissa McCarthy to win the award for Best Supporting Actress. However, this assumption is cancelled by the following *although* clause.

Thirdly, in self-correction, *although* introduces a correction of the same speaker's former statement (cf. Günthner (2000)), as exemplified in (7):

(7) MORALES: We're the only species that really French kisses, too. (...)

GEIST: I don't think so. What about—

MORALES: I don't think you see monkeys French kissing and dogs—

HALL: Well, they don't speak French.

MORALES: **Although** my dog sometimes tries to French kiss me, right. (COCA)

In (7), in her first utterance, Morales asserts that only humans can French kiss. However, the validity of this statement is corrected by her last utterance, which asserts that her dog sometimes tries to French kiss her.

Next, independent *although* clauses related to the prior utterance by the addressee can fulfill at least three functions, i.e., standard concessive, rectifying concessive, and disagreement, as illustrated in (8), (9), and (10), respectively:

(8) CLAYSON: (...) And you thought the house was secure?

E-SMART: We thought the house was secure.

CLAYSON: **Although** the alarm was not on? (COCA)

(9) KRESSLEY: Halle Barry (*sic*) looks great, just not as great as sometimes we've seen her. I thought the asymmetrical top looked a little unbalanced.

LAUER: **Although** it does tend to draw your eye. (COCA)

(10) CRUZ: (...) My biggest concern with

the House bill is, it doesn't lower premiums. And CBO, in fact, projected that, in the first two years, premiums would rise 10 to 20 percent.

DICKERSON: **Although** it did say then they would go down.

CRUZ: It did. But I got to tell you,  
(...) (COCA)

In (8), there is a background assumption that if the alarm was not on, they did not think the house was secure. In (9), Kressley's utterance evokes an assumption that Halle Berry's fashion was not so great. However, Lauer's utterance restricts the validity of this assumption. In (10), *although* is used to indicate the speaker's disagreement with the addressee's preceding utterance. Cruz asserts that according to CBO, premiums will rise 10 to 20 percent. However, this assertion is clearly denied by Dickerson's next utterance introduced by *although*.

### 3.2.2 Independent *Though* Clauses

I found that independent *though* clauses related to the prior utterance by the same speaker have only one function, rectifying concessive, which is illustrated in (11):

(11) BLITZER: You know, Ari Fleischer, the conventional wisdom out there says that Al Gore is a terrific debater and George W. Bush may not be a traffic  
(*sic*) debater

FLEISCHER: He is, Wolf. Al...

BLITZER: **Though** he did -- he held his own during those primary debates  
(COCA)

In (11), the content of Blitzer's first utterance is weakened by his second utterance.

Meanwhile, when independent *though* clauses are related to the preceding utterance by the addressee, they can fulfill two functions, i.e., rectifying concessive and disagreement, as exemplified in (12) and (13), respectively:

(12) GROSS: Yes. And that's why in your film if Sadness touches one of the memories, the memory turns blue and is forever changed by the sadness it's been touched by...

DOCTER: Yeah, well, now people...

GROSS: ... Which gets to exactly what you're talking about, that memories change over time as we recall them.

DOCTER: **Though** that actually is scientifically accurate. If you were feeling sad right now and you recall a sad memory - or a very happy memory from the past, it will be tinged with more sadness based on your current feeling.  
(COCA)

(13) KAINE: Bob Corker is my chair on Foreign Relations. I know him very well. He's a patriotic, reasonable person, and he's expressing a concern that is shared by an awful lot of members of the Senate, even Republican members.

CAMEROTA: **Though** they're not speaking out about it. I mean...  
(COCA)

In (12), the utterance by Gross implies that what Docter said is just his opinion and not based on science. However, this implication is denied by the following *though* clause. In (13), Camerota uses *though* to display her disagreement with Kaine's preceding utterance.

Table 4 summarizes the results shown in this section. When used in conversation, both independent *although* and *though* clauses are classified into two main classes, i.e., those related to the prior utterance by the same speaker and those related to the prior utterance by the addressee. The table also shows that independent *though* clauses are more restricted than *although* clauses in the kinds of usages: the former fulfills only two discourse functions, i.e., rectifying concessive and disagreement, while the latter can fulfill four functions, i.e., standard concessive, rectifying concessive, self-correction, and disagreement.

Table 4. Usages of Independent *Although* and *Though* Clauses in Conversation

		<i>Although</i>	<i>Though</i>
Related to the prior utterance by the same speaker	Standard Concessive	✓	
	Rectifying Concessive	✓	✓
	Self-correction	✓	
Related to the prior utterance by the addressee	Standard Concessive	✓	
	Rectifying Concessive	✓	✓
	Disagreement	✓	✓

## 4. Discussion

### 4.1 *Although* and *Though* as Discourse Markers

This section argues that *although* and *though* which introduce an independent clause can be analyzed as discourse markers. Fraser (1998: 302) notes that discourse markers “are separate from the propositional content of the sentence and function to signal the relationship between the segment of discourse they introduce, S2, and the prior segment of discourse, S1.” As Günthener (2000: 457) points out, “although definitions vary a great deal, there are a number of characteristics which most studies on discourse markers identify.” I will show that *although* and *though* have at least six out of nine characteristics presented by Günthener (2000: 457-458).

First, they are a feature of oral discourse. All the data of *(al)though* in the present study were collected from spoken discourse. Second, they are originally subordinate conjunctions. Third, they are short items. Fourth, they appear in utterance-initial position. Fifth, they are optional. For example, the removal of *although* in (10) and *though* in (12) above does not make the sentences ungrammatical or change their propositional content. In the sixth place, they operate on both the local and global level. For example, in (10) above, *although* links the previous utterance with a clause. However, in (12), *though* links the previous utterance with a larger discourse sequence. The scope of *though* goes beyond the local clause level.

These observations show that utterance-initial *although* and *though*, which introduce an independent clause, can be analyzed as discourse markers.

### 4.2 The Grammaticalization of Independent *Although* and *Though* Clauses

This section considers independent *although* and *though* clauses from the perspective of

grammaticalization. According to Hopper and Traugott (1993: xv), grammaticalization is defined as “the process whereby lexical items and constructions come in certain linguistic contexts to serve grammatical functions, and once grammaticalized, continue to develop new grammatical functions.” Hopper and Traugott (1993) also point out that grammaticalization is hypothesized to be prototypically a unidirectional phenomenon. The hypothesis of unidirectionality is summarized as follows: “there is a relationship between two stages A and B, such that A occurs before B, but not vice versa” (ibid.: 95).

In the present study, I take up one kind of unidirectionality, i.e., a cline of clause-combining constructions: parataxis > hypotaxis > subordination (ibid.: 170). The cline predicts that the direction of change is from more to less paratactic clause-combining constructions. It is seen that *although* and *though* are both used in independent clauses, as exemplified in (14), and in subordinate clauses which accompany the main clause, as illustrated in (15):

- (14) a. **Although** Frank says I did kill his mother. (=5)  
 b. **Though** they're not speaking out about it. (=13)
- (15) a. **Although** I'm small, I'm powerful. (=3)  
 b. **Though** adolescence is still years away, these girls are already imagining the future. (=4)

The hypothesis of unidirectionality would predict that the type of sentences in (15) are derived from those shown in (14). In order to examine the hypothesis, I grouped together independent *although* and *though* clauses in the

data in periods of 5 years, and counted their frequency in each period. The result is shown in Table 5.

Table 5. The Frequency of Independent *Although* and *Though* Clauses in the Data

	1990- 1994	1995- 1999	2000- 2004	2005- 2009	2010- 2014	2015- 2019	Total
<i>Although</i>	52	69	64	77	99	120	481
<i>Though</i>	10	8	17	26	19	23	103

The table shows that independent (*al*)*though* clauses gradually increase in frequency. This observation shows that they are developing toward more paratactic clause-combining constructions. Thus, we can say that the developmental process of independent (*al*)*though* clauses do not conform to the unidirectional cline of clause-combining constructions. Table 5 also shows that independent *although* clauses are far more frequent than independent *though* clauses in each period of time, which suggests that independent *although* clauses are more grammaticalized than independent *though* clauses.

## 5. Conclusion

This paper has come up with the following new findings. First, independent *although* and *though* clauses differ in frequency. The former is far more frequent than the latter. Second, independent *although* and *though* clauses are similar in that when they are used in conversation, each of them can be classified into two large groups; they are related either to the prior utterance by the same speaker or to the prior utterance by the addressee. Third, independent *though* clauses are more restricted than independent *although* clauses in the kinds of usages; independent *though* clauses in the

data fulfill only two discourse functions: rectifying concessive and disagreement, while independent *although* clauses fulfill four functions: standard concessive, rectifying concessive, self-correction, and disagreement. Finally, while both *although* and *though* which introduce an independent clause can be analyzed as discourse markers, *although* is more grammaticalized as a discourse marker than *though*.

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### NOTES

<sup>1</sup> Examples of unfinished *although* clauses, illustrated in (i) below, were excluded from the present analysis.

(i) WINFREY: Yes. Yeah, you record at night.

STREISAND: I'm a night person.

WINFREY: Yeah.

STREISAND: **Although** I...

WINFREY: I heard the last time you sang,  
(...) (COCA)

<sup>2</sup> Rectifying concessive is called "restrictive" by Günthner (2000).

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### CORPUS

Corpus of Contemporary American English (COCA)



## What Does Azeri Suggest for Refining Conditions on Genitive Subject Licensing?\*

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Keywords: Azerbaijani, genitive subject,  
Japanese, licensing conditions, Mongolian

### 1. Introduction

This paper investigates the distribution of genitive subjects in Azerbaijani, one of the Turkic languages spoken in the Republic of Azerbaijan and Iran, and examines what the examples from Azerbaijani suggest for refining conditions on genitive subject licensing in Altaic languages. We owe all Azerbaijani examples used in this paper to Khalida Alizada, Farid Khudiyev and Ilaha Mammadzade.

One of the distinctive properties of Altaic languages including Azerbaijani is the fact that they exhibit the nominative/genitive alternation. In most cases, genitive subjects are allowed in relative clauses, which have an overt head nominal. In some cases, however, genitive subjects are allowed in clauses with no overt head nominal, such as a clause followed by the word that corresponds to *until* in English. Interestingly enough, unlike other Altaic languages, Azerbaijani disallows genitive subjects in ‘until’ clauses. Close examination of the ‘until’ structure in Azerbaijani reveals that conditions on genitive subject licensing so far

proposed need to be revised. In this sense, Azerbaijani examples make a crucial contribution to refining conditions on genitive subject licensing in Altaic languages.

### 2. Background

First, based on the distribution of genitive subjects mainly in Mongolian and Japanese, Maki et al. (2016) propose (1).

- (1) Conditions on Genitive Subject Licensing
  - 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.

(1a) corresponds to Miyagawa’s (1993, 2011) D-licensing approach, and (1b) to Watanabe’s (1996)/Hiraiwa’s (2001) adnominal form-licensing approach. Maki et al. (2016) claim that genitive subjects in Altaic languages must satisfy both to be licensed, which is evidenced by the examples in (2) and (3).

- (2) Öcügədür Ulayan-ø/\*-u ene  
yesterday Ulagan-Nom/-Gen this  
nom-i qudaldun-abu-ysan-siu.  
book-Acc buy-take-Past.Adn-Prt  
‘Ulagan bought this book yesterday.’
- (3) Ene nom-i öcügədür  
thisbook-Acc yesterday  
Ulayan-ø/-u t  
Ulagan-Nom/-Gen  
qudaldun-abu-ysan-siu.  
buy-take-Past.Adn-Prt  
‘This book, Ulagan bought t yesterday.’

(3) shows that the object is moved to the

sentence-initial position by scrambling, and the sentence is grammatical with the genitive subject. Note that in (3), the genitive subject is c-commanded by the scrambled object and is in a local relationship with the adnominal form of the predicate.

Second, as Hiraiwa (2001) points out, a genitive subject can appear without a nominal head in Japanese, as shown below.

- (4) John-wa [ame-ga/-no yam-u  
John-Top [rain-Nom/-Gen stop-Pres  
made] ofisu-ni i-ta.  
until] office-at be-Past  
'John was at his office until it stopped  
raining.'
- (5) [Sengetsu ikkai John-ga/-no  
[last.month once John-Nom/-Gen  
soko-ni it-ta (k)kiri] daremo itte  
there-to go-Past since] anybody go  
inai.  
not.Pres  
'Nobody went there since John went once  
last month.'

### 3. Data

Let us now examine Azerbaijani examples.

#### 3.1. Basic Properties

Let us start by examining basic syntactic properties of Azerbaijani.

##### 3.1.1. Word Order and Case Markers

First, the basic word order of Azerbaijani is SOV, as shown in (6).

- (6) Dünən Eldar-ø bir kitab-ø  
yesterday Eldar-Nom one book-Acc  
al-dı.  
buy-Past

'Eldar bought a book yesterday.'

In addition, it can be seen from (6) that the nominative and accusative markers are phonetically covert, as represented by -ø. The nominative case marker always has no sound, and the accusative marker is also silent when the object is non-specific.

When the object is specific, it may be followed by the accusative marker -ı, as shown in (7).

- (7) Dünən Eldar-ø o kitab-ı  
yesterday Eldar-Nom that book-Acc  
al-dı.  
buy-Past  
'Eldar bought that book yesterday.'

Names and other proper nouns are naturally specific nouns. Therefore, the overt accusative marker appears on them, as shown in (8).

- (8) Leyla-ø Nadir-ı təriflə-di.  
Leyla-Nom Nadir-Acc praise-Past  
'Leyla praised Nadir.'

#### 3.1.2. The Genitive Case Marker and Possessive Pronouns

Second, Azerbaijani has a genitive case marker represented by -im/-in/-ın, and also has possessive pronouns, which appear after the modified nominals, as shown below.

- (9) Mən-im kitab-ım  
I-Gen book-PoP.1.SG  
'my book'
- (10) Sən-in kitab-ın  
you-Gen book-PoP.2.SG  
'your book'
- (11) Eldar-ın kitab-ı

These examples show that a head noun must be followed by a possessive pronoun, which agrees with the possessor nominal in person and number.

### 3.1.3. Relative Clauses

Third and finally, the distinction between the conclusive and the adnominal form of a predicate exists in Azerbaijani, as shown in (12) and (13).

- (12) Dünən Eldar-ø gül-dü.  
yesterday Eldar-Nom laugh-Past  
‘Yesterday Eldar laughed.’
- (13) gül-ən adam  
laugh-PS man-Nom  
‘the person who laughs’  
(PS=subject non-past participle)

In (12), the sentence ends with *gül-dü* ‘laugh-Past,’ which means that this form is equivalent to the conclusive form of a predicate in Mongolian and other languages. (13) contains a relative clause that is derived from (12). In this sentence, the verb *gül-ən* is in the form called “subject non-past participle,” which corresponds to the adnominal form of a predicate in Mongolian and other languages. In Mongolian, for example, there is a clear distinction between the conclusive form and the adnominal form of a predicate, as shown below.

- (14) Öcügədür Ulayan-ø iniye-jei.  
yesterday Ulagan-Nom laugh-Past.Con  
‘Yesterday Ulagan laughed.’
- (15) öcügədür iniye-gsen kümün  
yesterday laugh-Past.Adn person

One of the interesting things about Azerbaijani is the fact that in contrast to Mongolian and other languages, Azerbaijani has more than one kind of adnominal forms, as shown below.

- (16) Nadir-i təriflə-yən adam  
Nadir-Acc praise-PS man  
‘the person who praised Nadir’
- (17) Nadir-ø təriflə-dığı adam  
Nadir-Nom praise-PN man  
‘the person who Nadir praised’  
(PN=non-subject participle)

In (16) and (17), each head nominal *adam* ‘man’ has a different role in the original sentence. In (16), it is the agent of the verb, while in (17), it is the theme of the verb. This distinction is reflected in the forms of the verb. The verb has the PS form in (16), and the PN form in (17). In contrast to Azerbaijani, Mongolian, for example, does not have this distinction, as shown below.

- (18) Bayatur-i mayta-ısan kümün  
Bagatur-Acc praise-Past.Adn person  
‘the person who praised Bagatur’
- (19) Ulayan-ø mayta-ısan kümün  
Ulagan-Nom praise-Past.Adn person  
‘the person who Ulagan praised’

## 3.2. Sentences with a Genitive Subject

Let us now turn to sentences with a genitive subject in Azerbaijani.

### 3.2.1. Relative Clauses

First, Azerbaijani allows genitive subjects in relative clauses, as shown below.

- (20) Dünən Eldar-ø/-ın al-dığı  
 yesterday Eldar-Nom/-Gen buy-PN  
 kitab-ø bu kitab-dır.  
 book-Nom this book-be-Pres.3.SG  
 ‘The book which yesterday Eldar bought  
 is this book.’

### 3.2.2. Gapless Sentential Modifiers to Nouns

Second, Azerbaijani allows genitive subjects in complement clauses to nouns. Such clauses are typically headed by a noun that means ‘fact,’ as shown below.

- (21) Eldar-ø/-ın gül-düyü fakt-ø  
 Eldar-Nom/-Gen laugh-PN fact-Nom  
 bir problem-dir.  
 one problem-be-Pres.3.SG  
 ‘The fact that Eldar laughed is a problem.’

### 3.2.3. Adjunct Clauses

Third, let us examine whether genitive subjects are allowed in adjunct clauses in Azerbaijani. Watanabe (1996) and Hiraiwa (2001) point out that some genitive subjects may appear without a nominal head. Such examples are given below.

- (22) John-wa [Mary-ga/-no yonda yori]  
 John-Top [Mary-Nom/-Gen read than]  
 takusan-no hon-o yonda.  
 many-Gen book-Acc read  
 ‘John read more books than Mary did.’  
 (Watanabe (1996))

- (23) Sengetsu ikkai John-ga/-no soko-ni  
 last.month once John-Nom/-Gen there-to  
 it-ta (k)kiri] daremo itte inai.  
 go-Past since anybody go not.Pres  
 ‘Nobody went there since John went once  
 last month.’ (Hiraiwa (2001))

- (24) John-wa [ame-ga/-no yam-u  
 John-Top [rain-Nom/-Gen stop-Pres  
 made] ofisu-ni i-ta.  
 until] office-at be-Past  
 ‘John was at his office until it stopped  
 raining.’ (Hiraiwa (2001))

Let us now examine Azerbaijani counterparts of (22)–(24). The example in (25) shows that genitive subjects are allowed in comparative clauses.

- (25) Eldar-ø Leylan-ø/-ın  
 Eldar-Nom Leyla-Nom/-Gen  
 oxu-duğun-dan daha çox kitab-ø  
 read-PN-Abl more very book-Acc  
 oxu-du.  
 read-Past.3.Sg  
 ‘Eldar read more book than Leyla did.’

The example in (26) shows that genitive subjects are allowed in *since*-clauses.

- (26) Eldar-ø/-ın keçən ay bir dəfə  
 Eldar-Nom/-Gen last month one time  
 get-diyin-dən bəri heç kim ora  
 go-PN-Abl since no who there  
 get-mə-yib.  
 go-Neg-CVB  
 ‘Nobody went there since Eldar went  
 there once last month.’ (CVB=converb)

Interestingly enough, in Azerbaijani, genitive subjects are not allowed in *until*-clauses, as shown below.

- (27) Leyla-ø [yağış-ø/\*-ın dayan-an-a  
 Leyla-Nom [rain-Nom/-Gen stop-PS-Dat  
 qədər] ofis-də id-i.

until] office-Loc be-Past.3.SG  
 ‘Leyla was at the office until it stopped  
 raining.’

This fact is surprising because genitive subjects are allowed in *until*-clauses in many Altaic languages, as shown below.

(28) Mongolian

Batu-ø [boruyan-ø/-u  
 Batu-Nom [rain-Nom/-Gen  
 joysu-qu boltala] alban ger-tü  
 stop-Pres.Adn until] office-at  
 bai-la.  
 be-Past.Con  
 ‘Batu was at his office until the rain  
 stopped.’

(29) Manchu

[Aga-ø/-i waqihiyame nakaha  
 [rain-Nom/-Gen completely stop  
 de isitala], Jangsan’-ø albanbou-de  
 until] Jangsan-Nom office-at  
 bihei bi.  
 continuously was  
 ‘Jangsan was at his office until the rain  
 completely stopped.’

(30) Uyghur

- a. Polat-ø [yamghur-ø  
 Polat-Nom [rain-Nom  
 tahti-ghan-gha qeder]  
 stop-Past.Adn-Alt until]  
 ishhansi-da tur-di.  
 office-at be-Past  
 ‘Polat was at his office until the rain  
 stopped.’
- b. Polat-ø [yamghur-ning  
 Polat-Nom [rain-Gen  
 tohti-ghin-i-gha qeder]  
 stop-Past.Adn-PoP.3.Sg-Alt until]  
 ishhansi-da tur-di.

office-at be-Past  
 ‘Polat was at his office until the rain  
 stopped.’

(31) Uzbek

- a. Temur-ø [yomg’ir-ø  
 Temur-Nom [rain-Nom  
 to’xta-gun-gacha]  
 stop-Past.Adn-until]  
 o’zi-ning ofisi-da edi.  
 self-office-at was  
 ‘Temur was at his office until the rain  
 stopped.’
- b. Temur-ø [yomg’ir-ning  
 Temur-Nom [rain-Gen  
 to’xta-gun-i-gacha]  
 stop-Past.Adn-PoP.3.Sg-until]  
 o’zi-ning ofisi-da edi.  
 self-office-at was  
 ‘Temur was at his office until the rain  
 stopped.’

(32) Kazakh

- a. Aydos-ø [jangber-ø  
 Aydos-Nom [rain-Nom  
 tohta-han-ha deyin]  
 stop-Past.Adn-Alt until]  
 isbolmesin-de tur-di.  
 office-at be-Past.Con  
 ‘Aydos was at his office until the rain  
 stopped.’
- b. Aydos [jangber-ding  
 Aydos-Nom [rain-Gen  
 tohta-u-i-na deyin]  
 stop-Past.Adn-PoP.3-Alt until]  
 isbolmesin-de tur-di.  
 office-at be-Past.Con  
 ‘Aydos was at his office until the rain  
 stopped.’

The fact that (27) with a genitive subject is ungrammatical poses an interesting question.

Why is this so in Azerbaijani?

#### 4. Discussion

Let us consider what the above facts suggest. Our research shows that the distribution of genitive subjects in Azerbaijani is fundamentally identical to that in Japanese, except the ‘until’ examples in (27). Note that the example in (26) shows that genitive subjects are allowed in other adjunct clauses such as *since*-clauses. The crucial difference between the grammatical example in (26) and the ungrammatical example in (27) is the fact that the adnominal form of the predicate in (26) is different from the adnominal form of the predicate in (27). In (26), the predicate is in the non-subject past participle form indicated as PN, and in (27), the predicate is in the subject participle form indicated as PS. If Harada (2002), who argues based on Konoshima (1973), is correct in assuming that *made* ‘until’ and *kiri* ‘since’ have a nominal origin, and this is true to their Azerbaijani counterparts as well, the example with a genitive subject in (26) is correctly predicted to be grammatical, and the example with a genitive subject in (27) would also be incorrectly predicted to be grammatical, as the two conditions in (1) are satisfied.

- (1) Conditions on Genitive Subject Licensing
- 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.

The fact that only (27) with a genitive subject is ungrammatical suggests then that Azerbaijani has a language specific property in which the

predicate must be in the PS form in the *qədər* ‘until’ clause, which does not contribute to genitive subject licensing. Therefore, the ungrammaticality of (27) suggests that the condition in (1b) should be refined as (33b).

- (33) Conditions on Genitive Subject Licensing
- 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 **non-subject** adnominal form of a predicate.

Now, let us consider whether (33a, b) are conditions on genitive subject licensing in Azerbaijani alone, or whether they are general enough to apply to other Altaic languages such as Mongolian, Kazakh, Uyghur, Uzbek, Manchu and Japanese. In the following, we would like to suggest that (33a, b) apply to at least these languages. Out of these languages, Mongolian, Kazakh, Uyghur and Uzbek have a distinction between the conclusive form and the adnominal form of a predicate, but they do not have a distinction within the adnominal form, unlike Azerbaijani. If Azerbaijani is special and has a language specific property in which the predicate must be in the PS form in the *qədər* ‘until’ clause, it may be possible to assume that in Mongolian, Kazakh, Uyghur and Uzbek, the predicates may have the PN form, that is, the non-subject adnominal form in *until*-clauses as well as in other adjunct clauses. If this is so, the revision from (1b) to (33b) does not affect genitive subject licensing in these languages.

As for Manchu and Japanese, the revision from (1b) to (33b) will not affect genitive subject licensing in these languages, either. This is because these languages have no

morphologically visible distinction between the conclusive form and the adnominal form of a predicate, and it is not implausible to assume that in Manchu and Japanese, the predicates may have the non-subject adnominal form in *until*-clauses as well as in other adjunct clauses.

Before closing, let us consider the Turkish counterpart of (27), as Azerbaijani and Turkish are very close to each other in their syntactic properties.

- (34) Leyla yağış-ø/\*-in dur-an-a  
 Leyla rain-Nom/-Gen stop-NML-Dat  
 kadar ofis-te i-di.  
 until office-Loc be-Pst.3.SG  
 ‘Leyla was at the office until it stopped raining.’

Interestingly enough, (34) is ungrammatical with a genitive subject in the *until*-clause in Turkish as well. Therefore, (27) and (34) indicate that at least Azerbaijani and Turkish disallow genitive subjects in *until*-clauses in Altaic languages.

## 5. Conclusion

This paper investigated the distribution of genitive subjects in Azerbaijani, and based on the examples newly elicited, suggested that the condition on genitive subject licensing in (1b) should be revised to that in (33b). It was suggested that this revision does not affect genitive subject licensing in Mongolian, Kazakh, Uyghur, Uzbek, Manchu and Japanese.

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## A Movement Analysis for Split Control\*

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Keywords : split control, movement theory of control, multiple spec, free merge

### 1. Introduction

With the influential proposal made by Hornstein (1999), obligatory control can be derived through movement, assuming that movement into theta positions is allowed in principle within the Minimalist Framework. This approach has been called the Movement Theory of Control (MTC), which is theoretically intriguing in that it does not rely on a grammatically invisible element called PRO, whose status has never been made explicit in the previous literature.

However, there is a strong counterexample to MTC: Split Control (SC). Landau (2000) observes that split antecedents are in fact allowed in limited obligatory control types, as shown in (1):

- (1) John<sub>i</sub> asked Mary<sub>j</sub> [whether PRO<sub>i+j</sub> to get themselves a new car].  
(Landau (2000: 53))

These examples are particularly problematic to MTC. Since it assumes that PRO in obligatory control is a residue of A-movement, it is not clear how MTC accounts for the existence of split antecedents. Moreover, as Landau (2000)

mentions, SC is a problem not only for MTC but also any other theories of control.

This paper attempts to provide an adequate movement analysis for SC from Chomsky's (2013, 2015) framework. In particular, the concept of Free Merge is very important to our proposal. Under Chomsky (2013, 2015), External/Internal Merge can be applied freely insofar as all syntactic objects are properly labeled. That is, the operation of movement (Internal Merge) itself does not require any costs. Based on this concept, we argue that the derivation in which two external arguments are generated in the specifier position of one  $v^*P$  is a theoretically possible option under Free Merge, and capture all the properties of SC. If what we propose is on the right track, we can derive SC without inducing any costs and contribute to the control theory in its entirety.

### 2. Peculiar Properties of SC

In this section, let us introduce four properties of SC. First, as you can see in the examples in (1), SC does allow plural anaphor. Hence, it is semantically and syntactically plural. The second property is that controllers in SC must be local as in (2).

- (2) Mary<sub>i</sub> was glad that John<sub>j</sub> had proposed to Bill<sub>k</sub> [PRO<sub>j+k/\*i+j/\*i+k</sub> to cooperate with each other]. (Landau (2013: 173))

Third, verbs allowing SC are very restricted:

- (3) \*John<sub>i</sub> told Mary<sub>j</sub> PRO<sub>i+j</sub> to wash themselves/each other.  
(Hornstein (1999: 73))
- (4) a. John offered/\*ordered Mary to help each other. (Landau (2013: 174))  
b. John proposed/\*committed/\*seemed to



Mary to help each other.  
(Landau (2013: 174))

Landau (2000) observes that SC is usually found along with verbs of proposal and communication, but that most of the object control verbs prohibit it as in (3) and (4). The final property is that SC is not allowed in adjunct clauses:<sup>1</sup>

- (5) \*John<sub>i</sub> said that Mary<sub>i</sub> left after PRO<sub>i+j</sub> washing themselves.  
(Hornstein (2003: 31))

This evidence clearly indicates that the selectional requirement is necessary for the occurrence of SC.

So far, we have observed four properties of SC. Clearly, SC differs strikingly from regular control constructions, which defies easy solutions for any theories of control. Hence, as Landau (2013) notes, numerous studies deny the existence of SC (Williams (1980), Hornstein (1999, 2003), among others). However, the presence of SC is observed and verified by several researchers (e.g. Landau (2000)). Indeed, this phenomenon is very limited but does exist. Hence, it is necessary to explain why it shows the properties that it has for the further development of control theory.

### 3. Previous Analyses of SC

Since SC has very problematic properties, not many analyses for SC have been proposed in the previous literature.<sup>2</sup> Landau (2013) extensively survey the previous studies on SC and point out their problems. Thus, Landau (2013: 174) concludes “As of yet, there is no satisfactory theory for the syntax of split control constructions.”<sup>3</sup>

In the following subsection, we outline one

influential previous analysis for SC, which is based on the movement analysis by Hornstein (1999).

#### 3.1 Fujii (2006, 2010)

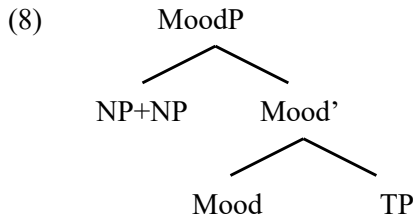
As briefly mentioned in Section 1, MTC faces the problems with SC: if obligatory control is derived by movement, how can split antecedents be derived? Fujii (2006, 2010) points out that the PRO analysis for SC violates a minimality principle, namely the Principle of Minimal Distance (PMD) by Rosenbaum (1970). It requires that PRO must be bound by a closer potential antecedent. Given this, consider the configuration of SC in (6):

- (6) NP<sub>i</sub> NP<sub>j</sub> [CP PRO<sub>i+j</sub> ...]

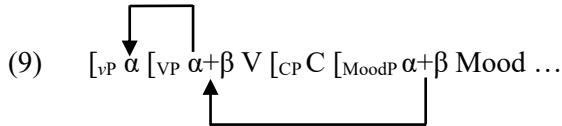
In the configuration of (6), PRO is controlled by NP<sub>i</sub> but not the closer antecedent, which is deemed as a violation of PMD. Alternatively, Fujii (2006, 2010) proposes a novel movement analysis for SC. Fujii shows that there is a specific mood particle that triggers SC in Japanese: “exhortative” mood, as shown in (7).

- (7) Taro-wa Hiroshi-ni [Δ otagai-o  
Taro-Top Hiroshi-Dat e.o.-Acc  
tasuke-a-oo-to] teiansita  
respect-Recip-YOO-C proposed  
‘Taro proposed to Hiroshi to help each  
other.’ (Fujii (2006: 122))

One question here is that the minimal distance principle seems to be violated in (7). Given this, Fujii suggests that SC is involved in the structure in (8) where two coordinated NPs can arise in the same specifier of Mood in the case of SC, which guarantees the plurality:



The derivation proposed by Fujii (2006, 2010) is illustrated in (9).



First, in (9),  $\beta$  undergoes movement to the indirect object position in the matrix clause to receive the theta-role, and pied-piping the other conjunct  $\alpha$ . Then,  $\alpha$  moves to vP Spec position to check the external theta-role of the matrix  $v$ . Fujii argues that the derivation in (9) does not violate the minimality because he assumes that  $\alpha$  and  $\beta$  are equidistant:  $\alpha$  does not block the movement of  $\beta$ , nor does  $\beta$  block the movement of  $\alpha$ . However, it is not plausible to assume the structure of (9) for SC. As Landau (2013) points out, the assumption that the coordinated structure is broken up in syntax is quite dubious. If we can explain the peculiar behavior of SC without assuming covert conjunction, a theoretically desirable outcome can be obtained.

#### 4. An Analysis of Saito (2017a, b)

In this section we introduce the argument in Saito (2017a, b), which is crucial to our proposal. Before going onto Saito's analysis, let us introduce Labeling Algorithm (LA) from Chomsky (2013, 2015). He defines Merge as the set-forming operation from two syntactic objects and all sets need to be labeled by LA to allow for proper interpretation at the interfaces. Consider the following:

- (10) a.  $\{\alpha=X \text{ X, YP}\}$

- b.  $\{\text{XP} \dots \{\alpha=Y \text{ ~~XP~~, YP}\}\}$   
 c.  $\{\alpha=<F, F> \{\text{X}_{[F]}, \text{WP}\}, \{\text{Y}_{[uF]}, \text{ZP}\}\}$

In (10a), one head is merged with some phrase; in this case, Minimal Search (MS) detects the nearest head, X. In (10b, c) both elements are phrases, and this situation is often called XP-YP configuration. There are two possible solutions to resolve the XP-YP configuration: (i) one phrase moves and thus becomes invisible to MS (= (10b)) (ii) the feature sharing between two phrases provides the unique label (= (10c)).

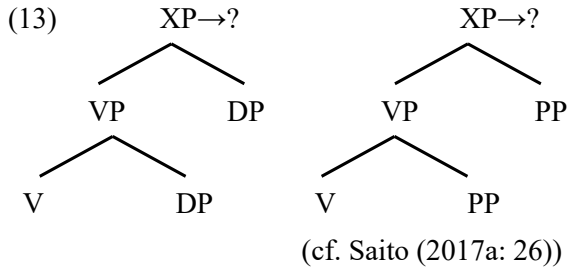
With this background in mind, let us introduce Saito's (2017a, b) argument, and argument doubling observed by Kuroda (1988). Saito argues that the Theta-Criterion in (11), which is nothing but the stipulation, should be dispensed with.

- (11) Theta-criterion: each argument bears one and only one  $\theta$ -role, and each  $\theta$ -role is assigned to one and only one argument.  
 (Chomsky (1981: 36))

His argument is based on the fact that there is a high degree of overlap in the effects of the theta-criterion and the labeling requirement. (12a, b) are typical examples of violations of the theta-criterion.

- (12) a. \*Mary hit the head John  
 b. \*Mary went to Germany (three times) to Europe (Saito (2017a: 29))

He argues that independent of the theta-criterion, the predicates in these examples fail to be labeled as illustrated in (13). Hence, he concludes that the theta-criterion is not necessary to account for the ungrammaticality of these examples.



Furthermore, he presents for additional evidence the cases of argument doubling discussed by Kuroda (1988). First, look at the example in (14).

- (14) ??Masao-ga Hanako-o  
 Masao-Nom Hanako-Acc  
 hoho-o butta  
 cheek-Acc hit  
 ‘Masao hit Hanako on the cheek.’  
 (cf. Kuroda (1988: 25))

It is well known that the grammaticality of (14) is degraded because Japanese has a mysterious surface constraint which prohibits multiple occurrences of accusative case in a sentence. This effect can be circumvented by moving one of the accusative phrases, as shown in (15).

- (15)[<sub>CP</sub> Masao-ga Hanako-o but-ta  
 Masao-Nom Hanako-Acc hit-Past  
 no]-wa hoho-o da  
 Comp-Top cheek-Acc is  
 ‘It is on the cheek that Masao hit  
 Hanako.’ (cf. Kuroda (1988: 25))

Saito argues that the problem cannot be explained by the theta-criterion because (15) is grammatical even though one verb provides theta-roles to two arguments. These pieces of evidence lead Saito to conclude that the theta-criterion is no longer necessary. Notice that

one verb can assign the same theta role to two distinct DPs. This suggests that multiple elements can be generated in one  $v^*P$  Spec.

## 5. Proposal

Given that Move (Internal Merge) and Merge (External Merge) are taken as equivalent operations, Chomsky (2013, 2015) claims that Internal Merge and External Merge must be applied freely as long as all syntactic objects are labeled successfully. The implication behind this concept is that under Free Merge, nothing prevents the derivation in which two arguments are generated in the specifier position of one head.

Under Free Merge, we propose an alternative analysis for the derivation of SC. Specifically, we claim that two external arguments can be generated in the specifier position of  $v^*P$ . Let us see the derivation for (16a):<sup>4</sup>

- (16) a. John asked Mary [whether to get themselves a new car]. (= (1))  
 b.  $\{\beta = \langle \varphi, \varphi \rangle \text{ John } \{v^*P \text{ asked } \{\alpha = \langle \varphi, \varphi \rangle \text{ Mary } \{\text{whether to } \{\text{John } \{\text{Mary } \{v^*P \text{ get...}}\}}\}}\}}\}$

In (16b), two external arguments, *John* and *Mary* are generated in the same  $v^*P$  Spec, and both gain a theta-role from the verb *get*. Then, each external argument moves into the matrix clause separately and gets properly labeled there. This derivation is theoretically possible within the current framework as far as the LA is conducted successfully. Of great significance in this derivation is that it requires only one operation, namely (Internal) Merge, which is a basic operation in human language and can be applied freely. In other words, the proposed analysis can derive SC without any stipulated

assumptions, reflecting the spirit of the Strong Minimalist Thesis.

Then, we will address the question of why SC is impossible in some cases. First, consider (17).

- (17) a. \*John Mary played baseball.  
 b. \* $\{\beta=?? \text{ John } \{\alpha=<\varphi, \varphi> \text{ Mary } \{\text{John}, \{\text{Mary} \{\nu^*P \text{ played baseball}\}\}\}\}\}$

As we can see in (17b),  $\beta$  is not labeled, causing the derivation to crash: each syntactic object needs to be labeled for the interpretation. Next, look at the sentence in (18a) and the possible derivation in (18b).

- (18) a. \*John suggests to Mary that gets themselves a new car.  
 b.  $\{\beta=<\varphi, \varphi> \text{ John } T \text{ suggests to Mary that } \{\alpha=?? \{\text{John}, \{\text{Mary } T \text{ gets themselves a new car}\}\}\}$ .

In Chomsky (2015), T is too weak to be labeled by itself, so prominent feature sharing is needed for strengthening the label of T.<sup>5</sup> However, in (18b), copies *John and Mary* left by movement are not visible by MS in principle (see Chomsky (2013, 2015)), so that T is not strengthened. Hence, the derivation of (18b) is correctly excluded.

## 5.1 Explaining the Properties of SC

The proposed analysis can successfully account for all the properties of SC. First, concerning the anaphors which require plural antecedents, we argue that two DPs originated as in the same edge of  $\nu^*P$  can authorize such anaphors as *each other* in (19) just like the coordinate structure in (20) (cf. Fujii (2006)):

- (19) John proposed to Mary to meet each other at 6. (Landau (2000: 53))  
 (20) John and Mary love each other.

Second, we adopt movement analysis for the derivation of SC, just like Fujii, so that the locality of controllers in SC is easily captured by our analysis too.

Let us consider the third property. SC is restricted to only some types of control constructions. Recall that the verb *tell* does not allow SC complements as in (21). This is also true to the verbs *order*, *seem*, and *commit* as you can see in (22).

- (21) \*John<sub>i</sub> told Mary<sub>j</sub> PRO<sub>i+j</sub> to wash themselves/each other. (= (3))  
 (22) a. John offered/\*ordered Mary to help each other. (= (4a))  
 b. John proposed/\*committed/\*seemed to Mary to help each other. (= (4b))

It is reasonable to consider that these sentences are excluded by semantic factors. As Fujii suggests, this issue arises not only in the MTC but also in the PRO analysis. Landau (2000) and Fujii (2006) argue that the acceptability of SC depends partially on the semantics of verbs. Based on extensive Japanese data, Fujii persuasively argues that only verbs which support exhortative interpretations allow SC complement. This semantic restriction is persuasive because it can easily explain why *tell* in (21) and *order* and *commit* in (22) cannot take any SC complement. The similar proposal to Fujii is also made by Madigan (2008) and Matsuda (2017), and Landau (2015) adapts Madigan's. Following them, we simply assume that C with an exhortative feature needs to be selected by verbs for SC. Thus, we can also

explain, along with the same assumption, why SC is not allowed in adjunct clauses:

- (23) \*John<sub>i</sub> said that Mary<sub>j</sub> left after PRO<sub>i+j</sub> washing themselves. (= (5))

Since C in adjunct clauses is not selected by matrix verbs, the exhortative interpretation cannot be obtained: selection is necessary for SC (see Hornstein (2003), Fujii (2006), Madigan (2008), Landau (2015), and Matsuda (2017)). Hence, adjunct clauses do not allow SC.<sup>6</sup> Thus, the properties of SC are not a problem for the proposed analysis and captured successfully.

## 5.2 Possible Extension

Finally, we explore a possible extension of our analysis. The previous section has argued that in the case of the derivation of SC, multiple elements are generated in the same  $v^*P$ . Interestingly, the split antecedent constructions are also found in the relative clause, as observed by Ross and Perlmutter (1970):

- (24) a. A man<sub>i</sub> entered the room and a woman<sub>j</sub> went out who<sub>i,j</sub> were quite similar.  
(Ross and Perlmutter (1970: 350))  
b. We always let those boys<sub>i</sub> play with those girls<sub>j</sub> [who<sub>i,j</sub> know one another from elementary school].  
(Hoeksema (1986: 64))

They look very similar to SC constrictions. If multiple spec constructions are allowed in syntax, these examples can also be captured by our proposal.

## 6. Conclusion

To summarize the discussion of this paper, we have proposed that two external arguments

can arise in the same  $v^*P$  Spec position under the notion of Free Merge and have provided the adequate explanation for SC.

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## NOTES

<sup>1</sup> Under the movement analysis, obligatory adjunct control is derived by Nunes' (1995) sideward movement (Hornstein (1999, 2003)). See also Sakumoto (to appear) for his alternative analysis.

<sup>2</sup> The reader is referred to Landau (2013) for the overview of previous studies on SC and their problems.

<sup>3</sup> Madigan (2008), Landau (2015) and Matsuda (2017) have provided the interesting approaches to SC with the PRO analysis. This paper does not scrutinize their validity, but instead focuses on the satisfactory account of SC with MTC.

<sup>4</sup> This paper proposes another possibility for the derivation of SC under Free Merge that two external arguments form one set  $\{DP_1, DP_2\}$  in the  $v^*P$  Spec, and each DP moves to the matrix clause for labeling (see Rodrigues (2007) for his approach of complex DP to partial control and its plurality). Potentially, this idea can account for the behavior of SC without causing the problem Fujii (2006) faces.

<sup>5</sup> Following Mizuguchi (2017), we assume that infinitival T can be labeled by itself.

<sup>6</sup> This fact can also be captured by Landau's (2013, 2015) observation that predication does not allow split readings. This idea is also

compatible with the movement analysis.

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## Not-exactly: A Challenge for the QUD-based Approach to Imprecision

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Keywords: imprecision, loose talk, question under discussion

### 1. Introduction

According to a familiar view on loose talk, when we speak loosely, what we say is literally false, but since there is no relevant difference between what we say and what we mean, our utterances can be accepted to be true. For example, consider:

- (1) A high school principal in Texas travelled **800 miles** in two weeks to visit all of his 612 graduating seniors at home.
- (2) Tampa is **exactly 1000 miles** away from New York city.

The numerical expressions in bold are used loosely: It is unlikely that the author of (1) means that the school principal travelled exactly 800.0 miles in two weeks and the speaker of (2) means that Tampa is exactly 1000.0 miles away from New York city. According to the familiar view, both (1) and (2) are literally false, but they can be accepted to be true because their literal contents are not relevantly different from what they mean (i.e. The high school principle travelled roughly 800 miles in two weeks; Tampa is very close to exactly 1000 miles away from New York City).

(Lasersohn (1999)) provides an elegant theory showing how sentences' imprecise contents are determined by both their literal contents and what is relevant in a conversation: Every sentence not only has its literal content but also has a pragmatic halo, which consists of propositions that do not differ from that sentence's literal content in pragmatically relevant ways. The imprecise content of a sentence is true just in case that sentence's pragmatic halo contains a true proposition.

While Lasersohn's theory explains why sentences that are literally false can be accepted to be true, it cannot account for (i) the fact that the imprecise contents of negations are stronger than their literal contents and (ii) the fact that an increase in the standard of precision is generally easier than a decrease:

- (3) The high school principal didn't travel 800 miles in two weeks.
- (4) a. Anna: Amanda arrives at 9 pm.  
b. Ben: No, she arrives at 9:00:02 pm.
- (5) a. Chan: Amanda arrives at 9:00:02 pm.  
b. David: #No, she arrives at 9 pm.

The literal content of (3) is the very weak proposition that the distance travelled by the principal is not identical to 800.0 miles, which is much weaker than what (3) intuitively means (Carter (2017); Hoek (2018)). While Ben in dialogue (4) can signal an increase in standard of precision by uttering (4-b), David in dialogue (5) cannot signal a decrease in standard of precision by uttering (5-b) (Klecha (2018)).

Recently, there have been new versions of the familiar view that are in part motivated by the need to address issues (i)

and (ii) above. While their motivations and implementations vary, a key common feature of these accounts is that they make use of a contextually given relation over the common ground — which some authors identify with the Question under Discussion (QUD) (Roberts (2012)) — to convert sentences’ literal contents into their intuitive imprecise contents. In this paper, we call these accounts QUD-based accounts, and their approach to imprecision the QUD-based approach.

The purpose of this paper is to present a challenge to the QUD-based approach. The challenge can be brought out by the contrast between the sentences below:

- (¬P) Chris Paul is not 6’0 tall.
- (¬EP) Chris Paul is not exactly 6’0 tall.

According to the approach, since ‘Chris Paul is not 6’0 tall’ and ‘Chris Paul is exactly 6’0 tall’ say the same thing, so do (¬P) and (¬EP). However, not only does (¬EP) have an intuitive imprecise content that is weaker than that of (¬P), it also has a feature that (¬P) does not have: It implies that Paul is close to exactly 6’0 tall. I argue that it is difficult for the QUD-based approach to explain this contrast between (¬P) and (¬EP).

The rest of this paper is structured as follows. We first discuss the QUD-based approach to imprecision (§2). After that, we present the challenge to the QUD-based approach, consider a response, and show that it is unsatisfactory (§3). We then provide a partial defense of an alternative to the familiar view, on which numerical expressions denote intervals rather than maximally finegrained degrees (§4). §5 concludes.

## 2. The QUD-based approach to imprecision

In the following, we will focus on the following two sentences and their negations:

- (P) Paul is 6’0 tall.
- (EP) Paul is exactly 6’0 tall.
- (¬P) Paul is not 6’0 tall.
- (¬EP) Paul is not exactly 6’0 tall.

The QUD-based approach assumes that ‘6’0’ denotes a point on the tallness scale. Since Paul’s height is not identical to that precise point of the scale, both (P) and (EP) are false, and (¬P) and (¬EP) are both true but highly uninformative.

According to the approach, relevance plays a crucial role in transforming those sentences’ literal contents into their intuitive communicated contents. Questions under Discussion (QUD) are used to (a) make explicit what it is for a piece of information to be relevant and (b) transform the literal contents of such sentences as (P), (EP), (¬P), and (¬EP) into their intuitive imprecise contents.

Formally, a QUD is a partition over the context set. In the following, we assume that the context set represents the state of ignorance, so that the context set is identical to the logical space. For example, if the information that is mutually accepted among the interlocutors is represented by the set of worlds in the rectangle below, the QUD *Who won the 3-point contest this year?* will divide that set of worlds into cells, each of which represents a complete answer to the question. (Assumption: there are only 4 players.)



(6)

Curry	Tatum
Lavine	Mitchell

In the top left cell are worlds in which Curry won the contest. In the top right cell are worlds in which Tatum won the contest, and so on.

Here is why QUD can be exploited to account for the imprecise contents of sentences. In everyday conversations, the difference between 6'0 and 6'01 is almost never relevant to whether (P) counts as true. The QUD-based approach explains why (P) can be used to communicate a true imprecise content by positing an unarticulated QUD such as *What is Paul's height measured to the nearest inch?*. The thought is that if someone utters (P), and if the interlocutors do not object to their utterance, then a QUD such as *What is Paul's height measured to the nearest inch?* will be tacitly accepted by the interlocutors, and that QUD will transform the content of (P) into an answer to the QUD. For example, consider the following representation of the QUD *What is Paul's height measured to the nearest inch?*

(7)

5'10	5'11
6'0 x	6'1

In the top left cell are worlds in which Paul's height, measured to the nearest inch, is 5'10. In the bottom left cell are worlds in which Paul's height, measured to the nearest inch, is 6'0, and so on. The blue cross represents the worlds in which Paul's height is exactly 6'0. Since those worlds are not relevantly different from the worlds in the bottom left cell, the literal content of (P) signals that the answer to the question is the proposition represented by that cell, and the imprecise content of (P) is identified with that proposition.

To account for the fact that the imprecise content of ( $\neg$ P) is stronger than its literal content, the QUD-based approach can define the imprecise content of  $\neg\phi$  to be the difference between the logical space and the imprecise content of  $\phi$ . So the imprecise content of ( $\neg$ P) is the difference between the logical space and the set of worlds represented by the bottom left cell in (7), which is identical to the proposition that Paul's height, measured to the nearest inch, is not 6'0.

When it comes to the treatment of 'exactly', the QUD-based approach has two options. The first option is to have 'exactly' modify the QUD so that it becomes more finegrained. The second option is to have 'exactly' modify the QUD so that it becomes maximally finegrained. Since it is not clear how the modified QUD is to be selected on the first option, we will only consider the second option. Consider:

(EP) Paul is exactly 6'0.

The intuitive content of (EP) is identified with the intuitive content of 'Paul is 6'0' when the QUD is *What is Paul's maximally precise height?*. So the intuitive content (EP) is identical to the sentence's literal content.

Now that we have seen how the QUD-based approach accounts for the intuitive contents of (P) and (EP) and of their negations, let's turn to an argument against the approach.

### 3. An argument against the QUD-based approach

Consider:

( $\neg$ P) Chris Paul is not 6'0 tall.

( $\neg$ EP) Chris Paul is not exactly 6'0 tall.

Suppose we learn from the basketball player's team website that he is 6'0 tall. ( $\neg P$ ) sounds false, but ( $\neg EP$ ) sound true or at least implies that Paul is close to exactly 6'0 tall. The contrast between ( $\neg P$ ) and ( $\neg EP$ ) is stated as follows:

- (H) ( $\neg EP$ ) implies that Paul is close to exactly 6'0 tall, but ( $\neg P$ ) doesn't carry such implicature.

Notice that, according to the QUD-based approach, (P) and (EP) have the same literal content, which means that their negations ( $\neg P$ ) and ( $\neg EP$ ) also have the same literal content. The question we are interested in is whether the QUD-based approach can account for the contrast between ( $\neg P$ ) and ( $\neg EP$ ) while holding that the sentences say the same thing.

One may think that the approach can use the M-principle — which says that marked or more prolix expressions warn of an abnormal situation (Levinson (2000)) — to account for the contrast. Consider:

- (8) a. Peter caused the car to stop.  
b. Peter stopped the car.

Although both (8-a) and (8-b) say the same thing, since (8-a) is more marked than (8-b), (8-a) implicates that Peter stopped the car in an abnormal way (e.g. by activating a barrier). It is tempting to apply a similar reasoning to ( $\neg EP$ ) and ( $\neg P$ ): Since ( $\neg EP$ ) is more marked than ( $\neg P$ ), ( $\neg EP$ ) implies that Paul is not exactly 6'0 tall in an abnormal way, and being close to exactly 6'0 is arguably one such way of being not 6'0 tall.

While this explanation may seem to account for the contrast between ( $\neg P$ ) and ( $\neg EP$ ), it cannot account for the contrast between the following sentences:

- (9) This table is not exactly 80 inch long (since it is handmade).  
(10) I doubt that this table is not exactly 80 inch long (since it is machine-made).

Although both (9) and (10) are more marked than their without-‘exactly’ counterparts (i.e. ‘This table is not 80 inch long’; ‘I doubt that this table is not 80 inch long’), while (9) implies that the table is close to exactly 80 inch long — which according to the explanation under consideration is an abnormal way of (9) being true — (10), which is equivalent to ‘I am certain that this table is exactly 80 inch long’, does not seem to imply that it is true in an abnormal way. With that, we conclude that ( $\neg EP$ )’s implicature that Paul is close to exactly 6'0 tall is unlikely to be a M-implicature.

One may attempt to explain the contrast between ( $\neg P$ ) and ( $\neg EP$ ) by appealing to what they communicate, which respectively are:

- (11) Unarticulated QUD: *What is Paul's height measured to the nearest inch?*  
What ( $\neg P$ ) communicates: Paul's height, measured to the nearest inch, is not 6'0.  
(12) Unarticulated QUD: *What is Paul's height measured to the nearest inch?*  
What ( $\neg EP$ ) communicates: Paul's maximally precise height is not identical to 6'0.

However, it is not clear how these communicated contents are helpful here: While the communicated content of ( $\neg P$ ) seems to rule out the possibility that Paul is close to exactly 6'0, the communicated content of ( $\neg EP$ ) does not say that Paul's height is close to exactly 6'0.

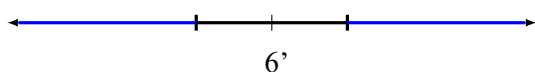
#### 4. A partial defense of the interval approach to numerical imprecision

In this section, we provide a partial defense of an alternative approach to numerical imprecision. According to this view, measure phrases such as ‘6’0’ denotes intervals on a scale, and ‘exactly’ serves to narrow the interval denoted by the measure phrase it combines with. (P) and (EP) are true just in case Paul’s precise height falls into the intervals denoted by ‘6’0’ and ‘exactly 6’0’.

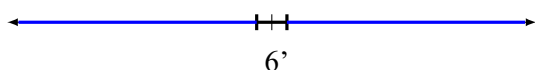
##### 4.1 On the implicature of ‘not exactly’

A consideration in favor of this approach is that it can account for the contrast between  $(\neg P)$  and  $(\neg EP)$  using a Quantity-based reasoning. Consider the following graphical representations of their literal contents:

$(\neg P)$  Paul is not 6’0 tall.



$(\neg EP)$  Paul is not exactly 6’0 tall.

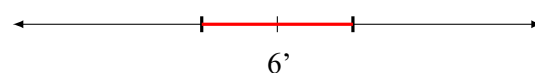


The black region in the first figure represents the interval denoted by ‘6’0’; and the black region in the second figure represents the interval denoted by ‘exactly 6’0’. Since  $(\neg EP)$  rules out a smaller interval than  $(\neg P)$ , it is weaker than  $(\neg P)$ . Notice as well that  $(\neg EP)$  is not only weaker but also longer than  $(\neg P)$ . So if a speaker utters  $(\neg EP)$ , the hearer would ask why the speaker does not utter the simpler and more informative  $(\neg P)$  instead. A plausible explanation is as follows: Suppose the speaker is knowledgeable about Paul’s height. The reason why they do not utter the simpler and more informative  $(\neg P)$  is that they know it to be

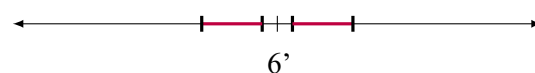
false. So the hearer reasons that Paul’s height falls into the interval denoted by ‘6’0’. Adding that information to the literal content of  $(\neg EP)$ , the hearer learns that Paul’s height falls into the interval denoted by ‘6’0’ but does not fall into the interval denoted by ‘exactly 6’0’.

Here is a graphical representation of the explanation:

(14) The speaker knows that  $(\neg P)$  is false.



(15) Putting (14) and  $(\neg EP)$  together:



The gappy interval in (15) shows that Paul counts as 6’0 tall but doesn’t count as exactly 6’0 tall. This content, I submit, captures the implicature of  $(\neg EP)$  that Paul is close to exactly 6’0 tall.

Since our explanation is based on Quantity, unlike the explanation based on the M-principle considered above, it predicts the contrast between (9) and (10): Since (9) is weaker than ‘this table is not 80 inch long’, it implies that the table is close to exactly 80 inch long. But since (10) is stronger than ‘I doubt that this table is not 80 inch long’ (hereafter (10\*)), its additional information strength already explains why the speaker does not utter the shorter but weaker (10\*), and so it does not imply that (10\*) is false, i.e. the speaker is certain that the table is not 80 inch long.

##### 4.2 Towards an intervalist account

We can anticipate two worries about the present view: First, since a natural way to develop the view is to allow every numerical expression to have different denotations in different contexts, the view seems committed to the massive

ambiguity of numerical expressions. Second, if the view holds that a numerical expression only denotes a single interval in a context, then it seems that the selection of that interval is bound to be arbitrary.

To address these worries, here is how we are going to implement the present view. In the following, we will focus on measure phrases such as ‘6’0’, which denotes intervals on the scale of heights. (If promising, our account can be easily adapted to other numerical expressions.) We will assume that there is a stock of functions that map points on a scale to intervals on the same scale, and that every function,  $\gamma$ , satisfies the following constraints:

- (a) For every degree on the tallness scale,  $\gamma$  maps it to a convex subset that contains it.
- (b) The intervals induced by  $\gamma$  are pairwise disjoint.
- (c) The union of the intervals induced by  $\gamma$  returns the tallness scale.
- (d)  $\gamma$  ensures that there is a *zero interval* — which is just like the region from 0 cm to 0.5 cm on a ruler — that represents the absence of height: The intervals induced by  $\gamma$  are equally spaced after the zero interval. But the difference between the minimal and maximal degrees of the zero interval, or the zero interval’s *width*, is half that of other intervals induced by  $\gamma$ .

The first three constraints are due to (Sauerland and Stateva (2011)). We introduce the last constraint concerning the zero interval because we want to directly use the functions satisfying the constraints above to assign denotations to numerical expressions. On the present view, the denotation of a numerical expression is determined by the simple principle  $[[n]]^{\gamma} = \gamma(n)$ . For example, if the widths of the intervals induced by  $\gamma$  after the

zero interval is 1 inch, then the possible denotations of ‘6’0’ are  $[5'11.5, 6'05)$ ,  $(5'11.5, 6'05]$ ,  $[5'11.5, 6'05]$ ,  $(5'11.5, 6'05)$ , all of which are centered on 6’0. (In the following, we shall ignore the last three intervals and call the interval  $[5'11.5, 6'05)$  the denotation of ‘6’0’ when the granularity is 1 inch.) Suppose the zero interval constraint is absent. There is no guarantee that the interval denoted by ‘6’0’ will be centered at the degree 6’0 like the four intervals given above. Call functions that satisfy the constraints above *granularity functions*.

With granularity functions in place, we are going to implement the present view using a dynamic semantics analogous to (Barker’s (2002)). Let a context be a set of world-granularity function pairs (or world-granularity pairs in short). Taking (P) as an example, our proposal is as follows: The meaning of (P) is a function from context to context: It eliminates from a given input context the world-granularity pairs that do not satisfy it.

We shall illustrate how our proposal works using the following two simple figures:

- (17) Context before acceptance of (P):

Paul’s height in $w$	$\gamma(6'0)$
6’0.1’’	$[6'0, 6'0]$
6’0.1’’	$[5'11.5'', 6'0.5'']$
6’0.4’’	$[5'11.9'', 6'0.1']$
6’0.4’’	$[5'11.5'', 6'0.5'']$

- (18) Context after acceptance of (P):

Paul’s height in $w$	$\gamma(6'0)$
6’0.1’’	$[6'0, 6'0]$
6’0.1’’	$[5'11.5'', 6'0.5'']$
6’0.4’’	$[5'11.9'', 6'0.1']$
6’0.4’’	$[5'11.5'', 6'0.5'']$

We can see that of the four world-granularity pairs under consideration, only the

second and the fourth pair survive after the context is updated with (P).

It is not difficult to see why we choose to implement the present view this way. Every numerical expression only has a single meaning, and that meaning contributes to the context change potentials of the sentences the numerical expression is part of. It is the granularities under consideration which vary from context to context — rather than the numerical expression having multiple meanings — that gives rise to the possible imprecise interpretations of numerical expressions.

Since all the world-granularity pairs that fail to satisfy the sentence will be eliminated, and all the world-granularity pairs that satisfy the sentence will survive the acceptance of (P), there is no need to arbitrarily assign an interval-denotation to every numerical expression.

## 5. Conclusion

Although the QUD-based accounts of imprecision improve on Lasersohn's account by either accounting for fact that the imprecise contents of numerical sentences are stronger than those sentences' literal contents or by accounting for the fact that an increase in the standard of imprecision is in general easier than a decrease, they share with Lasersohn's account the same problem: If 'exactly n' and 'n' have the same content, it is very difficult to account for the implicature of (¬EP) that Paul is close to exactly 6'0 tall, and for the fact that we do not observe a similar implicature when 'not exactly' occurs inside a downward entailing context, such as 'I doubt that'.

By contrast, the view on which numerical expressions denote intervals rather than maximally finegrained points can easily

account for the implicature of 'not exactly' and its disappearance in downward entailing contexts, because it can hold that 'exactly n' denotes a narrower interval than 'n', and is hence semantically stronger than 'n'. We have discussed how the interval view can block the ambiguity and the arbitrariness worries by incorporating granularity functions into a dynamic semantics.

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# **Why Does Contrast Allow Relational Adjectives to Be Used Predicatively? A Qualia Structure-Based Account\***

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Keywords : Denominal Adjective, Predicability,  
Noun-Deletion, Qualia Modification, Classifier

## **1. Introduction**

Relational Adjectives (RAs), also called classificatory adjectives, are one of the denominal adjectives and essentially differ from other canonical adjectives such as qualitative adjectives (QAs) in the extent to which they inherit the properties of their base nouns (Plag (2003), Bisetto (2010)). A typical difference is that RAs are modifiers that are only used attributively; they lack predicability. The RAs *rural* and *chemical* cannot be used predicatively, as indicated by (1b) and (2b).

- (1) a. a rural policeman  
b. \*a policeman who is rural
  - (2) a. a chemical engineer  
b. \*an engineer who is chemical
- (Levi (1978: 15))

While QAs ‘qualify’ the referent of nouns, RAs serve to ‘classify’ the type of nouns. Thus, *rural* in (1a) does not qualify the referent of policeman, but rather, it classifies a type of

policeman, denoting ‘a policeman who works in a rural area’. However, there are some cases where RAs appear in a predicate position.

Levi (1978) notes that RAs can be used predicatively in certain contrastive environments. First, an explicit contrast with a *not*-phrase enables the predicative use of RAs. The RA *mechanical* in (3b) is thus more acceptable than that in (3a).

- (3) *mechanical engineer*
  - a. Our firm’s engineers are all mechanical.
  - b. Our firm’s engineers are all mechanical, not chemical.

(Levi (1978: 260))

Second, an implicit contrast made by adverbs such as *primarily*, *mainly*, or *mostly*, increases RAs’ predicability. The adverb *primarily* in (4b) evokes alternative means of therapy other than *musical*, such as *aromatic*, *hormonal*, or *herbal*.

- (4) *musical therapy*
    - a. ? The therapy he does is musical.
    - b. The therapy he does is primarily musical.
- (Levi (1978: 260))

Finally, numerical prefixes, such as *mono-*, *di-*, or *tri-*, and other prefixes, such as *anti-* or *pro-*, are also considered to evoke contrast (Ishida (2020)). Thus, the prefixed RA *monochromatic* in (5b) can appear in a predicate position.

- (5) *(mono-)chromatic drawings*
    - a. \*Those drawings are chromatic.
    - b. Those drawings are monochromatic.
- (Levi (1975: 323); see also Ishida (2020: 38))

Note that *monochromatic* in (5b) retains its classificatory (or class-denoting) reading; it

means ‘drawings which have one colour’, but not ‘drawings that are drab’.

The predicability of such RAs, as observed above, however, does not disprove their inherently attributive nature. Previous studies such as Levi (1978), Nagano (2016, 2018), and Shimada and Nagano (2018) analyse RAs in a predicate position as having resulted from nominal ellipsis in their prenominal position, i.e. [X *be* RA N]. RAs in a predicate position are, therefore, not true adjectival predicates such as QAs, but rather, they are stranded prenominal modifiers whose modifying targets have been deleted. The predicative use of *monochromatic* in (5b) can be illustrated as in (6).

- (6) Those drawings are monochromatic ~~drawings~~.

Such N(oun)-deletion is licensed in certain environments where the deleted noun is recoverable.<sup>1</sup> A typical environment is that of contrast. We should then ask why the deleted modified head nouns are recoverable by contrast. To answer this, this study focusses primarily on the classificatory function of RAs and the qualia structure of head nouns. We specifically argue that contrast contributes to identifying the role of the qualia structure of the head noun; the role should be specified by the stranded RA, thus offering crucial hints to recover the deleted head noun.

## 2. The Semantics of Qualia Modification

As argued by Levi (1978) and other previous studies, RA-N expressions are, essentially, wholly synonymous with nominal compounds as shown in (7). For example, the RA-N *atomic bomb* in (7a) is a synonym of the N-N *atom bomb*.

- |     |                   |   |                 |
|-----|-------------------|---|-----------------|
| (7) | RA-N              |   | N-N             |
| a.  | atomic bomb       | ≈ | atom bomb       |
| b.  | maternal role     | ≈ | mother role     |
| c.  | industrial output | ≈ | industry output |
| d.  | marine life       | ≈ | ocean life      |
| e.  | linguistic skills | ≈ | language skills |
| f.  | urban parks       | ≈ | city parks      |
- (Levi (1978: 38), see also Beard (1995: 188))

This study conforms to this view and applies a semantic analysis of nominal compounds to RA-N expressions. Specifically, it is based on Johnston and Busa’s (1999) qualia structure-based account of nominal compounds.

### 2.1. Qualia Modification in N-N Compounds

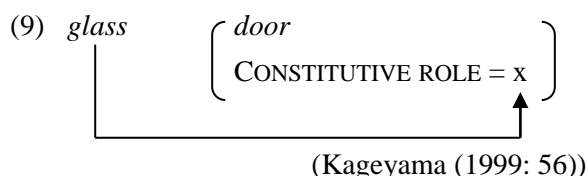
The qualia structure is one of the lexical semantic representations of the Generative Lexicon employed by Pustejovsky (1995). There are four aspects of the meaning of the lexical item, as represented in (8): CONSTITUTIVE, FORMAL, TELIC, and AGENTIVE.

- (8) a. CONSTITUTIVE: the relation between an object and its constituent parts;  
 b. FORMAL: that which distinguishes it within a larger domain;  
 c. TELIC: its purpose and function;  
 d. AGENTIVE: factors involved in its origin or “bringing it about”.  
 (Pustejovsky (1995: 76))

First, the CONSTITUTIVE role in (8a) expresses the relation between an object and its constituent parts. Second, the FORMAL role in (8b) denotes what distinguishes it within a larger domain. These two roles describe the paradigmatic relations among lexical items; the CONSTITUTIVE role encodes a part-whole relation, and the FORMAL role involves a

hyponym-hypernym relation. Third, the TELIC role in (8c) expresses its purpose and function. Lastly, the AGENTIVE role in (8d) underscores the factors involved in its origin or in bringing it about.

In terms of English compounds, Johnston and Busa (1999: 177) claim that a modifying noun can specify the semantic type of one of the arguments in the qualia of the head noun. For example, the modifying noun *glass* of *glass door* relates to the CONSTITUTIVE role of the head noun, *door*. The preferred interpretation of this compound is, therefore, ‘a door made of glass’. Kageyama (1999) visually illustrates such a qualia modification, as shown in (9).



In this manner, the lexical semantics of an N-N compound is compositionally interpreted.

## 2.2. Qualia Modification in RA-N Expressions

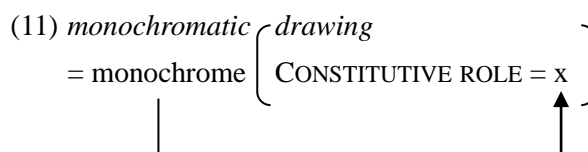
Based on RAs’ classificatory function and the synonymous relation between RA-N and N-N, we claim that RAs classify the type of nouns in a way that their base nouns specify the semantic type of one of the arguments in the qualia of the head nouns (cf. Beard (1991)); namely, similar to the semantic composition of N-N compounds, that of RA-N expressions can also be captured based on the qualia modification. In fact, we can easily find all types of qualia modification in RA-N expressions, as illustrated in (10).

- (10) a. CONSTITUTIVE:  
*monochromatic drawing*: ‘a type of

drawing that consists of one colour’

- b. FORMAL:  
*triangular diagram*: ‘a type of diagram that has a triangle form’
- c. TELIC:  
*insecticidal compound*: ‘a type of compound that is used to kill insects’
- d. AGENTIVE:  
*nuclear electricity*: ‘a type of electricity brought about by the nucleus’

For example, the base noun *monochrome* of *monochromatic* in (10a) specifies the semantic type of one of the arguments, the CONSTITUTIVE role, in the qualia of the head noun *drawing*, as illustrated in (11).



## 3. Analysis

To answer the question raised in section 1, we argue that contrastive environments have two significant roles to recover and identify the deleted head noun. First, contrast ensures and highlights that the stranded RA in the predicate position has a classificatory function. Second, contrast contributes to identifying the qualia role to be modified and, further, to recovering the deleted head noun.

### 3.1. Two Roles of Contrast in Recovering Deleted Head Nouns

Let us look at the first role of contrastive environments. When an adjective appears in a predicate position, the most common interpretation is that it is a QA. This is the case even when the adjectives have prefixes. For



example, while *monochromatic* can be interpreted as being an RA, it still has an alternative QA interpretation, ‘drab’. This ambiguity is resolved by a strong accent on the prefix, as in *Those drawings are MONOchromatic* (Togano et al. (2019: 17)), where the adjective is interpreted only as being an RA. This example highlights the first role of contrast; the contrast ensures that the adjective is not a QA but an RA. The strong accent on the prefix here presupposes the other alternative chromatic drawings, such as those mentioned in (12).

(12) dichromatic, trichromatic, quadrochromatic, multichromatic, achromatic, etc.

Such a supposed alternative set, naturally, indicates that the adjective in question classifies a certain type of noun (i.e. something related to *chrome*). This set further enables us to consider the second role of contrastive environments. The alternatives in (12), together, evoke an image of something consisting of colours or something with colours, and this associative relation offers a crucial hint to identify an appropriate qualia role to be modified, that is, the CONSTITUTIVE role. This process further recovers the deleted head noun. That is, we can identify that something (partly) CONSISTS OF (some) colours with drawings.<sup>2</sup>

In this manner, a certain alternative set clarifies how the RA in question classifies the type of its modifying noun.

### 3.2. Disambiguation of Attributive Modifiers by Contrast

Our claim that contrast contributes to identifying the qualia role of the head noun to be modified is further supported by considering

RAs’ attributive modification. For example, the RA-N expression *presidential company* in (13) is open to certain kinds of interpretations.

- (13) a. a company established for the President’s sake [TELIC]  
 b. a company established by (ex-)presidents [AGENTIVE]

On one hand, when the RA *presidential* specifies the TELIC role of the head noun *company*, the RA-N expression means (13a). On the other hand, when *presidential* specifies the AGENTIVE role of *company*, it means (13b). Therefore, *presidential company* is ambiguous at least between (13a) and (13b). Then, how can the interpretation of *presidential company* be disambiguated?

We argue that contrastive environments significantly contribute to restricting the reading of RA-N expressions. For example, if *presidential company* is compared to *financial company* in (14), we can fairly say that its reading can be restricted only to the TELIC one as in (13a); in contrast, when compared to *national company* in (15), *presidential company* only lends itself to the AGENTIVE reading as in (13b).

- (14) John belongs to a presidential company, but Mary belongs to a financial company.  
 (15) John belongs to a presidential company, but Mary belongs to a national company.

Such disambiguation of reading can be carried out by the explicit contrast of a *but*-clause, which results in identifying the qualia role of *company* to be modified; *financial* in (14) specifies its TELIC role, and *national* in (15) specifies its AGENTIVE role.

The same holds true for *allergic illnesses* in (16), where the reading is also ambiguous between (16a) and (16b).

- (16) a. an illness that consists of allergy as one symptom [CONSTITUTIVE]  
 b. an illness caused by allergy; a complication of allergy [AGENTIVE]

Such a two-way reading can be disambiguated by the RAs in the explicit contrast of a *but*-clause; *diarrheal* in (17) specifies the CONSTITUTIVE role of *illness* and *viral* in (18) specifies its AGENTIVE role.

- (17) John studies allergic illnesses, but Mary studies diarrheal illnesses. (cf. (16a))  
 (18) John studies allergic illnesses, but Mary studies viral illnesses. (cf. (16b))

Accordingly, the above examples demonstrate that contrast contributes to clarifying how the RA classifies its modifying noun.

#### 4. Implication: Japanese Counterparts of English RAs

Our analysis has interesting implications for cross-linguistic variation. One form of the Japanese counterpart of English RAs consists of [Noun + classifier + *-no* (genitive marker)]. Nagano (2016) calls this form Expanded Modifier. For example, the underlined part in (19) is an expanded modifier.

- (19) *genshiryoku-gata* *no* *denki*  
 nuclear power-classifier GEN electricity  
 ‘nuclear electricity’ (GEN = genitive)  
 (Shimada and Nagano (2018: 83))

Compared to English RAs, Japanese expanded

modifiers do not need contrastive environments when they appear in a predicate position, as in (20). When classifiers such as *-gata* or *-yurai* in (20) are attached to the noun *genshiryoku* ‘nuclear power’, the expanded modifier can appear in a predicate position without recourse to contrastive environments (see also Nagano (2016: §4.2)). The lack of classifier thus leads to low acceptability.

- (20) *Furansu no denki wa*  
 France GEN electricity TOP  
*genshiryoku-{gata/yurai} da*  
 nuclear power-classifier COP.NONPST  
 ‘French electricity is of the nuclear type.’  
 (TOP = topic, COP = copula, NONPST = nonpast)  
 (Shimada and Nagano (2018: 65–66))

Our analysis explains why such a difference exists between English and Japanese. Japanese classifiers such as *-gata* and *-yurai* have the specific meanings, ‘type of’ and ‘derived from or originating in’, respectively. These classifiers explicitly indicate that the relevant modifier relates to the AGENTIVE role of the head noun. Japanese classifiers thus contribute to achieving appropriate qualia modification, which precisely recovers the deleted head noun (cf. Shimada and Nagano (2018), Odagiri et al. (2019)). This also holds true for the rest of the three qualia roles as shown from (21a) to (21c). Indeed, each classifier uniquely specifies the appropriate qualia role.

- (21) a. CONSTITUTIVE:  
*komugi-sei-no* ‘wheaten’  
 wheat-**made.of**-GEN  
 b. FORMAL:  
*sankaku-kei-no* ‘triangular’  
 triangle-**in.the.shape.of**-GEN

- c. TELIC:  
*satchu-yo-no* 'insecticidal'  
 insect.killing-**for**-GEN

Since Japanese classifiers express specific qualia roles, expanded modifiers can establish certain qualia modification by themselves. For this reason, they can appear in a predicate position even in the absence of contrastive environments. Japanese classifiers per se show their classificatory function. On the other hand, because English RA-forming suffixes such as *-al*, *-ic*, or *-ary* do not add any specific meanings to their base nouns (Levi (1978: §4.2.4), Bauer et al. (2013: 314)), English RAs do need a certain factor or environment to highlight their classificatory function, i.e. contrastive environments.

## 5. Conclusion

English RAs are known as modifiers that are only used attributively, but they can be used predicatively in certain contrastive environments. We have revealed the relationship between contrast and N-deletion, and argued that contrastive environments significantly contribute to highlighting RAs' classificatory function and, further, to identifying the qualia role of the deleted head noun to be specified by the adjective in question.

Pullum and Huddleston (2002: 538) point out that some nominals appear in a predicate position (e.g. *a cotton sheet; the sheet is cotton*). In future research, we intend to address the question whether our analysis can explain such a nominal predicability as well.

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## NOTES

<sup>1</sup> The type of copular sentence resulting from nominal ellipsis indicates "class membership" (Nagano (2018: §3.2)), such as, *This is a good idea* (Huddleston (2002a: 53)), which is semantically of the same type as *This is a weed* 'This belongs to the class of weeds' (Huddleston (2002b: 271)).

<sup>2</sup> One may wonder how the stranded RA in the predicate position alone can refer to the qualia of the *deleted* head noun. We assume that the stranded RA does not have direct access to the target qualia structure; instead, its relationship is intermediated by an *abstract* qualia structure, which applies to nouns in general. This abstract qualia structure is schematically specified in that it has four roles but their contents are not saturated. It is accessible once the relevant adjective turns out to be an RA, which, due to its attributive nature and classificatory function, evokes the existence of a noun following the adjective even on deletion. Such an abstract qualia structure may be regarded as a nominal counterpart to the *skeletal* Lexical Conceptual Structure templates having certain unspecified slots that Kageyama (2007) assumes in the analysis of the *suru* of mimetic verbs (e.g. *burabura-suru* (mimetic-do) 'loaf around').

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## Ethical Dative in Forming the *Get-Passive*\*

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Keywords: ethical dative, *get*-passive, Old Norse,  
language contact

### 1. Introduction

This paper analyses the origin of the *get*-passive and lends support to the reflexive-causative origin hypothesis (e.g. Givón and Yang (1994), Toyota (2008)), but revises the earlier research by considering the ethical dative as a key element for the emergence of the *get*-passive instead of the reflexive pronoun. In determining the origin of the *get*-passive, the usual two lines of hypotheses may not be adequate. The causative reflexive source is a better candidate for sure, but the onset of grammaticalisation is triggered by the language contact with Old Norse (i.e. replication).

This paper is organized as follows: it starts with presenting typological oddities of the *get*-passive. Then the ethical dative is introduced using Indo-European languages, and then its presence in the history of English is reviewed. Following these, impact of language contacts with Old Norse on the formation of the *get*-passive is studied to see whether the ethical dative can replace the reflexive pronoun.

### 2. Oddity about the *Get-Passive*

The *get*-passive is a common construction in Present-Day English, but its origin has been

obscure. As pointed out in Toyota (2020), the etymological origin of *get* is a loan word from Old Norse *geta* ‘obtain, reach’ (13<sup>th</sup> C). The *get*-passive emerged around the 18<sup>th</sup> century, and an earlier frequent archaic serial verb *get rid of* was frequent in Late Modern English period, and *rid* is also originally from Old Norse (13<sup>th</sup> C) and Old Norse loan words were frequently involved at the initial onset of this construction (Toyota (2021)).

Furthermore, the use of ‘get’ as a passive auxiliary is very rare cross-linguistically, only in Norwegian (1) and Dutch (2), ‘get’ is found in the passive structure.<sup>1</sup> Note, however, that in both languages, only ditransitive verbs can be passivised with ‘get.’ It is also interesting that the ‘get’-passive is also found in Norwegian, a daughter language of Old Norse.

#### (1) Norwegian (Askedol (1994: 246))

<i>Han</i>	<i>fikk</i>	<i>tilsendt</i>
he	get.Pst	send.Pst.Prt
<i>bokene</i>		
book.Pl.Def		
‘He was sent the books/The books were sent to him.’		

#### (2) Dutch (De Schutter (1994: 471))

<i>Ze</i>	<i>kregen</i>	<i>het</i>	<i>uiteindelijk</i>
they	get.Pst	it	finally
<i>toch</i>			
nevertheless			
‘In the end, they were sent it anyway.’			

### 3. Ethical Dative

Among the Indo-European languages, the beneficiary or adversative reading is sometimes overtly expressed by adding an extra argument, commonly in the dative or instrumental case. This use of the dative is known as the ethical

dative. For instance, *nam*, the dative form of *mi* ‘we’ in (3b), is simply added to a neutral clause (3a) and the pronoun in the dative case denotes a recipient of adversity.

### (3) Serbian

- a. *Beba plače noći*  
baby cry.3Sg at.night  
‘The baby cries at night.’
- b. *Beba nam plače noći*  
baby us.Dat cry.3Pl at night  
‘The baby cries at night to our detriment.’

Gamkrelidze and Ivanov (1995: 291) claim that the Indo-European languages have a beneficiary which is always co-referential to the subject, and the object-oriented beneficiary never existed. Note that a self-beneficiary is a part of numerous characteristics found in the middle voice, e.g. Vedic Sanskrit *yájati* (active) ‘s/he performs a sacrifice’ (said of a priest); *yájate* (middle) ‘s/he performs a sacrifice’ (said of a person for whose benefit the sacrifice is made-), and the middle voice and ethical dative denote a similar meaning in Indo-European languages.

### 3. Ethical Dative in the history of English

The ethical dative may not be a common topic in English linguistics because examples have been rare throughout its history. Visser (1963-73: 633-635) says that it can be still found in Middle English, as exemplified in (4), but its occurrences were marginal and rare. However, the paucity of this construction can be an advantage, and it proves to be extremely useful in solving the mystery of the origin of the *get*-passive.

### (4) Middle English

*Envye ... bynymeth hym the love of alle goodnesse.*

‘Envy takes away the love of all goodness from him to his detriment. (c1386 Chaucer, *C.T.* I 676)

### 4. Language contact and the origin of the *get*-passive

As argued in Toyota (2020), the origin of the *get*-passive is heavily influenced by contact with Old Norse, and what has to be noticed is the fact that Old Norse had the productive ethical dative, as exemplified in (5). Since this structure was practically non-existent in earlier English, contacts with Old Norse made speakers of older English notice the construction existed, and the ethical dative could have been replicated. Data from earlier English also suggests a beneficiary or adversary was normally expressed by a dative, a reflexive pronoun or later a nominal proceeded by *to* or *for* (s.v. OED *get* v. I 18a, 18b).

### (5) Old Norse

*Geirr fann af skynsemi sinni at*  
Geir felt of reason his that  
*honum eyddusk skot-in*  
him.Dat eroded shots.Nom-Def

‘Geir sensed that his shots were being wasted (to his detriment).’ (EB 222)

A construction with a dative beneficiary started to appear in English around 1300, as shown in (6). Earlier instances of reflexive pronouns are scarce, and the ethical dative seems to be a better candidate for the origin of the *get*-passive. In addition, *get* itself was not an Anglo-Saxon verb, but a loan from Old Norse. Influence from Old Norse cannot be underestimated, and it is argued here that the

ethical dative also made it possible to use *get* in a ditransitive clause (i.e. (6)).

(6) Old English

Ay was he bone, to  
 always was he ready to  
*gete* [Cott. Fete] his fadir  
 get his father.Dat  
 venison  
 venison  
 'He was always ready to get his father  
 venison.' (a1300 Cursor M. 3502 (Cott.))

### 5. Causative origin revised

The causative can be a source of the passive voice typologically, but what is unique to this origin is that the passive can denote adversity, e.g. the Mongolic and Tungusic languages, as exemplified in (7) from Evenki (Tungusic). What is unique is that the actor is expressed in the dative case, which is a residue of the earlier causative construction. The adversative passive shares the same morpheme *-v-* with the causative, and the case marking on the object is the only way to disambiguate the reading. See Toyota (2011: 101-104) for details and references cited there.

(7) Evenki (Tungusic, Nedjalkov (1993: 195))

- a. *mit homoti-wa*  
 we-Nom bear-Acc  
*eme-v-re-p*  
 come-Caus-NonFut-1Pl  
 'We brought the bear with us.'
- b. *mit homoti-de*  
 we-Nom bear-Dat  
*eme-v-re-p*  
 come-Pass-NonFut-1Pl  
 'We were affected by the bear's coming.'

The adversative reading can also be detectable in some instances of the *get*-passive, but not in the *be*-passive (cf. Toyota (2008: 164-172)). This is a clear sign that the *get*-passive is not derived from the *get* cum adjectival complement clause as previously often argued, and that the causative or other sources are involved in the origin of the *get*-passive.

However, Note, however, that the beneficiary is normally associated with the subject in the Indo-European languages, but the ethical dative normally denotes adversity. Since the *get*-passive can denote adversity, and not beneficiary, it is more likely that the ethical dative can be a part of the original construction for the *get*-passive, instead of reflexive pronouns. Thus, contrary to arguments put forward in previous research, the causative cum ethical dative is a better candidate for the origin of the *get*-passive. The ethical dative may take the form of a reflexive when a subject referent and a dative NP are co-referential, but what should be noted here is that it is not a simple co-reference, but rather a sense of adversity/beneficiary should be present at the initial onset of the development.

### 6. Conclusion

In this paper, possibility of ethical dative as a source of the *get*-passive is examined. Contacts with Old Norse has been studied in the history of English, but its impact on the formation of the *get*-passive has been overlooked. Earlier instances of the ethical dative in English can be a replication from Old Norse, suggesting that influence from Old Norse is indeed deeply rooted in the English language, even more so than previously assumed.

Due to the paucity of actual examples, it is rather hard to come to conclusion at this stage, but both reflexive and ethical dative can be a candidate for the origin, but judging from the characteristics of typological data, ethical dative should be considered a candidate for the original construction instead of the reflexive pronoun.

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### NOTES

<sup>1</sup> Abbreviation used in this paper are: Acc = accusative; Caus = causative; Dat = dative; Def = definite; Nom = nominative; NonFut = non future; Pass = passive; Pl = plural; Prt = participle; Pst = past; Sg = singular.

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**Remarks on the Partial Pronominal Use  
of Proverbs in English and the “Simulation  
Effects” of Generic Pronouns and  
Clausal Generic Expressions\***

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Keywords : proverbs, logophoric complements,  
indefiniteness, simulation, Authorless Utterances

**1. Introduction**

This article deals with proverbs and indefinite singular noun phrases in English that are used partially like pronouns and explores why they may be used in this way.

This article is organized as follows: Section 2 shows why proverbs in logophoric complements matter linguistically. Section 3 examines the first-person orientation of generic *one* and generic indefinite singulars. Section 4 explores the relevance of Goffman's (1981) production format of utterances to formulaic expressions such as proverbs. Section 5 argues that proverbs are assigned indefiniteness by the Authorless production format. Section 6 offers a pragmatic account of marked discourse anaphora. Section 7 concludes this study.

**2. Pronouns and Proverbs in Complements**

As is commonly observed for complements of verbs of saying and thinking like (1) (cf. Dubinsky and Hamilton (1998), Nishida (2019)), pronouns, but not definite noun phrases like epithets or descriptions, can corefer with the

matrix subject (where *i* stands for coreference):

- (1) John<sub>*i*</sub> thinks that {he<sub>*i*</sub>/\*the idiot<sub>*i*</sub>/\*the senior office worker<sub>*i*</sub>} will win.

This is a logophoric complement in which the third-person pronoun represents the reported speaker or thinker in the matrix subject, and is a substitute for the subject's first-person pronoun (cf. Kuno (1972), Siewierska (2004)).

However, like pronouns, proverbs with noun phrase subjects may occur in such complements and their subjects are taken to corefer with, or more precisely, represent the same speaker or thinker as, the matrix subject, as in (2):

- (2) For more than 20 years, John has woken up at 4:30 every morning and has started working in his office from 7:00. He<sub>*i*</sub> believes that the early bird<sub>*i*</sub> catches the worm.

This shows that pronouns and proverbs of this form overlap in distribution. To separate such “logophoric” proverbs and the like from the coreferential pronouns, let us call the former “co-topical” readings, because, as in (2), such proverbs are used to talk about the same topic as another referring expression in the local context.

This study aims to answer the question of to what type of pronouns proverbs are similar. They are more similar to pronouns with co-topical readings than coreferential pronouns.

**3. Generic *One* and Generic Indefinite Singulars**

Proverbs like the one in (2) are similar to generic indefinite pronouns like *one*, which is oriented to the first-person. Moltmann (2006: 267) observes that in (3), the complement with

*one* is fine as a general statement if John alone can, but doesn't have to, see the picture from the entrance, but the complement with *people* requires that people other than John also can see it from the entrance:

- (3) John found out that {one/people} can see the picture from the entrance.

According to Moltmann (2006:265), in (3), generic *one* involves "inference from the first person," which "is licensed in a (simple) sentence establishing a generalization based on a first-person application of the predicate." It is fine even if John is unable to see the picture, for he can simulate anyone with normal vision.

It is necessary to consider the following quotation from Moltmann (2006:269) to clarify the role of simulation in genericity:

First-person-based genericity is genericity based on simulation, rather than theory about others. More precisely, first-person-genericity is based on generic simulation: a property is attributed to anyone in the relevant class on the basis of the speaker's attributing that property as if to himself, while abstracting from the peculiarities of his own situation.

In this connection, Moltmann (2006) uses the following examples to show that generic *one* sentences tend to mean the sense of requirement:

- (4) a. ??One has a nose.  
b. ??One lives in a big city.

Sentence (4a) is unnatural because it talks about a fact about the face that is hard to be a requirement for anybody. Sentence (4b) is

unnatural, too, but, in Moltmann's words, it turns to be acceptable "in a context in which living in a big city is considered some sort of general requirement, so that the sentence would describe the fulfillment of that requirement." Put differently, the sentences in (4), at least as they stand, do not involve simulation in which the speaker has to identify with others.

Moltmann (2006) also argues that the first-person orientation of generic *one* has another version of "inference to the first person," as exemplified in (5) with the comments cited from Moltmann (2006:265):

- (5) One can get cancer from too much sun (though I never did).

Inference to the First Person: Generic *one* is licensed in a ... sentence stating an (already established) generalization that is to allow for an immediate application to the first person in the reasoning relevant in the context of discourse.

In what follows, I argue that the inferences from/to the first person are responsible for the co-topical reading of generic indefinite singulars and also that of proverbs.

#### 4. Generic Indefinite Singulars, *a(n) N*

The "inference from the first-person" also comes into play with generic indefinite singulars like the one in (6), where *a Christian* is better than *Christians*, and *the Christian* is unacceptable in the reading in which the complement is a matter of Jack himself:

- (6) Living in a small house himself, Jack Sanders believes that {a Christian/Christians/\*the Christian} should live a humble life.

This parallelism indicates that generic indefinite singulars (*a(n) N*) are used the same way as generic *one*, and this is exactly the case.

Nunberg and Pan (1975) argue that indefinite singulars can be used as subjects of generic sentences only if the sentences have predicates expressing the properties that the subject individual has through its class-membership.

To cite Nunberg and Pan's (1975:416) argument and their examples, as a generic sentence, *A programmer is smart* is odd, but *A good programmer is smart* is fine, because smartness is required as a class characteristic of good programmers. Since they express requirements of an individual for class-membership, generic sentences with indefinite singulars as subjects are good at conveying prescriptive meaning, as shown by the fact that *A programmer should be smart* turns out to be fine.

Thus, in (6), the individual in matrix subject, i.e. J. Sanders, can easily simulate the life of an individual described in the complement and take it as a matter of himself when the latter is expressed as an individual having the same class-membership properties as him.

A similar observation is available from Burton-Roberts (1977:187-188) with the following example with a vocative name:

- (7) Emile! A gentleman opens doors for ladies.

This sentence with an indefinite singular subject invites Emile to open doors for ladies, because it implies that he is not being a gentleman now, and more importantly, it invites him to make the inference to the first-person.

The co-topical reading is a characteristic of indefinite pronouns like *one* and indefinite

singulars that stand as subjects of generalizations about class-membership. They invite inferences from/to the first-person, which then is satisfied by the local speaker who applies the generalizations to himself in simulation.

This argument is extended to apply to unspecified individuals described by proverbs with noun phrase subjects.

Here, we focus on generic sentences with indefinite singulars, and do not deal with those with subjects in the forms of bare plurals and definite singulars. In English, generic sentences of the latter forms are different from those with indefinite singulars in generalizing over kinds or superordinate classes rather than over class-membership (cf. Krifka and Pelletier (1995)).

Like the one in (2), there are proverbs whose subjects are definites, but they are on the whole closer to generic *one* and indefinite singulars than to generic definites in expressing the first-person simulation; their indefiniteness comes, not from their forms, but from the fact that they lack what Goffman (1981) calls "Author" in their production format.

## 5. Indefiniteness Assigned by the Authorless Production Format

Goffman (1981:145) decomposes the notion of speaker into the following three roles:

- (8) Production Format of Utterances:

Animator: the sounding box from which utterances come

Author: the agent who puts together, composes, or scripts the lines that are uttered

Principal: the party to whose position, stand and belief the words attest

Goffman (1981:229) argues that one or two of

the three roles can be omitted, which is reflected in the three production bases of speaking in (9):

- (9) a. fresh talk: Animator, Author, Principal
- b. aloud reading: Animator, (Author), Principal
- c. memorization: Animator

(9a) is a speech in which the speaker fulfills the three roles all by himself; in (9b), he has only to fulfill Animator and Principal; in (9c), he is just an Animator who does not make any words by himself, and has no responsibility for them.

The speakers of proverbs are cases of aloud reading without authorship, because they equally have to say the same prefabricated expressions every time, but are responsible for their words.

Proverbs are formulaic clauses for advice. In using proverbs positively for himself, the speaker makes himself an instance of the class of people who accept their advice. The speaker also makes their referent an instance of the class of cases that justify their advice. Thus, proverbs are qualified as marks of class-membership.

In these respects, proverbs are assigned indefiniteness by the Authorless production format, as represented by AN INSTANCE OF in the following interpretative convention:

- (10) [AN INSTANCE OF [The early bird catches the worm]]

The pragmatically assigned indefiniteness accounts for why proverbs may be used like generic *one* and generic indefinite singulars, especially for why proverbs may be used like pronouns in complements and in discourse.

In (10), AN INSTANCE OF invites the indefinite generic reading for the proverb, which then invites the first-person simulation. The

indefinite interpretative convention qualifies proverbs as clausal generic expressions.

The following excerpt, taken from Tharps (2010:55), is an example of self-referential use of *The early bird catches the worm*:

- (11) The clock read 7:59 A.M. when Kate strode into work. As she passed by Danyel Green's empty office, she sighed with relief. "The early bird catches the worm," she said to herself. For the last few weeks, Kate had been forcing herself to get to work by eight A.M.

In (11), the self-reference by the proverb results from the inference from the first-person.

Because the first-person simulation of proverbs belongs to pragmatic inference rather than to grammar, it also works for proverbs preceded by other determiners than *the*, as in (12), taken from Howard (2007:280):

- (12) 'Returning to Hollywood six years later was 'difficult': I have not had the [film] role to show my talent', she said, 'And I may not be pretty enough... or someone is just more marketable at that point than I am... I don't fight that because I believe that every dog has its day ...'

Thanks to the convention in (10), the speaker in (12), i.e. Diane Venora, is an instance of the Authorless proverb "every dog has its day."

Similarly, proverbs are used for discourse anaphora, as in (13), from O'Loughlin (2007):

- (13) So closely were these two lives intertwined, that it is impossible to think of Sartre without evoking thoughts of de Beauvoir, and vice versa. Birds of a

feather flock together, and certainly, these two philosophical writers of communistic leaning had much in common, so much, in fact, that they seem intellectual twins.

In (13), thanks to the inference from the first-person, Sartre sees de Beauvoir as he sees himself, and vice versa, giving an anaphoric reading to *Birds of a feather flock together*.

These facts indicate that proverbs are clausal counterparts of generic *one*, and that their usage in context is governed by the indefinite singular [AN INSTANCE OF], as in (10).

## 6. Toward a Pragmatic Account of Marked Discourse Anaphora

Proverbs in discourse receive pronominal or co-topical readings irrespective of the formal differences of their subject noun phrases. This is because they are assigned indefiniteness via their Authorless production format, rather than via their forms. The co-topical reading has a pragmatic rather than grammatical origin.

The pronominal use of proverbs, i.e. the co-topical reading, builds on the simulation of individuals in matrix subject; it disappears if they do not simulate anyone, as in (14):

- (14) For more than 20 years, John's father woke up at 4:30 every morning and started working in his office from 7:00. However, he went into bankruptcy at the age of 55. So, today John doesn't believe that the early bird catches the worm.

In (16), the embedded proverb under the negated matrix clause remains a matter of anyone.

To summarize: The indefiniteness of proverbs comes from the fact that they are Authorless utterances. Like generic sentences

with *one*, proverbs express what one should do or simulate. As Zhou, Majka and Epley (2017) argue, people often use their own experience to simulate the experience of another person, which underlies the co-topical reading of proverbs.

The discussions so far invite us to ask whether co-topical readings carried by proverbs and indefinite singulars are more primitive than pronominal anaphora. For this question, consider the following excerpt, from Swift (2000):

- (15) Frank Randall had three sons: Michael, Eddy and Mark. That was fine by him. A farmer whose business is rearing livestock knows that the sums extend to his own offspring. Sons are a good investment. His wife couldn't argue.

The indefinite singular in the second sentence has a co-topical reading about Frank Randall without being embedded in a reporting clause.

To make an analogy to Kuno's (1972) Direct Discourse Analysis, co-topical indefinite singulars in reporting clauses, as in (6), are similar to logophoric pronouns like the one in (16a), but those without reporting clauses are similar to the logophoric pronoun in (16c):

- (16) a. John expects that he will be elected.  
b. John expects, "I will be elected."  
c. John was thinking. Oh, would he be elected?

Kuno argues that the first-person pronoun is shifted to the third person in the transformation of direct discourse in (16b) into indirect discourse in (16a). Yamaguchi (2009:70) notes that free indirect discourse like that in (16c) represents the topic person's words and thoughts as included as part of the current speaker's

words and thoughts in their dialogue. This account applies when the represented person's words and thoughts feature personal pronouns.

However, the free indirect discourse of indefinite singulars like the one in (15) does not need transformation from direct to indirect discourse, nor the current speaker's inclusion into his own discourse, because these formally third-person expressions can be qualified as first-person utterances via simulation.

Without reporting clauses, or even without any other representation of the words and thoughts of an individual, indefinite singulars are used for self-reference by themselves, as in book titles:

- (17) *Memoirs of an Old Victorianist*, George Levine, Published online by Cambridge University Press: 05 August 2020.

This means that the first-person speech is not primitive, since self-reference may be performed with indefinites; instead, the first-person pronoun is a generalized pro-form for indefinites as well as proverbs whose topic is the speaker.

Various sorts of Authorless proverbs and nonspecific indefinite singulars may be used to refer, primitively by inference, to any person, first, second and third, and then reference to each person is given a generalized pro-form in grammar, *I*, *you* and *she*, for example. As the referential, or co-topical, use of proverbs and nonspecific indefinites belongs to pragmatics, it may well be supported by a common inference, and thus be found in any languages in the same way. By contrast, since rules of pronouns belong to the grammar of a specific language, they may well differ from language to language.

As Yukio Hirose pointed out, this account can apply to the co-topical use of generic *you*, as in (18), a quote from Waddles (1991:83):

- (18) And when people who are poverty stricken, they don't allow themselves to even think of beyond that. ... And I believe that you cannot go any further than you can think.

Generic *you* can be co-topical with the matrix subject, and in (18), with *I*, the speaker. This indicates that sentences with generic *you* also follow [AN INSTANCE OF] in (10)

Our account makes sense of the fact that there are many proverbs whose subjects are *you*, but first-person pronouns like *I* and *we* are not used in proverbs. They are not fit for indefinite generalizations about class-membership, nor do they express what another individual can simulate. In English, *you* is the best choice for proverbs that express norms which any individual can and should simulate (cf. Bolinger (1979)). Like proverbs, sentences expressing norms tend to be Authorless utterances.

## 7. Conclusion

Proverbs conventionally express indefinite generalizations about class-membership via their Authorless production format, although their subject noun phrases are formally preceded by various determiners. Their indefiniteness may invite inferences from/to the first person, which is the source of their pronominal use.

Proverbs are clausal generic expressions qualified as indefinite singulars by the [AN INSTANCE OF] convention, and require at least two separate clauses for their co-topical readings, which pragmatically explains why pronouns require two clauses for coreference, because they are pro-forms for indefinite expressions that are formally clauses. This may be a pragmatic reduction of the Binding Condition B effects (cf.

Chomsky (1981), Levinson (2000)).

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(3) その他：

- ① 和文原稿には和文題名をつけること。その下に英文題名を（ ）に入れて示すこと（英文題名の中の内容語はすべて語頭を大文字で記載すること。ハイフンでつながれた語の後半部分やコロンの後の語も同様）。また、著者名と所属機関名の横にそれぞれの英語（または原語）表記を（ ）に入れて記す。著者名の英語表記では、ファーストネーム・ファミリーネームの順番で、語頭のみ大文字で書くこと（例：「日本 英子（Eiko Nihon）」）。大学英語表記は公式ウェブサイトの表記とすること。特に、英語でUniversity of ○○という形式の場合、定冠詞Theの有無に注意すること。大学院生の場合は日本語表記の後に大学名のみ英語（または原語）表記を（ ）に入れて記す（例：「○○大学大学院（○○ University/(The) University of ○○）」）。
- ② 発表時の論文題名からの変更は一切認めないが、日本語による口頭発表でも **Conference Handbook** に記した英文題名を使用すれば、英文原稿を提出できる。なお、**Spring Forum** での発表の場合は、英文原稿のみ受け付ける。
- ③ ページ番号は入力しないこと。
- ④ 作成原稿のフォントの埋め込みを必ず行ってから提出すること。学会のウェブサイトに掲載される電子版で、パソコン環境によってはフォントがうまく再現されず異なる記号などに変換されてしまう危険性があるため、必ず確認の上、提出すること。
- ⑤ 論文内に図やイラストなどを使用する際には、著作権に十分留意すること。
- ⑥ 締め切りは、大会翌年の1月11日午前11:59（日本時間）（必着）で、日本英語学会の **JELS** 原稿受付アドレス（conference-jels@kaitakusha.co.jp）に **WORD** ファイルと **PDF** ファイルを送付する。ファイル名には発表者の氏名をローマ字で記入すること（例：NihonEiko.doc / NihonEiko.pdf）。メールのタイトルは、秋の大会の発表か国際春季フォーラムの発表かに応じて、「大会: **JELS** 日本英子」もしくは「SF: **JELS** EikoNihon」と記すこと。なお、締切日時を過ぎていても **JELS** 原稿受付アドレスの自動応答システムによって「受領した」旨のメールが返信される場合があるが、大会運営委員会としては受領しない。
- ⑦ 規定に違反している原稿は掲載しない。

(2021年6月21日改定)

## *JELS* 日本語執筆の場合の注および参考文献の書式について（補足資料）

*JELS* を日本語で執筆する場合の注と和文参考文献の例を以下に示します。外国語で書かれた参考文献については、*JELS* を英語で執筆する場合と同様、学会ウェブサイト ([http://elsj.jp/english\\_linguistics-eng/information-for-contributors/](http://elsj.jp/english_linguistics-eng/information-for-contributors/)) に掲載されている *English Linguistics* の参考文献の書式を参照して下さい。

なお、学術誌・学会誌・Working Papers・Proceedingsのうち比較的良好に知られているものについては、頭文字語による略記を用いてもかまいません（別紙参照）。ただし、同一原稿の参考文献内では統一的に用いてください。

### 注

1. 河上誓作（私信：XX年YY月ZZ日）によると、以下の例は.....
2. Oba (1997)にも指摘されているとおり、.....
3. 杉本 (1998:34)では、以下のような類例が紹介されている。
  - (i) I long for .....
  - (ii) I manage to .....
4. Takami (1996:51)には、以下のような.....

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和書の場合

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論文集の場合

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大阪外国語大学.

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雑誌掲載が決定しているが未公刊の論文の場合

塚本聡 (2013) 「大名力『言語研究のための正規表現によるコーパス検索』」 書評, 『英文学研究』 第90 巻,  
155-160, 日本英文学会.

書評の場合 1

廣瀬幸生 (1996) 「Adele E. Goldberg: Constructions: A Construction Grammar Approach to Argument Structure」  
書評『英文学研究』 73 巻1号, 170-174, 日本英文学会.

書評の場合 2 (洋書の書評を和文で執筆)

桐生和幸 (1997) 「結果述語構文の言語類型論的研究」 関西言語学会第 22 回大会口頭発表.

口頭発表の場合

川瀬義清 (1998) 「認知的観点から見た進行形の意味」 *KLS* 18, 155-165.

学会等のプロシーディングスの場合

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翻訳の場合

Radcliff, Allan (1940) “On Joking Relationships,” *Africa* 13, 195-210. (ラドクリフ, アラン. 青柳まちこ訳『未  
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論文の翻訳が本の一部として公刊されている場合

## Guidelines for Submission of Manuscripts to *JELS*

<If you write in Japanese, refer to the Japanese guideline on the ELSJ website>

Last revised June 2021

### (1) Length

The length of an oral presentation manuscript, including notes and references, must not exceed seven A4 pages; that of a symposium report must not exceed four A4 pages; that of a special lecture or workshop report must not exceed two A4 pages. The manuscript must use a two-column format with 40 lines per column. Care should be taken to avoid overcrowding of characters or letters within the line.

### (2) Format

Use the English sample file attached to the e-mail. Do not change the file extension (.doc) when you save the file. Note that presenters at the Spring Forum are not allowed to submit a Japanese manuscript.

- a. Leave margins of 2.2cm at the top, 3.0 cm at the bottom, and 2.5cm on both sides.
- b. The font must be Times New Roman and the font size must be at least 11 point.
- c. There must be 4 lines of space between the top of the page and the first paragraph on the first page. The title, the name and affiliation of all authors, and keywords (up to five words or short phrases) must all be centered. One line of blank space must be left between the title and the author name(s) as well as between the author affiliation(s) and the keywords. Two lines of blank space must be left below the keywords, at which point the main text must begin. Keywords should be written in the following format: Keywords: xxx, yyy, zzz (e.g. Keywords: syntax, Case assignment, Multiple Agree, light verb).
- d. The title must be in bold type. Capitalize the first letter of every content word in the title, including the words after the colon. Also, capitalize the first letter of both parts of the hyphenated word (e.g. South-East).
- e. Write the author's name in the order "First name - Surname" and capitalize only the initial letters. (e.g. Jane Smith). Notation of affiliation must be identical to the one used in its official website. Pay a close attention to the existence/absence of "The" in front of "University of XX."
- f. Write acknowledgements above notes, if any. Put an asterisk at the beginning of the acknowledgements.
- g. Notes must follow the main text but precede the references, with the heading "NOTES." DO NOT use MS-Word's command for inserting automatic footnotes and endnotes. Footnote numbers in the body of the text must be written as superscript numerals, and must be placed after punctuation marks.
- h. Other details (including the references) must be formatted in accordance with *Information for Contributors* and the latest version of the *EL* style sheet ([http://elsj.jp/english\\_linguistics-eng/information-for-contributors/](http://elsj.jp/english_linguistics-eng/information-for-contributors/)). No abstract is necessary. When listing journals, working papers and proceedings with two or more words as references, abbreviations may be used (refer to the attached list). Be consistent within references.

### (3) Other instructions for submission

- a. Manuscripts written in English should be checked by a native speaker of English. Under no circumstances may the title of the manuscript be changed in any way from the one used at the time of submission. The English manuscript is accepted even when the oral presentation was made in Japanese provided the English title listed in the Conference Handbook is used in the manuscript. Presenters at the International Spring Forum may submit only English manuscripts.
- b. Do not include page numbers.
- c. Please embed all fonts when creating pdf files in order to ensure that the fonts used are available on readers' computers. (*JELS* is published on the ELSJ website.)
- d. Make sure that any figures or illustrations in the paper are consistent with copyright restrictions.
- e. Manuscripts must be submitted by 11:59 am on January 11th (JST) of the year following the Spring Forum and the annual Conference. Manuscripts must be sent as attachments in both pdf and doc format to <conference-elsj☆kaitakusha.co.jp>\*. The file name must include the author's name in Roman letters (e.g. NihonEiko.pdf/NihonEiko.doc). The title of e-mail must be "Annual Conference: name"

or “Spring Forum: name” (e.g. “Annual Conference: Jane Smith”). Please note that a manuscript that has reached after the above deadline will not be accepted by the Conference Organizing Committee even if an automatic reply message confirms your submission.

- f. Please note that manuscripts not in strict compliance with the *Rules for JELS* and the present guidelines will not be accepted.
- g. Graduate students must indicate their affiliation so that they can be identified as graduate students (e.g. Graduate School of University of XX, XX University Graduate School).

\*The “@” in the e-mail address has been replaced by “☆” for security reasons.

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