Papers from the Fortieth Conference
November 5-6, 2022
and from
the Fifteenth International Spring Forum
May 14-15, 2022
of
The English Linguistic Society of Japan

JELS 40

日本英語学会第 40 回大会（オンライン開催）
第 15 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
2023

The English Linguistic Society of Japan

c/o Kaitakusha
22-16, Otowa 1-chome,
Bunkyo-ku, Tokyo 112-0013, JAPAN

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Edited by
The Conference Organizing Committee

日本英語学会第40回大会（オンライン開催）
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本書は、2022年5月14日、15日にオンラインにて開催された日本英語学会第15回国際春季フォーラム、および同年11月5日、6日にオンラインにて開催された日本英語学会第40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。

＜発表採用決定日＞
日本英語学会第15回国際春季フォーラム：2022年1月20日
日本英語学会第40回大会：2022年6月5日
＜論文投稿受理日＞
2023年1月11日

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。
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[I]

Fortieth Conference
November 5-6, 2022

英語を母語として獲得する幼児の Subject-in-situ generalization と統語構造*

（Subject-in-situ Generalization and Syntactic Structure in Child English）

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キーワード：Subject-in-situ generalization, 言語獲得, 一致, 非主格主語, T-to-C 移動

1. はじめに

本論文は、*v*P 内に構造格を持つ主語および目的語が生起することが許されないことを規定した(1)の Subject-in-situ generalization（以下、SSG）(Alexiadou and Anagnostopoulou（以下、A&A）(2001, 2007))を幼児の言語獲得の観点から検証することを目的とする。

(1) *The subject-in-situ generalization* (SSG)
By Spell-Out, *v*P can contain only one argument with a structural Case feature.
(A&A (2007: 31))

(2a)では、*v* の補部に対格指定された目的語 DP と、*v*P 指定部に何らかの格が指定された主語 DP が生起している。SSG は、書き出し (Spell-Out) の段階で、このような構造になることを禁じている。これから逃れるためには、例えば、(2b)のように *v*P 指定部の DP が構造的に上位の位置に移動しなければならない。この構造では、*v*P 内には格素性を持つ項は一つのみ存在しているため、SSG の違反にはならない。

(2) a. *[$_{vP}$ DP<CASE> [$_{v'}$ *v* DP<ACC>]]
b. [$_{TP}$ DP$_i$<NOM> [$_{vP}$ t_i [$_{v'}$ *v* DP<ACC>]]]

SSG を仮定することで、主語と動詞の倒置現象を説明することができる。例えば、フランス語の虚辞構文では(3a)のように自動詞と主語の倒置が起こり、VS 語順が可能となる。ところが、(3b)のように他動詞と主語を倒置した VSO 語順は許されない。倒置された主語が *v*P 内に留まると仮定すると、目的語も *v*P 内にあることになり、これは SSG に抵触することになる。

(3) a. Il est arrive un homme.
EXPL is arrived a man.
‘There has arrived a man.’
b. *Il a lu en élève
EXPL has read a student-NOM
le livre.
the book-ACC
‘There has read a student the book.’
(A&A (2001: 195, (2)))

A&A (2007)によると(4)のように、SSG は項の外在化を規制する普遍的原理とされるため、言語獲得過程の幼児も同様にこの制約に従わなければならないはずである。

(4) [W]e argue that (1) [=SSG] is a universal principle that regulates argument externalization.
(A&A (2007: 31))

また、英語を母語として獲得する幼児の初期段階においては T の獲得が十分でない特徴、すなわち(5a)のような非主格主語や(5b)のような時制辞や一致形態素が義務的環境において脱落することが観察される(Radford (1990), Schütze and Wexler (1996)など)。

(5) a. Him fall down. (Nina, 2;3,14)
(Schütze and Wexler (1996: 670, (1a)))
b. He bite me. (Nina, 2;2,6)
(Schütze and Wexler (1996: 674, (9d)))

このような諸特徴が T を投射しない(2a)の構造を反映していると想定すると、獲得の早い段階の時期はこの制約の妥当性を検証する上で適していると考えられる。以上を踏まえて、(6)を予測として立て、CHILDES データベース(MacWhinney (2000))を用い検証を行う。

(6) SSG からの予測
時制辞や一致形態素が脱落した他動詞を用いた文において、非主格主語と目的語が同時に実現することはない。

もし言語獲得過程において SSG が作用しているのであれば、*v*P 内に格素性を持つ二つの DP がある(7)の構造は SSG 違反になるため、このような文は産出されないことが予測される。

(7) *[$_{vP}$ DP<Non-NOM> [$_{v'}$ *v* DP<ACC>]]

2. 検証

検証にあたっては、Schütze and Wexler (1996)が生産的な非主格主語の観察を報告した Nina (Suppes (1973))の 1 歳 11 か月 16 日から 2 歳 5 か月 28 日までの 27 ファイルを対象とした。データ収集に当たっては、一致の有無と格の形態が関与するため、主語を三人称単数の代名詞に限定した。また、比較のため非主格主語を用いた定形節の他動詞文と、定型・不定型の自動詞文を加えた。目的語については代名詞だけではなく語彙的な要素も加えている。なお、模倣、繰り返し、定型表現、意図が不明な文は除外している。

調査の結果、(6)の予測とは異なり、時制辞や一致形態素が脱落した他動詞を用いた文において、非主格主語と目的語が同時に実現する例が観察された。(8)は Her が、そして(9)は Him が主語の例である。もしこれらの文において T が投射されていないのであれば、これらは SSG に抵触することになる。

(8) a. Her have a big mouth. (Nina, 2;2.6)
b. Her give a ride on the wagon.
(Nina, 2;2.6)
c. Her knock (th)em down. (Nina, 2;2,12)

(9) a. Him draw another eye. (Nina, 2;2,12)
b. Cause him open xxx him eyes.
(Nina, 2;2,12)
c. Him have a paw. (Nina, 2;5,26)

また、以下はいずれも非主格主語を持つ文であるが、(10a)は定形の他動詞、(10b)は非定形の自動詞、(10c)は定形の自動詞が現れている。

(10) a. Her nipped me. (Nina, 2;5,25)
b. Her sleep in the crib. (Nina, 2;2.28)
c. Her cried. (Nina, 2;5.27)

観察された上記のパターンを発話数として表 1 に示す。

表 1. *Nina* (Suppes (1973))の非主格代名詞主語を含む文の動詞と定性

	Finite	*Nonfinite*
$S_{Non\text{-}NOM}$ VO (transitive)	2	47
$S_{Non\text{-}NOM}$ V (intransitive)	8	31

該当する 88 例のうち、自他ともに動詞の不定形の方が非主格主語が多く産出されてい

ることが分かる($p < .05$)。また、SSG 違反である他動詞文が SSG 違反ではない自動詞文の発話数との間に統計的に有意な差は見られない($p > .10$)。これらは SSG 違反の例が幼児にとって特殊ではなく、自動詞文と同じ程度に頻繁に起こりうることを示唆している。

上記の他動詞文の例は SSG に違反するように見えるが、なぜこのようなことが起こるのだろうか。ここでは可能性を二つ考えてみたい。

まず、SSG は幼児文法には作用していないという可能性が挙げられる。もし SSG がなければ、*v*P 内に項が二つあっても排除されることはなく、問題なく産出されることが説明できる。しかし獲得過程において作用していないとすると、SSG は後天的な性質を持つと考えなければならない。A&A によると SSG は普遍的原理とされているため、後天的な性質を持つものがどのようにして普遍性が得られるのかは明らかではない。また、SSG の後天性を仮定すると、言語入力に基づき、最終的には SSG が獲得されていなければならない。しかし、SSG は *v*P 内に構造格を持つ主語・目的語が生起することが許されないことを規定しているため、この種の制約の獲得を促す明示的な言語入力が幼児に与えられるわけではない。さらに、幼児には否定証拠が利用不可能であることを考慮すると、言語入力によりこの制約を獲得することは考えにくい(cf. Chomsky (1981))。

次に、本論文で観察された例は SSG に違反しているように見えるだけであり、制約には従っているという可能性を考えてみたい。そこで、(11)のように *v*P 内にある非主格主語が TP 指定部に移動すると考えてみよう。

(11) [$_{TP}$ DP<Non-NOM>$_i$ T [$_{vP}$ t_i [$_{v'}$ [$_v$ DP<ACC>]]]]

この構造では、*v*P 内にある非主格主語が TP 指定部に移動することで、*v*P には対格を持つ項のみが存在することになり、SSG の違反にはならない。また、SSG が獲得の段階でも備わっていると考えることで、言語入力によってどのように習得できるかという習得可能性の問題もなくなる。このようにとらえることによって、幼児発話において「SSG 違反の文」が産出されることが説明できる。ただし、主語は TP の指定部位置にあるにもかかわらず、主格ではなく非主格として実現するのはなぜかという問題が残る。さらに、この文は時制・一致形態素が脱落しており、T の投射があってもそれが実現できないということも説明の必要がある。これらを(12)にまとめておく。

(12) SSG が獲得初期から作動していると考えた場合の問題
   a. 主語が TP の指定部位置にあるにもかかわらず、主格ではなく非主格として実現するのはなぜか
   b. T の投射があっても時制・一致形態素が脱落しているのはなぜか

つまり、問題はこの時期の T の特性であるとまとめることができる。

この問題の解決の糸口として、Guasti and Rizzi (2002), Schütze (2010), 杉崎(2016)が示しているように、英語の獲得過程では平叙文か疑問文かによって助動詞 *do* の主語との一致形態の実現が異なるという点に注目したい。(13a,b)のように、平叙文（否定文）では助動詞 *do* の一致が随意的であるが、(13c,d)のように疑問文ではそれが義務的に起こる。

(13) a. So Paul doesn't wake up. (Adam, 3;4)
   b. Robin don't play with pens. (Adam, 3;4)
   c. Does dis write? (Adam, 3;4)
   d. (Not observed) Do he go?

(Guasti and Rizzi 2002: 168)

この違いは助動詞 *do* の顕在的な T-to-C 移動の有無に還元できると考えられる。平叙文では顕在的な T-to-C 移動が起こらないが、疑問文ではそれが起こっている。このことから、本論文では(14)を提案する。

(14) T の活性化仮説
獲得の初期段階では T が大人と比べて欠如的であるが、T-to-C 移動により T が大人と同様に作動する（活性化する）

平叙文では T-to-C 移動が顕在的に起こらないため、T が欠如的になり、一致が随意的に起こる。一方で、疑問文では T-to-C 移動が起こることで T が大人と同様に作用し、一致が義務的に起こるととらえられる。このように考えると、平叙文と疑問文における助動詞の一致の非対称性が説明できる。では、SSG については、どのように考えることができるだろうか。助動詞の T-to-C 移動を伴わない平叙文の場合、T は活性化しないため、一致形態素は脱落し、非主格主語が現れる。実際に産出された文を例にとると、(8a)の構造は(15)のように示すことができる。この文では非主格主語が *v*P 領域にはないため、SSG 違反にはならない。

(15) [$_{TP}$ Her$_i$ T [$_{vP}$ t_i [$_{v'}$ [have a big mouth]]]]

次に、助動詞の T-to-C 移動を伴う疑問文では、T の活性化により、一致形態素が現れ、主格主語が認可される。このため、疑問文においても(16)のように非主格主語は *v*P 領域外にあるため、SSG の違反にはならない。

(16) [$_{CP}$ Does$_j$ [$_{TP}$ she$_i$ t_j [$_{vP}$ t_i [$_{v'}$ [have a big mouth]]]]?

さらに、本論文で提案した(14)が正しければ、助動詞の T-to-C 移動を伴う疑問文の場合は、必ず T の活性化が起こるため、非主格主語が観察されることはないことが予測される。この予測を検証するために、また、平叙文との比較を行うために、(17)を設定し、上述の *Nina* の該当する発話を観察した。

(17) 予測
非主格主語を伴う平叙文は、非主格主語を伴う疑問文よりも多く観察される。

表 1 で示した 88 例から、平叙文と疑問文に分けた結果を表 2 に示す。

表 2. *Nina* (Suppes (1973))の非主格主語を伴う場合の文タイプごとの違い

	Declarative	*Interrogative*
$S_{Non\text{-}NOM}$ V(O)	88	0

表 2 からも明らかなように、(17)の予測どおり、非主格主語を伴う平叙文は、非主格主語を伴う疑問文よりも多く観察された($p < .01$)。これにより、(14)に示した「T の活性化仮説」は妥当であると考えられる。さらに、(12)で挙げた問題も、「T の活性化」を仮定することで解決できる。(12)を(18)として再掲する。

(18) SSG が獲得初期から作動していると考えた場合の問題(= (12))
a. 主語が TP の指定部位置にあるにもかかわらず、主格ではなく非主格として実現するのはなぜか
b. T の投射があっても時制・一致形態素が脱落しているのはなぜか

つまり、獲得の段階では T-to-C 移動が起こらなければ T は活性化しないために、(19)のように投射自体はあっても形態的には T の特

性が現れていないと考えることができる。

(19) [$_{TP}$ DP <Non-NOM>$_i$ **T(inactive)** [$_{vP}$ t_i [$_{v'}$ *v* DP<ACC>]]]

非主格主語については *v*P を越えて TP に移動するものの、T-to-C 移動が関与しないため TP が不活性状態にあり、それにより主格主語として実現しないと説明できる。

ただ、時制や一致形態素については表面的に産出されないため確認がしやすいが、非主格主語は *v*P に留まっているという可能性もある。もし非主格主語が *v*P に留まっているということになると、その構造はやはり SSG 違反ということになってしまい、なぜ文の産出が許されるのかという最初の問題に立ち戻ってしまうことになる。ここでは、こういった点を払拭するため、非主格主語が *v*P を越えて現れていることを示す証拠を二つ挙げたい。まず、(20)のように時の副詞が「SSG 違反」の文において観察されることを取り上げたい。ここで重要なのは、時の副詞と非主格主語の相対的位置関係である。(20a)では非主格主語 *her* が副詞 *now* に先行している。同様に、(20b)でも非主格主語が副詞 *already* に先行している。

(20) a. Her **now** make a home. (Nina, 2;4,6)
b. Her **already** have a bottle. (Nina, 2;5,26)

こうした時の副詞が T の投射に生起すると想定すると、これらの副詞よりも先行する位置に現れる非主格主語は(21)のように *v*P を越えて移動したものと考えられる。もし *v*P 領域に主語が残っているとすると、時の副詞が主語に先行するはずであるが、実際にはそのようになっていない。

(21) [$_{TP}$ Her$_i$ [$_{TP}$ now T [$_{vP}$ t_i make a home]]]

次に、否定辞と非主格主語の相対的位置について考える。(22)では母親(MOT)の *wh* 疑問文に対し、幼児(CHI)が非主格主語と否定辞 *not* のみからなる返答を行っている。

(22) MOT: who else is going to eat supper?
CHI: her **not**.
MOT: she's not going to eat supper?
CHI: her **not**. (Nina, 2;5,26)

この例も語順に着目すると、非主格主語が否定辞に先行している。否定辞のある NegP が TP と *v*P の間にあるという階層構造を想定すると、(23)のように非主格主語は否定辞を越えて文頭に現れなければならない。

(23) [$_{TP}$ Her$_i$ [$_{NegP}$ not [$_{vP}$ t_i (eat supper)]]]

もし *v*P に非主格主語が留まるとすると、*not her* の語順になるはずであるが実際にはそうではない。以上のことから、本論文では非主格主語は *v*P を越えた位置に生起していると考える。

3. 結語

本論文は、*v*P 内に構造格を持つ主語および目的語が生起することが許されないことを規定した SSG を幼児の言語獲得の観点から検証した。SSG は言語一般に適用される制約であるため、言語獲得過程の幼児も同様にこの制約に従わなければならないはずである。ところが、予測とは異なり、時制辞や一致形態素が脱落した *v*P を構成していると考えられる他動詞文において、非主格主語と目的語が同時に実現する例 (Her have a big mouth. (Nina, 2;2,6)) が観察された。この例は SSG 違反に見えるが、(i) 平叙文に限り観察されること、及び (ii) 非主格主語は時を表す副詞や否定辞英語に先行して現れることから、非主格主語は *v*P に留まらず TP 指定

部に移動していると考えられ、これにより *v*P 内には目的語のみが生起することになり、SSG 違反にはならないと説明できる。本論文は SSG を言語獲得の観点から検証を行い、SSG は幼児文法にも作用していることを明らかにした。

* 本論文は、2022 年 11 月 5 日にオンラインで行われた日本英語学会第 40 回大会での口頭発表の内容に基づいている。口頭発表では、漆原朗子先生、大澤ふよう先生、坂本祐太先生から貴重なコメントを頂いた。ここに記し深謝する。また、本論文は JSPS 科研費 20K00548, 20K00824, 21K00586 の助成を受けている。なお、本論文の誤りは全て筆者の責任である。

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FormDefectiveCopy*

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Keywords : Search Σ, FormCopy, Minimal Yield, strongly Markovian derivation, genuine explanation

1. Introduction

In this paper, I propose and demonstrate a new type of application of FormCopy (FC) that forms a "defective" Copy relation:

(1) FC can assign a Copy relation to some of the features that compose elements.

We call the nontypical Copy assignment FormDefectiveCopy or FC_{def}. Section 2 introduces a theoretical framework by Chomsky (2021), while Section 3 points out some potential problems in the so-called strictly Markovian derivation; Section 4 shows that FC_{def} solves the problems, approaching a genuine explanation, and Section 5 argues that FC_{def} is applicable to linguistics phenomena related to dependent elements, such as expletives, anaphors, and the null operator. Section 6 concludes the paper.

2. Strictly Markovian Derivation

Chomsky (2021: 20) defines Merge, the structure-building operation, as follows:[1]

(2) Merge($X_1,\ldots,X_n$,WS)=WS′={ {$X_1,\ldots,X_n$},W,Y }, satisfying SMT and LSCs.

The operation takes WS and $X_1,\ldots,X_n$ in the workspace and yields WS′. Generally speaking, SMT requires the simplest language design; thus, it necessarily contains third-factor principles or natural laws in general science. With regard to SMT in (1), Y is null and n=2 under Minimal Yield (MY), which is assumed to be a property of the human brain.[2] W is whatever is unaffected by Merge; hence, it is carried over into the newly created WS′ (that is, the No-Tampering Condition). Chomsky (2021) introduces the Principle of Univocality (Θ-Theory) and the Duality of Semantics as LSCs. The final version of Univocality is (3) (Chomsky 2021: 27).

(3) A θ-assigner τ assigns one and only one θ-role to elements θ-linked to P(τ).

The condition operates as a filter that eliminates the unacceptable cases in which one θ-assigner assigns more than two θ-roles to one element. The Duality of Semantics is defined in (4) (Chomsky 2021: 30).

(4) For A-positions, EM [External Merge] and EM alone fills a θ-position.

Merge needs to satisfy the condition when it applies. That is, all arguments are externally (not internally) merged with SPEC-v or V/Root.

Note that MY makes derivation strongly Markovian, which means that no history of derivation is preserved. Additionally, Chomsky (2021) argues that Internal Merge (IM) is preferred to EM under SMT:[3]

(5) When Search Σ looks for elements to be the input of Merge, and both IM and EM are available, IM is selected because it is more efficient in terms of search space.

As a result of the last two conditions, the serious indeterminacy does not occur in the strongly Markovian system. Consider the following workspaces for *John hit John*.[4]

(6) a. WS={ {John$_1$,{v*,{…,John$_2$}}} }
b. WS″={ {John$_1$,{INFL,{…,John$_2$}}} }

In (6a), if (4) were not adopted, the system would not know the place from which *John*$_1$ had come. However, *John*$_1$ is necessarily introduced by EM (not by IM) according to (4), since SPEC-v* is an A position and a θ-position. The same logic holds for (6b) too. SPEC-INFL is an A position but not a θ-position; therefore, *John*$_1$ is introduced by IM (not by EM) according to (5). Therefore, a derivation (that is, the mapping of WS onto WS′) proceeds as expected, even if there is no derivational history.

Since the strongly Markovian system does not recognize an IM-formed XP, which has been called a copy, the operation FormCopy (FC) is also essential in Chomsky (2021).

(7) FC, which optionally applies phase by phase, assigns a Copy relation <X_1,X_2> between X_1 and the structurally identical inscription X_2 c-commanded by the X_1.

Now that the copy-hood has been severed from IM, there is a theoretical possibility that FC can assign the Copy relation to an EM-formed XP. Chomsky (2021) shows that the possibility is real, and argues that PRO is the case.

(8) John$_1$ tried [John$_2$ to win]

For example, *John*$_2$ in (8) was PRO in the previous framework but not in the current one. EM needs to introduce *John*$_1$ within the matrix v*P according to (4). *John*$_2$ cannot merge internally with the matrix v*P area because such a derivation follows (5) but violates (4). FC (7) assigns the Copy relation to the EM-formed *John*$_1$ and the c-commanded *John*$_2$. That is, (4) and (7) capture the effect of PRO without positing an independent element, PRO. SMT (MY, no history of derivation) enabled this new type of Copy that had never been able to be created.[5] Accordingly, the deduction of PRO is an instance of the enabling function of SMT (see Chomsky 2021).

3. Potential Problems

Let us review the basic derivation of *John kissed Mary* in the current framework:

(9) WS={ {John,{v*,{kissed,Mary}}}, C, INFL }
WS′={ {INFL,{John,{v*,{kissed,Mary}}}}, C }
WS″={ {John$_1$,{INFL,{John$_2$,{v*,{kissed, Mary}}}}}, C }
WS‴={ {C,{John$_1$,{INFL,{John$_2$,{v*,{kissed,Mary}}}}}} }

The outermost curly brackets represent the workspace, which is essentially an unordered set, and the other unordered sets are structures that are formed by Merge. Following Duality (4), EM forms the argument structure v*P in WS. An operation *Interpretation* INT surveys WS and confirms that there is no violation of Univocality (3).[6] EM further maps WS onto WS′, and INT applies. However, given IM-over-EM (5), this

application of EM is somewhat odd. (i)If IM is more efficient due to the least search, why can IFNL merge externally? (ii)Should IM occur in the first place instead of EM? These questions arise due to the careful efficiency consideration:

(10) Avoid as many EMs as possible.

The proposed principle (10) is the stronger version of IM-over-EM (5); I call it "Avoid EM." EM is very costly and against the efficiency in terms of the search space. Note that IM and EM are completely the same operation Merge (2), while the way in which Σ applies is different.

The questions (i) and (ii) above are answered by the assumption (11), which is based on the suggestion by Chomsky (2021:17, fn.27).

(11) All lexical items (or heads) are ineligible for IM searches.

Accordingly, EM is the only available option when Σ locates the lexical item INFL. The assumption conforms to SMT, reducing the number of IM-searchable items significantly. For example, in the WS‴ in (9), C, INFL, v*, and V=*kiss* are not accessible to the IM search.

What about the IM of *John* in the WS″ in (9)?

(12) IM and IM alone fills SPEC-INFL.

Recall that SPEC-INFL is an A-position but not a θ-position. Duality (4) does not require neither IM nor EM in this case, whereas IM-over-EM (5) or Avoid EM (10) requires IM. This raises empirical problems pertaining to expletive constructions. Consider the *there* construction:

(13) a. Someone is in the room.
b. There is someone in the room.

In the standard analysis, we assume that both expressions have the same underlying structure:

(14) [INFL be [someone in the room]]

As in (15a), *someone* merges internally, and we obtain the structure of (13a). In contrast, if the expletive *there* merges externally, we obtain the structure of the latter (13b), as in (15b):

(15) a. [someone [INFL be [someone in the room]]]
b. [there [INFL be [someone in the room]]]

If inference (12) is correct, derivations such as (15b) should theoretically be ruled out. However, (13b) (=(15b)) is observed as a fact. This is an empirical problem that needs to be addressed.

4. Seeking a Genuine Explanation

The empirical problem above is easily solved if we cease to pursue a "genuine explanation in the sense of Chomsky (2021: 12)." For example, Goto (2017) assumes that "the D head *there*" merges externally with the nominal *someone* and then merges internally:

(16) [INFL be {D_{there}, someone} in the room]
→ [D_{there} [INFL be {D_{there}, someone} in the room]]

Additionally, other scholars, such as Nomura (2003), Richards and Biberauer (2005), and Deal (2009) argue that the expletive merges externally with SPEC-vP and then merge internally.

(17) [INFL [$_{vP}$ NP_{there} v-be someone in the room]]
→ [NP_{there} [INFL [$_{vP}$ NP_{there} v-be someone in the room]]]

All the approaches above follow (12). However, none of these approaches satisfy the rigorous SMT for a genuine explanation:

(18) A derivation mechanism that more rigorously follows the SMT, which is one that captures linguistic phenomena while satisfying the strict conditions of (10), (11), and (12), is closer to achieving a genuine explanation.

Achieving a genuine explanation is the ultimate goal toward which minimalist syntacticians should work. Thus, (16) and (17) are not true solutions. Goto's solution (16) violates (11) since the D_{there} "head" is not accessible to IM search. Both (16) and (17) ignore Avoid EM (10). The EM of *there* with somewhere that is not SPEC-INFL is not efficient because one extra "costly" EM is required.

Following SMT, particularly (10), we seek another solution that avoids as many EMs as possible. The solution is FC_{def} ((1)=(19)).

(19) FC can assign a Copy relation to some of the features that compose elements.

In other words, the original FC coincidently assigns the Copy relation to all the features that compose elements. Consider (14), (15) again:

(20) [C [$_{\alpha}$ X_1 INFL [be X_2 in the room]]]

In (20), X merges internally with SPEC-INFL; no EM of X occurs with the position, following (12). Assuming that X is the NP *someone*, no expletive merges in (20). If FC applies to X_1 and X_2, then we obtain (15a); that is, (13a). By contrast, when FC_{def} applies, the resulting structure is similar to (15b); that is, (13b). FC_{def} assigns the Copy relation to all the features of X_1=NP_1 and X_2=NP_2 except for their person-features:

(21) Copy: <$NP_{1[-person]}$,$NP_{2[-person]}$>

This relation having been established, external cognitive systems (that is, SM and C-I) interpret it as a defective Copy relation.[7] With regard to SM, NP_1 is instantiated as *there* and NP_2 is as *someone* in the process of externalization. C-I interprets NP_1 as one of the expletives (*it*, *there*, and so forth) that have been assumed to bear some defective feature(s).[8] The expletive *there* seems to cancel the semantic role of SPEC-INFL, existential presupposition that is argued in Chomsky (2021: 27). It is reasonable to assume that meaningless elements are unable to receive such a subject-specific meaning. The cancellation of the semantic role would explain the definiteness restriction (Milsark 1974) in *there* constructions possibly by adapting Diesing's (1992) approach, leaving many questions open. FC_{def} is simply FC; hence, it optionally applies in a phase. After applying FC_{def}, the resulting phonological form depends on the (morpho-)phonological rules of individual languages; see Distributed Morphology (Halle and Marantz (1993), among others). Note that FC can be one of the interpretive rules because, in essence, it determines whether two (or more) inscriptions have the same reference. Thus, FC_{def} is also an interpretive rule.

The problem of labeling the *there* construction is resolved as a result of FC_{def}.[9]

(22) [C [$_{\alpha}$ X_1=there [INFL [be X_2=someone in the room]]]]

The set α is an XP-YP structure, and the noun phrase *there* does not agree with the verb as an empirical fact. Therefore, feature sharing (that is, agreement) between X_1 and INFL should not occurs; the label for α is not determined. Under FC_{def}, INFL defectively shares features (that is, agrees) with X_1, and α is labeled as the shared feature Φ_{def}. The label itself does not yield the correct agreement information because it does not contain the person-feature. However, recall that X_1 and X_2 are related under FC_{def}, although the person-feature [3rd-person] is not. INFL is realized as [singular, 3rd-person], utilizing the relation and referring to X_2. Although we do not discuss this further since it is beyond the scope of the paper, Omune and Komachi (2022) propose a more refined agreement system, Σ_{Agr}, under FC_{def}. Accordingly, the problem of labeling the *there* construction is solved without an additional operation such as Agree (see note 9, Epstein et al. 2021, Omune and Komachi 2022).

5. FC_{def} and Other Linguistic Phenomena

Consider the following phenomena:

(23) a. {That John sleeps/For John to sleep} on the bed is necessary.
b. It is necessary {that John sleeps/for John to sleep} on the bed.

In (23b), the expletive *it* appears as the contrast to (23a). The underlying structure of (23) is

(24) [C [X_1 INFL [necessary X_2]]].

Given that X is *that John sleeps* or *for John to sleep*, the Copy assignment of (23a) is trivial. By contrast, if FC_{def} only assigns the Copy relation to the finiteness information of X, X_1 is interpreted as the expletive *it*, as in (23b).

FC_{def} is expected to explain the effects of Principle A.[10] Consider the next sentence.

(25) a. John praised himself.
b. [X_1 v* [V X_2]]

(25b) is the argument structure of (25a). If FC_{def} only takes as Copy the full Φ-sets of X_1 and X_2, then X_1=*John* and X_2=*himself*. If FC applies, the resulting structure violates Univocality (3), since one θ-assigner, the verb (that is, v*-V), assigns two θ-roles to one element X or the copy pair $<X_1,X_2>$. FC_{def} might explain another anaphor *each other*, copying some Φ-feature(s), possibly person or/and number feature(s), although further research is necessary. In addition, note that all the cases in (24) and (25b) effectively use the IMs of X, in which Σ works efficiently and conforms strictly to SMT (see (18)).

Chomsky (2021: 28) proposes a condition on FC to avoid improper Copy pairs:

(26) From an A-position, FC searches A-positions.

As a result of the condition, Chomsky argues that improper "*tough* movement" is eliminated. Consider (27) taken from Chomsky (2021: 28):

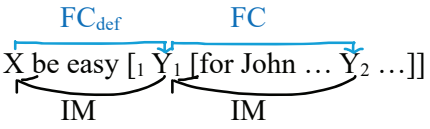
(27) a. X be easy [$_1$ Y_1 [for John … Y_2 …]]
b. many books are easy for John to read

Note that (27a) is the underlying structure of the *tough* construction (27b). In (27a), FC cannot assign Copy to X and Y_1 due to (26): X is in an A-position, and Y_1 is in an A′-position. Thus,

Chomsky (2021) concludes that Y is an empty element (null operator). FC_{def} captures his insight somewhat differently. Given (26), FC cannot apply in (27), but FC_{def} can.

(28) From an A-position, FC can search A′-positions defectively.

This condition successfully eliminates the null operator as follows:

(29) 

As illustrated in (29), Y_1 merges internally, and FC assigns the defective Copy relation to X and Y_1, which are both *many books*. I assume that FC_{def} copies all the features expect for the Φ-features. Crucially, it simplifies the theory by eliminating the null operator, following the strict condition (18) motivated by SMT.

With regard to (27), Chomsky (2021) discusses the empirical support for (26). The same logic is in accordance with (28). Consider (30) taken from Chomsky (2021: 28):

(30) a. John has read many books
b. many books have been read by John

Chomsky (2021: 28–29) argues that both the active and the passive sentences mean "John is a voracious reader," while (27b) does not have the meaning because Y is the empty element.

Let us reconsider (29). In the proposed analysis, $X=Y_1=Y_2$=*many books*; hence, we cannot attribute the reason that the non-voracious meaning arises to the empty element. Instead, the defective Copy relation between X and Y_1 has the possibility of yielding the meaning. Thus, the empirical facts regarding (27) and (30) supports (28) and the analysis (29).

6. Concluding Remarks

We attempted to seek a genuine explanation of linguistic phenomena, such as expletive constructions, binding effects, and *tough* constructions. To achieve a genuine explanation, we made the process of derivation even stricter by following SMT in the sense of (18). Consequently, we obtained many instantiations of the enabling function of SMT. The important proposal for obtaining these outstanding results was FormDefectiveCopy (19), which is also expected to explain labeling and agreement phenomena in a way that approaches a genuine explanation (see Omune and Komachi 2022).

* Part of this work was supported by the JSPS KAKENHI Grant-in-Aid for Early-Career Scientists #22K13107. I would like to express my gratitude to the members of the Keio Syntax Group and the audience at the 40th conference of the ELSJ for their valuable suggestions about the earlier version of my work.

NOTES

[1] WS: workspace, SMT: the Strong Minimalist Thesis, LSCs: Language-Specific Conditions

[2] As Hisatugu Kitahara (p.c.) suggests, it may not be MY but LSCs that yields the binary condition n=2, considering FormSequence and the core operation of set-formation in (2). See Chomsky (2021: 31–32).

[3] Σ is a third-factor operation that can be incorporated into every operation. See Chomsky (2021: 17).

[4] See Epstein et al. (2021) for (in)determinacy.

[5] Chomsky (2021: 21) calls the PRO configuration the "M(arkovian)-gap" because the gap (that is, $John_2$ in (8)) cannot be created

without the strictly Markovian system.

[6] INT can apply at the non-phase level (Chomsky 2021: 21), but "interpretation" as access by external cognitive systems (that is, the Sensory-Motor SM and Conceptual Intentional C-I systems) is at the phase level (Chomsky 2021: 23). This phase-level access would evaluate Univocality in (9), instead of INT.

[7] Oku (1998) argues for the existence of "defective copies" under the subset copy principle for LF Copy operations.

[8] See Chomsky (2000, 2001) and Richards and Biberauer (2005) for defective expletives.

[9] See Chomsky (2013, 2015) for labeling. Goto (2017) focuses on the labeling of the *there* construction, and solves it without Probe-Goal Agree (Chomsky 2000, 2001).

[10] The FC_{def} approach follows Chomsky's (2021: 25) suggestion: "Principle A of the Binding Theory can be taken to be an option of FC…"

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(A)symmetries in Quantifier-Float between Japanese and English*

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Keywords : Quantifier-Float, stranding analysis, classifier, Labeling Algorithm, the Head-Head configuration

1. Introduction

This paper investigates the (a)symmetries in Quantifier Float (Q-float) between Japanese and English under the stranding analysis (e.g., Sportiche (1988)).

2. Facts

There is a restriction in standard English for the occurrence of the Floating Quantifier (FQ) in that it cannot appear in the $v^{(*)}$P complement. In the following examples, FQs are stranded in the complement position of the predicate, such as unaccusative, passive, and transitive.

(1) a. * The students arrived all.
b. * The students were arrested all.
c. * Mary hates the students all.
(Bošković (2004: 682))

It is also not allowed for FQ to be in the initial subject position, Spec-vP.

(2) a. The students all completely understood.
b. * The students completely all understood.
c. The students obviously all understood.
d. The students all obviously understood.
(Bošković (2004: 685))

Based on the standard assumption that the low-adverbs like *completely* are adjoined to vP, the ungrammatical sentence in (2b) shows that FQs cannot be stranded in the Spec- $v^{(*)}$P position. Considering these facts in (1) and (2), Bošković (2004) suggests the following generalization:

(3) Quantifiers cannot be floated in θ-positions.
(Bošković (2004: 685))

Although this descriptive generalization can handle the ungrammatical sentences above, it seems to be challenged by the following examples in which the prepositional phrase following FQ can rescue the ungrammaticality.

(4) a. The votes were cast all in alphabetical order. (Bobaljik (1995: 214))
b. The voters arrived all exactly at six. (*ibid.*)
c. Mary put the books all on the proper shelf.
(Maling (1976: 712))

In addition, the Numeral Floating Quantifier (NFQ) in Japanese has different behaviors compared to English.

(5) a. * Gakusei-ga kossori 3-nin ringo-o
students-Nom secretly 3-Cl apple-Acc
tabeta.
ate
'Three students ate apples.'
b. Ringo-o gakusei-ga kossori
apples-Acc students-Nom secretly
2-ko tabeta.
2-Cl ate
'The students secretly ate two apples.'

c. Gakusei-ga 3-nin kita.
students-Nom 3-Cl came
'Three students came.'

Since Miyagawa (1989), the distinction between subject and object NFQs has been pointed out. While the subject NFQ in Japanese cannot be floated in Spec-v$^{(*)}$P like in English, the object FQ indicates the opposite behavior regardless of any type of verb. We will suggest in the following section that these contrasts are caused by the different structures of FQ.

3. Theoretical Background

3.1. Labeling Algorithm

Chomsky (2013, 2015) proposes the Labeling Algorithm (LA), under which a set created by Merge is labeled with a certain algorithm in order to be interpreted in the Conceptual-Intentional (C-I) and Sensorimotor (SM) interfaces. He considers the following possibilities:

(6) a. γ = {H, XP} γ = H
b. γ = {XP, YP} γ = ??
c. γ = {H1, H2} γ = ??

In (6a), based on Minimal Search, the LA detects the closest head, which is H, and this set is labeled as H. On the other hand, the set in (6b) and (6c) cannot be labeled since the LA cannot identify the closest head. As for the XP-YP configuration in (6b), Chomsky provides possible two-way solutions: (i) structure modification and (ii) prominent feature sharing. The former strategy results in the labeled structure when either XP or YP moves out of this set. For instance, the XP's movement out of this set renders the γ to be identified as YP. The latter strategy is that if both XP and YP share prominent features in common (e.g., φ-feature, Q-feature, etc.), they function as the label. The suggestions that the XP-YP configuration causes problems of projection have been scrutinized. These have provided the theoretical explanations for long-standing mysteries, such as successive cyclic A- or A'-movement, EPP-phenomena, and so on. On the other hand, the detailed analyses of (6c) have not been thus far presented. We mention this structure as the Head-Head configuration and suggest that this structure in question can be found in the Q-float sentence.

3.2. Proposals

As shown in the previous section, we suggest that the H-H configuration results in the labeling conflict.

(7) The set of {Head, Head} cannot be labeled.

In addition, following Chomsky (2013), we assume that the lower copy does not contribute to the labeling. This property of lower copy is also suggested by Maeda (2021), as the following:

(8) In {$_\alpha$ XP, {$_\beta$ Y, ZP}}, the movement/ellipsis of ZP results in {$_\beta$ Y, ~~ZP~~}, where the only visible element for LA is Y. In such a case, β is identified as the head Y. Accordingly, Y is visible to MS into {$_\alpha$ XP, {$_\beta$ Y, ~~ZP~~}}, resulting in α being labeled Y.
a. {$_\alpha$ XP, {$_\beta$ Y, ZP}} (α = ?, β = Y)
b. {$_\alpha$ XP, {$_\beta$ Y, ~~ZP~~}} (α = Y, β = Y)
(Maeda (2021: 94))

Her essential suggestion is that the moved or elided element like ZP in (8b) is invisible for the LA, so the β is identified as Y. This leads to a labelable structure in α due to the {H, XP}

configuration. On the other hand, when there is no movement or ellipsis, as in (8a), the XP-YP configuration arises in α. In terms of the invisible property of lower copies in (8), Maeda (2021) deals with the puzzles of Inversion Construction in English, though we do not look into her analysis for the space limitation of this paper. Based on Chomsky (2013) and Maeda (2021), we propose that the H-H configuration arises in the following context.

(9) If the XP moves out of the set $\{_{\beta}\ H_2, \{_{\alpha}\ H_1, XP\}\}$ structure, α is labeled as H_1, which is not a phrase-level syntactic object but a head-level lexical item, resulting in the Head-Head configuration in β.

We suggest in the following that the labeling failure due to the H-H configuration appears in the Q-float sentences in English, restricting the occurrence of FQs. Japanese NFQs, on the other hand, have a more flexible position. We argue that classifiers in Japanese play a crucial role to evacuate the H-H labeling failure.

4. Analysis[1]

4.1. Q-float in English

As indicated in section 2, stranding FQ in the complement position of the unaccusative, passive, and transitive verbs is prohibited. Our account correctly expects the ungrammaticalities of such sentences.

(10) Transitives

a. * Mary hates the students all. (= (1c))

b. $\{_{\alpha}\ Q, DP_{[\varphi]}\}$

c. $\{_{\beta}\ R, \{_{\alpha}\ Q, DP_{[\varphi]}\}\}$

d. $\{_{\gamma}\ DP_{[\varphi]}, \{_{\beta}\ R, \{_{\alpha}\ Q, \cancel{DP_{[\varphi]}}\}\}\}$

e. $\{v^*_{[u\varphi]}, \{_{\gamma}\ DP_{[\varphi]}, \{_{\beta}\ R_{[u\varphi]}, \{_{\alpha}\ Q, \cancel{DP_{[\varphi]}}\}\}\}\}$ (α=Q, β=??, γ=<φ,φ>)

Following Shlonsky (1991), we assume that FQ is a head of Q, taking DP as its complement in (10b). The verbal Root (R) is externally merged with the set α in (10c). Under the LA proposed by Chomsky (2015), the object DP raises to Spec-R in (10d). When the phase head v* is introduced into the derivation in (10e), each of the set α, β and γ should be labeled by the LA. We assume that lower-copy is strictly invisible for the LA, and the set α is projected as a head-level Q. Then, the β cannot be labeled since it constitutes the H-H configuration, {R, Q} in this case, resulting in the illegible structure.[2]

(11) Unaccusatives / Passives

a. * The students arrived all. (=(1a))

b. $\{_{\alpha}\ Q, DP_{[\varphi]}\}$

c. $\{_{\beta}\ <R, v^*>, \{_{\alpha}\ Q, DP_{[\varphi]}\}\}$

d. $\{_{\gamma}\ T_{[u\varphi]}, \{_{\beta}\ <R, v^*>, \{_{\alpha}\ Q, DP_{[\varphi]}\}\}\}$

e. $\{_{\delta}\ DP_{[\varphi]}, \{_{\gamma}\ T_{[u\varphi]}, \{_{\beta}\ <R, v^*>, \{_{\alpha}\ Q, \cancel{DP_{[\varphi]}}\}\}\}\}$

f. $\{C_{[u\varphi]}, \{_{\delta}\ DP_{[\varphi]}, \{_{\gamma}\ T_{[u\varphi]}, \{_{\beta}\ <R, v^*>, \{_{\alpha}\ Q, \cancel{DP_{[\varphi]}}\}\}\}\}\}$

(α=Q, β=??, γ=T, δ=<φ, φ>)

Considering the fact that the phasehood of the unaccusatives and passives is skeptical, Epstein, Kitahara, and Seely (2016) propose that the verbal Root in unaccusatives and passives is externally pair-merged with v* and cancels the phasehood of it, like in (11c). Hence, labeling, a phase-level operation, does not occur at this point. After the merger of a head of T in (11d), the DP moves to the Spec-TP position, forming a set δ in (11e). The labeling occurs when the head of C is introduced into the derivation. In this case, the α indicates the head-level status Q since the DP has already moved out of the set α. Therefore, the labeling conflict arises in the β,

which constitutes the H-H configuration of {<R, v*>, Q}. This conflict explains the ungrammaticality of (11a).

We have observed in (4) that the prepositional phrase following FQ improves the grammaticality. Our analysis can provide a solution for this question under the labeling framework.

(12) a. Mary put the books all on the proper shelf.
b. {$_{\gamma}$ {$_{\beta}$ all the books} {$_{\alpha}$ on the proper shelf}}
c. {v* { the books} {$_{\delta}$ R {$_{\gamma}$ {$_{\beta}$ all ~~the books~~} {$_{\alpha}$ on the proper shelf}}}}}
(α=PP, β=Q, γ=QP, δ=RP)

In our analysis, the β projects Q as its label, which is a head-level lexical item. Therefore, the labeling does not fail in the γ since the set γ can be detected as QP due to the H-XP structure of {Q, PP}.

4.2. Subject FQs in English

Stranding the subject FQ in the initial subject position is prohibited, as shown in (2b). In this situation, the selectional problem arises.

(13) {C {SubjDP {T {$_{\beta}$ {$_{\alpha}$ Q, ~~SubjDP~~}{$_{<R, v*>P}$ <R, v*>, {$_{<\varphi, \varphi>}$ ObjDP, …}}}}}}
(α=Q, β=QP)

In this structure, the subject DP moves out of the set α and as a result of it, the label will be determined as Q since we assume the lower copy does not contribute to the labeling. Then, the β is identified as QP due to the H-XP configuration, {Q, <R, v*>P} in this case. Although label identification does not fail, we suggest this structure results in a selectional problem in the interfaces. Provided that TP takes $v^{(*)}$P as its complement for selectional reasons, the structure in (13) is inappropriate since TP selects QP, not $v^{(*)}$P, as its complement.

4.3. Q-float in Japanese

Japanese NFQs differ from English ones in that there is an asymmetry when the NFQ can float in the complement position of the verbs, which we repeat below.

(14) Ringo-o gakusei-ga kossori 2-ko
apples-Acc students-Nom secretly 2-Cl
tabeta.
ate
'The students secretly ate two apples.'
(15) Gakusei-ga kossori 3-nin kita.
students-Nom secretly 3-Cl came
'Three students secretly came.'

If object FQs stranded in the complement position are universally prohibited (e.g., Bošković (2004)), Japanese counterparts are surprising. As for these facts, we suggest based on Watanabe (2006, 2008) that classifiers following NFQs play a crucial role. He proposes a rich DP-internal structure in Japanese.

(16) [$_{DP}$ [$_{QP}$ [$_{CaseP}$ [$_{\#P}$ NP #] Case] Q] D]
(Watanabe (2008: 517))

He also proposes that the numeral + classifier combination constitutes a phrase-level predicate, not a head. Following this, the sentences in (17), which include the numerals and classifiers, are derived in (19). We show Japanese structures in head-initial order for the sake of convenience.

(17) a. John-wa hon 3-satsu-o katta.
John-Top book 3-Cl-Acc bought

'John bought three books.'

b. John-wa 3-satsu hon-o katta.
John-Top 3-Cl book-Acc bought

c. John-wa hon-o 3-satsu katta.
John-Top book-Acc 3-Cl bought

(Watanabe (2008: 514), slightly modified)

Watanabe assumes the structure in (18) where a number head (#), which includes a classifier, takes NP as its complement, and a numeral occupies in Spec-#P. Then, the derivation proceeds like (19).

(18) [$_{\#P}$ 3 [[$_{\#}$ satsu(Cl)] [$_{NP}$ hon]]]

(19) a. [$_{CaseP}$ [$_{NP}$ hon] [$_{Case}$ -o [$_{\#P}$ 3 [[$_{\#}$ satsu(Cl)] ~~[$_{NP}$ hon]~~]]]]

b. [$_{QP}$ [$_{\#P}$ 3 [$_{\#}$ satsu(Cl)]] [Q [$_{CaseP}$ [$_{NP}$ hon] [$_{Case}$ -o ~~[$_{\#P}$ 3 [# satsu(Cl)]]~~]]]]

c. [$_{DP}$ [$_{CaseP}$ [$_{NP}$ hon] [$_{Case}$ -o]] [D [$_{QP}$ [$_{\#P}$ 3 [$_{\#}$ satsu(Cl)]] [Q ~~[$_{CaseP}$ [$_{NP}$ hon] [$_{Case}$ -o]]~~]]]]

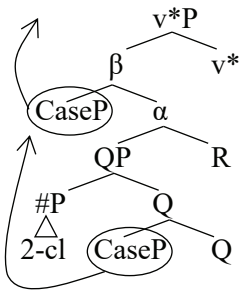
NP obligatorily moves to Spec-CaseP for case agreement. When the derivation ends up in (19a), the sentence in (17a) is acquired. If remnant #P movement targets the Spec-QP position, the derivation (19b) is expected, resulting in the (17b) sentence. In (19c), CaseP optionally moves further to Spec-DP, deriving (17c).

Following Watanabe (2006, 2008), we assume the rich DP-internal syntax in (16). We also analyze the combination of numeral + classifier, which is NFQ, as the following:

(20) Japanese NFQs are regarded to be phrase-level syntactic objects.

We have now prepared to capture the (a)symmetries between Japanese and English. Let us consider the following example.

(21) a. Ringo-o gakusei-ga 2-ko tabeta.
apple-Acc student-Nom 2-Cl ate
'A student ate 2 apples'

b. 

Assuming the parallel derivation with English, a QP set including NFQ and object is merged with verbal Root. When Q-float arises, CaseP raises to Spec-R. The labeling occurs at the time of the merger of v*. The label α is detected to be RP, and β is also detected to be RP thanks to the scrambling of CaseP. This proposed analysis does not expect the labeling conflict compared to English since the Japanese NFQs are regarded as phrase-level syntactic objects, not head-level lexical items.

4.4. Subject NFQs in Japanese

There is a symmetry between Japanese and English in that (N)FQs are banned from appearing in the in-situ subject positions.

(22) {C {CaseP {T {$_{\gamma}$ {$_{\beta}$ QP, ~~CaseP(subject)~~} {$_{\alpha}$ <R, v*>, {Object, …}}}}}}

(α=<R, v*>P, β=QP, γ=??)

As indicated in the derivation (22), if NFQ is stranded in the initial subject position, problems of projection arise in γ. Since β is detected as QP, γ fails to be labeled due to the XP-YP configuration, {QP, <R, v*>P} in this case, leading to the derivation to crash at the interfaces. However, it is not always true that Q-float in Spec-v$^{(*)}$P in Japanese leads to an ungrammatical sentence. Discourse-related

particles allow the subject FQ to strand in-situ subject position.

(23) Gakusei-ga sake-o 3-nin *(-dake/-mo)
students-Nom sake-Acc 3-Cl -only/-also
nonda.
drank.
'Only three students drank sake.'

(24) Gakusei-ga watashi-no hon-o
students-Nom my-Gen book-Acc
2-tari-sika kawanakatta.
2-Cl-only buy-Neg-Past
'Only two students bought my book.'
(Miyagawa and Arikawa (2007: 651))

Focus particle *dake* or *mo* in (23) and negative polarity item *sika* in (24) make NFQ float in Spec-v$^{(*)}$P. These sentences are expected to constitute the XP-YP configuration, so these are problematic at first sight. However, based on the observation by Belletti (2001, 2004) that there is a discourse-related functional projection, FocusP, in v$^{(*)}$P-periphery, the labeling problem does not occur.

(25) {C {CaseP {T {$_{\alpha}$ QP-focus {$_{\text{FocP}}$ Foc {$_{<R, v*>P}$ ~~QP-focus~~, ~~CaseP(subject)~~} …}}}}}

Although the set α forms the XP-YP configuration, it is identified as <Foc, Foc>, which is a shared feature between QP-focus and FocP. Hence, as long as Japanese NFQs are marked with discourse-related particles, the labeling is succeeded with a prominent discourse feature, and the derivation converges.

4.5. Other Classifier Languages

We have argued so far that Q-float shows the (a)symmetry between Japanese and English. In the remainder of this paper, we observe to strengthen our analysis that other classifier languages have a similar consequence in the Q-float phenomenon. If NFQs with a classifier constitute a phrase-level syntactic object, not a head-level lexical item, classifier languages allow NFQ to appear in the complement position of the verb, like in Japanese. The following data are from Thai and Burmese.

(26) rōt-Mercedes thùuk khəmɔ́ɔy sìisìph.a-khan
car-Mercedes PASS steal 45-Cl
'45 Mercedes were stolen.'
(Thai; Simpson (2011: 122))

(27) khɛ̄tan canaw ngāa-sɛ-daun wɛ-tɛ
pencil I 50-even buy-Real
'I bought 50 pencils.'
(Burmese; Simpson (2011: 119))

The Thai example in (26) indicates that NFQ is stranded in the complement position of the passive predicate, which is prohibited in a non-classifier language like English. The same situation can be found in Burmese, which shows that FQ can be floated in the object position of the transitive verb in (27). On the other hand, it is not allowed in (28) for FQ to appear in the initial subject position, Spec-v$^{(*)}$P, in Burmese as well as in Japanese.

(28) * cāun-thāa(-kạ̄) htamīn-caw hna-yāuq
student(-Nom) fried-rice 2-Cl
hmāa-tɛ
ordered
'Two students ordered fried rice.'
(Burmese; Simpson (2011: 121))

5. Concluding Remarks

We have investigated the (a)symmetries in Q-float between Japanese and English, appealing to the labeling (im)possibility. By

focusing on the role of classifiers, we suggested that NFQs in Japanese are expected to appear in a more flexible environment compared with non-classifier languages like English, where there can be a labeling failure due to the H-H configuration.

* I am greatly indebted to Nobuaki Nishioka for his valuable comments and suggestions. I would also like to thank Yuta Sakamoto and two anonymous reviewers for their constructive comments. Of course, I have full responsibility for all remaining errors.

NOTES

[1] We purposely distinguish between H and HP labels for the sake of expedience. We use HP labels for the phrasal elements and H for the head-status lexical items.

[2] Following Chomsky (2015), R is strong enough to serve as a label after object-raising. Also, R is internally pair-merged with v* after the labeling.

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Pro-form「の」と NP 削除*

（Pro-form *No* and NP-ellipsis）

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キーワード:NP 削除, pro-form, 深層照応, 表層照応, light noun

1. はじめに

Saito and Murasugi (1990)は日本語（標準語（以下 SJ））の NP 削除分析を行い、(1a)の文において、(1b)のように第二名詞の D の NP 補語「態度」を削除している。

(1) a. はるなの態度はまり子のよりも立派だった。（SJ）
b. [$_{DP}$ まり子の[$_{D'}$ [$_{NP}$ ~~態度~~] D]]

しかし、長崎方言（以下 NJ）のような特定の方言では、(2a)のように代名詞（pro-form）の「と」が生じる（Maeda and Takahashi (2016)（以下 M&T (2016)））。M&T (2016)は(2b)のように pro-form 「と」が n 主要部として Merchant (2001)が提案した E（llipsis）素性を構成すると主張し、NP 削除分析を擁護している。標準語のデータ(1a)は、(3)に示すように属格の「の」と pro-form の「の」の haplology（重音脱落）となり、(2c)のように分析される。

(2) a. はるなん態度はまり子んとよりも立派やった。（NJ）
b. [$_{DP}$ まり子ん[$_{D'}$[$_{nP}$[$_{NP}$ ~~態度~~ N] と$_{n}$]D]]
（NJ）（M&T (2016)）
c. [$_{DP}$ まり子の[$_{D'}$[$_{nP}$[$_{NP}$ ~~態度~~ N]~~の~~$_{n}$] D]]
（SJ）（ibid.）

(3) まり子 の の → まり子 の
属格 pro-form

しかし、Hiraiwa (2016)の分析では、構造(4a)のように pro-form「の」も含めて軽名詞（light noun）が n 主要部を占めるとする軽名詞分析であり、この観点では(2a)は(4b)のように分析され、標準語のデータ(1a)は、(3)の haplology を用いて(4c)のように分析される。

(4) a. [$_{DP}$ [$_{D'}$ [$_{nP}$ XP *n*] D]] （Hiraiwa (2016)）
b. [$_{DP}$ [$_{D'}$ [$_{nP}$ [$_{NP}$ まり子]-ん と $_{n}$] D]]
（NJ）（ibid.）
c. [$_{DP}$ [$_{D'}$ [$_{nP}$ [$_{NP}$ まり子] の $_{n}$] D]]
（SJ）（ibid.）

本研究では、M&T (2016)が提供する NP 削除のデータでは削除が含まれているかどうか分からないことを示す。また、「と（標準語の「の」）」が従来の pro-form である考えを保持した Hiraiwa (2016)の分析の妥当性を示す。そして、M&T (2016)では扱ってない、(5b)のような長崎市方言のデータや韓国語のデータも捉えるには、Hirawai (2016)の分析に加え、Saruwatari (2016)の属格の音声的弱音化（phonological reduction）を用いて説明することができることを主張する。

(5) a. はるなん態度はまり子んとよりも立派やった。（長崎県南東部、北部）
（M&T (2016)=(2a)）
b. はるなの態度はまり子んとよりも立派やった。（長崎市方言）
（Saruwatari (2016: 186)）

2. スコープの曖昧性（VP 削除、*do so* 照応、pro-form）

M&T (2016)の削除に関するデータを見る

前に、do so 照応について考える。

2.1. *do so* 照応

Hankamer and Sag (1976)は do so 照応を表層照応として分類しているが、深層照応と表層照応では示す抜き出しの可能性に違いがある（Depiante (2000)、Johnson (2001)、Merchant (2013)）。深層照応は抜き出しを許さないが、表層照応は抜き出しを許す。(6a)、(7a)、(8a)より、do so は、表層照応の VP 削除において可能な wh 移動、受動化移動、空演算子移動を許容しない（坂本 (2018)）。

(6) wh 移動

a. *I don't know which puppy$_1$ you should [$_{VP}$ adopt t_1], but I know **which one$_2$** you shouldn't [$_{VP}$ do so].
（Houser (2010: 21)）

b. I know which book$_1$ Mary [$_{VP}$ read t_1], and **which book$_2$** Bill didn't [$_{VP}$ △].
（Fiengo and May (1994:247)）

(7) 受動化移動

a. *The vase$_1$ was [$_{VP}$ broken t_1 by the children], and **the jar$_2$** was [$_{VP}$ done so], too. （Houser (2010:22)）

b. One theory claims that they$_1$ can't [$_{VP}$ be distinguished t_1], while another claims that **they$_2$** can [$_{VP}$ △].
（Levin (1986:156)）

(8) 空演算子移動

a. * We ate far more at the carnival [than **Op** we should have [$_{VP}$ done so]].
（Thompson (2014:252)）

b. Abby can play more instruments [than **Op** her father can [$_{VP}$ △]].
（Winkler (2005:115)）

したがって、do so は深層照応である。ここまでで、表層照応の VP 削除とは異なり、do so 照応が深層照応であることを確認した。このことを念頭に置き、M&T (2016)のデータを検討する。

2.2. M&T (2016)のデータとスコープの曖昧性（VP 削除、*do so* 照応、pro-form）

M&T (2016)のデータ(9)を考える。(9a)に続けて(9b)を発言する文脈で、(9b)では pro-form「と」は(10a)の厳密読みと(10b)の緩やかな読みがあり、(11a)で示した英語の VP 削除と同様である。

(9) a. 薩摩んそこの殿様へん忠誠は理解できるばってん、 （NJ）
「薩摩のそこの殿様への忠誠は理解できるけれど、」

b. 島原んとは理解できん。 （NJ）
「島原のは理解できない。」
（M&T (2016: 120)）

(10) a. 島原の薩摩の殿様への忠誠は理解できない。

b. 島原の島原の殿様への忠誠は理解できない。 （ibid.）

(11) a. Harry loves his mother, and Ron does, too.
✓strict reading; ✓sloppy reading

b. Harry loves his mother, and Ron does her, too.
✓strict reading; *sloppy reading
（ibid.: 119）

しかし、(12)に示すように、「と」と対になる pro-form 'one' も緩やかな読みを許す（Llombart-Huesca (2002: 65)）。

(12) I saw Janet's beautiful picture of her cat and Jack saw Julie's ugly one.
✓strict reading; ✓sloppy reading

さらに、(13)のように深層照応 do so も緩やかな読みを可能にする（Houser (2010: 18)）。

(13) Harry loves his mother, and Ron does so, too.

✓strict reading; ✓sloppy reading

緩やかな読みでは、削除を伴うかどうかは分からない。M&T (2016)もこのことについて言及している。

次に、Fox (2000)に示されているデータとM&T (2016)のデータを考える。(14)の VP 削除ではFox (2000: 33)が指摘しているように、存在数量詞 a と普遍数量詞 every はいずれも広い作用域を取る。

(14) a. A boy climbed every tree.
b. A girl did, too. （a >/ <every）

(14a)で存在数量詞 a が広い作用域を取る場合、(14b)も存在数量詞 a が広い作用域を取る。(14a)で普遍数量詞 every が広い作用域を取る場合、(14b)も普遍数量詞 every が広い作用域を取る。

これと同様に、M&T (2016)は(15)のデータが most と one がいずれも広い作用域を取り、(15a)で most が広い作用域を取る場合は、(15b)も most が広い作用域を取り、(15a)で one が広い作用域を取る場合は、(15b)も one が広い作用域を取り、削除が関与していると主張している。ここで、(15b)は(15a)に後続すると考える。

(15) a. たいていの組織からんアジアん一か国ん脱退は認められたけど、（NJ）
「たいていの組織からのアジアの一か国の脱退は認められたけど、」
（one >/ <most）
b. ヨーロッパん一か国んとは認められんやった。（NJ）
「ヨーロッパの一か国のは認められなかった」（one >/ <most）
（M&T (2016: 127)）

重要なのは、(16)の do so 照応も(14)の VP 削除と同様のスコープ解釈を許容している点である。Baltin (2012: 418) にも同様の観察が指摘されている。

(16) a. A boy climbed every tree.
b. A girl did so, too. （a >/ <every）

したがって、この様なスコープ解釈の曖昧性では削除が含まれているかどうか分からない。(15)のスコープ解釈は削除の根拠にはならないので、(15b)の「と」は Hiraiwa (2016)の様に通常の pro-formとも考えられる。

3. 従来の pro-form「と」と M&T (2016)の「と」

ここでは、従来の pro-form の性質を確認して、M&T (2016)の「と」は従来の pro-form とは異なることを述べる。宮本 (2016)も参照頂きたい。

3.1 従来の pro-form「と」と関係節

まず、関係節についてみていく。pro-form「の」（NJ の「と」）が関係節（以下 RC）でも生じることは広く知られている。DP の spec への RC の移動が伴わないので、(17)では spec が head と一致するときのみ NP 削除が起こりうるという条件は満たされない。

(17) まりこが見たと （RC）（NJ）
「まりこが見たの」

したがって、RC で生じる「と」は削除を伴わないため、このような場合は、従来の pro-form「と」ということになり、M&T (2016)の分析での「と」ではない。

3.2 従来の pro-form「と」と言語的先行詞

次に、従来の pro-form は言語的先行詞を必要としないが、NP 削除は言語的先行詞が必

要である点についてみていく。Lasnik and Saito (1992)の提案のように、NP 削除は言語的先行詞を必要とする。Llombart-Huesca (2002)では、NP 削除が言語的先行詞を必要としない例文を提示しているが、Llombart-Huesca (2002)の例文では、同じ文脈で NP 削除と pro-form を比較しているわけではない。以下のような同じ文脈で比べると、やはり NP 削除と pro-form ‘one’ には違いがある。例えば本屋にいる状況で店員に話しかける場合、(18)のように NP 削除は容認されないが、pro-form ‘one’は容認される。日本語をみると、(19) の pro-form「と」や「の」は容認される。 (20)の様に‘book’が発言される場合は、NP 削除も可能になる。（Saruwatari (2016)）

(18) Excuse me, I’m looking for Haruki Murakami’s *(new one).
（Saruwatari (2016: 181)）

(19) a. すみません、村上春樹んとば探しとるとばってん。（NJ）
b. すみません、村上春樹のを探しているんですが。（SJ）
(ibid.: 182)

(20) a. Hanako: Whose book is selling best in this shop?
b. Clerk: Haruki Murakami’s (new one).
(ibid.: 181)

したがって、(18)〜(20)より、言語的先行詞がない状況で、NP 削除は pro-form ほど自由には生じることができず、pro-form と NP 削除とでは違いがあることが分かる。Hiraiwa (2016)では(17)、(19)も捉えることができるが、M&T (2016)の「と」は削除分析であるため、(17)、(19)には適用されない。

4. Hiraiwa (2016)と Saruwatari (2016)

Hiraiwa (2016)の pro-form を含めた軽名詞分析は、(21b)の長崎市方言（以下 NC）や(22)の韓国語に注目すると、さらなる優位性を獲得する。NC では(21b)のように、先行詞の名詞句と第二名詞句において、属格標示が異なる。前者は「の」、後者は「ん」となり、主要部の名詞が軽名詞（pro-form「と」や「時」など）の場合にのみ属格標示は「ん」になる。

(21) a. はるなん態度はまり子んとよりも立派やった。（長崎県南東部、北部）
（M&T (2016)=(5a)、(2a)）
b. はるなの態度はまり子んとよりも立派やった。（長崎市方言）
（Saruwatari (2016: 186)=(5b)）

また、(22)より、韓国語では主要部の名詞が「愛」、「態度」などの抽象名詞の場合は属格‘ui’が必要であるが、pro-form を含め軽名詞の場合は、属格が落ちる（発音されない）（Saruwatari (2016: 184)）。

(22) Suni-ui sarang-eun
Suni-Gen love-Top
Cheolsu **geo**-boda keo.
Cheolsu pro-form-than big
「スンニの愛はチョルスのより大きい」

表 1 は長崎市方言と韓国語の属格の分布を示している。表 1 の(a)~(c)の韓国語の属格‘ui’が随意的な場合を除いて、表 1(d)~(i)では長崎市方言と韓国語には類似性が見られる。表 1 (d)の様に「信念」、「態度」、「愛」などの抽象名詞が主要部の名詞の場合に、長崎市方言では属格は「の」になり、韓国語では‘ui’が必要となる。一方、表 1 (g)~(i) の pro-form（「と」や‘keo’）を含めた軽名詞が主要部になる場合、長崎市方言では属格が「ん」になり、韓国語では属格が落ちる（属格は発音されない）。Hiraiwa (2016)の軽名詞分析の構造では pro-form とその他の軽名詞

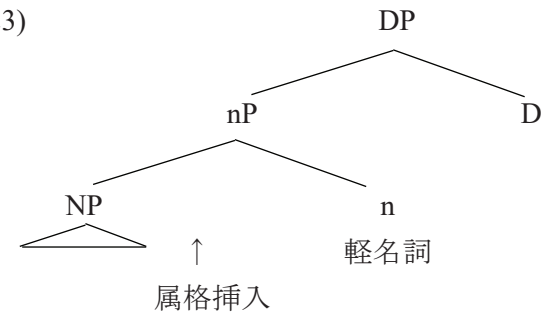
との関わりを捉えることができるが、M&T (2016)の分析では、「と」は従来の pro-form ではないため、なぜ(21b)の長崎市方言で属格が「ん」になるのか追加の説明が必要となる。

表１．　長崎市方言の属格「の」と「ん」 、韓国語の属格 ‘ui’ （Saruwatari (2016: 189-191)）

長崎市方言	韓国語	長崎市方言と韓国語の例文
の	(ui)	a. 花子__本 b. ローマ__破壊 c. 共産軍__侵略
の	ui	d. 花子__{信念/態度/愛} e. チョムスキーと__インタビュー f. アメリカから__手紙
ん	Ø	g. 花子__{と/ keo} h. 花子__時 i. 神戸__にき（「辺り」）

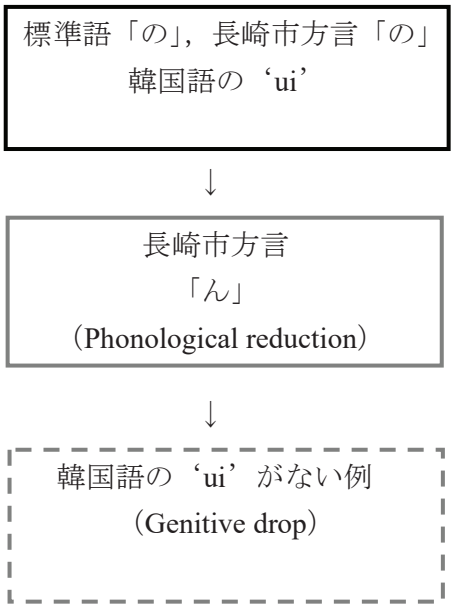
表 1 の属格の分布は、Hiraiwa (2016)の構造(23)に加え、(24)の Saruwatari (2016)の属格の音声的弱音化（phonological reduction）を用いることで説明できる。表 1 の(g)~(i)は挿入された属格が音声的に弱音化しているということである。

(23)



(24)Genitive Marker Reduction の図の様に挿入された属格の音声的弱音化とすることで、標準語、長崎市方言、韓国語の属格の分布を統一的に捉えることができる。(24)で示されるように、長崎市方言の「ん」は、属格の音声的弱音化（Phonological reduction）であり、その極端な例が、韓国語の‘ui’が落ちた例（Genitive drop）である。

(24)　Genitive Marker Reduction



（Saruwatari (2016: 192)）

(21b)の長崎市方言や(22)の韓国語のデータ、そして表 1 の属格の分布を捉えるには、Hiraiwa (2016)の構造と Saruwatari (2016)の属格の音声的弱音化（phonological reduction）を用いて説明できることを示した。

5. おわりに

本研究では、まず、VP 削除は表層照応であり、do so 照応は深層照応であることを抜き出しの可能性のデータより確認した上で、M&T (2016)が削除の根拠として用いた例文のスコープ解釈が do so 照応でも見られることを指摘した。そのため、M&T (2016)の例文では削除が含まれるか分からないことを示した。

また、M&T (2016)の「と」は、削除が伴う提案なので、従来の pro-form「と」とは別のものになる。したがって、M&T (2016)の「と」は、従来の pro-form「と」と異なり、削除が生じることができないとされる「関係節」や「言語的先行詞がない場合」では適用されない。

M&T (2016)の「と」は、従来の pro-form「と」ではないため、(5b)の様な長崎市方言のデータで、属格が「ん」になることに対して説明が必要である。長崎市方言では主要部の名詞が pro-form を含めた軽名詞の場合に属格が「ん」になるため、その事実は Hiraiwa (2016)の分析をサポートするデータになることを示した。Hiraiwa (2016)の構造を採用した上で、標準語、長崎市方言、韓国語の属格の分布を統一的に説明するには、Saruwatari (2016)の属格の音声的弱音化（phonological reduction）が有効であることを述べた。

* 本発表は Isono (2021)、Saruwatari (2016)、そして、日本英語学会第 40 回大会での口頭発表に加筆修正を加えたものである。発表の際にご指摘やご助言をくださった諸先生方にこの場を借りて御礼申し上げたい。

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On *There*-Sentences Involving "Experiencer": A Construction Grammar Perspective *

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Keywords : *there* construction, mental states, experiencer, Construction Grammar

1. Introduction

This paper is concerned with a class of *there* sentences in which the post-verbal NP (=PVNP) position is occupied by nouns denoting mental states (=mental nouns), as exemplified in (1)-(3).

(1) There is *comfort* in remembering that death is not the end. There is *comfort* in knowing that we can see those we love again. (COCA 2014)
(2) But there's *consolation* in the idea that nature is reclaiming the places it has lent to people. (COCA 2012)
(3) There's *pride* in being able to take care of yourself (…). (COCA 2008)

Sentences of this kind, which for some reason have received little attention in preceding studies, will henceforth be called "mental-state *there* (=MT) construction". In this paper, I will first show that MT construction, despite its apparent formal affinity with the well-studied existential *there* construction, exhibits properties that cannot be attributed to the latter. I will then explore a cognitive motivation for those peculiarities of MT construction.

The rest of this paper is organized as follows. Section 2 will see how the MT construction displays two grammatical characteristics which have never been recognized in numerous studies on the *there* construction. Section 3, from the perspective of Cognitive Construction Grammar, will explore the motivating factor for the apparently outlandish nature of MT construction. Section 4 concludes this paper.

2. Features Specific to MT Construction

2.1. Co-occurrence with the *For*-phrase of "Experiencer"

MT construction can co-occur with a prepositional phrase headed by *for* which specifies someone who undergoes the mental state designated by the PVNP, as in (4)-(7).

(4) The election of 2000 brought victory, but after eight years of George W., 2008 brought defeat once again. Though, at least America would now be free of the incubus of racism. The victor was a pleasant black man, and *there was, for me, some consolation in that*. (COCA 2017: italics are mine)
(5) There is liberation in being a character actor, especially for someone who's used to 'carrying' movies. (COCA 2003)
(6) a. There was comfort in that thought.
    b. For me, there was comfort in that thought.
(7) a. There is pride in being a professor.
    b. For her, there is pride in being a professor.

This is not observed with other types of *there* constructions such as (8) and (9), which have been often cited in traditional linguistic papers.

(8) a. There is a vase on the table.
b. ?For {me/her}, there is a vase on the table.

(9) a. There was a car accident on the highway.
b. ?For {me/her}, there was a car accident on the highway.

2.2. Paradigmatic Contrast

Another aspect of MT construction that differentiates it from more prototypical *there* constructions is the type of construction with which it is contrasted paradigmatically. In the literature, the existential *there* construction has been assumed to be part of two types of paradigmatic relations, which are exemplified by (10) and (11), respectively.

(10) a. There is a vase on the table.
b. A vase is on the table.
c. The table has a vase on it.
(Lakoff 1987: 558)

(11) a. There's a car coming.
b. A car is coming. (Egawa 1991: 196)

In either paradigm, the existential *there* variant and all the other alternative constructions are different in terms of information structure. Building on Lambrecht's (1994, 2000) theory of focus structure, the existential *there* variant has the structure of Sentence Focus (=SF) whereas the other variants have that of Predicate Focus (=PF), i.e. the subject-predicate structure. It has been assumed, therefore, that information structure plays the key role in motivating both types of paradigmatic contrasts.[1]

Turning now to MT construction, it is in a paradigmatic relation with a transitive construction, as shown in (12):

(12) a. There was comfort in that thought.
b. {I/she/he} took comfort in that thought.

At first sight, the paradigm (12) follows the same pattern as (10) and (11). Under Lambrecht's theory of focus structure, (12a) and (12b) would be analyzed as SF and PF structures, respectively. However, one noteworthy difference between (12) and the other two is that in the *there* construction variant (=12b), the main participant in the described scene is "defocused" by being demoted from the subject position. No such process is involved in either of (10) and (11). This suggests that the motivation for the variants in (12) is different in nature from that for those in (10) and (11).

2.3. Information Structure vs. Event Construal

Any approach based solely on concepts related to information structure would fail to capture the two features peculiar to MT construction because both of them have to do with whether a particular participant (i.e. experiencer) of the described situation is expressed or not. In other words, information structure alone cannot make a proper characterization of MT construction. As will be discussed in what follows, along with information structure, it is necessary to take into account the event construal associated with *there* sentences in general.

3. A Construction Grammar Perspective

One of the fundamental tenets in Cognitive Construction Grammar (=CCG) is that any linguistic unit of any size and schematicity has the potential to serve as a basic linguistic unit called "construction", i.e., a particular pairing of

meaning (function) and form (Goldberg 1995, 2006, 2019, Langacker 2000, Croft 2001).

CCG has generally adopted the widely recognized assumption that linguistic meaning consists of several dimensions, and a major dividing line has often been drawn between "information packaging" and "propositional content", i.e. a description of state of affairs (Goldberg 1995: 43).[2] The former has to do with how the speaker organizes the information conveyed to the addressee while the latter is concerned with how the speaker as the "conceptualizer" construes the situation. It is well established that constructions differ as to which level is relatively highlighted in contrast to the other. Some constructions (e.g. cleft constructions and right/left dislocation constructions) are connected exclusively with the dimension of information structure, and are often grouped together under the name of *information packaging constructions* (Hilpert 2019). In contrast, the primary function of other grammatical constructions (e.g. resultative construction) is to describe a state of affairs, having little to do with information structure.

Essentially, between these opposite extremes lie 'hybrid' constructions, one example of which is the passive construction. On the one hand, the passive has been seen as reflecting a specific type of event construal, which essentially involves the process of *agent defocusing* (Shibatani 1985). On the other hand, the passive is thought to crucially display a feature of information packaging, as it involves the reversing of canonical order of the two arguments and is susceptible to discourse-level constraints (Birner and Ward 1998: 194-205).

As for the existential *there* construction, many studies seem to have counted it as a typical information packaging construction. We have seen this in 2.2, referring to two types of paradigmatic contrasts that include the existential *there* construction. In addition, the main interest has always centered around issues such as the definiteness effect, i.e. the constraint on the definiteness of the PVNP (Abbott 1993, Birner and Ward 1998, Hannay 1985, Milsark 1974, among many others). Despite this trend, the existential *there* construction, just like the passive construction, has an event-description aspect to it. In fact, in order to account for the peculiar features of MT construction, it is necessary to consider the dimension of event construal rather than information packaging.

Below, I will explore the nature of MT construction by focusing on the propositional meaning of the existential *there* construction. 3.1 will propose to assume an event construal associated with the existential *there* construction in general. 3.2 will sketch the peculiarity of the PVNP referent of MT construction and then argue that MT construction involves a conceptual mismatch between the constructional meaning and the lexical meaning, claiming for the marked status of MT construction in the relevant paradigm. 3.3 will show that the marked status of MT construction is supported by the result of a corpus survey on the relative frequency of MS construction as compared to the transitive variant.

3.1. Event Construal Underlying the Existential *There* Construction

The present study builds on a hypothesis about the event construal associated with the existential *there* construction in general ([there + be + PVNP + PP]), which is stated as follows:

(13) The existential *there* construction presents an event/situation description as a fact

recognized from the perspective of an *outside observer*.

(14) implicatures by (13):

(i) the observer (mostly but not necessarily the speaker) is not a participant of the event/situation described

(ii) the fact provided is to be shared with people in general

The validity of (13) could be confirmed by comparing (15a) with (15b):

(15) a. There was a vase on the table.

b. I could see a vase on the table.

Sentence (15a) describes a particular situation, backgrounding the potential perceiver(s) without whom, in theory, the situation cannot be properly recognized. Still, the backgrounded perceiver usually does not count as part of the situation described (see (14-i)). This implicature is clarified by comparing (15a) with (15b), where the "perceiver" is explicitly mentioned as a participant of the situation described.[3]

3.2. A Mismatch between the Existential *There* Construction and the Mental State PVNP

Let us turn to MT construction. What makes it conceptually distinct from most other existential *there* sentences is the fact that its PVNP refers to a mental state. As is often pointed out, a mental state is different in nature from other entities (e.g. individuals and events) in that it is inherently inaccessible to anyone but the individual who actually experiences it (i.e. experiencer). In this sense, a mental state is something *internal* to its experiencer. This is in stark contrast to the relation between a perceiver and something perceived where the latter is typically *external* to the former. This discrepancy is one of the well-discussed issues in linguistics as this property of mental states can have its linguistic correlates (e.g. the first person constraint on mental state predicates in Japanese; see Uehara 1998).

We have seen in 3.1 that such a "perceiver-perceived" relation is compatible with the constructional meaning of the existential *there* construction as outlined in (13); it perfectly fits the construal under which the perceiver plays the role of "outside observer", as we have seen with (15a).

By contrast, the aforementioned intimate relation between a mental state and its experiencer is not as compatible with the constructional meaning of (13). In more theoretical terms, there exists a *conflict* between the meaning of a word and the meaning of a grammatical construction in which that word appears, and the conflict is to be resolved through the process of coercion by the construction; the experiencer, who is inherently in an inseparable relation with a mental state, is adjusted to be someone who, from the *outsider* point of view, observes their own mental state as if it were a fact that can be shared with other people.

Still, such a "coerced" outsider can never be a mere perceiver of the scene, because the PVNP referent conceptually requires identification of the experiencer of the mental state it portrays. Take (16), for example. To make sense of this sentence, one needs to know who is the experiencer of the mental state ("comfort") because it is contradictory to state that there exists "comfort" in a particular thought without anybody who could experience that comfort. This is sharply contrasted with *there* sentences

such as (17), which is most likely to imply that the existence of a vase is not dependent on, or restricted to, any particular perceiver(s). The propositional information is naturally to be shared with people in general.

(16) There was comfort in that thought. (=12a)
(17) There was a vase on the table. (=15a)

This explains why, as we discussed in 2.1, MT constructions could be accompanied by the *for* phrase which specifies the experiencer; it helps identify the experiencer evoked by MT construction.

(18) For the Kolman family, there is some comfort in knowing that -- even though Gilberto Nunez was not convicted of murder -- he will spend time behind bars. (COCA 2018)

In (18), the MT construction is not used to describe the existence of a particular mental state as a general fact. Rather, the experience of a mental state is presented as a fact specifically for the victim's family, i.e. the experiencer of the comfort.

There are also other ways to identify the implicit experiencer associated with MT construction. When the MT construction is in a subordinate clause as in (19), the experiencer is manifested as subject of the main clause. In still other cases, the experiencer is interpreted to be the protagonist of the story who is referred to in the immediately preceding context, as in (20).

(19) Peter said there was comfort in knowing that others are experiencing the same problems. (COCA 2012)
(20) He thought he would be able to see her again next summer. There was consolation in that thought.

3.3. Markedness of MT construction

Let us have a renewed look at the paradigm exemplified by (12), repeated here as (21) for convenience:

(21) a. There was comfort in that thought.
b. {I/she/he} took comfort in that thought.

It is now clear to see that the crucial difference between the two variants lies in how the experiencer of the mental state (i.e. "comfort") is expressed in each construction. While the experiencer is encoded as subject of the clause in (21b), it is made implicit (or "defocused") in (21a). Considering our discussion in 3.2, it is predicted that the latter has the *marked* status in the paradigm because it represents a construal where the main participant of the situation is deliberately defocused, costing the addressee (reader) extra effort to find out who is the "defocused" experiencer.

The hypothesis that MT construction is the marked alternative to the unmarked transitive construction in the paradigmatic relation has been supported by a corpus survey through COCA (Corpus of Contemporary American English). Six nouns were selected that frequently appear in the two constructions: *comfort*, *consolation*, *pleasure*, *pride*, *satisfaction*, and *solace*. Their instances were collected where the noun is followed by *in* because it is the preposition most commonly attested in the paradigm. As to *comfort*, *solace*, *satisfaction*, and *consolation*, all the examples attested in the corpus were considered. About *pleasure* and *pride*, which exceeded the other nouns in

number, 500 randomly sampled examples were examined. For each noun, examples of the transitive variant (e.g. *She took comfort in that thought*) as well as those of the MT variant (e.g. *There was comfort in that thought*) were picked out in order to calculate their distribution ratio. As for the transitive variant, instances with the transitive verbs *take*, *find*, *seek*, and *feel* were counted. The result is summarized in Table 1.

Table 1. Distribution of Mental State Nouns

	(i) transitive variant	(ii) MT variant	Percentage of (ii)
comfort	1522	216	12.4 %
solace	725	27	3.6 %
satisfaction	337	130	27.8 %
consolation	79	24	23.3 %
pleasure	335	21	5.9%
pride	276	5	1.8 %

Each noun occurs at least three times more frequently in the transitive variant than it does in the MT variant, suggesting the markedness of the latter in the paradigm. [4]

4. Concluding Remarks

In this brief paper, we first pointed out the existence of MT construction which shows peculiarities that cannot be reduced to general properties of the existential *there* construction. We then sought cognitive factors motivating MT construction, arguing that, contrary to the tacit assumption in the literature about the nature of the existential *there* construction, the observed phenomena are properly explained in terms of how a mental state experience is construed rather than information structure organization.

One remaining issue is that not all mental state nouns occurring in the PVNP of the existential *there* constructions constitute instances of MT construction. In (22), for instance, the experiencer of the emotion denoted by the PVNP *sadness* is not the outside observer but the person indicated by the prepositional phrase.

(22) There was sadness in her eyes.

MT construction and instances such as (22) could be connected in some way by virtue of the shared schematic structure including the expletive *there*. Considering the semantic discrepancy between the two types, however, exactly how they are connected in the speaker's mind is no straightforward matter. I will leave this issue for further study.

* I am indebted to the audience for their invaluable comments at the 40th national conference of English Linguistics Society Japan, on November 5 in 2022. I would also like to express my gratitude to James Crocker for his assistance in proofreading the paper. This research was supported by Japanese Society for the Promotion of Science, Grants-in-Aid for Scientific Research (C) [grant number: 19K00697].

NOTES

[1] The paradigm typified by (10), unlike the other one, is also motivated by conceptual (semantic) distinction. See Lakoff (1987: 558) for further discussion on two interpretations and how they are distributed among the three variants.

[2] As motivating factors for grammar in the framework of CCG, Boas (2013: 242) refers to "properties of human interaction and cognition", which correspond to information packaging and propositional content, respectively.

[3] The implicature status of (14) can be evidenced by its cancellability in the immediate context, as in a naturally-occurring example (i):

(i) There was a car accident yesterday, *I was in there too*. (COCA 2006; italics are mine)

[4] It should be noted here that the *there*-variant in the paradigm exemplified by (10) behaves like an *unmarked* option: it accepts a wider range of nouns than the "bare" existential variant (=10b) (Kimball 1973) and it is "by far the more common option" than the *have*-variant (=10c) (Biber et al. 1999: 956).

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A Construction Grammar Analysis of *Or* Conditional Imperatives: With Special Reference to the Formation of Speech Act*

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Keywords: *or*-conditional imperative, reasoning, command, statement, speech act

1. Introduction

As is well known, some English expressions may be construed as conditionals even though they do not contain the marker *if* (e.g., Dancygier and Sweetser (2005)). Among them, this study investigates the *or*-conditional imperative (OCI), where an imperative and a declarative are connected by the conjunction *or*.

(1) a. Stop or I'll shoot.
b. Stop! If you don't, I'll shoot.
(Jary and Kissine (2014: 154))

The speaker in (1a) orders the addressee to stop; otherwise, they will be shot. The string "*or* DECLARATIVE" can be roughly paraphrased as an *if*-conditional as in (1b). Simply, *or* in this case behaves as an adversative link (cf. Lakoff (1971)).

More notable is that the imperative of the OCI directly communicates the speaker's instruction to the addressee; if the addressee does not follow it, an undesirable situation for the addressee (and sometimes the speaker) will be realized. This is clearly demonstrated in example (2).

(2) a. Open the window or I'll kill you.
b. #Open the window or I'll kiss you.
(Lawler (1975: 371))

In (2), the right conjunct can denote an event such as killing but not kissing. This is because kissing someone is generally considered to be desirable/beneficial. Clearly, the imperative of the OCI expresses an event desirable to the speaker, while the declarative shows the possibility of an event undesirable for the addressee.

It follows from the above observations that the OCI is used as a kind of ultimatum (cf. Davies (1986: 204–206)).

(3) Come on time or the boss will get furious.
(Takahashi (2017: 117))

The speaker in (3) commands that the addressee arrive on schedule; if not, the boss will be mad. The message thus includes a warning or ultimatum, and the right conjunct provides a reason for the addressee to comply with the speaker's command.

The functional status of these OCIs can be treated in terms of speech acts: the imperative conveys the directive force such as command, and the declarative provides a reason that the addressee should follow it. Although the literature has pointed out the pragmatic aspects of the OCI (e.g., Lakoff (1974)), there is no detailed account of why it behaves like an ultimatum. That is, more explanation is needed of the functional properties. This study argues that the OCI is one instance of what Kanetani (2019) calls the REASONING construction, particularly on the basis that both convey

different units of speech acts.

The remainder of this paper proceeds as follows. Section 2 overviews the constructional analysis of OCI proposed by Takahashi (2012). To deal with a remaining issue in his proposal, Section 3 introduces Kanetani's (2019) approach, based on which constructions with the conjunction of a reason can be classified into two types: CAUSAL and REASONING. Then, Section 4 proposes that OCIs can be considered the latter type and illustrates the relationship. Section 5 concludes the paper.

2. Takahashi (2012)

Since Lakoff (1971), it has been observed that the conjunction *or* is classified into at least two types: symmetric *or* in (4) and asymmetric *or* in (5). The two differ in whether their conjuncts are reversible or not.

(4) a. You can boil an egg, or you can make some sandwiches.
b. You can make some sandwiches, or you can boil an egg.
(Takahashi (2012: 161))

(5) a. I want you to be quiet or the security guards will put you outside.
b. ?The security guards will put you outside or I want you to be quiet.
(Takahashi (2012: 160))

If the symmetric *or*-construction in (4a) reverses the left and the right conjuncts as in (4b), it does not significantly change the meaning. On the other hand, the asymmetric *or*-construction in (5a) cannot interchange the conjuncts in (5b) without affecting the meaning. Therefore, the order of the conjuncts in asymmetric *or*-constructions is semantically/formally fixed.

Given this fact, Takahashi (2012) argues that the OCI is an instance of asymmetric *or*, and he bases his argument on Goldberg's (2006) notion of the "amalgam construction." A construction can comprise distinct constructions if they are semantically compatible with each other. The application of this analysis to OCIs is as follows. OCIs are amalgams of at least three constructions: an asymmetric *or*-construction (X *or* Y), imperative construction (X), and declarative construction (Y). Thus, the asymmetric *or*-construction is a mother construction of the OCI, as confirmed in (6).

(6) a. Eat your oatmeal or you'll be sorry!
b. I want you to be quiet or the security guards will put you outside.
c. Your money or your life!
(Takahashi (2012: 160))

Despite the fact that different constructions occupy the X slots in (6), they hold in common that they convey the speaker's command: eating the oatmeal in (6a), being quiet in (6b), and giving the money in (6c). Therefore, the OCI, or the string "IMPERATIVE *or* DECLARATIVE," is a manifestation of the higher level construction, namely, the asymmetric *or*-construction.

Note, however, that although Takahashi's (2012) analysis comprehensively treats various subtypes of the asymmetric *or*-construction, no detailed account is provided of how the OCI gives a reason for the addressee to comply with the imperative, as in (7). It is a fact that the conjunction *or* followed by a declarative can be paraphrased as a reason clause.

(7) a. Come on time or the boss will get furious. (= (3))
b. Come on time, because/for if you don't

come on time, the boss will get furious.

Since this paraphrasability is simply an observed fact, what matters is to consider why the OCI receives such a reading. Therefore, Sections 3 and 4 focus on the relation between OCIs and *because*/*for* clauses to reveal how OCIs gain the reading of "a reason for the addressee to comply with the command."

3. Reasoning Constructions (Kanetani (2019))

Kanetani (2019) takes a constructional approach to conjunctions of reason in English such as *because*, *since*, and *for*. Very briefly, he proposes the following two schematic constructions: the CAUSAL construction, which expresses a causal relation between the main and subordinate clauses, and the REASONING construction, which mainly coveys the speaker's conclusion and the premise to support it. Let us, for example, consider the conjunctions *because* and *for*. *Because* can instantiate both constructions as in (8) and (9a) (henceforth, the CAUSAL *because* construction and the REASONING *because* construction), while *for* can instantiate only the latter as in (9b) (the REASONING *for*-construction).

(8) The ground is wet because it has rained.
(Kanetani (2019: 1))

(9) a. It has rained, because the ground is wet.
(Kanetani (2019: 1))

b. He came back, for he loved her.
(Kanetani (2019: 53), with modifications)

The sentence in (8) has a CAUSAL construction, where the event of raining causes the ground to be wet. On the other hand, the expressions in (9) are REASONING constructions in that, for instance, the speaker in (9a) concludes that it has rained based on the fact that the ground is wet.

The subtle but crucial difference between CAUSAL and REASONING constructions resides in whether they consist of one or two speech acts. That is, the former expresses a causal relation as a single speech act, while the latter conveys the speaker's conclusion and the premise to support it as two distinct speech acts. As evidence, Kanetani offers the data in (10).

(10) a. Is the ground wet because it has rained? ↗ (Kanetani (2019: 46))

b. Has it rained, ↗ because the ground is wet? ↘ (Kanetani (2019: 53))

The arrow in (10a) illustrates that a rising intonation works at the end of the interrogative, and it is clear that both the main and subordinate clauses are inside the scope of the matrix question. In this case, the speaker does not question whether the ground is wet or not, but rather whether the rain has made the ground wet. By contrast, the arrows in (10b) indicate different intonation patterns: The main clause is pronounced with a rising intonation and the *because*-clause with a falling intonation. Simply, with the assumption that it has rained, the speaker merely questions whether the ground is wet or not. The contrast in the interrogatives reflects the different speech acts in the CAUSAL and REASONING constructions.

A further argument for the distinction is that the REASONING construction is compatible with main clause phenomena such as topicalization or rhetorical questions. There has been a general consensus in the literature that main clause phenomena are unacceptable when they occur in a subordinate clause (e.g., Lakoff (1987)). Indeed, topicalization disallows the

CAUSAL *because* construction to be licensed in (11b).

(11) a. Sam is not going out for dinner because his wife is cooking Japanese food.
(Hooper and Thompson (1973: 494))
b. * Sam is not going out for dinner because Japanese food, his wife is cooking. (Kanetani (2019: 76))

Sentence (11a) gains a wide-scope reading of the matrix negation, where the causal relation (i.e., the fact that his wife is cooking Japanese food causes the event that Sam is going out for dinner) is rejected. More crucial is that such an expression makes the topicalization in (11b) ungrammatical.

Note, however, that the rhetorical question in (12) may occur in the REASONING *because* construction.

(12) The Knicks are going to win, because who on earth can stop Bernard?
(Lakoff (1987: 475))

The question in (12) does not serve to ask about who can stop Bernard, but function to state that nobody can stop him. That is, if a main clause phenomenon can be realized in a subordinate clause, the clause will be regarded as one unit of speech act. What matters here is, as Lakoff (1987) argues, that whether or not this main clause phenomenon co-occurs with a subordinate clause relies on whether or not it constitutes the speech act of a statement.

(13) a. * I'm staying because find out which girl pinched me.
b. I'm staying because consider which girl pinched me.
(Lakoff (1987: 477))

The imperative in (13a), as an instance of a prototypical imperative, functions to request/order the addressee to find which girl pinched the speaker. In this case, the imperative cannot occupy the subordinate clause. Contrastingly, the imperative in (13b) is licensed because it does not behave as a request or an order but rather serve to indirectly convey the statement that the girl pinched me. Therefore, Kanetani (2019: 52) represents REASONING *because/for*-constructions as shown in (14).

(14)

REASONING *because/for*-construction
Syn: C $(\text{Clause})_2$, *because/for* C_1
Sem: SA $(\text{Speech Act})_1$ is a premise by which to motivate SA_2

In summary, the English conjunctions of reason have two types of schematic constructions: CAUSAL and REASONING. The distinction is made in terms of speech act formation: The former expresses a causal relation as one unit of speech act, while the latter conveys the speaker's conclusion and the premise to confirm it as two distinct units of speech acts.

4. Analysis

This section illustrates that the OCI is a REASONING construction in Kanetani's term. As observed several times, the form "*or* DECLARATIVE" can be rephrased using a *because/for*-clause as in (15b). In other words, the left conjunct conveys a speech act like a request or command, while the right one functions as a reason for the addressee to

comply with it. More striking here is that the functional property is found in the asymmetric *or*-construction in (16).

(15) a. Come on time or the boss will get furious.
b. Come on time, because/for if you don't come on time, the boss will get furious. (= (7))

(16) a. You'd better leave, or somebody'll slug you. (Davies (1986: 215))
b. You'd better leave, because/for if you don't leave, somebody'll slug you.

It is safe to say that the reading "a reason to comply with the speaker's command" is not only peculiar to OCIs but also to asymmetric *or*-constructions. This seems puzzling but less so when the conjunctions in the attested data are considered to be REASONING constructions. Clearly, the functional property of the OCI (as well as asymmetric *or*) is derived from that of the REASONING *because/for*-construction: i.e., forming two different speech acts.

To confirm this, this study argues that the OCI is parallel to the REASONING construction in the following ways: (i) compatibility with a rhetorical question and (ii) asymmetricity between the two conjuncts. As for the first, it is clear in Section 3 that the REASONING construction licenses certain main clause phenomena such as rhetorical questions. This can be seen in the OCI and the asymmetric *or*-construction, as demonstrated by (17).

(17) a. You should not eat that cheese, or what will we put in your sandwiches tomorrow?
b. Don't eat that cheese, or what will we put in your sandwiches tomorrow?
(Declerck and Reed (2001: 402))

The data in (17) confirm that the left and right conjuncts convey different kinds of speech acts, namely, the speaker's command or assertion and the reason for the addressee to follow it.

As for the second parallel aspect, we have seen in Section 2 that the two conjuncts in asymmetric *or*-construction are not interchangeable (cf. (5)). This is true for OCI as well, shown by (18).

(18) a. Choose your financial planner wisely or (you'll) suffer the consequences.
b. ? You'll suffer / Suffer the consequences or choose your financial planner wisely.
(Takahashi (2012: 160–161))

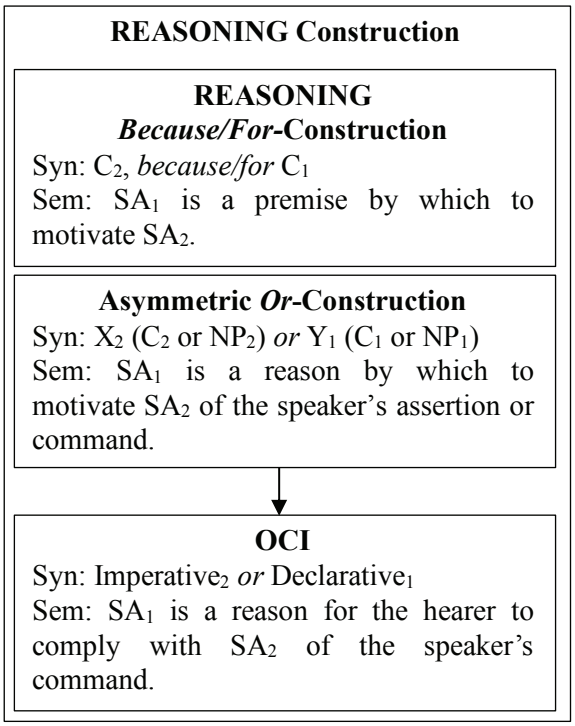
More notable here is that the two sentences in the REASONING construction are not reversible, as (19) indicates.

(19) a. He came back, for he loved her. (= (9b))
b. ≠He loved her, for he came back.

Thus, it is argued that the OCI (and asymmetric *or*-construction) and REASONING construction share (i) compatibility with a rhetorical question and (ii) asymmetricity. This allows us to assume that the asymmetric *or*-construction is a type of REASONING construction. More especially, the REASONING construction can be classified into at least two types as shown by (20): The first is something like the REASONING *because/for*-construction, which serves to offer the premise by which to confirm the speaker's assertion, and the second is like the asymmetric *or*-construction, which expresses a reason by

which to motivate the speaker's assertion or command, or what the speaker primarily conveys. Then, OCIs fall into the second type. This is summarized schematically in (20).

(20)



With this representation, it is possible to give a proper treatment of the noun type in (21c).

(21) a. Eat your oatmeal or you'll be sorry!
b. I want you to be quiet or the security guards will put you outside.
c. Your money or your life!
(= (6))

If the sentence types like (21a) and (21b) are assumed to be prototypes of the asymmetric *or*-construction, the conjoined noun phrases in (21c) are analyzable as being coerced into forming two different speech acts (i.e., the speaker's command and the reason to comply with it). This is attributed to the constructional status of the asymmetric *or*-construction, where the two conjuncts have two distinct units of speech acts. Further evidence is provided by (22).

(22) Choose your financial planner wisely or suffer the consequences. (cf. (18a))

As shown by (13), an imperative as a main clause phenomenon may occur in the right slot of the REASONING construction, in which case it must function as a kind of statement (Lakoff (1987)). This is seen in (22), where the imperative does not order the addressee to suffer the consequences but rather state that it will happen without the proper choice of a financial planner. Because of the functional similarity to the REASONING construction, the left conjunct of asymmetric *or* serves as what the speaker mainly conveys (i.e., assertion or command) and the right one as a statement giving a reason to obey it. As result, the OCI can be construed as an ultimatum.

That said, it might be plausible to regard the functional property of the left conjunct as the speaker's command rather than what the speaker mainly communicates. However, this is not necessarily borne out. Consider (23).

(23) They liked this house or they wouldn't have stayed so long.
(*Taishukan's Unabridged Genius English-Japanese Dictionary*)

The left conjunct in (23) expresses the assertion that they must have liked their house, but not a command. Clearly, just because there is an adversative link does not mean that the left conjunct always functions as the speaker's direction. Rather, it is best schematically

represented as what the speaker mainly intends to convey, such as an assertion in this instance, or a command.

5. Conclusion

This paper has tackled how the OCI conveys a kind of ultimatum, more especially, how the right conjunct provides a reason for the addressee to comply with the speaker's direction. It was argued that OCIs and asymmetric *or*-constructions are REASONING constructions in Kanetani's term, particularly since they can be rephrased using *because/for*-clauses. Moreover, the OCI and its mother form two distinct units of speech acts: The left conjunct conveys what the speaker primarily wants, such as an assertion or command, and the right one gives a reason to support it.

* I would like to thank all those who have given comments on my presentations. I am also grateful to Yukio Hirose, Naoaki Wada, and Masaru Kanetani for their valuable comments and suggestions on an earlier draft of this paper.

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使役動詞補文に出現する原形不定詞の非同時性について

（On the Asynchronicity of Bare Infinitives in the Complement of Causative Verbs）

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キーワード：使役動詞, 原形不定詞, アスペクト, 同時性, 可制御性

1. はじめに

現代英語における使役動詞と知覚動詞は、能動態補文に原形不定詞を取る。この原形不定詞は使役・知覚事象の完結性 (=(1a-b)) を表すことに加えて、主節動詞との同時性 (=(1c)) を表す (cf. 中右 (1980: 140))。

(1) a. We {***made*** / ***had***} them ***march*** into the mess hall. (completed)
(Akmajian (1977: 440))
b. We ***watched*** the prisoners ***die***.
(completed) (ibid.)
c. *John {***made*** / ***saw***} Bill ***leave*** tomorrow. (Hornstein (1990: 154))

しかし、(2) のように、使役動詞の原形不定詞補文における同時性に関して、一部の先行研究では、その容認可否性に揺れが見られる。

(2) a. ??Yesterday I ***made*** John ***leave*** tomorrow.
(Franks and Hornstein (1992: 45))
b. He ***made*** him ***leave*** on Wednesday on Tuesday. (Anderson (2005: 35))
c. We can't now ***let*** Gazza ***play*** for England in the future.
(Felser (1999: 54))
d. Her early trauma ***made*** Mary ***seek*** therapy later in life.
(Safir (1993: 59))

この同時性について、久保田 (2013: 84) は上記のような例を提示していないが、一般的に使役動詞の原形不定詞補文は、主節の行為と補文の内容の実現に時間差がなく、概念上同時に成り立つ、あるいは同時に成り立つことが約束された場合に用いられるという。本研究では、中右 (1980) らの同時性は (2) の用例を説明できるのか、また久保田 (2013) の述べる概念的同時性はどの程度の時間差まで適用できるのかについて分析を行う。そして、(2d) の原形不定詞は同時性を表す一方で、(2a-c) に見られる非同時性を表す原形不定詞の使用は、主節主語がその使役事象を自在にコントロールできる場合に限られることを実証する。

2. 使役動詞と知覚動詞補文における原形不定詞のアスペクト特性

2. 1. 原形不定詞補文における完結性

まず、原形不定詞が表すアスペクトについて、(1a-b) に示したように、使役動詞と知覚動詞の原形不定詞補文は完結性のアスペクトを表す。この完結性は、(3a) のように、単純過去形にも見られる。このアスペクトの類似性は、(3b-c) のように、原形不定詞補文で示される事象は単純過去形に置き換えることができることにより実証される。

(3) a. She ***was drowned***. (completion)
(Declerck (1981: 97))
b. He ***had*** them ***beat*** the carpet. (=They beat the carpet.)(Palmer (1987: 175-6))
c. I ***saw*** Tom ***get*** into his car and drive away. (=Tom got into his car and drove away. + I saw this.)
(Murphy (2004: 134))

この類似性は、(4) の例からも実証される。以下の例では、単純過去形と原形不定詞は共に完結性を表す為、その完結性を否定する表現と共起することができない。これらの言語事実から、使役・知覚動詞の原形不定詞は共に完結性のアスペクト特性を持つと言える。

(4) a. *She ***was drowned***, but I rescued her.
(Declerck (1981: 97))
b. *She ***made*** him ***shave*** but he refused.
(Givón (2001: 45))
c. *I ***saw*** her ***drown***, but I rescued her.
(Kirsner and Thompson (1976: 215))

2. 2. 原形不定詞補文における同時性

前述の通り、原形不定詞補文は完結性のアスペクト特性を持つが、この完結性に加えて、原形不定詞補文は、(5) のように、主節動詞との同時性を表すと言われている。

(5) a. *Last night she {***made*** / ***let***} him ***go*** tomorrow. (Mittwoch (1990: 118))
b. *(Yesterday) I ***saw*** the man ***cross*** the road tomorrow. (中右 (1980: 140))

このことは多くの言語事実によって実証することができる。まず、原形不定詞補文は同時性を表す為、(6) のように、その同時性に違反する完了不定詞を補文に用いることができない。これは、過去に遡って当該の事象を指示および命令をすることや知覚することは物理的にできない為である。

(6) a. *We ***let*** him [***have eaten*** supper by 4 o'clock]. (Akmajian et al. (1979: 41))
b. *John ***saw*** Bill ***have left***.
(Hornstein (1990: 154))

同様の容認可否性が命令文にも見られる。この容認可否性は、上記の使役動詞の例と同様に、過去に遡って指示や命令をすることは物理的にできないことに起因する。

(7) ****Have finished*** War and Peace.
(Culicover (1971: 77))

さらに、原形不定詞補文には、(8) のように、be + -ing を用いることができない。これは、(6) と同様に、be + -ing が主節動詞の表す時よりも過去を表す為である。同様の容認可否性が (9) の命令文にも見られる。

(8) a. *The movie ***made*** her ***be crying***.
(Takahashi (2012: 132))
b. *I ***saw*** John ***be sleeping***.
(Declerck (1981: 91))

(9) ****Be standing*** now!
(鈴木・安井 (1994: 251))

これらの容認可否性は、進行形が持つ前段階性の含意に起因している。進行形は一般的に基準時の前後に時間枠を形成すると分析されている (cf. Jespersen (1931:§12.5))。それに対して、佐藤 (2014: 101) および吉良 (2018: 199-200) によれば、基準時以前の時間枠の形成は義務的である一方で、基準時以降の時間枠の形成は文脈によるという。佐藤 (2014) は (10) の例において、停電後にテレビを見ることはできず、爆発後に着陸できないといった言語外の知識から、Jespersen (1931) の説を否定している。

(10) a. The plane ***was landing*** when it exploded in midair (so it didn't land).
(Rothstein (2004: 39))
b. When the electricity went off they ***were watching*** TV.
(Hirtle (2007: 202))

これらの例は進行形が必ずしも基準時以降

の状況を保証するものではないことを示す。その一方で、基準時以前の状況を保証しない進行形が存在しないのは基準時に突如出現する進行中・未完了の行為・出来事は、物理的に存在しないからであり、ある行為・出来事が基準時に進行中である為には、その行為・出来事自体が基準時以前から生じていなければならない (cf. 佐藤 (2014: 101))。(9)の進行形の命令文が容認されない理由については、進行形が表す状況には必ず基準時以前の状況が認められるため、発話時以前に遡って、当該の行為をはじめろという自制不可能な命令を聞き手に課すことになるためである。そのような命令は、命令文で表される内容は聞き手にとって自己制御可能な事柄でなければならないという一般原則に抵触する (cf. 佐藤 (2014: 111))。

さらに、原形不定詞補文の同時性を実証しうる言語事実として、使役動詞の原形不定詞補文に完了不定詞が例外的に使用されることがあげられる。このような例は、(11) のように、使役動詞が命令文で使用され、完了不定詞が未来を表す副詞句と共起する場合に、容認される。このような環境では、主節動詞と完了不定詞はどちらも未来を表し、上記で見た同時性に違反しないのである。ただし、知覚動詞の原形不定詞補文には、このような完了形は出現できない。

(11) a. Please, God, ***make*** him ***have arrived***, by the time I get there.
(Kayne (1984: 43))
b. Please ***let*** him ***have arrived***, by the time I get there. (ibid.)

このような未来を表す完了不定詞は、様々な環境で使用される。まず、助動詞や不定詞に後続する完了不定詞について、(12) に示すように、未来を表す副詞句と共起することで、未来時を表すことができる。

(12) a. You ***must$_R$ have completed*** the work by the next April.
(荒木他 (1977: 346))
b. We hope ***to have finished*** the job by next Saturday. (=… that we will have finished…) (Swan (2016: 90))

同様のことが、完了形の命令文にも見られる。前述の通り、過去に遡って指示を行うことは物理的に不可能であるため、通常、完了形の命令文は容認されないが、(13) では、未来を表す表現と共起することで、完了形が過去ではなく、未来を表す為、容認されている。

(13) ***Have finished*** War and Peace by tomorrow. (Culicover (1979: 77))

また、原形不定詞補文に be＋-ing を用いた表現 (=(8)) も一般的に容認されないが、(14)のように、主節動詞と be＋-ing が未来を表す表現と共起している場合には、同時性に違反することなく、使用される。ただし、知覚動詞の場合には、同様の例は容認されない。

(14) a. Let's ***let*** Othello ***be thinking*** of his next move at this point in the play.
(Gee (1977: 480))
b. We'll try to ***make*** him ***be singing*** "Coming through the Rye" when Mary walks in the room.
(Akmajian et al. (1979: 40))

また、前述の通り、be＋-ing の命令文も一般的に非文と見なされるが、(15) は未来を表す表現と共起することで、(9) と異なり、過去ではなく、未来を表す為、容認される。

(15) ***Be studying*** your Spanish when I get home! (Akmajian et al. (1979: 37))

このような言語事実から、原形不定詞は完結

性や同時性を表すことに加えて、一般的に非文と見なされる完了不定詞や be + -ing が原形不定詞補文に用いられている例もまた主節動詞である使役動詞との同時性を表す場合には、容認されることがわかる。

2. 3. 原形不定詞と to 不定詞の意味的差異

次に、原形不定詞と類似する統語的性質を持つ to 不定詞の意味について確認する。安井 (1996) によれば、使役行為の一部始終を見た話者は、(16a)を用い、群衆を見てから現場を去り、再び現場を訪れると群衆は見当たらなかったという場面では、(16b) を用いるという。

(16) a. The police ***made*** the crowd ***disperse***.
(安井 (1996: 305))
b. The crowd ***were made to disperse***.
(ibid.)

同様の意味的差異は、(17) にも見られ、大嵐が街を襲うと同時に家を倒壊させた場合には (17a) が、数日後に倒壊させた場合には (17b) が用いられる (cf. Lauer (2010))。

(17) a. The hurricane ***made*** the house ***collapse***. (Lauer (2010: 10))
b. The hurricane ***caused*** the house ***to collapse***. (ibid.)

原形不定詞を補文にとる動詞の特徴として、岡田 (2018a: 171) は、使役的働きかけ (make によって表示される出来事) と、それに応じて被使役者が行う行為 (原形不定詞によって表示される出来事) の間に、タイムラグが少なく、使役的働きかけが成り立つと、被使役者が行うサブイベントも成立することが保証されているという。また岡田 (2018b: 163) によれば、(18) に示す to 不定詞を伴う動詞の場合、主節の出来事と補文の出来事の間には時間的なズレが生じることが可能であったり、出来事が成就するまでに強い抵抗感が予想され、必ずしも満足がいく形で補文の事態が成立するとは限らないという。これらの言語事実から、原形不定詞は同時性を、to 不定詞は時間差を表すといえる。

(18) a. John ***forced*** Mary ***to do*** the dishes, but it took hours before she did so.
(岡田 (2018b: 162-3))
b. He ***caused*** him ***to leave*** on Wednesday on Tuesday.
(Anderson (2005: 35))

3. 使役動詞の原形不定詞補文における (非) 同時性と主節主語 (使役者) の可制御性

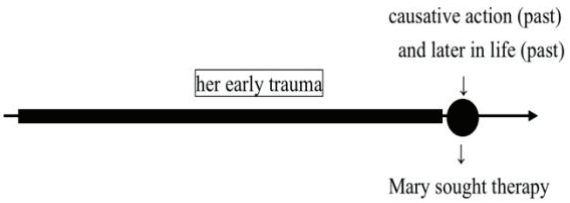
3. 1. 使役動詞の原形不定詞補文における (非) 同時性

前節で確認したように、原形不定詞は同時性を表し、時間差を表す例は非文と見なされる。そして、主節動詞との時間差を表す場合には、to 不定詞が用いられるが、一部の先行研究は (19) のような主節動詞との時間差を表す原形不定詞を適格文とする。本節では、この容認可否性について分析する。

(19) a. Her early trauma ***made*** Mary ***seek*** therapy later in life. (=(2d))
b. We can't now ***let*** Gazza ***play*** for England in the future. (=(2c))

まず、(19a) の容認可否性について、トラウマとは、ある経験によって引き起こされる深刻かつ持続的な心的外傷である。また、トラウマが形成されたと同時に使役事象が実現したとは考えにくいため、(19a) は、「幼少期のトラウマがある過去の時点 (晩年) にメアリーにセラピーを受けさせた」という図 1 に示す同時的解釈が可能であると分析する。

図１．(19a) の時系列構造



その一方、(19b) では、we が監督や代表取締役であり、監督の指示や代表取締役の意志決定と同時に、ガザが今後イングランドの為に試合に出場することができないことが実現した、つまり、久保田 (2013) の述べるように、(19b) は使役行為と被使役行為が概念的同時に（時間差を伴って）成り立ったことを表すと考えられる。しかし、概念的同時性の分析では、(2a-b)、(5a) と (19b) における容認可否性の違いを説明することができない。本研究では、使役動詞の原形不定詞補文における非同時性は、使役者である主語が当該の使役事象を自在にコントロールできる場合にのみ、許容されると主張する。

3. 2. 主節主語 (使役者) の可制御性

主節主語の可制御性により、時間差を表す原形不定詞が容認されることを支持する例として以下のような例が挙げられる。

(20) a. Yesterday the witch ***made*** John ***arrive*** last night and ***leave*** this morning.
(Rothstein (2004: 159))
b. The writer ***had*** the protagonist ***have been married*** three times.
(Bjorkman and Cowper (2013: 5))
c. The director ***has*** the chorus ***be singing*** when the show starts.
(Bjorkman and Cowper (2013: 2))

Rothstein (2004) や Bjorkman and Cowper (2013) はこれらの容認可否性について言及をしていないが、独自のインフォーマント調査によれば、魔女は呪文などを使用できることから、自在にその事象をコントロールできる為、(20a) は適格文と見なされるという。さらに、(20b) の容認可否性について、作家はフィクションにおいて全知全能であり、自由に場面を設定することができる (cf. Wada 2019: 317)。そのため、仮に時間的逆行を表す完了不定詞が用いられていても、文法的と見なされている。また (20c) に類似した例について、田中・寺田 (2004: 157) は (21) のような演劇や舞台における指示を表す場合には、原形不定詞補文における be + -ing の使用が認められるという。

(21) a. We'll ***have*** John ***be thinking*** of her long lost love at the opening of Act II here. (Gee (1977: 480))
b. During the play, Mary ***had*** the frogs ***be entertaining*** the dwarfs.
(Johnson (2014: 23))

Ritter and Rosen (1993: 526) や早瀬 (2002: 198) によれば、使役動詞 have の補文内部には、(22a) に示すように、一般的に die などの非対格動詞は用いられないが、(22b) のような監督読みであれば容認されるという。過去に遡って行為を行ったり、自己制御のできないことをすることは現実世界では行うことはできないが、小説や劇などの仮想世界においては可能であるため、(20b-c)、(21) や (22b) は容認されると考えられる。

(22) a. *Ralph ***had*** {Sheila / his goldfish} ***die***. (Ritter and Rosen (1993: 526))
b. Ralph ***had*** Sheila ***die*** in his movie.
(cf. Ritter and Rosen (1993: 527))

さらに Ritter and Rosen (1993) によれば、使役動詞 have は補文に虚辞を取れないとい

うが、金子・遠藤 (2001: 148) は「神が天候をつかさどる神に命令をくだして、鳥がどの大陸にもいるようにしたい」という意味であれば、(23b) のように、虚辞を補文に取る使役動詞 have は容認されると述べている。

(23) a. *John ***had*** there ***be*** computers available for all the students.
(Ritter and Rosen (1993: 541))
b. God ***had*** there ***be*** birds in every continent.
(金子・遠藤 (2001: 148))

このように主節主語 (使役者) が使役事象を自在にコントロールできる場合にのみ、一般的に非文法的と判断される例も容認されることがわかる。またこの可制御性により、元来同時性を表す原形不定詞が非同時性を表すことができるとまとめられる。さらに久保田 (2013: 84) らの述べる概念的同時性を仮定せずとも、これまで見てきた魔女や監督などの使役事象を自在にコントロールできる主語を用いて可制御性を高めることで、非同時性を表す原形不定詞補文が適格と見なされるとまとめられる。そして、この使役主の可制御性がどこまで読み込めるかによって、これまで見た非同時性を表す原形不定詞補文の文法性に揺れがあると推測される。

4. まとめ

使役動詞や知覚動詞の補文に用いられる原形不定詞は、完結性や同時性を表す。しかし、使役動詞の原形不定詞における非同時性に関して、その例外を認める先行研究も多く、どのレベルの時間差までを原形不定詞が表すことができるのかについて言及されてこなかった。本研究では、非同時性を表す使役動詞の原形不定詞補文が用いられる環境を調査し、使役動詞の主語である使役者が、当該の使役事象の成立を自在にコントロールできる場合に、原形不定詞が時間差を表すことができると考察した。

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動詞 cost を用いた二重目的語表現の意味

(On the Semantics of Ditransitive-*Cost*)

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キーワード：構文文法, 二重目的語構文,
語彙意味論, 構文の意味

1. はじめに

二重目的語構文は、‘NP_0(X) Verb NP_1(Y) NP_2(Z)’という形をとり、その中心的な意味は‘X causes Y to receive Z’とされる(Goldberg 1995)。そのため、次の二重目的語表現の例においては、X（He/ She）が Y（them/ him）に Z（money/ a letter）を受け取らせていると解釈できる。

(1) a. He gave them money.
b. She sent him a letter.

ところが、動詞 cost を用いた次のような表現では、その解釈が成り立たない。

(2) a. The book *cost* him 10 dollars.
b. The accident *cost* him his life.

本発表の目的は、‘NP_X cost NP_Y NP_Z’が、どのような意味を表し、どのように他の二重目的語表現と関わりを持つのかを明らかにすることである。

2. 先行研究より

Pinker (1989), Goldberg (2002), Croft (2012) らは、動詞 cost をそれぞれ下記のように扱っている。

Pinker (1989)：cost は、spare, envy, begrudge, bet, refuse, ask, save, charge, fine, forgive, deny といった二重目的語動詞の仲間であり、(3) のような意味を表す。

(3) “X has the potential or desire of causing Y no longer to have Z.” (Pinker 1989: 111)

Goldberg (2002)：cost は(4)のような二重目的語構文に生じられ、giving の反意である taking away を意味する。

(4) Mina *cost* Mel his job. (Mina *causes* Mel *to lose* his job.)
“Ditransitive *cost* means *taking away*, which is in the antonymic relation to *giving*.”
(Goldberg 2002: 332-333)

Croft (2012)： cost は Verbs of costing と呼べる二重目的語動詞（他には charge, set back がある）の一種であり、(5)のような意味を表す。

(5) “Acquisition of goods causes recipient to no longer have possession of money.”
(Croft 2012: 377)

(3, 4, 5)で示されているような意味で cost 二重目的語表現の意味が全て説明できれば問題ない。しかしコーパスで検索した実例を見ていくと、(6)のように、想定されているよりもさまざまな種類の名詞句が直接目的語位置に生じる。とりわけ、下線の名詞句が直接目的語に生じる文は、(3, 4, 5)の意味の波線部と整合しない。

(6) ‘NP_X cost NP_Y NP_Z’の NP_Z として生じる名詞句の例 （BNC, Wordbanks より）

a fortune, my life, a game, promotion, his son's death, the loss, an effort, two minutes…

このことから、'NP_X cost NP_Y NP_Z'は、単に金銭に関わる意味や「失わせる」という意味だけでなく、これまでに想定されているよりも広い意味を持つ二重目的語構文ではないかと考えられる。

3. 様々なタイプの cost 二重目的語表現

コーパスによる調査を行ったところ、cost 二重目的語表現には、大きく分けて３つの意味タイプがあると考えられる。それらを **TYPE 1, 2, 3** とし、さらに、直接目的語が表すものの種類によって、下位分類を **1-1, 1-2**…という形で示していく。

まず、**TYPE 1** は「何か（X）を獲得したり達成したりするために、ある人（Y）に、金銭や時間や労力（Z）がかかる」ことを表す。「お金がかかる」ことを表す **TYPE 1-1** が、cost 二重目的語表現において最も高頻度で出現する。

(7) **TYPE 1-1** 金銭
   a. An everyday grey suit *cost* me *twelve pounds*.
   b. It *cost* him *six hundred dollars* to get the holes in the trunk fixed. (both from BNC)

(8) **TYPE 1-2** 時間
   a. Learning that skill *cost* me *many hours*....
   b. You can go to court and you'll probably win, but it will *cost* you *three years* and $ 3 million. (both from Wordbanks)

(9) **TYPE 1-3** 労力
   a. It *cost* her *an effort* to let him have his way and his will of her.
   b. I am disabled; they *cost* me *much labour* to raise from seed. (both from BNC)

第二に、**TYPE 2** は、「何らかの出来事や行為（X）によって、Y が貴重だったり大切だったりするもの（Z）を失う」ことを表す。

(10) **TYPE 2-1** 貴重/大切なもの
   a. This action was to *cost* young Joseph *his life*. (BNC)
   b. …this is *costing* me *my health* and will possibly *cost* me *my job*. (Wordbanks)
   c. The mistake *cost* the Enquirer *several million dollars*… (Wordbanks)

TYPE 2-2 は **2-1** に似ているが、「もともと所有していたものを失う」わけではなく、「何らかの出来事や行為（X）によって、Y が、得られる可能性のあった好ましいもの（Z）を受け取れなくなる」ことを表している。

(11) **TYPE 2-2** 得られる可能性があったもの
   a. It was a lack of discipline and could *cost* us *promotion*. (Wordbanks)
   b. …it was that last 10 minutes in the Lenin Stadium which *cost* them *eventual victory against Spartak Moscow*. (BNC)
   c. Mutola's generosity ultimately *cost* her *a medal*. (Wordbanks)

失うことを「lose する」ことと考えれば、「何らかの出来事や行為（X）によって Y が試合など（Z）に敗れる」ことも、このタイプに分類できる。

(12) **TYPE 2-3** 試合など
   a. It's regrettable that an own goal *cost* us *the match*…
   b. I was going well in my second run but I lost time at the 11th, 15th, 23rd and 24th gates, and that *cost* me *the race*. (both from Wordbanks)

第三に、**TYPE 3** は、「何らかの出来事や行為（X）によって、Y が、損失やペナルティ（Z）を被る」ことを表す。(13)における「損失」は、**TYPE 2-1** で表される「貴重なものを失う」ことや、**TYPE 2-3** で表される「試合に敗れる」ことの、結果状態であると考えられる。

(13) **TYPE 3-1** 損失

a. His tenacious belief in the venture by keeping it running *cost* him *heavy personal financial loss*…. (BNC)

b. … he was willing to enter upon an adventure that *cost* him *the death of his son*. (BNC)

c. The most appalling aspect of the whole performance was the failure to eradicate the indiscipline that had *cost* them *defeat against Wales*. (Wordbanks)

次の(14)では、Y が損を被るという点は(13)と同じだが、Z の名詞句が、損失や敗北の結果状態を表すわけではなく、Y に課されるペナルティを表す。

(14) **TYPE 3-2** ペナルティ

a. On bad language, which *cost* Chelsea *their two red cards* last Saturday…

b. It was a decision that *cost* him *a ten-year prison sentence and a subsequent life of self-scrutiny*.

c. …a DVD copy will *cost* you *five years in jail*. (all from Wordbanks)

cost 二重目的語表現は、これまでに想定されているよりも多くの状況を描写することができることがわかった。(3,4,5)のような先行研究で想定された意味では、cost 二重目的語表現が表す意味の一部分（タイプ **1-1** 及び **2-1**）しか捉え切れていない。

4. なぜ色々な意味を表せるのか

4.1. 商取引フレーム

どうして cost 二重目的語表現が、ここまで多くの意味を表せるのかを考えるにあたっては、Fillmore (1977, 1982)や Fillmore and Atkins (1992)による「商取引フレーム」の考え方が不可欠である。つまり、sell, buy, charge, cost などの商取引に関わる動詞の意味を理解するには、「買い手が売り手に金銭を渡し、ある物の所有権が買い手に移譲する」というような、商取引の背景的知識（フレーム）が必要であり、個々の動詞は、同じフレームを喚起しつつも、焦点を当てる要素などに違いがある、という考え方である。商取引フレームは、以下のような図で表せる。

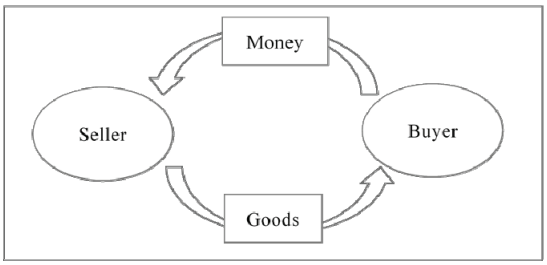

図１：商取引フレーム

このフレームにおいて、The book *cost* him 10 dollars のような文が焦点を当てるのは、下図の太枠部分である。

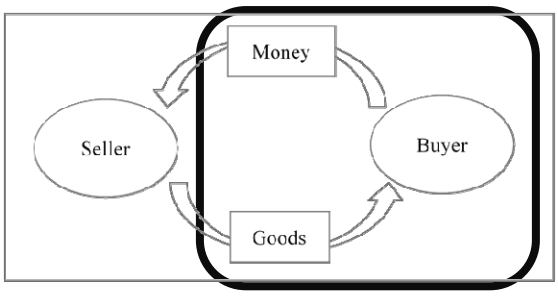

図２：商取引フレームにおける
The book *cost* him 10 dollars の焦点

I bought the book という、Buyer と Goods しか現れない文に、*for $10* や *from her* などの句を追加して Money や Seller を表せるのとは違い、cost を用いた表現には Seller を登場させることができない。cost 二重目的語表現は商取引フレームを喚起するものの、Seller は完全に背景化しており、「ある人が、金銭を支払って商品を得る」ことだけになっている。これは、「商品（X）が、ある人（Y）に、金銭（Z）の支払いをさせる」と言い換えることができ、cost 二重目的語表現の表す意味において最も中心的なもの（すなわち、**TYPE 1-1**）といえる。英語では(15)のように表すことができる。

(15) cost 二重目的語表現の中心義
“X causes Y to pay Z.”
(X: Goods, Y: Buyer, Z: Money)
（＝**TYPE 1-1**）

では、その他の意味はどのように得られるのかを考えるにあたり、図２で表される The book cost him 10 dollars という状況は、以下の(i~iii)のように複数通りの捉え方が可能（＝alternate construals（Langacker 1987））であることに注目したい。

The book cost him 10 dollars.
- i) “The book caused him to pay money.”
- ii) “The book caused him to lose money.”
- iii) “The book caused him a loss of money.”

(i~iii)の捉え方が、それぞれ以下のように拡張していると考えることで、他のタイプの意味を得ることができる。

i) “X causes Y to pay money”
→ “~ to expend Time/Labor”
〈= **TYPE 1-2**, **1-3**〉

ii) “X causes Y to lose money”
→ “~ to lose a Valuable thing”〈= **TYPE 2-1**〉
- → “~ to lose a Valuable opportunity” 〈= **TYPE 2-2**〉
- → “~ to lose a Game” 〈= **TYPE 2-3**〉

iii) “X causes Y a loss of money.”
→ “X causes Y a Loss” 〈= **TYPE 3-1**〉
→ “X causes Y a Penalty”〈= **TYPE 3-2**〉

4.2. 他の二重目的語表現との関連

上記で見たように、多くの意味を表す cost 二重目的語表現だが、その意味はやはり二重目的語構文の中心義とされている‘X causes Y to receive Z’とは大きく異なっており、この構文の中では極めて例外的であるように思われる。しかし、３節に示した各タイプには、いくつかの他の二重目的語表現と、強く関連・類似している点があることを確認しておきたい。

4.2.1. TYPE 1 と take 二重目的語表現

TYPE 1 は(16)のような take 二重目的語表現と類似している。「お金がかかる」ことを take で表すことはほぼないが、「時間」と「労力」に関しては共通の目的語をとることができる（ただし、当然ながら「時間」は cost よりも take の方がはるかに高頻度である）。

(16) a. …his first symphony *took* him *21 years* to write.
b. He was very weak and it *took* him *a lot of effort* to say it… (both from Wordbanks)

4.2.2. TYPE 2 と lose/deny 二重目的語表現

TYPE 2-1, 2-3 の例は、(17)のように、動詞を lose に置き換えても同じことを表せる。

(17) a. …it was the colour of his skin that *lost* him *the job*.

b. Conran's Debenhams deal may have *lost* him *his cool status*, but he doesn't care.
c. A goalkeeping error has *lost* us *the game*.
d. I think what *lost* us *the match against Spain* was the dejection from losing 1-0 to the Americans. (all from Wordbanks)

また、**TYPE 2-2** は「受け取らせない」という点について、(18)のような deny 二重目的語表現と類似している。

(18) a. …the cracking goal which *denied* them *a first Premiership victory* this season.
b. But in which event did the penalty *deny* her *a silver medal*.
(both from Wordbanks)

4.2.3. TYPE 3 と他の二重目的語表現

TYPE 3 における「損/ペナルティを被らせる」ことは、「損/ペナルティを受け取らせる」ことに他ならない。「受け取らせる」という意味は二重目的語構文の中心義である。そのため、**TYPE 3-1** については(19)のように bring, cause など、 **TYPE 3-2** については(20)のように bring, earn, give など、何種類もの動詞によって、**TYPE 3** の cost 二重目的語表現と同じような状況を表せる。

(19) a. His bravery *brought* him *a horrible death* at the hands of republicans.
b. … and ultimately it *caused* us and the project *significant loss*.
(both from Wordbanks)
(20) a. …when Sinclair's hand ball on the line *brought* them *a penalty*. (BNC)
b. That sort of behaviour could *earn* him *a red card*. (Wordbanks)
c. …so the judge *gave* him *16 years in prison*. (Wordbanks)

5. おわりに

cost 二重目的語表現は例外的扱いを受け、その意味が十分に記述されてきたとは言いがたい。しかし調べてみれば、その意味には拡がりがあり、他の二重目的語表現と広く共通性をもつことがわかった。

今後、cost をはじめ、「例外的」「周辺的」とされ十分に論じられてこなかった他の二重目的語動詞について、その意味を詳しく調査し、二重目的語構文全体の中でどのような地位を占めているのか、検討していく必要がある。

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コーパス

BNC: The British National Corpus Online. <http://bnc.jkn21.com/>

Wordbanks Online. <http://wordbanks.jkn21.com/>

Characteristics of Denominal Verbs as Revealed by a Coercion-Based Analysis*

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Keywords：Construction Grammar, conversion, denominal verb, coercion, amalgam

1. Introduction

A denominal verb (DNV) is produced by a syntactic category shift, conversion, in which the relevant category change is indirectly signaled by its inflectional and combinatory behavior rather than its internal composition. With respect to its semantic aspect, whether there is a limit to the semantic variation of DNVs remains unclear. In this respect, Kiparsky (1997:380) formulates the canonical use constraint: if an action is named after a thing, it involves a canonical use of the thing. For example, *bottled* in (1) has the canonical reading in that the denotatum of the base noun is the location to which the wine was transferred to be preserved.

(1) Yesterday we bottled the wine and it is drinkable right now. (Baeskow (2021:3))

However, English DNVs may receive a context-dependent interpretation, as exemplified in (2), in which *bottle* and *door* deviate from the canonical readings based on the typical uses of the base noun referents.

(2) a. We were stoned and bottled by the spectators as we marched down the street. (Clark and Clark (1979:785))
b. The new laws would increase penalties for drivers who door a cyclist. (Michaelis and Hsiao (2021:123))

This semantic versatility of DNVs is best confirmed by their having a wider range of semantics than denominal affixed verbs have. For example, let us compare *summer*$_V$ with *summer-ize*$_V$ based on the semantic groups of Clark and Clark (1979:768-781):

(3) a. summer in Paris (ibid:772)
a'. summerize in Heidelberg and Baden Baden (OED)
b. summering your stove (https://www.thefireside.co.uk/summering-your-stove/, accessed Mar. DD, 2022)
b'. Let Hutzler's summerize your home (OED)
c. summer cattle (OED)
d. I fully summered myself into vintage fashion and have almost entirely cut out fast fashion from my life, something I've been working very hard on. (https://www.youtube.com/watch?v=_4F4_BODJzE, accessed Mar. DD, 2022)

(3) illustrates that *summer-ize*$_V$ is semantically fixed to the duration ('spend the summer' in (3a')) or goal ('make summer-like' in (3b')) meanings, whereas *summer*$_V$ can further express unclassifiable meanings such as 'keep or feed (animals) during the summer' in (3c) and 'become absorbed in' in (3d). The semantic comparison raises the following questions: (i) why DNVs show such a semantic diversity and (ii) why denominal and affixed verbs that share the same bases can co-exist, especially in cases

when they seem to have identical meanings, as in (3a/a') and (3b/b').

To answer these questions, I assume that the semantic diversity of DNVs typically involves the enriched construal resulting from construction-based coercion: the semantic enrichment of lexical meanings in morphosyntactic context (Michaelis (2003), Audring and Booij (A&B) (2016)). Based on this assumption, I argue that the usage of innovative DNVs must be pragmatically motivated and thus forms an amalgam-like formation serving a certain communicative function. In section 3, I show that this analysis is supported by a series of examples in different linguistic contexts, which show different acceptability. Before discussing the pragmatic motivation accompanied by the use of DNVs, I outline what I mean by construction-based coercion and then briefly propose the plausibility of a coercion-based account on DNVs in the next section.

2. Coercion Revisited

Although examined by many studies of various theoretical backgrounds, coercion in nature involves a "mismatch" between the inherent semantic properties of a selector and the lexical semantics of a selected element (cf. Lauwers and Willems (2011)). A selector can be a construction, a word class, or a temporal marker, resulting in a particular context, with which the selected element is not expected to combine. Depending on the degree of top-down influence of selectors on selected elements, A&B (2016) distinguish three types of coercion: coercion-by-selection, coercion-by-enrichment, and coercion-by-override.

In coercion-by-selection, the resulting meaning is a part of the semantic repertoire of the coerced item, and the context selects one interpretation from a range of alternative readings. Consider the following examples:

(4) a. drop/want the book
    b. discuss/finish the book
    (A&B (2016:629) with modifications)

Although *book* has alternative readings as a physical object or informational content, some of the possible readings are incompatible in (4a) and (4b). The verbs *drop* and *want* fail to match with the informational content reading in (4a), just as the physical object reading does not fit the semantic frame of *discuss* and *finish* in (4b).

In coercion-by-enrichment, the original lexical properties are preserved but are augmented or wrapped with the new specification in context. For example, in (5a), the verb or construction requires an activity predicate as the complement so that the utterance meaning is enriched by an implicit predicate informally represented as […].

(5) a. Mary began [...] the book.
    b. Mary began the book after it had been sitting on her shelf for years.
    (A&B (2016:627))

The acceptability of the anaphora to the book in (5b) shows that it retains the lexical semantics, suggesting that the reading event is merely augmented in context. In this respect, Fabrizio (2013:178) observes that once converted into a verb, a noun loses its referential index, and thus fail to introduce a discourse referent, as seen in (6).

(6) Mary chained the chair to the wall. *It was heavy. (intended meaning: 'the chain was

heavy')

By contrast, in coercion-by-override, the construction acts as a strong force on the lexical semantics, so that it "modifies, replaces, or removes properties of the coerced item (A&B (2016:628))," leading to intercategorial change in words. In this type of coercion, the lexical semantics of the inserted item does not strictly contribute to the entire utterance's meaning. Consider the following example:

(7) This is so 2013. (A&B (2016:632))

On the form side, *2013* in (7) is modified by the degree modifier *so*. On the semantic side, what is predicated by *so 2013* is not necessarily occurring in 2013; notably, it does not matter which year is inserted in this construction. Accordingly, the whole construction acquires an idiomatic meaning, 'old-fashioned,' at the expense of the lexical semantics of the inserted item, and *2013* formally, and semantically functions as an adjective in this construction.

I assume that the category change involved in the formation of DNVs occurs as the result of coercion-by-override when a noun is inserted in a constructional slot intended for items belonging to the verbal category. A major argument in favor of this analysis is from the idiomatic meaning of innovative DNVs. The following caused motion construction is an example:

(8) a. Liberty swam the woman to shore.
b. They sort of felt like Steve Jobs had railroaded them into that deal.
(Michaelis and Hsiao (2021:124))
c. The thought of "helicoptering" my club into the pond crossed my mind.
(https://www.conwaydailysun.com/outdoors/golf/courses/golf-column-avoid-the-eruption/article_6de5519a-ed69-11ea-85ab-2bb5967af15a.html, accessed Aug. DD, 2022)

Although the verb *swim* usually behaves as an intransitive verb, in (8a), it combines with a direct object and a directional expression. In Construction Grammar (e.g., Goldberg (1995)), without positing an additional lexical entry of *swim*, the independent form/meaning paring of the caused motion construction allows the word to gain the combinatoric behavior characteristic of the construction. Similarly, the idiomatic denominal readings of 'induce someone to act forcibly' in (8b) and 'toss something vigorously into something' in (8c) are not strictly derivable from the nouns. Instead, these idiomatic meanings are attributable to the semantics of this entire construction as an independent form/meaning pairing. This constructional analysis, often referred to as *constructional coercion* (*accommodation*), captures "the insight that many novel verb uses are nonce uses: they serve an expressive purpose in a particular context but may never become conventionalized (Michaelis and Hsiao (2021:124))." Such a contextually determined meaning of the DNV is the semantic and pragmatic property imposed by the construction, which is typical of the relevant type of coercion.

If DNV formation is a result of a coercive, online process, we should observe that the interpretations of DNVs are regulated to some degree by the syntactic frames in which the relevant nouns are embedded. This result occurs because a coercive process does not exist without the coercing construction or context. Consider the following examples (adapted from Nakajima (2018:69)):

(9) a. The system filtered all email.
b. The system filtered out junk mail.
c. * The system filtered junk mail.
d. Sunlight filtered through the window.
e. * Sunlight filtered the window.

Although all the denominal interpretations in (9) are related to the shared knowledge of filters, the distinct senses (removal, passing) are products of syntactic context: the interpretations of removal and passing in (9b) and (9d) require the use of directional particles such as *out* and *through*, and if not for them, as in (9c) and (9e), the sentences are not acceptable in the intended meanings. These examples confirm the inseparability of denominal interpretation and syntactic profile. Notably, denominal interpretation and syntactic profile are so tightly connected that denominal readings are often unavailable except in a single argument-structure configuration. (10) is some of such examples (adapted from McIntyre (2015:1420)).

(10) soldier *(on)/pig *(out)

The denominals in (10) are not acceptable without each particle despite differing in transitivity. If DNVs were products of an autonomous morphological process (e.g., zero-derivation), they would independently appear in any syntactic context such that they could be fully interpretable.

A coercion-based analysis effectively explains the tight regulation imposed by the syntactic pattern in which a nominal word is embedded. However, this analysis also is not watertight. First, coercion is a purely semantic notion, and how it relates to category shifts remains unclear (Lauwers (2014:216)). More precisely, coercion refers to a case in which an already entrenched construction combines with a right formal type but the wrong semantic type. For example, *water*, as in *a water*, has nothing that is formally exceptionable. Second, it is necessary to capture the intuition that the use of a noun as a verb without any overt marking is a marked usage of words pertaining to well-established, prototypical verbs (Lauwers (2014:215)). For example, when *the mayor tried to Richard Nixon the tapes of the meeting* is said, using *Richard Nixon* is more informative than using *erase* (Clark and Clark (1979:802)), evoking an image of an unscrupulous politician attempting desperately to cover his/her tracks. In the next section, from the coercion-based approach, I offer a plausible explanation for these problems.

3. Analysis

Because there is no construction combining a nominal base with its verbal slot, I argue that the syntactic specification of the verbal slot may be overlaid by a certain pragmatic motivation. In this respect, amalgams, non-standard variants of standard constructions, may be relevant. These innovative constructions combine otherwise incompatible subparts of other constructions to serve a peculiar function (Lambrecht (1988)). This analysis can be supported from the perspective of Levinson's (2000) M-principle: what is said in an abnormal way indicates an abnormal, non-stereotypical situation or unfamiliar, infrequent concepts. In fact, this perspective allows us to explain the following examples:

(11) a. * Mary guitared a song.
(Hilpert (2014:138))

b. I guitared my way across the US.
(Clark and Clark: (1979:801))
c. When this was over Grace sang and guitared a song for us.
(http://blueskyschoolca.blogspot.com/2019/09/red-pine-camp-2019-by-blue-sky-learners.html, accessed May DD, 2022)

(11a) is not grammatical as long as it expresses an unmarked situation: what we usually expect or playing a song with a guitar. This is because the usage of DNVs must be pragmatically motivated and express a certain marked situation. By contrast, (11b) and (11c) express something more than what individuals usually expect to do with a guitar: in (11b), *guitar* is used in the verbal slot of the way construction, which encodes an agent's movement along a self-created metaphorical path by means of performing a particular activity to overcome some obstacle (Goldberg (1995:199-217)); in the attested example of (11c), the verb is coordinated with *sing* in the context that describes a series of acts and performances of songs at a campfire. These constructional and linguistic co-texts enable the coerced item to have more meaning than merely playing the guitar: 'making money by playing the guitar' in (11b) and 'reciting while playing the guitar' in (11c).

Another piece of evidence is from the duration verbs (cf. (3a/a')):

(12) a. Karen weekended in the country.
b. ? Karen Saturdayed in the country.
(Clark and Clark (1979:802))
c. John Sundayed in the country.
d. * John Mondayed at the office.
(Nagano (2008:96), with modifications)

The verbs *weekend* and *Sunday* in (12a) and (12c) do not mean merely spending a weekend/Sunday. Rather, they refer to, for example, spending elegant time in an extraordinary country. This is because the non-conventional marked forms of the nouns in the verbal slots of the intransitive construction allow potential hearers to experience the subjective imagination evoked by holidays. By contrast, the described situation in (12d) is spending (or working) time at an office on Monday, an everyday situation. Therefore, it is pragmatically blocked from using the marked construction for describing such a common situation. The same reasoning can apply to the degraded acceptability of (12b): generally, compared with *Sunday*, *Saturday* does not relate very well to the image typically associated with holidays.

The argument implies that even if conceptually referring to the same thing, denominal and affixed verbs that share the same bases can be distinguished at the pragmatic level. This distinction is reflected in their selectional restrictions on direct objects:

(13) a. summer/*summerize your stove
b. John summered/summerized my car.

(13a) shows that when denoting the goal meaning (cf. (3b/b')), the denominal, and affixed verbs differ in that the former can take certain entities as their direct object, which usually do not need summer specification, whereas the latter cannot; a stove is not something that needs to be summerized and works the same in the winter as it does in the summer. This is enabled by the pragmatic motivation accompanied by the usage of DNVs. Specifically, the verb is attested in a headline of a feature article, which explains

the risk that stoves can become damaged over the summer and suggests that you should prepare them for the summer. On the other hand, (13b) illustrates that the affixed verb can be used in the goal meaning, and the denominal one, as such, can have multiple meanings: potentially an infinite number of interpretations without rich contextual information. My informants provide different interpretations of the verb, such as 'give the car a break for the summer' and 'take the car on summer vacation.' This semantic flexibility reflects the context-sensitive nature of interpreting innovative verbs and should be discussed with their pragmatic characteristic.

4. Conclusion

I have clarified that construction-based coercion can be convincing in explaining the semantic versatility of DNVs and its tight connection with the syntactic pattern in which they are embedded. To supplement this analysis, I argue that the usage of innovative DNVs must be pragmatically motivated and thus forms an amalgam-like formation that expresses a certain non-stereotypical situation. Of course, what pragmatic motivation is at work in the formation must be specified. Here, I leave this issue open.

The discussion in section 3, however, implies that what knowledge or information is accessible in the context must be considered. In this connection, Clark and Clark (1979:800-802) observe that when the effort demanded for interpreting an innovative verb outweighs any economy of expression, it bears a playful nuance. Consider the following examples:

(14) a. It's Monday. (I know, I don't need to remind you.) First day back at work or school after a nice, relaxing weekend (…) or you're so <u>Mondayed</u> out you can't be bothered to lift anything heavy (…)
(http://www.vertigoshtick.com/2010/03/, accessed Sep. DD, 2022)

b. This is the Mondayest Monday that ever Mondayed.

The verb *Monday* in (14a) is difficult to interpret without referring to the contextual information: it is used in the verbal slot of (*all*) X-*ed out* construction that refers to a state, 'exhausted from X-ing to excess,' and in the preceding discourse, the information about what a role Monday generally plays in a whole week can be discerned. Thus, it is understood to mean to feel depressed thinking about Monday. (14b) is a conventionalized expression that has been used in an internet meme. Its meaning is typically similar to that of (14a), which may be the most straightforward interpretation inferred based on the primary function of the base noun. However, in another situation, it can also mean to start a fresh week while making a certain resolution. Which meaning the speaker intends to convey depends on the specific situation relevant to the interlocutors. These examples show that the noun that can be a DNV needs to belong to the class of relational nouns, and it must be a role-designating (frame-evoking) one in the context.

* I thank the anonymous reviewers and the audience at 40th Conference of the English Linguistic Society of Japan. I would also like to express my profound gratitude to Yukio Hirose, Naoaki Wada, and Masaru Kanetani for valuable comments on this study. All remaining errors and inadequacies are, of course, my own.

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ジェネラルエクステンダー or whatever の語用論的意味と意味論的特性の関わり

（The Relationship Between Pragmatic Meaning and Semantic Properties of the General Extender *or whatever* ）

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キーワード：語用論，意味論，ジェネラルエクステンダー，構成要素

1. 序論

ジェネラルエクステンダーとは、and things(like that)や or something(like that)など、文末や句の最後について、様々な語用論的意味を伝える表現群のことである（Overstreet (1999), Aijmer (2013), Overstreet and Yule (2021)など）。その中の一つ、or whatever は、一般的には or something の類似であると記されている（*Oxford Learner's Dictionary Online*）。

(1) You can bring wine **or something**.
(2) You can bring wine **or whatever**.

(1)(2)において、両表現は共に「（ワイン）か何か」と訳せる。しかし、実際の使用を見てみると、or whatever は、or something にはない意味を伝えているようである。

本稿では、or something の類似とされる or whatever を、構成要素の意味論的特性に遡って論じ、or whatever の語用論的意味を詳述することを目的とする。

まず２節では、先行研究に基づき or whatever の語用論的意味を確認し４つにまとめる。次に３節で、構成要素 or と whatever の意味論的特性を提示する。そして４節で、意味論的特性を語用論的意味に関連付け、or something との違いを指摘しながら or whatever の特徴を論じ、5 節にまとめを記す。

2. or whatever の語用論的意味の分類

本稿では、ジェネラルエクステンダーの先行研究だけでなく、語用論標識 whatever の通時的研究 （Brinton (2017), McColm and Trousdale (2019)）も概観する。[1] そして、or whatever 意味機能を次の４つにまとめる。1. カテゴリー形成 2. ヘッジ機能 3.テクスト機能（トピック終了） 4. 感情表出（無関心）。[2] これらは、実際に使用されている or whatever の意味機能と概ね一致しており、意味同士は互いに独立したものではなく、重層的なものである。

2.1. カテゴリー形成

or whatever は、他のジェネラルエクステンダー同様、何かを指示して、聞き手があいまいにカテゴリーを形成するのを促す（Wagner et al (2015)）。

(3) …it would be like cousins brothers or sisters and parents **or whatever**
（Wagner et al. (2015): 712）

(3)の or whatever は例として示される前述の要素 cousins brothers or sisters and parents を手掛かりに、「親族」といったカテゴリーの形成を助けている。この機能は、ジェネラルエクステンダー全体の基本的な機能であると Pichler and Levey (2011)らは述べている。

2.2. ヘッジ機能

or whatever は、不正確さを伝え、厳密さを和らげるヘッジ表現として機能する

（Overstreet (1999), Aijmer (2002)）。

(4) Because I know when I first moved down here in like what? -nineteen eighty-six **or whatever**. （Overstreet (1999): 116）

(4)の or whatever は、1986 年をあいまいに伝えている。or something も同様に不正確さを伝えるヘッジ表現であると分析されている（ibid）。

2.3. テクスト機能（トピック終了）

or whatever にはトピックを終了させる働きがある（Brinton (2017)）。

(5) One may not like England or France? Because of imperialism, past war, war debts, **or whatever**. But suppose burglars were braking in to the houses of friends.
（Brinton (2017): 276）

(5)では、or whatever で、イギリスとフランスについての良くない話題を終え、But 以降は全く別の話題を始めている。

ジェネラルエクステンダー全般にも、このトピックを終了させる機能があると Pichler and Levey (2011)は述べている。

2.4. 感情表出（無関心）

or whatever は、話し手のなげやりで「無関心」な態度を伝える（Brinton (2017)）。

(6) I don't want to talk to you. It doesn't mean that I hate you **or whatever**. I just have nothing to do with you.
(COCA spoken 2017)

(6)のようにいらだちが際立つ発話において使用されるとき、or whatever は無関心な態度を伝える。一方 or something が無関心な態度を伝えるという記述は見当たらない。

2.5. 語用論的意味の分類のまとめ

本節では、先行研究を参考に or whatever の語用論的意味を確認し大きく 4 つにまとめた。感情表出（無関心）は、or whatever の語用論的意味として際立っているが、その他の意味機能において、類似とされる or something やその他のジェネラルエクステンダーとの違いは明らかではない。

3. 構成要素の意味論的特性

本節では、or whatever の意味機能をより明らかに示すために、構成要素の意味論的特性を示す。

3.1. 構成要素 or

これまで、or は、論理接続詞として真理条件に関連付けられた考察がなされてきた。しかし Ariel and Mauri (2018, 2019)は、主観的視点から or の中核は「代替性」で「手続き的意味」を持つと主張した。or を含む構文は、明示的に言及された選択肢の内部関係を聞き手に導くと彼らは言う（Ariel and Mauri (2019): 41）。例えば A or B と言ったとき、or は A や B からなる高次カテゴリーを伝える手続き的な役割を果たすことが出来るというのだ。

Ariel らは、or が文脈的に補われることで、その他様々な解釈を可能にすることを示す。or whatever は前節で示したように、複数の意味機能を持ち、それらの意味は文脈に依存する。本稿では、Ariel らの主張する「代替性を中核とした手続き的な意味」を or の意味論的特性として議論を進める。

3.2. 構成要素 whatever

whatever は any と同じ「不定のフリーチョイス」であるとする Horn (2000)の主張を、本稿では採用する。Horn(2000)は、否定極性

項目(NPI)any とフリーチョイス(FC)any の統一した見解を示す。[3] 本節では、その「不定のフリーチョイス」について解説する。

まず、whatever は any で表すことが出来る。

(7) Pick whatever card you want. = Pick any card. （Horn (2000): 102）

(7)では、any も whatever も「どれでも」という任意の選択を聞き手に委ねている。「フリーチョイス（自由選択）」とは、任意、または無差別的（indiscriminative）な選択を意味している。

「不定」の概念を、Kadmon and Landman（1993）の考え方から説明すると、不定冠詞(a/an) にはあいまいな「ドメイン」があり、any はそのあいまいなドメインを広げる。

(8) a. An owl hunts mice.
b. Any owl hunts mice
（Kadmon and Landman (1993): 359）

(8) a.のように不定冠詞を使用して an owl と言うとき、話し手は「一般的なフクロウ」というドメインを考えている。一方、(8) b.のように any owl と言うときは、一般的なフクロウの中には含まれない病気のフクロウなどの例外を含めて、ドメインを広げる。その広がり（widening）の性質は whatever にも当てはまる。

Kadmon らが主張するもう一つの any の性質、強化（strengthening）について、Horn は以下のような例文を挙げている。

(9) I am looking for a bicycle, any bicycle, that works. （Horn (2005): 8）

(9)の any bicycle は、「（動くなら）どんな自転車でも良い」を表し、a bicycle の意味を強化している。

Israel（1997）はこの強化という性質を、any は極性感度項目（polarity sensitivity item）で、尺度的な性質を持つと説明する。尺度とは程度性のことで、any は、語用論的尺度の端点（end point）を示すことが出来ると言う。語用論的尺度とは、語用論のレベルで存在する程度性で、端点とは、「最も」で表されるような一番端のことである。次の例文(10)は、最上級が any で表せることを示している。

(10) Norm can’t solve the simplest puzzle.
=He can’t solve any puzzle.
（Israel (1997): 211）

(11)で示す通り最上級は whatever でも表せる。

(11) He can’t solve the simplest puzzle.
=He can’t solve whatever puzzle they have.

また、(12)で示すように、語用論的尺度の端点は、極性（肯定⇔否定）が変わると逆側の端点となる。

(12) He can solve the most difficult puzzle.
=He can solve whatever puzzle they have.
(He can solve any puzzle.)

(11) (12)から、whatever は、「最も簡単」と「最も難しい」という語用論的尺度の両側の端点を含めることができると言える。

本稿では、whatever の意味論的特性は、「不定のフリーチョイス」であり、それは「端点を含めてドメインを広げ、多くの自由選択を示す」ことであるとする。

4. 考察

４節で示した意味論的特性と、３節で分類した or whatever の語用論意味を関連付けて論じ、類似とされる or something との違いを考察する。

4.1. カテゴリー形成

意味論的特性から見ると、or whatever は「不定のフリーチョイス」を「代替」として導入している。whatever の「端点を含めてドメインを広げる」という特性は、一般的なカテゴリーを大きく広げる役割を担うと考えられる。

(3) …it would be like cousins brothers or sisters and parents **or whatever** （再掲）

前述の要素 cousins brothers or sisters and parents という例示から一般的に思い描かれるのは「親族」という上位カテゴリーであるが、or whatever は、通常なら「親族」に入り得ないような人も代替となり得ることを示してカテゴリーを大きく広げる。

一方 or something は、前述の例示の近似や類似を指して一般的な上位カテゴリーを作ると Channel (1994: 119-143) は分析している。

4.2. ヘッジ機能

or の意味論的特性から見ると、or whatever は何らかの「代替」を伝えるので、ヘッジ機能を持つといえる。一方、whatever の意味論的特性から見ると、or whatever は多くの自由選択を示して不確かさを強調していると考えられる。

(4) Because I know when I first moved down here in like what? -nineteen eighty-six **or whatever**. （再掲）

(4)で or whatever が伝えているのは、1986 年に近い年かもしれないが、遠い年もあり得るということである。

一方、or something の some が持つ存在量化(∃)の意味特性は、whatever のフリーチョイス性から導かれる「遠い年もあり得る」を表すことはできず、単にあいまいさを伝える。or whatever は、or something よりも不確かさを強く伝えると考えられる。

4.3. テクスト機能（トピック終了）

トピックを終了させる機能は、whatever のフリーチョイス性が「網羅性（Giannakidou (2001)）」を持つことと関連付けられる。「網羅」は「もれなくすべて」を意味する。その網羅性から「すべて言い尽くした」が導かれてトピックを終了させると考えられる。

(5) One may not like England or France? Because of imperialism, past war, war debts, **or whatever**. But suppose burglars were braking in to the houses of friends. （再掲）

(5)で、or whatever がトピックを終了しているのは、続く But 以降、別の話題になっていることから明らかである。

ここで、語用論標識 whatever（or がない単体の形）が、同様にトピックを終了させる機能があるという Kleiner (1998)の指摘を見る。

(13) **Whatever**. New topic. How do you feel about interracial dating on campus,
（Kleiner (1998): 610）

(13)の Whatever. の後に続く New topic. は、新トピックの導入を明示しており、Whatever で話題を切り替えていることがわかる。

一方、or something を含むその他のジェネラルエクステンダーについては、構成要素の意味論的特性ではなく、複数の例示の最後につくという統語的特性が、トピックの終了という語用論的意味を導いているようである。

例えば or something のテクスト機能は、or whatever が持つトピックを終わらせる機能よりも、聞き手に働きかける相互行為的な側面が目立つ。次に挙げるのは、３名による会話例である。

(14) <$1> it's like a cemetery **or something**.
<$2> Yeah it looks like a scene from like the
<$3> A film **or something**.
<$1> +the Adams family.
(Vaughan et al. (2017): 217)

(14)では最初の or something の後に、<$2>が同意の Yeah を挟み、二回目の or something の後には、<$3>が映画の題名（the Adams family）を答えて協働的に会話を完成させている。このように、or something は聞き手に働きかけるテクスト機能が際立っている。

また、構成要素 or の「代替性」と、トピックを終了させる語用論的意味の関連は明らかではない。このことは、ジェネラルエクステンダー研究で度々指摘されている、接続詞の脱落と関連があるかもしれない。or の脱落は、テクスト機能だけでなくその他の意味機能でも見られるため、ジェネラルエクステンダー全般のネットワークからの考察が必要であろう。

4.4. 感情表出（無関心）

感情表出の「無関心」は、whatever が、任意の選択を聞き手に委ねることと関連づけられる。相手に多くの自由選択を委ねることは、話し手の関りを薄くすることと結びつく。その話し手の関りの薄さが「無関心」を導くと考えられる。

(6) I don't want to talk to you. It doesn't mean that I hate you **or whatever**. I just have nothing to do with you. （再掲）

(6)のような文脈における or whatever からは、「どうでも良い」という強い感情表出が伝わる。この無関心さは、語用論標識 whatever が伝える「無関心」と同じものである。

(15) A: You should try a herbal remedy.
B: Yeah, **whatever.**
(*Oxford Learner's Dictionary Online*)

Yeah, という同意と共に使用される whatever だが、「関心がないということを伝える返答として使用される」と述べられている。

ここで、or something との違いを考える。or something は申し出の発話行為で頻繁に使用されるが、or whatever では容認度が下がる。

(16) Can I buy you a beer **or something?**
(17) ?? Can I buy you a beer **or whatever**?

(17)の容認度の低さは、or whatever が含意する無関心さが、申し出るという発話行為との間に矛盾を生じさせるためだと考えられる。

また、手続き的意味としての or が、自由選択を相手に委ねる場合「無関心」を相手に導くとする Ariel らの指摘を取り上げる。以下の例では、Turner が Eliza に Eliza か Liza、どのように呼べば良いのかを訪ねている。

(18) Turner: Eliza? Or Liza.
Eliza: Eliza or Liza.
(*Mr. Turner*, cited from Ariel and Mauri (2018): 952)

(18)で Eliza は Turner の質問に対し、Eliza でも Liza でもどちらでもよいという完全な自由選択を相手に示すことで、無関心さを伝えている。フリーチョイスという意味特性を持つ whatever は、or から無関心な態度を導くが、or something では自由選択を相手に伝えず、or から無関心さは導かれない。

5. 結論

本稿では、ジェネラルエクステンダーor whatever の語用論的意味と構成要素の意味論的特性のつながりを論じ、類似表現とされ

る or something との違いを示した。or whatever の語用論的意味は、意味論的特性との関わりにおいて、次のようにまとめることが出来る。

カテゴリー形成
or whatever: 端点を含んでドメインを広げ自由選択を示すことで、カテゴリーを広げる役割を担う (or something は近似を指して一般的な上位カテゴリーを作る)
ヘッジ
or whatever: 幅広い自由選択を示して、不確かさを強く伝える （or something は別の存在を伝えて不確かさを伝える）
テクスト機能（トピック終了）
or whatever: すべて言い尽くしたということを伝えて、トピックを終了させる （or something は、トピック終了よりも相互行為的な側面での機能が際立つ）
感情表出（無関心）
or whatever: 任意の選択を相手に委ね、話し手の関わり薄くすることで、無関心な態度を伝える。また、「無関心さ」は、申し出の発話行為との矛盾を生じさせる （or something は無関心な態度は伝えない）

これらを踏まえて最初に示した(1)と(2)の発話が伝える違いを考えると、「wine or something」は、「アルコールなどの飲み物」という一般的な上位カテゴリーを伝え、「wine or whatever」は、「パーティーに持ってくるものは何だってよい」という、より広いカテゴリーを伝える。そして or whatever は、文脈によっては「無関心」という含意を伝える可能性があると言えるだろう。

構成要素の意味論的特性が、語用論的意味を動機づけることは当然のことである。しかし、これまで、or whatever が伝える「無関心」という含意は、語用論標識 whatever に単純に関連付けられるだけであった。また、or whatever の感情表出以外の意味機能は、ジェネラルエクステンダーor something の類似として扱われ、個別の表現として注意が払われてこなかった。本稿では、構成要素 or が「代替性を中核とした手続き的意味」を持ち、whatever は「不定のフリーチョイス」という意味論的特性を持つと指定し、それらを or whatever の語用論的意味と結び付けて論じることで、その意味機能を詳述した。

また本稿では or whatever を取り上げたが、ジェネラルエクステンダー全般のネットワークを明らかにするには、それぞれの表現を、構成要素の意味論的特性から考察する個別研究が重要であると考える。

* 本稿は第 40 回大会における口頭発表原稿に加筆、修正を加えたものである。本研究を進めるに際し、奈良女子大学の吉村あき子先生、須賀あゆみ先生、今野弘章先生から貴重な助言を頂いた。また、研究発表時にも諸先生方からご指摘や助言を頂いた。この場を借りて、感謝の意を表します。なお、本稿における不備や誤りは全て筆者の責任によるものである。

注

1. 語用論標識 whatever は、主に「関心がないこと」を伝える口語表現である。
2. カテゴリー形成は、指示機能に関わって命題内容に貢献するため、語用論的意味の一つではなく、基本的な意味だと考えることもできる。
3. 構成要素 any を含むジェネラルエクステンダーor anything の考察については稿を改める。

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コーパス

Corpus of Contemporary American English (COCA)

辞書

Oxford Learner's Dictionary Online.

連結動詞 *remain* を伴って生じる「未完了」を表す 2 つの主格補語構文

(Two 'Uncompleted Action' Copula Constructions with *Remain*)

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キーワード：構文文法, 連結動詞, 否定表現, 形態論, コーパス

1. はじめに

連結動詞 *remain* の補語に分詞形容詞を伴う表現は事態の継続を表すため、完結を表す分詞形容詞(*V-ed*) はその補語として容認されない。*To* 不定詞句（*to be V-ed*）に組み込む、または否定辞 *un-*を付加することで（つまり、*un-V-ed* を形成することで)、この意味制約をうけず表現として成立するが、後者の方が構文としての汎用性は高い。本稿は、いずれも「未完了」の意味を表し、生起文脈に応じ意味領域を分担する、*remain un-V-ed* と *remain to be V-ed* の 2 つの主格補語構文の意味と形式について検討する。

なお、本稿が提示する言語データは、主に News on the Web (NOW) Corpus、および Wordbanks の 2 つのコーパスによって構成されており、いずれも *news* を中心とするフォーマルな言語使用域からデータを抽出している（NOW Corpus に関しては英語圏のデータのみを収集)。[1] また、表 6 を含め、3 節で示す統計データは 2022 年 3 月 1 日から 21 日の間に抽出されている。

2. *Remain un-V-ed* の主格補語構文

否定辞 *un-*を付加した分詞形容詞（*un-V-ed*）は、*be* 動詞以外にも、*go, come , become, seem, appear* など、様々な連結動詞の主格補語として高い生産性を顕現する（Schönefeld 2015)。とりわけ、*remain* の補部に *un-V-ed* を伴う場合、(1a) のように、基体動詞の過去分詞形 (*V-ed*) では使用できない主格補語表現がしばしば生じる(Huddleston & Pullum 2002)。

(1) a. He had **remained {unseen/ *seen}** throughout the meeting.
(Huddleston & Pullum 2002: 1440)
b. ... women and children **remain seen** by authorities,... (NZ 2019/ NOW Corpus)

Huddleston & Pullum (2002) は、(1a) の *seen* が *remain* の補語として認められないのは、*seen* が動詞の受動態に過ぎず、形容詞とみなされないためであるとしているが、この一般化はあまり厳密な記述とはいえない。(1a) の *remain seen* を述部に伴う表現が不適格とされるのは、もはや変化は生じないと想定される「完結した出来事（completed events)」を示す過去分詞を補語にとれないという *remain* の意味制約のため（岩宮 2021a)、当該文脈において補語としてみとめられないと考えられる。

たとえば、ニュージーランドの女性や子供に国家の管理の目が行き届き（その安全が保障されている）という状態を表す (1b) の *remain seen* は、その *V-ed* が表す状態に変化が生じうる、つまり国の安全管理が行き届かない状態へ今後変化することが充分に想定されうるため、事態の完結を示さず、*remain* の述部として容認される。

基体動詞の過去分詞形 (*V-ed*) では使用できない「未完了」の意味を持つ *remain un-V-ed* の主格補語表現は、基体動詞自体が行為の完

了を示す *finished, done*、製作・研究・開発などの策定行為の完了を表す *developed, proven, solved* などに否定接辞 *un-*が付加することによって高い生産性が顕現される。[2] ちなみに、基本的に「完結」を示すものの、文脈に応じて「未完了」とみなされ、比較的 *remain* の補語としてみとめられやすい分詞形容詞には 、*seen* の他に *completed, heard, written* などがあり、[3] また完結の意味をもっていても、補語になる *un-V-ed* という分詞形自体の使用頻度が低いために、主格補語構文としてもほとんど機能しない語には、*ceased, concluded, ended, erased* などがある。

ただ、この「未完了」の意味は、*un-V-ed* だけを補語にしたときのみ、生じるわけではなく、(2a-b) のような *remain to be V-ed* という形式でも、基体動詞の過去分詞形では使用できない意味が表現される。[4]

(2) a. That **remains to be done**. (OALD)
b. A key issue that **remains to be clarified** for improved targeting is an understanding of its heterogeneous contribution to diseases.
(*Nature*, US 2021/ NOW Corpus)

本稿は、これらの生産的な 2 つの主格補語構文を比較し、両者にいかなる意味の違いが存在するのか、コーパスデータに基づく実証研究によって明らかにする。

3.「未完了」を示す２つの主格補語構文

連結動詞 *remain* の主格補語は、一時的又は継続的に生じうる事態を表し（Biber et al. 1999、LDOCE）、完結を示す語を補語にとれないため、(3a-c) のいずれの表現においても、基体の分詞形では使用することができない。一方で、*to be V-ed*、*un-V-ed* のいずれかの補語を伴う形式を用いると、「質問が未回答のままである (3a)」、「地域が未開発のままである (3b)」、「申し立てが未承認のままである (3c)」という「未完了」の意味をもつ表現が成立する。

(3) a. Major questions **remain {to be answered/ ≒ unanswered/ *answered}** about his work. (Cobuild)
b. Now only a small area at the north end of Melcor's land **remains {to be developed/ ≒ undeveloped/ *developed}**.
(US 2018/ NOW Corpus)
c. … the allegation against his client **remains {to be proven/ ≒ unproven/ *proven}**. (CA 2019/ NOW Corpus)

しかし、2 つの「未完了」を表す主格補語構文の意味は完全に同じというわけではない。不定詞句を伴う表現の場合、目的の達成を試みる AGENT、つまり質問へ回答 (3a)、土地の開発 (3b)、申し立ての立証 (3c) 、を行う意思をもつ第三者の存在が示唆される一方で、*un-V-ed* が補語に用いられた表現では、行為が未完了であるという事実のみが示される。

(4) a. Portrait of Lisa Gherardini (Mona Lisa) **remained {unfinished/ ? to be finished/ *finished}** during Da Vinci's life and was never exhibited when he was alive.
(AU 2017/ NOW Corpus)
b. New coach Moreno has experience at the top level with Barcelona and Spain, but he **remains {unproven/ *to be proven/ *proven}** as a head coach.
(US 2021/ NOW Corpus)
c. The construction workers that were at the scene **remained {unharmed/ *to be harmed/ *harmed}** as no injuries were initially reported.
(US 2020/ NOW Corpus)

そのため、モナ・リザは未完成のままであり、また完成させる意図がダヴィンチにあったかどうかも不明であるとする (4a) の意味は、*to be finished* を用いると若干異なったものとなる（つまりダヴィンチにこの絵画を完成させる意図があったと解釈される）。また、*to be V-ed* を補語に伴う形式では人を主語にした文も通常みとめられない。

たとえば、「コーチとしての力量が証明されていない」、「建設作業員が無傷のままであった」という (4b, c) でも、*V-ed* だけでなく、不定詞節を補語に伴う表現も容認されない。(4b) においての実力の証明は周囲の人間ではなく主語自身（Moreno）によってなされるものであり、これは *unproven* の基体である *prove* という動詞が、再帰代名詞を目的語にとり、自らの力量を証明するといった用法で用いられることからも裏付けられる（ex. *It'll take time for me to **prove myself** to you,...* [*24*, 2006/ TV Corpus]）。

また、建設現場において作業員を怪我させようと待ち受ける人物など通常想定されないため、暗黙の AGENT の存在はみとめられず、(4c) において不定詞句を用いた表現は不適格となる。[5]

「未完了」の意味を表し、基体の分詞形では使用できない 2 つの主格補語表現（*remain un-V-ed* と *remain to be V-ed*）の意味と形式 (5)、および基体の分詞形を伴って生じるそれぞれの構文の用例数 (6)、を以下に示す。なお、(6) は NOW Corpus の英語圏のデータから、*V-ed* の 30 倍以上の出現率でいずれかの主格補語表現が成立している語のみの用例数を換算しているが、ノンネイティブの国の用例、補語が名詞句を形成する用例[6]などを含む生起数（raw frequency）が 3000 以上に及ぶコロケーションに関しては Wordbanks を用いて換算している。

(5) a. [NP_1 *remains un-V-ed*] (NP=THE PATIENT) ↔ [the (intentional) action to X_1 has not been completed by being *V-ed*]

b. [NP_1 *remains to be V-ed*] (NP=THE PATIENT) ↔ [the intentional action to X_1 has not been completed by being *V-ed*, by a (potential) agent][7]

(6) 2 つの主格補語表現の成立数[8]

BASE	REMAIN UN-V-ED	REMAIN TO BE V-ED	REMAIN V-ED
answered	258 (WB*)	384	1
solved	137 (WB*)	75	0
finished	771	15	1
addressed	731	168	1
detected	721	1	0
proven	480	132	0
diagnosed	402	0	2
developed	368	33	0
told	181	41	1
harmed	132	0	0
done	95	151 (WB*)	2
called	92	17	1
said	75	41	0
investigated	26	198	0
achieved	7	34	0
clarified	5	97	0
demonstrated	4	39	0

WB*=Wordbanks による用例数

(5a-b) の主語の項に収まる人・事物（NP_1）は、いずれも *V-ed* の基体動詞が表す行為によって、状態変化、あるいは位置変化をもたらす働きかけを受ける、つまり受動者（THE

PATIENT）となる (Jackendoff 1990)。表 6 が示すように「未完了」の意味を持つ主格補語構文は *un-V-ed* で成立することが多いが 、主語の事物が AGENT によってなされるべき課題（必要性）を示す場合、*to be V-ed* の形式の方が好まれる。Wordbanks では、たとえば、*(some) work* を主語として、*remain to be done* が動詞句になる表現が 45 例みられるのに対し、*remain undone* を用いた表現は 2 例しかみられない。また、(7) の *investigated, proven, clarified, demonstrated* などを伴い、主語（受動者）が *whether* や *if* などで導かれる疑問節である場合も、*to be V-ed* を補語にとる形式が好んで使用される（NOW Corpus の英語圏のデータにおいて、*whether* または *if* 節を主語として *remain to be {investigated/ proven/ clarified/ demonstrated}* を述部に伴う表現は併せて 79 例みられるのに対し、*remain {uninvestigated/ unproven/ unclarified/ undemonstrated}* を伴う表現は 8 例）。これは、仮説や事件に伴って生じる疑問点は（誰が解決させるかに関わりなく）しばしば対処すべき事柄とみなされるためである。

(7) It **remains {to be investigated/ ≒ uninvestigated/ *investigated}** whether her act was meant as a disruption tactic to aid escape of the said terrorist...
(GB 2021/ NOW Corpus)

たとえば、(7) では、警察内部の誰が今後調査を行うかは明示されておらず、(4a) のケースと異なり、AGENT の存在はあくまで潜在的 (potential) である (5b)。また (3a-c) 同様、(7) の補語である *to* 不定詞句を *un-V-ed* に置き換えた表現は容認されるが、これは *remain to be V-ed* の意味が、*remain un-V-ed* の主格補語構文（全体）の一部として包含されているためと考えられる（坪井・早瀬 2019: 137）。実際、コーパスデータにおいて、*remain to be understood* や *remain to be negotiated* など、形態・音韻的な理由により *un-*の付加が困難な場合を除けば、*remain to be V-ed* の表現で使用できる分詞形が、否定辞を伴った *remain un-V-ed* の表現で使用できないケースはほとんどない（*understood* の場合、*under-*という接頭辞がすでに付加されているため、また *negotiated* の場合、*n* が重なることで音韻上不自然な語が形成されるため、*un-V-ed* としての生産性が得られないと考えられる）。

いずれにせよ、*remain un-V-ed* の主格補語構文は、基体の分詞形では使用できない「未完了」を示す表現として非常に生産性が高く、生起文脈に応じて、その下位構文である *remain to be V-ed* と意味を分担し、多様な意味をつくりだす。これらの 2 つの主格補語構文によって生み出される高い生産性と汎用性は、「個々の構成要素から文全体の意味が推測できるものであっても、充分な使用頻度がみとめられる言語表現を構文とみなす」という Goldberg (2006: 6-7) の定義に照らし合わせても、いずれも独自の構文として認められるべきだろう。

4. 結語

本稿は、「完了」の意味を持つ分詞形容詞を補語に伴うことはできない *remain* という連結動詞が、[9] *remain un-V-ed* および *remain to be V-ed* という 2 つの形式をとることにより、いずれも「未完了」の意味を表す、生産性の高い構文を生み出すことを、コーパスデータを用いた実証研究によって明らかにした。

ただ、連結動詞の補語の意味性質を分析する研究は、荒木 (1984)、Quirk et al. (1985)、Huddleston & Pullum (2002) 、安藤 (2005) など、概説的な文法書を除けば、数少なく、[10] *go, come , become, get* といった他の連結動詞においてその補語にいかなる意味制約があるのか、またそれぞれの連結動詞を伴って派

生形容詞、*to* 不定詞、句動詞の過去分詞形など、どのような補語を伴う言語表現が生産的なのか（つまり、いかなる構文形式が存在するのか）を調査することが、今後の課題となるだろう。

注

[1] Plug et al. (2015) によると、一般的な言語使用域 (register) では、*academic, news, magazine, fiction, spoken* といった順にフォーマルとなる（コーパスによって収集されている言語データがどれだけの使用域に区分されているかは異なり、たとえば、Corpus of Online Registers of English [CORE] では、*sport report, recipe, opinion* など、33 の使用域で使用される言語データを個別に収集することができる）。ちなみに本研究で使用する 2 つのコーパスでは、NOW Corpus では *Nature*（2b 参照）、Wordbanks では *the Smithsonian* など、一部の学術的専門誌からのデータも収集されている。

[2] 施設の利用制限を表す *closed, shut, locked*、停職・収監・隔離などの人の活動に対する制限を表す *suspended, imprisoned, locked up, divided, locked away*、精神的・時間的束縛を表す *committed to ~ , concerned about ~* など、事態参与者に対しての活動制限を表す *V-ed* は、否定辞 *un-*を伴わなくとも、*remain* の補語として高い頻度であらわれる。句動詞の過去分詞形、付加部を伴うイディオム的な *V-ed* を含め、どのような分詞形容詞 (*V-ed*) が連結動詞 *remain* の補語に生じやすいかについての議論は、岩宮 (印刷中) を参照。

[3] *Seen* を補語に伴う主格補語表現 (*remain seen*) は NOW Corpus 上の英語圏のデータにおいて 13 例 (*remain unseen* は 400 例成立)。また、*finished, done* の類義語として同様に「行為の完了」を表す *completed* は、`*She began writing the book in November, 2008 and it* ***remained completed*** *for two years before she decided to publish it on her own.*(CA 2013/ NOW Corpus)’といった、writing が終わっただけで次の動作 (publishing) に至れていない保留状態に置かれていることを示す文脈などで、*remain* の補語として容認される（NOW Corpus の英語圏のデータにおいて 5 例、*remain uncompleted* は 43 例）。

[4] LDOCE, OALD など、辞書によって *remain to be V-ed*（通常、*remain to be done* と記載）の定義は若干異なるが、Cobuild の意味記述（= have not yet been done and still need to be done）には、否定辞を伴う現在完了形の受け身文が使用され、この主格補語表現がもつ「未完了」の意味が明確に示されている。なお、この形式を否定表現とする捉え方は、荒木 (1984: 637) など、やや古い用例辞典などにもみられる。

[5] 「（予定されているものの）まだ任命されていない」の意味で、人を主語（受動者）とする *remain to be named* という表現は、まれに容認される (ex. *Commission members* ***remain to be named*** [US 2021/ NOW Corpus])。ちなみに、建造物や橋などが改築・再建に伴い、その名称が変更されることは充分に想定できるため、「その名称がつけられ、いまでも使用されている」という意味の *remain named* という表現は比較的使用される。

[6] たとえば、`*...legal marijuana* ***remains unfinished business*** *in Massachusetts*. (US 2021/ NOW Corpus)’といった文における *unfinished business* など、*V-ed* や *un-V-ed* が後続の名詞を限定修飾している用例は表 6 においてカウントされていない。

[7] `*Harry, are you all right?*’`*That* ***remains to be seen***.’(*Harry Potter and the Prisoner of Azkaban,* 2004/ The Movie Corpus) など、`Nobody knows what will happen′の意味で定着（語彙化）している *remain to be seen* のようなイディオム表現では（Cobuild Idioms Dictionary）、暗黙の AGENT の存在は必ずしも想定されない。しかし、定型化したイディオ

ム表現としての意味で使用されていない場合には、`*...whether or not the team will succeed in their manhunt* ***remains to be seen*** *by viewers*. (AU 2016/ NOW Corpus)’のように、前置詞 *by* を伴って行為者が明示されることもある。[8] 表 6 のデータが 2022 年の 3 月のはじめの 3 週間で収集された点については、本文中で触れたが、2023 年 1 月 1 日時点で、*remain solved* の表現は英語圏に 1 例成立している（ex. *The 80 year long quest in finding birds* ***remains solved*** *in the forensic scientists said it was a slam dunk.* [US 2022-09-22/ NOW Corpus]）。[9] 動詞の過去分詞形を基体とする *V-ed*（*un-V-ed* 含む）のような分詞形容詞と異なり、一般形容詞は（より恒常的な意味をもつと考えられるため）、補語として成立しないというケースは少ない。たとえば、*tall* のような形容詞では、人や建造物の上背や高さが今後低くなることが想定しにくいため、容認されにくい。それでも、‘*… the Statue of Liberty* ***remained tall*** *after 126 years that month* (GB 2012/ Now Corpus)’といった、より巨大な像が時代の流れの中で次々と建造されていき、相対的に自由の女神（*the Statue of Liberty*）が大きな建造物と感じられなくなっていく文脈では *remain tall* という主格補語表現は容認される。[10] 2 節で言及している Schönefeld (2015) は、*be* 動詞、*remain* を含め、*get, become, go* などの連結動詞が *un-V-ed* を伴い、どれだけの生産性をもつかについてコーパス上の統計データを示しているが、それぞれの連結動詞の補語にどのような意味制約が存在するかについての考察は行っていない。ちなみに、‘*If employees* ***feel {underpaid/ *paid}*** *and used, that will drag down motivation in a work force.* (CA 2013/ Now Corpus)’など、*feel* や *seem* といった連結動詞の主格補語に、接頭辞 *under-* が付加され、動作主や話し手の主観が反映された分詞形（*under-V-ed*）のみが補語として容認されることを示す研究に岩宮 (2021b) がある。

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日本語における英語由来の外来語の動名詞について*

（On Japanese Verbal Nouns Originated from English Prepositions and Particles）

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キーワード：前置詞, 不変化詞, 動名詞, 語彙概念構造 (LCS) , 有界性パラメーター

1. はじめに

本稿では、(1) に例示する英語の前置詞や不変化詞に由来する日本語の動名詞（Verbal Noun (VN), Martin (1975)）を取り上げ、その語彙概念構造 (Lexical Conceptual Structure; LCS）について検討する。

(1) ｛ズボンにシャツを<u>イン</u>／ジャケットをシャツに<u>オン</u>｝する、｛炒めた豚こま肉を鍋に<u>イン</u>／ハンバーグをライスに<u>オン</u>｝する、打ったボールが｛カップに<u>イン</u>／グリーンに<u>オン</u>／フェンスを<u>オーバー</u>｝する、スイッチを｛<u>オン／オフ</u>｝する、給料が｛<u>アップ／ダウン</u>｝する、制限速度を<u>オーバー</u>する、疲労で<u>ダウン</u>する（インターネットより）

(1)における「イン」や「オン」、「オーバー」などの動名詞（下線部）は、(2a)に例示する in, on, over などの英語の前置詞や不変化詞に由来し、ある物体の位置状態や位置変化を表すことから、(2b-d)に示す LCS のいずれかを持つと考えられる。[1]

(2) a. in, on, over, off, up, down
b. [y BE [IN / ON z]]
c. [y BECOME [y BE [OVER z]]]
d. [y BECOME [y BE [OFF / UP / DOWN]]]

この点を踏まえ、本稿では、(1)の動名詞は(3)に示す使役事象の下位事象（影山 (1996))を表す LCS を共有し、BE の補部のスロットに(2b-d)の[IN / ON / OVER z]や[OFF / UP / DOWN]が補充（cf. 影山 (2002)）されることにより形成されると提案する。

(3) [y BECOME [y BE [　　]]]

また、(1)にみられる「ボールがカップにインする」とその他動詞用法の「ボールをカップにインする」のような自他交替のパターンは、使役化（影山 (1996)）であると主張し、この自他交替のパターンの決定には、日本語に固有の有界性パラメーター（Boundedness Parameter）の値である[0 bounded]（Kageyama (2001), 影山 (2021)）が重要な役割を果たしていることを議論する。

上記に加え、(1)および(4a)に例示する「アップする」「ダウンする」の容認度についても検討する。具体的には、(1)に示すように「給料」がこれらの主語であれば「アップする」「ダウンする」という表現が容認されるが、(4a)のように、「アップする」「ダウンする」が移動の意味を包含する場合には、これらは日本語では容認されない。この事実については、これらの語が場所移動を表す場合には、(2b-d)の結果状態や着点を表す LCS ではなく、必ずしも結果状態や着点を含意しない(4b)の LCS を持ち、(4b)が(3)の LCS とは相容れず、補充が LCS で適用されないためであると主張する。

(4) a. *階段を｛アップ／ダウン｝する。
cf. go {up/down} the stairs
（cf. 坂のアップダウンが激しい）
b. [y MOVE [UP / DOWN]]

本稿は以下のように構成されている。第２節では英語の借用語を用いた語形成は生産性が高く、何らかの語彙的規則が関与していることを議論する。第３節では第２節の議論を踏まえ、(1)に例示した語の LCS を検討し、分析の理論的意義を議論する。第４節は本稿のまとめである。

2. 日本語における英語由来の外来語

本節では、(1)で例示した英語由来の動名詞の分析を具体的に提示する前に、日本語における英語由来の外来語の例を先行研究にも触れて幅広く観察し、英語由来の外来語の語形成や意味について概観する。

まず、(5a)に挙げる英語に由来する借用語は、(5b)に示すように、元になる英語の語（句）の品詞に関わらず、転換により動名詞化されて「する」を伴ったり、-r 付加により「～る」形動詞として用いられたりする（-r 付加については由本・影山 (2011)を参照）。

(5) a.copy, memo(randum), Starbucks, running, check in, take out, lunch, up(load), to go
b. コピー（す）る、メモ（す）る、スタバる、ランニングする、チェックインする、テイクアウトする、ランチする、アップ（ロード）する、to go する（＝持ち帰る）（(5b)は一部、由本・影山 (2011)、田川 (2018) より。下線は筆者らによる。）

こうした動詞化の生産性は高く、(1)もその例であると考えられる。ただし、「～る」形動詞の形成は現代では限定的で（由本・影山 (2011)）、「*インる」のような例は許容されない。また、「ホテルにチェックインする」のような英語の句動詞由来の動名詞の場合、動詞と不変化詞の結びつきが保持され、「*ホテルにインする」のように不変化詞のみを動名詞化することはできない。

さらには、(6)に示すように、(5b)の借用語（下線部）が「コピー用紙」のように複合語の一部を構成したり、「アプロする」のような省略形にしたりすることが許容されるばかりか、これらの借用語を「オーバーな」のように形容名詞化することや、「go to キャンペーン」のように英語をそのまま日本語の複合語の構成要素とすることも可能である。

(6) a. コピー用紙、メモ欄、早朝ランニング、テイクアウト容器、ランチ定食、ア（ッ）プロ（ード）する
b. オーバーな話、アバウトな性格、ナウい、go to キャンペーン

日本語においては、英語の借用語をもとにした語形成はかなり生産性が高いと言える。

(1)に示す英語の前置詞や不変化詞に由来する語も、(5b)や(6)の例と同様に、生産的に新たな語を生み出すことができる。竝木 (2005) や長野 (2019) では、英語の前置詞由来の借用語が含まれる複合名詞の例が分析されている。例えば、英語の前置詞 in に由来する(7a)の「リンスインシャンプー」の「イン」は、元になる英語の前置詞の意味や用法は保持しつつ、(6a)同様、(7a, b)に示すように複合名詞を形成したり、(7b)の「リンプー」のように省略が適用されたりする。また、英語の前置詞 under に由来する借用語を含む(7a)の「アンダーフォーティー」は、(7b)の「アンダーフォーティーサービスデー」のようにより大きな複合名詞を形成する。

(7) a. リンスインシャンプー、シチューオンライス（商品名）、｛オーバー／アンダ

ー／アラウンド｝フォーティー（年齢）
b. リン（ス イン シャン）プー、アンダーフォーティーサービスデー
c. [チーズイン] [ハンバーグ]／[ハンバーグ] [インチーズ]（長野 (2019: 36)；下線は筆者らによる）

(7a)の「リンスインシャンプー（conditioner in shampoo, two-in-one shampoo）」と「シチューオンライス（cream stew on rice）」、(7c)の「チーズインハンバーグ（cheese in hamburger steak）」は、それぞれ、「リンス入りシャンプー」と「クリームシチュー乗せライス」、「チーズ入りハンバーグ」を表す。英語の前置詞由来の外来語である「イン」や「オン」と、日本語の「～入り」や「～乗せ」のような表現との並行性は、長野 (2019)で議論されている。なお、(7c)の「ハンバーグインチーズ」における「インチーズ」は「ハンバーグチーズ入り」の「チーズ入り」と同様に「ハンバーグ」に対する修飾語として働いている。

さらには、英語の不変化詞由来の「アップ」や「ダウン」も、複合語の一部にもなりうる。

(7)’ 給料アップ、坂のアップダウン、ダウン寸前

(7)や(7)’の例が示すように、前置詞や不変化詞由来の外来語において、元になる英語表現の本来の意味と用法が保持されている一方、これらの外来語には、複合語の形成や省略など、日本語の語形成の規則をそのまま適用することが可能であるといえる。

では、前置詞や不変化詞由来の動名詞を含む(1)の例はどうだろうか。例えば、(1)の「（ゴルフで）打ったボールがカップにインする」という例は、打ったボールがカップの中に入ることを表し、カップの中に入った状態をカップイン (holed) という複合名詞で表すことができる。よって、(1)の外来語動名詞の場合も、元になる英語の前置詞や不変化詞本来の意味用法を保持しつつ、日本語の語形成の規則がそのまま適用されるといえる。このことを踏まえ、次節では、(1)のような外来語がどのようなメカニズムにより動詞化されているかを議論する。

3. 外来語の動名詞と有界性

本節では、英語由来の動名詞の LCS を検討し、英語由来の外来語の動詞化のメカニズムと、外来語の自他交替のパターンを明らかにする。第 1 節でも述べたように、(1)の外来語の元になる英語の前置詞や不変化詞は(2b-d)の LCS を持つことから、これらの外来語は、(3)の BE の補部スロットに(2b-d)の BE の補部の LCS（IN など）が補充された(3)’のような LCS を持つと提案する。

(3)’ [y BECOME [y BE [IN / ON / OVER z] / [OFF / UP / DOWN]]]

例えば、(8a)の「イン／オン／オーバーする」は、BE の補部に(8b)の LCS を補充し、BE の主語である「ボール」と BECOME の主語を同定した(8c)の LCS を持つと提案する。

(8) a. 打ったボールが｛カップにイン／グリーンにオン／フェンスをオーバー｝した。
b. [ボール BE [IN / ON / OVER カップ／グリーン／フェンス]]
c. [ボール BECOME [ボール BE [IN / ON / OVER カップ／グリーン／フェンス]]]

ここで注目すべき点は、(8c)の LCS 内には BECOME や BE が含まれ、ゆえに完結的な事象を表すことである。完結性（telicity）については、Tenny (1994) における議論を参照されたい。以下の事実がこの点を支持する。

(9) a. 打ったボールが｛数秒で／*数秒間｝｛カップにイン／グリーンにオン／フェンスをオーバー｝した。
b. ｛数秒で／数秒間｝制限速度をオーバーした（が慌てて速度を落とした）。
cf. ｛数年で／*数年間｝年齢制限をオーバーした。

(9a)は、これらの動名詞は事象の完結性を意味する「数秒で」と共起可能であるが、事象の継続性を表す「数秒間」とは共起不可能であることを示している。この事実は、「数秒で」が LCS 内の BECOME を修飾していることと関係する。なお、(9b)のように、結果状態の継続が一時的であり、変化が既に完結していることが文脈から明白であるという条件を満たせば、非完結的な事象を表す「数秒間」と共起可能であり、この場合、「数秒間」は LCS 内の BE を修飾していると考えられる。これに対して「年齢制限をオーバーする」は事態の継続が一時的であることを示唆しない。したがって、非完結的な表現を描写する「数年間」とは共起することができない。

第 1 節でも触れたように、英語の前置詞や不変化詞由来の動名詞の一部は、例えば(10a)や(11a)のような自動詞用法に加え、(10b)や(11b)のような他動詞用法も可能である。

(10) a. ｛ズボンにシャツがイン／ジャケットがシャツにオン｝した（コーディネート）。
b. 私は｛ズボンにシャツをイン／ジャケットをシャツにオン｝した。
(11) a. ｛炒めた豚こま肉が鍋にイン／ハンバーグがライスにオン｝した。
b. 私は｛炒めた豚こま肉を鍋にイン／ハンバーグをライスにオン｝した。

このような自他交替については、影山 (1996) が提案する「使役化」によりとらえることができる。例えば(10a)は(12a)のような LCS を持つが、(13)に示す使役化（影山 (1996)）、つまり、下位事象をもつ語の LCS に上位事象を追加するという操作の適用により(12b)の LCS を産出することができる。この LCS が(10b)の他動詞用法に相当する。(11a)の自動詞用法から(11b)の他動詞用法が形成される過程も、同様に説明される。

(12) a. [シャツ／ジャケット BECOME [シャツ／ジャケット BE [IN / ON ズボン／シャツ]]]
b. [私 ACT ON シャツ／ジャケット] CAUSE [シャツ／ジャケット BECOME [シャツ／ジャケット BE [IN / ON ズボン／シャツ]]]
(13) [y BECOME [y BE [ ]]]
→[x ACT ON y] CAUSE
[y BECOME [y BE [ ]]]
（cf. 影山 (1996: 197)）

使役化により形成された LCS には、CAUSE だけでなく、行為者の行為を表す ACT ON が含まれていることから、他動詞の主語は動作主であることが予測されるが、(14)の対比からこの予測が正しいことが裏付けられる。

(14) a. 私はボールをグリーンにオンした。
b. *強風がボールをグリーンにオンした。

(14a)の「私」のような動作主は ACT ON の主語として適格であるが、(14b)の「強風」は行為者ではなく原因であり、ACT ON の主語としては不適格である。したがって、(14b)は非文法的である。

また、変化とその結果を含む事象から構成されている LCS は完結的であるため、(15a)

の対比から明確なように「アップした」や「ダウンした」は「１年で」とは共起できるが、事象の継続を表す「１年間」とは共起できない。加えて、(15b)の「徐々に」はBECOMEを修飾する（杉岡・小林 (2001)）が、この例と同様に、「インした」も状態変化を表す下位事象を持つために(15c)のように「徐々に」と共起することができる。

(15) a. ｛１年で／*１年間｝給料が｛アップ／ダウン｝した。
b. 卵を釜で徐々に固く茹でる。
ACT<釜で> BECOME<徐々に> BE<固く>
（杉岡・小林 (2001: 253)）
c. ボールが徐々にカップにインした。

(3)'のLCSはBECOMEを含むため、(15a)は完結的な事象を表す。しかし、(16b)のような例は状態の変化ではなく場所の移動を表すため、LCSは完結的なBECOMEではなく、非完結的な事象を表すMOVEから構成されていると考えられる。このMOVEをBEの補部に補充すると、BECOMEとMOVEの完結性に矛盾が生じ、(16b)は意味的に不適格であると判断される。これは、(16a)の「上る」と「下りる」が非完結的な移動を描写し、「数分で」と共起しないことと並行的である。

(16) a. ｛*数分で／数分間｝階段を｛上った／下りた｝。(cf. 数分で階段を｛上り切った／下り切った｝)
b. *階段を｛アップする／ダウンする｝。
（＝ (4a)）

なお、(16a)において、「階段」を始点と限界点のある完結的なもの、例えば「１階から４階への階段」を想定すると、完結性を表す「数分で」が許容されるようになる。

(3)'内のBEの補部には、外来語の元になる前置詞や不変化詞が表す位置関係や結果状態を表す意味述語が現れる。これらの意味述語が表す状態には程度が存在しない。例えば、(17a)の「暑い」や(17b)の「オーバー／アバウト」などの状態述語とは異なり、(17c)に示すように、状態の程度を示す「あまりにも」と共起不可能である。[2]

(17) a. 今日はあまりにも暑い。
b. 彼の話はあまりにも｛オーバー／アバウト｝だ。
c. *ボールがフェンスをあまりにもオーバーした。

ここまで、(1)に挙げる英語の前置詞や不変化詞由来の動名詞はLCSにおけるBEの補部スロットの補充により形成され、これらの動名詞の自他交替には使役化が関与していることを提案した。以下では、この提案から言語理論的にどのような知見が得られるかを「有界性パラメーター」(Kageyama (2001))の観点から議論する。

Kageyama (2001) は、それぞれの使役事象の捉え方の違いを規定する有界性パラメーターを検討し、英語は [+ bounded] の値をもつ「有界言語」、日本語は [0 bounded] の値を持つ「非有界言語」であることを提案している。より具体的には、前者では視点の起点が使役事象の上位事象である ACT に置かれているのに対して、後者では視点の起点が下位事象の BECOME にあり、下位事象の BE ばかりでなく、上位事象をもその射程に入れている。このことは(18)に図示されている（なお、●は視点の起点を表す）。

(18) [x ACT ON y] CAUSE [y BECOME [y BE [ ]]]

英語：[+ bounded]

日本語：[0 bounded]

（影山 (1996: 290) を改変）

加えて、影山 (2021) は、英語は(19a)に図示するように事象を「点的」に把握するのに対して日本語では(19b)のように、「線的」に把握すると指摘している。

(19) a. 開始（動作主）⟹終了（変化結果）

b. ⬭ （途中経過）⟹ ⬭

（（影山 (2021: 18, 45)）を改変）

(19a)の開始と終了はそれぞれ(18)の ACT と BE に、(19b)の途中過程は BECOME に相当することに注意されたい。

上記の提案を踏まえ、本稿では、日本語で BECOME から構成される(3)が動名詞の形成に関与し、形成された動名詞が(13)のような使役化の適用を受けるのは、日本語の特性、つまり、日本語は BECOME に視点の起点がある非有界言語であるからと考える。

なお、BECOME を LCS 内に持つ語が語形成に関与する例は本稿で取り上げた英語の前置詞や不変化詞に由来する語ばかりでなく、「入社、入国、入室、入学、入部」のような表現にも見られる。例えば、「入社（する）」は(20a)のような LCS を持つが、この構造は(20b)の「入～」が持つ LCS 内の BE AT-INSIDE の補部に「会社」を意味する COMPANY が補充されることで形成される。

(20) a. 入社（する）: [y BECOME [y BE [AT-INSIDE **[COMPANY]**]]]

b. 入～： [y BECOME [y BE [AT-INSIDE]]]

（(20a)は影山 (1996: 216)より）

最後に、外来語の動名詞への転換には、上述の有界性パラメーターの他に、日本語特有の語彙的な規則が関わることを論じる。

(21) *金属を｛金槌／ハンマー｝する。

cf. hammer the metal

(21)から明らかなように、動詞化が可能な英語の hammer とは違い、日本語では一部を除き、「金槌」のような道具を表す名詞に「する」を後続させて動名詞として用いることは困難である（長谷部・神谷 (2022)）。同著は、影山 (2005) の提案を踏まえ、道具を表す名詞のクオリア構造（Pustejovsky (1995)）から取り出すことができる語用論的情報が日英語で異なり、前述の「金槌」と hammer の違いを、この語用論的情報の違いに帰した。「ハンマー」のような借用語が動名詞として使えないことも、「金槌」同様に説明される。

本節では、(1)の生産性の高さや自他交替が許容されるのは有界性パラメーターが関与していること、また、(4a)や(21)の非文法性には日本語特有の制約や規則が関与していることを議論した。

4. 結論

本稿では英語の前置詞や不変化詞に由来する動名詞を取り上げた。そして、それらの動名詞は LCS 内の BE の補部スロットに元となる語の LCS が補充されることで形成され、その自他交替のパターンは「使役化」であると論じ、その形成方法と自他交替のパターンには、日本語が BECOME に視点の起点がある非有界言語であることが関与していると主張した。さらに、外来語の動名詞への転換には、有界性パラメーターと日本語特有の規則の両方が関わることを論じた。外来語を用いた語形成全般において、具体的にどのようにして、元になる表現の本来の意味や用法が保持されつつ、日本語と同様の語形成の規則を適用することができるかという、より詳細な分析は、今後の課題としたい。

* 本稿は「日本英語学会第 40 回大会 」（2022 年 11 月 5 日、オンライン）における口頭発表に基づく。当日貴重なコメントを下さった司会の先生、聴衆の方々に厚く御礼申し上げ

る。また、言うまでもなく、本稿の誤りは全て筆者らに帰す。

注

[1] (2a)に挙げる英語の前置詞や不変化詞には、転換によって動詞として用いられるものがある（例えば、in や off、up や down)。こうした英語の動詞の例と(1)の日本語の動名詞の比較については、今後、調査や分析の対象としたい。

[2] 発話状況によっては、例えば以下のような例は許容される。

(i) a. 打ったボールは､狙ったところをあまりにもオーバーしていってしまった。
b. 去年はあまりにも給料がダウンした。

上の例の「あまりにも」は、「オーバー」や「ダウン」が表す結果状態そのものの程度ではなく、「ボールが狙った地点を越えていく過程」や「給料が下がる過程」などの状態変化の過程を表す(3)内の BECOME を修飾し、その変化過程に対する話者の言外の驚きや失望などを意味すると考えられる。

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The Historical Development of Passives of the Double Object Construction*

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Keywords : double object constructions, passives, Case, structural change, Verb-Second

1. Introduction

The main concern of this paper is the three types of passives of the DOC (Double Object Construction) in the history of English, as shown in (1a-c). Throughout this paper, the grammatical subject is indicated by bold letters, the dative (recipient) argument is italicized, and the main verb is enclosed.

(1) a. Ða wæs **gylden hilt** *gamelum rince*
| … on hand gyfen
'Then the golden hilt was handed to the old warrior'
(Beo 1677 / Denison (1993:107))

b. *Eallum þam sawlum* is **seo yld** forgifenn
'Age is given to all souls'
(Ætat 192 / Koopman (1990: 208))

c. Item: as for the Parke ***she*** is a lowyd
Every yere a dere.
'Item: as for the park, she is allowed a dear each year'
(AwardBolount p.205 / Allen (1995: 393))

(1a) and (1b) are so-called 'theme passives', where the theme argument is the grammatical subject, but the two sentences differ in which argument occupies the surface subject position: the theme argument in (1a) and the dative argument in (1b). Throughout this paper, the former is called Theme-Passive (henceforth, Th-Passive) and the latter Dative-fronted Passive (henceforth, Dat-Passive). (1c) is an instance of recipient passive (henceforth, Rec-Passive), where the recipient argument is the grammatical subject and occupies the subject position.

One of the aims of this paper is to verify that Th-Passives were observed with a certain frequency through the ModE period based on a corpus-based investigation, contrary to the previous claim that they became a minor construction by the sixteenth century with some dialectal residues (Allen (1995)).[1] This paper also provides syntactic analyses for the three types of passives of the DOC and their development in the history of English, arguing that the loss and rise of functional heads were responsible for the demise of Dat-Passives and the emergence of Rec-Passives, respectively.

The organization of this paper is as follows. Section 2 overviews the observation by Allen (1995) on the historical development of passives of the DOC. Section 3 summarizes the result of a corpus-based investigation of Th/Rec-Passives. Section 4 accounts for the historical development of passives of the DOC in terms of the rise and loss of functional heads. Section 5 concludes this paper.

2. The Distribution of Passives of the DOC

The three types of passives in (1) were found in the different stages in the history of English. Table 1 summarizes their developmental paths observed by Allen (1995).

Table 1. *Passives of the DOC in the history of English*

	OE~	13c	14c	15c	16c	…
Th-P	———	———	———	———	-------	-------
Dat-P	———	-------	-------			
Rec-P				———	———	———

According to Allen, Th-Passives and Dat-Passives were observed from OE to the early thirteenth century, and then the latter became less frequent and lost at least by the middle of the fourteenth century. A few decades later, Rec-Passives came to be found and have survived into Present-day English. On the other hand, Th-Passives became a minor option by the sixteenth century and are allowed only in some dialects in Present-day English.

Despite her close examination of the data from a variety of texts which has led to the observation in Table 1, Allen does not provide statistical evidence for it in terms of token frequency, which leaves open an empirical verification. Honda (2013), who also points out this problem, investigates the frequency of Rec-Passives from ME to early ModE, which supports Allen's observation. However, a similar investigation of Th-Passives has not been conducted yet.

The hypothesis which will be tested below is that Th-Passives were less frequent than Rec-Passives in ModE. The next section summarizes the result of the investigation by using PPCEME (The Penn-Helsinki Parsed Corpus of Early Modern English) and PPCMBE2 (The Penn-Helsinki Parsed Corpus of Modern British English, second edition), and argues that the hypothesis is incorrect.[2]

3. A Corpus-based Investigation

Based on the corpora listed above, the frequency of Th/Rec-Passives in ModE has been investigated.[3] Among the collected clauses with passive *be*, a past participle, and both of the internal arguments, the kinds of configurations shown in (2) are counted as evidence for the existence of the relevant passives. NP_1 and NP_2 represent the internal arguments and NP_1 is the passive subject; namely, for example, if NP_1 is the theme argument in a given configuration, it is counted as an instance of Th-Passive.

(2) NP_1 {be / being / to be / *Rel* be} V-en NP_2
(*Rel* indicates a relative pronoun)

The result of the investigation is summarized in Table 2, and some examples of Th-Passives and Rec-Passives attested are given in (3) and (4), respectively.

Table 2. *The frequency of Th-/Rec-Passives through ModE (per million words)*

	E1	E2	E3	L1	L2	L3
Th-P	30	51	48	64	36	12
Rec-P	7	22	28	48	50	43
Th-P (ratio)	0.81	0.70	0.63	0.57	0.42	0.21

(3) a. And if **any clothes** be geuen *them*, they imnmediatly sell the same, ...
(HARMAN-E1-P2. 51.219 / E1)
b. and at this Time the Men brought back **all** that had been given *them*.
(COOKE1-1712-1,1,433.209 / L1)

(4) a. for ***I*** was offered three pound for an old cloake, …(COVERTE-E2-P2, 28.5 / E2)
b. ***They*** had not been taught the most valuable domestic and social habits: …
(OWEN-1813-2, 1,56.314 / L2)

Table 2 shows that Th-Passives were indeed on the way to their loss in ModE, but were frequent enough to be taken as a major construction, compared with Rec-Passives. This verifies that the observation on Th-Passives by Allen (1995) is not borne out. Rather, Table 2 indicates that the coexistence of Th-Passives and Rec-Passives lasted much longer than expected since the emergence of the latter, and that the loss of Th-Passives possibly occurred in the transition from L2 to L3.[4]

4. Proposals

This section argues that a functional head was introduced in the structure of the DOC due to a parametric change related to case morphology (Nawata (2011)), which led to the rise of Rec-Passives. Syntactic analyses of the development of the passives of the DOC in the history of English are also provided within the minimalist framework in Chomsky (2000, 2001), with slight modifications on the treatment of the passive morpheme and v.

4.1. The Rise of a Functional Head

As is well-known, case endings, which were rich in OE, were largely levelled in the thirteenth century (van Kemenade (1987)). However, according to Allen (1995), the reduced dative suffix *-e* on the object of prepositions could be found until the middle of the fourteenth century. Based on this finding, Nawata (2011) proposes that the parametric change schematized in (5) occurred with the loss of the dative *-e* suffix. As a consequence, dative NPs came to require structural Case assignment via φ-agreement in minimalist terms.

(5) The loss of Inherent Dative Case
$[_{PP}\ P_{Ø}\ NP_{dat}] \Rightarrow [_{NP}\ NP_{[uCase]}]$
(cf. Nawata (2011:90))

While Nawata attributes the appearance of the nominative experiencer subject of *like* to this parametric change, this paper extends his arguments and argues that this also affected the Case licensing of the dative recipient argument of the DOC. When it came to be associated with [uCase], a new functional head, which this paper assumes is Appl(icative) (Bruening (2010) and Pylkkänen (2008)), was introduced to license it. Thus, the underlying structure of the DOC underwent the change in (6).

(6) a. $[_{vP}\ v\ [_{VP}\ REC_{Dat}\ [_{VP}\ V\ TH_{Acc}]]]$ (OE)
b. $[_{vP}\ v\ [_{VP}\ [_{PP}\ P_{Ø}\ REC_{Dat}]\ [_{VP}\ V\ TH_{Acc}]]]$ (EME)
c. $[_{vP}\ v\ [_{ApplP}\ REC_{Obj}\ Appl\ [_{VP}\ V\ TH_{Obj}]]]$ (LME)

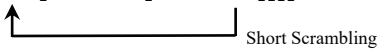
As shown in (6a), in OE, TH (a theme argument) is assigned accusative Case under φ-agreement with v, while REC (a recipient argument) is assigned inherent dative Case under its merger with the verbal root V. Even after the decline of case endings in EME, REC is still assigned inherent dative Case by the null P head in accord with Nawata's proposal.[5] In LME, as a result of the parametric change in (5), Appl was introduced into the structure (6c), where REC and TH enter into an Agree relation with v and Appl, respectively (see section 4.3 for details).

One of the consequences of the proposed emergence of ApplP is that it accounts for the loss of a certain word order pattern of the two objects in active DOCs. It is observed in the literature that while the relative word order between REC and TH was free in OE, TH-REC order with both being nominals was lost by the middle of the fourteenth century (cf. Allen

(1995), Koopman (1990) and McFadden (2002)).

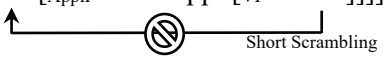
This paper argues that the underlying structure in (6), as it stands, results in REC-TH order, and that the inverted order is obtained via Short Scrambling, by which TH can optionally be scrambled to a higher position than REC as long as they do not cross a functional head (cf. Takano (1998)). This is illustrated in (7).

(7) $[_{vP}$ v $[_{VP}$ TH $[_{VP}$ REC $[_{VP}$ V TH]]]]



ApplP emerged in LME, so Short Scrambling cannot be applied to move TH higher than REC, as illustrated in (8), leading to the loss of TH-REC order.

(8) $[_{vP}$ v $[_{VP}$ TH $[_{ApplP}$ REC Appl $[_{VP}$ V TH]]]]



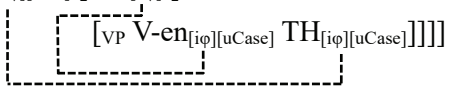
4.2. Passives from OE to EME

Contrary to the analysis of passive sentences in Chomsky's (2000, 2001) framework, which assumes a defective v head, this paper assumes that v does have [uφ] as in active sentences, and that the passive morpheme *-en* functions as an external argument with [iφ] and [uCase] (cf. Baker et al. (1989)).[6] Two ways are postulated for *-en* to be attached to the verb: it is attached to the verbal root in the lexicon or to some verbal head in the vP domain. Either option can be taken unless it leads to a derivational crash.

Adopting these assumptions has an advantage of eliminating ad hoc stipulations, such as upward Case-assignment (e.g. Holmberg et al. (2019)) or optional Case-absorption (namely, *defectivization*) of some functional head in the verbal domain of passives (e.g. Yanagi (2017)). The present analysis allows us to retain the standard (downward) implementation of Agree without any extra specification of functional heads in the verbal domain which is peculiar to passive sentences of the DOC.

With the above assumptions, Th-Passives in OE and EME can be analyzed as in (9), where dotted lines indicate Agree relations, and irrelevant details of the derivation are omitted.

(9) $[_{TP}$ $T_{[u\varphi][EPP]}$ $[_{vP}$ $v_{[u\varphi]}$ $[_{VP}$ REC_{Dat} $[_{VP}$ V-$en_{[i\varphi][uCase]}$ $TH_{[i\varphi][uCase]}]]]]$



In (9), v agrees with *-en* and T agrees with TH with its EPP feature satisfied by movement of TH. Note that if *-en* were attached to v as an option, v would agree with TH and T with *-en*. However, this is not allowed since *-en* cannot satisfy the EPP feature of T, which results in a derivational crash. The same result can be obtained with the structure in (6b).

As is obvious, Rec-Passives cannot be derived in OE and EME since REC is inactivated under the assignment of inherent dative Case, so it does not enter into any relation with T.

Given the suggestion in the literature that Dat-Passives involve Topicalization of REC which derives verb second (V2) word worder (van Kemenade (1987)), (1b) is analyzed as in (10).

(10) *Eallum þam sawlum* is **seo yld** forgifenn
$[_{CP1}$ [*Eallum* ...$]_{Dat[FAM]}$ is-$C1_{[FAM]}$
$[_{TP}$ [**seo yld**$]_{Nom}$ T $[_{vP}$ ... forgifenn]]]
[FAM]-Checking

Following Haeberli et al. (2020), CP1 in (10) hosts a familiar topic due to the checking

requirement of the EPP feature associated with this kind of topic. Then, the dative argument moves to [Spec, CP1] followed by movement of the finite verb to C1, which results in V2.

This paper argues that the demise of Dat-Passives in the early thirteenth century can be attributed to the loss of C1 (which led to the partial loss of V2) under the following scenario (cf. Haeberli et al. (2020)). Before EME, language learners were exposed to some evidence for the existence of C1, that is, the asymmetric position of finite verbs: they were predominantly located in C1 (or C2, a head higher than C1) in main clauses, but in head-final T in subordinate clauses. In EME, such an asymmetry became opaque due to the loss of head-final T, which resulted in the inactivation of C1. This led to the loss of Dat-Passives since the projection designated for the fronted dative object was no longer available.

4.3. Passives from LME onwards

Rec-Passives emerged as a result of the rise of ApplP in LME. First, to see that it did not affect the possibility of Th-Passives, consider the following structure.

(11) $[_{vP}\ v_{[u\varphi]}\ [_{ApplP}\ REC_{[i\varphi][uCase]}\ Appl_{[u\varphi]}\ [_{VP}\ V\text{-}en_{[i\varphi][uCase]}\ TH_{[i\varphi][uCase]}]]]$

In (11), v and Appl agree with REC and *-en*, respectively. Then, T agrees with TH, which results in Th-Passives.[7]

Rec-Passives can be derived when *-en* enters the derivation attached to Appl. Consider the structure in (12), where the strikethrough indicates the lower copy left by movement.

(12) $[_{vP}\ v_{[u\varphi]}\ [_{ApplP}\ REC_{[i\varphi][uCase]}\ [_{Appl'}\ V\text{-}en_{[i\varphi][uCase]}\text{-}Appl_{[u\varphi]}\ [_{VP}\ \cancel{V}\ TH_{[i\varphi][uCase]}]]]]$

In (12), v and Appl agrees with *-en* and TH, respectively. Then, T agrees with REC, so Rec-Passives are derived. It is assumed here that *-en* on Appl and REC are equi-distant from v in that they occupy the head and specifier positions of the same projection. If v entered into an Agree relation with REC, *-en* would be a candidate for agreement with T, causing the derivation to crash. Thus, the present analysis can capture the coexistence of Th-Passives and Rec-Passives from LME onwards.

Last but not least, the fact that the grammar that allows only Rec-Passives has been predominant since the L3 period (see section 3) should be explained. One possibility is that this kind of grammar utilizes a low applicative structure in the sense of Pylkkänen (2008) as the structure of the DOC. (13) illustrates the derivation of Rec-Passives with a low applicative structure, after which T agrees with and attracts REC.

(13) $[_{vP}\ v_{[u\varphi]}\ [_{VP}\ V\text{-}en_{[i\varphi][uCase]}\ [_{ApplP}\ REC_{[i\varphi][uCase]}\ [_{Appl'}\ Appl_{[u\varphi]}\ TH_{[i\varphi][uCase]}]]]]$

In this structure, Appl always agrees with TH, so that Th-Passives cannot be derived any longer. Why and how the grammar of English came to use this structure and abandoned the one in (11) and (12) remains to be explained.

5. Conclusion

Based on the corpus-based investigation, this paper has shown that Theme-Passives were

found with a certain frequency through the ModE period, which is inconsistent with the observation by Allen (1995). It has been argued that the loss of a functional head C1 caused the demise of Dat-Passives, while the rise of a functional head Appl led to the emergence of Rec-Passives. The proposed analysis can successfully capture the coexistence of Th-Passives and Rec-Passives from LME onwards, and the ban on Th-Passives in the grammar that allows only Rec-Passives is attributed to the possibility of its utilizing a low applicative structure.

* An earlier version of this paper was presented at the 40th Conference of the English Linguistic Society of Japan. I am greatly indebted to Tomoyuki Tanaka for progress of this study. I am also grateful to audiences of the conference and all the members of Department of English Linguistics, Nagoya University for their valuable comments and suggestions. All remaining errors and inadequacies are my own.

NOTES

[1] Here are the historical periods of English standardly assumed: Old English (OE: 700-1100), Early Middle English (EME: 1100-1300), Late Middle English (LME: 1300-1500), and Modern English (ModE: 1500-1900).

[2] These historical corpora are distributed over the following periods: E1 (1500-1569), E2 (1570-1639), E3 (1640-1700), L1 (1701-1769), L2 (1770-1839), L3 (1840-1914).

[3] More than 20 ditransitive verbs (such as 'give', 'offer' 'send', etc.) are targets of investigation which are listed in Levin (1993) as verbs taking both DOCs and *to*-prepositional counterparts.

[4] One caveat should be noted here: most of the attested examples of Th-Passives involve pronominal recipients. It is often reported that they are more acceptable than those with nominal recipients in Present-day English (e.g. Stowell (1981)). This leaves the possibility that the demise of Th-Passives occurred earlier than ModE. A close examination of this issue is left open, but note that Allen (1995) takes this amelioration effect with pronominal recipients just as a tendency due to discourse pragmatic factors. Therefore, the result of the investigation in the text is compatible with Allen's observation.

[5] The emergence of *to*-prepositional constructions in EME can be a piece of evidence that the recipient argument is selected by the null P (cf. McFadden (2002)).

[6] The value assigned to [uCase] of *-en* will be 'accusative' if it agrees with v and 'nominative' if it agrees with T. Which value it is assigned have nothing to do with the phonological realization of *-en* and does not matter for the present purposes.

[7] It is assumed here that the defective intervention (Chomsky (2000)) does not hold for the derivation of passives of the DOC since there is no compelling evidence for the intervention effect in early stages of English due to the lack of negative evidence. Thus, the inactivated REC does not block the agreement of T with TH in (11). Note also that some studies cast doubt on the formalization of the defective intervention in the sense of Chomsky (2000) (see Broekhuis (2007), Bruening (2014) and Keine and Poole (2017), among others).

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動詞 Begin の繰り上げ動詞用法への通時的変化について*

（On the Diachronic Change of the Verb *Begin* to a Raising Verb）

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キーワード：コントロール動詞, 繰り上げ動詞, 不定詞標識 to の形式素性変化, to 不定詞節の構造変化

1. はじめに

生成文法理論の枠組みにおいて、動詞 promise と threaten は一般にコントロール動詞として分類され、(1)に示すように PRO を含む to 不定詞節を選択すると分析される。

(1) a. $John_i$ promises [$_{CP}$ PRO_i to do his homework].
b. $John_i$ threatens [$_{CP}$ PRO_i to call the police].

一方、これら２つの動詞の通時的変化を研究した Traugott (1997)によれば、動詞 promise と threaten は元々コントロール動詞としての用法を持っていたが、主観化による意味変化が生じた結果、(2a)のような虚辞の it や(2b)のようなイディオムの一部が主語位置に生起する繰り上げ動詞としての用法を持つようになった。

(2) a. It promises to be a hot and grueling day.
(1992 Guardian [Hector] / Traugott (1997: 189))
b. But if push ever did threaten to come to shove, British and French nuclear weapons …
(1992 Economist [Hector] / Traugott (1997: 189))

同様に、Perlmutter (1970)は現代英語における動詞 begin がコントロール動詞と繰り上げ動詞の両用法を持つと主張している。(3a)における動詞 begin はコントロール動詞であり、外項として Jill、内項として to 不定詞節を選択している。一方、(3b, c)における動詞 begin は外項を取らない繰り上げ動詞であり、そのため虚辞が主語位置に生起可能である。

(3) a. Jill began to sing.
b. There began to be a problem.
c. It began to be obvious that the trees were dead.
(Perlmutter (1970), cited in Hendrick (2020: 4))

これに対して、以下で詳しく見るように、古英語における動詞 begin はコントロール動詞としての用法しか持たず、繰り上げ動詞としての用法は後期中英語になって初めて観察される。(4a, b)に示すように既に古英語から動詞 begin が自他交替を示す能格動詞として用いられていたことを考慮すると、この事実は興味深い問題を提起する。(4a)における動詞 begin は他動詞用法であり、外項として動作主、内項として主題を選択しているのに対し、(4b)における動詞 begin は自動詞用法であり、内項として主題のみを選択している。

(4) a. … he began þæt mynster,
… he began the monastery,
'… he began the monastery, '
(coaelive, ÆLS_[Maur]:216.1621)
b. Þa sealmas beginnen fram …
The psalm begins from …

'The psalm begins from…'
(cobenrul,BenR:18.43.8.560)

また、(5)に示すように動詞 threaten は'to appear likely to do some evil'の意味を表す虚辞の it を伴う例が後期近代英語期において観察される。Traugott (1997)によると、動詞 promise は中英語にフランス語からの借用語としてコントロール動詞として用いられ始めたが、虚辞を伴う例が観察され始めたのは、(2)に示した現代英語の時期である。

(5) It threatens to be wet to-night.
(1846 C. Dickens Dombey & Son (1848) iv. 25: OED online)

一方、動詞 begin に関しては、 虚辞と共起する例は後期中英語以降に観察される。本論文では Tanaka (2007)における不定詞標識 to の形式素性の変化、およびそれに伴う to 不定詞節の構造変化に関する分析を援用し、後期中英語に統語条件が整ったことにより繰り上げが可能になったと提案する。したがって、動詞 promise や threaten のような意味変化が駆動因となる繰り上げ用法の出現ではなく、動詞 begin の場合は to 不定詞節の構造変化という統語的要因により繰り上げ用法が出現したと主張する。

2. コーパス調査

歴史コーパス YCOE, PPCME2, PPCEME, PPCMBE を使用し、to 不定詞節を選択する動詞 begin について調査を行った。[1] その際、収集した用例を主語が有生か無生物かによって分類したが、それは無生物主語が動詞 begin の外項として動作主にはならないため、繰り上げ用法の出現を示す証拠となるからである。調査結果は表 1 に示されるが、最終行は全体数における無生物主語を伴う例の割合を示している。[2]

表 1: *Begin* with *To*-Infinitives

	O3	O4	M1	M2	M3	M4
Animate subjects	54	2	67	8	73	31
Inanimate subjects	2	0	5	1	14	5
(%)	3.5	0	6.9	11.1	16.0	13.8
	E1	E2	E3	L1	L2	L3
Animate subjects	70	101	74	138	111	151
Inanimate subjects	20	29	23	43	61	48
(%)	22.2	22.1	23.7	23.7	35.4	24.1

以上の調査結果より、古英語では無生物主語を伴う動詞 begin の用例数は非常に少なく、その割合も非常に低いことが分かる。また、O3 の時期に観察される無生物主語を伴う 2 例のうち 1 例は(6)であり、そこでは無生物主語である mickle thunder が to 不定詞節内に留まって非対格動詞に後続しているので、繰り上げが起こっていないことを示す興味深い例である。もう 1 つの無生物主語を伴う事例は、ラテン語の翻訳テクストからの例であったため例外として扱う。したがって、古英語における動詞 begin は有生主語を伴う用法が基本であったと考えられる。

(6) and efne ða þær begann to
and even then there began to
brastligenne micel ðunor.
crackle mickle thunder
'and even then mickle thunder began to crackle there'
(cocathom2, ÆCHom_II,_12.1:113.122.2464: O3)

その後、初期中英語に無生物主語を伴う用例の数と割合が増え始める。(7)が初期中英

語における無生物主語を伴う例であり、her color of the face が主語となっている。

(7) Hire bleo bigon to
Her color of the face began to
blakien …
pale …
'Her face began to pale'
(CMMARGA,69.222: M1)

そして、後期中英語では 10%以上の割合で無生物主語を伴う用例が観察されるようになる。(8)が後期中英語における無生物主語を伴う例であり、it が主語位置に生起している。

(8) … it begynneth to wexe
… it begins to wax
'it begins to wax'
(CMMANDEV,27.666: M3)

また、(9)に示すように虚辞の it を主語に取る例もこの時期に観察される。

(9) þe first day of his cristnynge hit bygan
the first day of his christening it began
to reigne,
to rain,
'the first day of his christening, it began to rain' (CMPOLYCH,VI,139.968: M3)

(10)に見られるように、近代英語になると虚辞の it が動詞 rain 以外と共起する例が観察されるようになる。

(10) and when it began to bee some what dark, he went to the water syde
(HARMAN-E1-P2,54.292: E1)

また、Early English Books Online (EEBO)も使用し調査した結果、(11)のような虚辞の there と共起する例が近代英語期に観察される。

(11) a. …, or until there begins to appear a little skin upon it; (EEBO 1686: E3)
b. …: there begins to be a confusion amongst them already;
(EEBO 1690: E3)

動詞 begin に関する以上の調査結果より、中英語期に徐々に無生物主語を伴う用例が観察され始め、近代英語期になり虚辞と共起する用例が観察されることが分かった。この観察に基づき、以下では先行研究として Tanaka (2007)の分析を概観し、それを援用することにより、コントロール用法しか持たなかった動詞 begin が繰り上げ用法を獲得する変化について考察する。

3. to 不定詞節の構造変化 (Tanaka 2007)

Tanaka (2007)は古英語から後期中英語にかけて、不定詞標識 to の形式素性が(12a)から(12b)へと変化し、前置詞から機能範疇へと変化したと主張している。

(12) a. The Infinitive Marker *To* in OE
-EPP, +inherent Case (=P)
(cf. Tanaka (2007: 50))
b. The Infinitive Marker *To* in LME
(i) +EPP, +structural Case (=T/P)
(ii)-EPP, +structural Case (=P)
(iii)+EPP,-structural Case (=T)
(cf. Tanaka (2007: 58))

そして、(13)に示す仮定に基づき、AcI (Accusative with Infinitive) 構文と FP (Faire-Par)構文の分析を試みている。[3]

(13) The infinitival morpheme functions as an argument iff its Case feature is licensed

(via Agree or inherent Case assignment).
(Tanaka (2007: 48))

(14)が AcI 構文の具体例であるが、使役動詞 made の補部に対格主語 the knight を伴う to 不定詞節が生起している。AcI 構文は古英語では観察されないが、この事実は(15)の構造に基づき説明される。

(14) ant ich makede þe cniht to þurlin
and I made the knight to pierce
godes side wið scharpe speres ord
God's side with sharp spear's point
'and I made the knight pierce God's side with the point of a sharp spear'
(JULIA 110. 238 / PPCME2: M1 / Tanaka (2007: 31))

(15) a. [$_{PP}$ to [$_{vP}$ DP [$_{v'}$ Venne-*v*2 [$_{VP}$ t$_{V}$ …]]]]
b. [$_{v'}$ *v*1 [$_{VP}$ V [$_{PP}$ to [$_{vP}$ DP [$_{v'}$ Venne-*v*2 [$_{VP}$ t$_{V}$ …]]] (cf. Tanaka (2007: 50))

まず、(15a)において to が併合され PP ができた段階で、to は不定詞形態素に内在格を付与する。(13)の仮定により、不定詞形態素は外項として機能することになるため、DP の持つ格素性が照合されずに残ってしまい派生は破綻する。仮に(15b)のように母型の v1 との一致によって格を付与されたとしても、DP と不定詞形態素という２つの外項を持つことになるため、古英語では AcI 構文は許されなかったことが説明される。また、(16)のような FP 構文の派生は、(17)の構造に基づき説明される。

(16) ic æfre fram frymðe bebead
I ever from beginning-DATcommand
ðone drihtenlican dæg
the-ACC lordly-ACC day-ACC
to healdenne
to hold
'from the beginning, I command ___ to hold the Lord's day'
(Wulf. 296. 5 / Callaway (1913: 45), cited in Tanaka (2007: 33))

(17) [$_{PP}$ to [$_{vP}$ Venne-*v* [$_{VP}$ t$_{V}$ …]]]
(cf. Tanaka (2007: 51))

(17)において to が派生に導入されて PP ができた段階で、to は不定詞形態素に内在格を付与する。そして、(13)の仮定により、不定詞形態素が外項として機能する。

その後、後期中英語になると不定詞形態素が-enne から-e へと弱まったこと、代不定詞と分離不定詞が出現したことに基づき、to が前置詞としての性質を失い、構造格を付与しない機能範疇、つまり T へと再分析され、形式素性が(12a)から(12b)へと変化したことを提案している。これにより AcI 構文の派生方法が(18)のように変化した。

(18) a. [$_{T'}$ to [$_{vP}$ DP [$_{v'}$ Ve-*v*2 [$_{VP}$ t$_{V}$ …]]]]
b. [$_{TP}$ DP [$_{T'}$ to [$_{vP}$ t$_{DP}$ [$_{v'}$ Ve-*v*2 [$_{VP}$ t$_{V}$ …]]]]]
c. [$_{v'}$ *v*1 [$_{VP}$ V [$_{TP}$ DP [$_{T'}$ to [$_{vP}$ t$_{DP}$ [$_{v'}$ Ve-*v*2 [$_{VP}$ t$_{V}$ …]]]]]]]
(cf. Tanaka (2007: 59))

まず、(18a)において to は EPP 素性のみを持つため、DP が TP 指定部へと T の EPP 素性を満たすために移動し(18b)となる。その後派生が進み、母型の v1 が併合された(18c)の段階で、v1 が TP 指定部にある DP と一致関係に入り、DP の格が認可される。一方、後期中英語以降に不定詞形態素が消失し、元々不定詞形態素の認可をしていた to の前置詞としての機能も消失した結果、to による格付与の下で不定詞形態素が外項となる FP 構文は消失した。

4. 分析

前節で見た Tanaka (2007)の分析を援用しつつ、コントロール用法しか持たなかった動詞 begin が、繰り上げ用法を獲得する変化について考察する。まず、古英語ではほぼすべての例において有生主語を取っているため、動詞 begin は外項を取るコントロール動詞として分析される。(19)に具体例、(20)に to 不定詞節の構造を示す。

(19) He began þa to secenne swyðe
He began then to seek severely
ða cristenan …
the Christian …
'Then, he began to seek the Christian …'
(coaelive,ÆLS_[Chrysanthus]:24.7342: O3)

(20) [$_{PP}$ to [$_{vP}$ Venne-*v* [$_{VP}$ t$_{V}$ …]]]

古英語では不定詞形態素が格と φ 素性を伴い派生に導入され、-enne として具現化される。(20)において前置詞としての to は不定詞形態素に内在格である与格を付与する。これにより、不定詞形態素は不定詞の外項として機能することになり、主語は不定詞ではなく動詞 begin の外項となるため、コントロール用法のみが可能であった。

その後、後期中英語に機能範疇 T としての to が出現して TP を形成するようになると、(21)のように主語が to 不定詞節内に併合されることが可能となる。

(21) … it begynneth to wexe
… it begins to wax
'it begins to wax'
(CMMANDEV,27.666: M3)

(22) [$_{v'}$ *v*1 [$_{VP}$ begynneth [$_{TP}$ it [$_{T'}$ to [$_{vP}$ t$_{DP}$ [$_{v'}$ wexe-*v* [$_{VP}$ t$_{V}$]]]]]]]

(22)において、to は格付与をせず EPP 素性のみを持つため、it は to の EPP 素性を満たすために TP 指定部へと移動する。この場合の begynneth は繰り上げ動詞であり外項を取らないので、it に格付与することができない。したがって、it は母型の T と一致し、EPP 素性を満たすために母型の TP 指定部へと繰り上がる。このように、to 不定詞節の構造変化という統語的要因により、動詞 begin の繰り上げ用法が出現したと説明される。

5. 結語

本論文では、Tanaka (2007)の to 不定詞節の構造変化の分析を援用し、動詞 begin のコーパス調査を行った。その結果、虚辞の it を取る例の出現時期が、to 不定詞節の構造が TP へと変化する時期と合致することが経験的証拠として得られた。また、動詞 promise や threaten については、意味変化が理由で繰り上げ用法を獲得したのに対し、動詞 begin に関しては、虚辞が観察される時期が動詞 promise や threaten よりも早いことから、to 不定詞節の構造変化による統語的要因によって繰り上げ用法が出現したと結論付けられる。

* 本論文は日本英語学会第 40 回大会における口頭発表原稿に修正を加えたものである。本研究を進めるに際し、大室剛志先生、田中智之先生からは大変貴重な助言を頂いた。また、研究発表では、多くの諸先生方より、大変有益なご指摘や助言を頂いた。この場を借りて感謝の意を表する。なお、本論文における不備や誤りは全て筆者の責任による。

注

[1] 使用したコーパスは以下の通りである：*The York-Toronto-Helsinki Parsed Corpus of Old English Prose* (YCOE), *The Penn-Helsinki Parsed Corpus of Middle English*, Second Edition (PPCME2), *The Penn-Helsinki Parsed Corpus of Early Modern English* (PPCEME), *The Penn-Helsinki Parsed Corpus of Modern*

British English (PPCMBE)。

[2] O1 (-850), O2 (850-950)には当該の例が観察されなかったため、表 1 からは省いて示してある。また、使用したコーパスの各時代区分は以下の通りである：O3 (950-1050), O4 (1050-1150), M1 (1150-1250), M2 (1250-1350), M3 (1350-1420), M4 (1420-1500), E1 (1500-1570), E2 (1570-1640), E3 (1640-1710), L1 (1710-1770), L2 (1770-1840), L3 (1840-1920)。

[3] FP 構文とはフランス語等において不定詞補部の主語が空となり、文脈等からその指示が得られる構文のことを指す。詳細については、Tanaka (2007)を参照されたい。

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A Phonological Approach to Argument Structure: NPs and PPs*

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Keywords：argument, FORM SEQUENCE (FSQ), nominal path, prosody

1. Introduction

This paper looks closely at sentences containing path-related expressions in English and Japanese, as analyzed in Hirose (2007, abbreviated as H henceforth). We will analyze the differences in the choice of arguments for verbs in Japanese and English, and show that these differences are partly due to the general phonological characteristics of each language, in particular the fact that in English, prepositions are usually phonologically weak, while in Japanese, which has a tonal structure, prepositions are not weak and can carry the accent. Specifically, we propose an analysis employing the FORM SEQUENCE (FSQ) operation mentioned in Chomsky (2021).

Pinker and Jackendoff (2005) argue that argument structure, reflecting syntactic properties of predicates, can be captured with reference to word order, and therefore that word order cannot be excluded from the syntactic component. If, as this paper argues, it is possible to find a phonological motivation for argument structure, this would support the Strong Minimalist Thesis (SMT), which, in one formation, states that language is an optimal solution to the problem of satisfying interface conditions (Chomsky (2000) et seq.).

2. Observational Problems with the Distribution of NP and PP Arguments

The English example in (1a) and the Japanese example in (1b) below represent an expression that H calls a full-fledged temporal path, where a PP indicates a temporal path and functions adverbially.

(1) full-fledged temporal path
   a. That store is open [from 9 a.m. to 5 p.m.] every day.
   b. Ano mise-wa mainiti
      that store-Top every.day
      [kuzi-kara gozi-made]
      nine.o'clock-from five.o'clock-till
      aiteiru. [1]
      be.open
      'That store is open from 9 to 5 every day.'

On the other hand, (2) represents what H calls a defective path, in which the preposition *from* in English, and the postposition *made* in Japanese, are omitted to form an NP.

(2) defective temporal path
   a. It will take [three to five days] for him to recover.
   b. Kare-ga kaifukusuru-noni
      he-Nom recover-Inf
      [mikka-kara ituka]
      three.days-from five.days
      kakaru-daroo.
      take-will
      'It will take three to five days for him to recover.' (H: 548-549)

H analyzes the defective path as an NP

coordinated by an adpositional coordinator, *to* in English and *kara* in Japanese. He argues that the examples in (3), which show that the verbs like *take* and *kakaru* cannot take a PP, provide supporting evidence for his analysis of a defective path as an NP.

(3) a. (*)It will take [from three to five days] for him to recover.
b. * Kare-ga kaifukusuru-noni [mikka-kara ituka-made] kakaru-darou.
(H: 551)

However, (3) presents an observational problem: Although H presents (3a) as an ungrammatical sentence, the informant I consulted finds (3a) perfect, adding that the choice between (2a) and (3a) is "completely optional." On the other hand, the Japanese example in (3b) is less acceptable than (2b) for any Japanese informants I consulted.

Given the contrast in (3), I will posit two research questions in (4) and discuss them in the subsequent sections.

(4) a. Can the English verb *take* take a PP, as well as an NP path argument, and if so, when?
b. Why can the Japanese verb *kakaru* not take a PP path argument?

3. Analysis of Path Arguments

3.1. English NP and PP

It seems no doubt that N and P, or NP and PP are different syntactic categories in English. For example, the verb *take* can take an NP, but not a PP in (5).

(5) It will take [(*for) three days] for him to recover. (H: 551)

Jackendoff (1977) argues that N and P are composed of different features as in (6), while Baker (2003: 303-325) argues that N is a lexical category whereas P is functional.

(6) N (+N, +V) P (−N, −V)
(Jackendoff (1977: 31))

Prosodically, however, NP and PP path expressions show the same prosodic pattern as in (7) because monosyllabic Ps in English are weak.

(7) ∗ ∗
(from nine) (to five)$_{\varphi}$
(nine) (to five)$_{\varphi}$
(based on Shiobara (2022: 46))

In addition, NP and PP paths are semantically identical (H: 549-440).

Based on the above, I propose the derivation of path phrases in (9) adopting Chomsky's (2021) FORM SEQUENCE (FSQ) in (8).

(8) FSQ selects *m* members X_i of W(orking) S(pace) and yields: <&, X_1, …, X_n>.
(based on Chomsky (2021: 31))
(9) With P_{from}-P_{to} (where P_{to} = &), FSQ selects X_1 and X_2 of WS and yields: < (P_{from}), X_1, P_{to}, X_2>.

In "P_{from}-P_{to}", P_{from} is lexically dependent on P_{to}, with the result that P_{from} does not enter the syntactic structure and its externalization, i.e. pronunciation, is optional. This optionality of P_{from} can be captured in the same way that the externalization of a coordinator *and* can be optional:

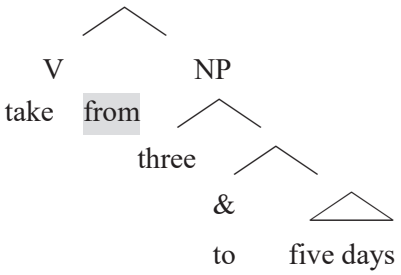
(10) Merging of & and FSQ yields <&, X_1, …,

X_n>, where X_i's exhaust the elements of Y. The two operations yield, for example, [(11a)] and then, optionally, [(11b)]:

(11) a. John lived [on a farm] [with his family].
b. John lived [on a farm] and [with his family]. (Chomsky (2021: 32))

Under the present analysis of path expressions, the P *from* in (3a) is "defective" (indicated by shading) syntactically, prosodically, and semantically, not being incorporated into syntactic structure:

(12)



On the other hand, in (5) the argument of the V *take* is not a path phrase and the P *for*, as an independent, non-defective P, enters the derivation and projects to PP.

The syntactically defectiveness of the P *from* in (12) is compatible with the observation that the presence of the P does not affect the Coordinate Structure Condition violation. This is exemplified in (13).

(13) a. * How many days will it take (from) three to _ for him to recover?
b. * How many days will it take (from) _ to five days for him to recover?

Note here that movement of the argument of *take* does not degrade the sentence by itself.

(14) How many days will it take _ for him to recover?

Based on this analysis of path expression, the answer to the question (4a) should be as follows:

(15) The English V *take* selects an NP argument but never a PP. In a P_{from}-P_{to} path expression, where P_{to} is introduced into the derivation as a coordinator (&), P_{from} is lexically dependent on P_{to} and not incorporated into the syntactic structure, getting optionally externalized.

3.2. Japanese NP and PP

Unlike English, NP and PP paths in Japanese show different prosodic patterns because the P *made* has its own high-low accent. Based on this distinction, I propose that unlike P_{from}, P_{made} is always an independent, non-defective P and enters into the syntactic structure. Then, the answer to the question (4b) should be that it is because the Japanese V *kakaru* selects an NP argument but never a PP, and the P in Japanese cannot be defective.

The different behavior of path expressions between English and Japanese is then reduced to a difference in the general phonological properties of English and Japanese. In particular, a monosyllabic P is usually weak in English which creates rhythm through a series of feet, whereas in Japanese, which has a tonal structure, the P itself carries the accent, e.g., [P *ma*⌉*de*].

3.3. Summary

The table (16) summarizes the analysis of path expressions in English and Japanese.

(16) Path in English and Japanese

P_{source}-P_{goal}	Conj & =	Syntax of $P_{non\&}$	Prosody of P	Semantics of $P_{non\&}$
P_{from}-P_{to}	P_{to}	P_{from} is defective	weak	P_{from} is recoverable
P_{kara}-P_{made}	P_{kara}	P_{made} not defective	not weak	P_{made} is recoverable

I argue that the difference between English and Japanese is reduced to the syntactic property of the P that does not act as a coordinator, i.e., that English *from* is defective and cannot be incorporated into the structure, while Japanese *made* is non-defective. I further argue that this syntactic difference is reduced to the general prosodic property of P, i.e., that English Ps are weak, while Japanese Ps are not weak having their own accentual properties.

4. Supporting Evidence or Relevant Examples

4.1. Spatial Paths

The phonologically-based analysis of path arguments given in section 3 was based on temporal path examples. This section shows that the analysis can be extend to the examples involving spatial path arguments.

As is seen in (17), the P *from* is optional in English whereas the presence of the P *made* degrades the sentence in Japanese in spatial path cases as well.[2]

(17) a. This hall can accommodate [(from) 100 to 105 people].

b. Kono hooru-wa hyaku-nin-kara
this hall-Top hundred-people-from
hyaku-go-nin(-?*made)]
hundred-five-people-up.to
syuuyoo dekiru.
accommodate can
'This hall can accommodate 100 to 105 people.'

4.2. Type of Coordinators

4.2.1. English: *and, to*

In English, the coordinator *and* coordinates not only NPs but also VPs and *wh*-phrases.

(18) a. [John] and [Mary] went to the movies.

b. John always [pushes the table] and [makes the vase fall].

c. [What] and [when] did you eat?

H notes that the coordinator analysis of *to* finds support in the colloquial substitution of *to* for *and* in the complement of *between*.

(19) a. The labor union of that factory organized few strikes between [1990 and 2000].

b. The labor union of that factory organized few strikes between [1990 to 2000]. (H: 550, fn. 6)

4.2.2. Japanese: *to*, *te*, *sosite*

In contrast with English, Japanese uses different coordinators depending on what is coordinated. For example, NPs are normally coordinated by *to*, VPs by *te*, and *wh*-phrases by *sosite*.

(20) a. [Tatu] to [Minami] (to)-ga
Tatu and Minami and-Nom
eiga-o miniitta.
movie-Acc went.to.see
'Tatu and Minami went out to watch a movie.'

b. Tatu-wa itumo [teeburu-o
Tatu-Top always table-Acc
osi]-te, [kabin-o otosu].
push-and vase-Acc make.fall

'Tatu always pushes the table and makes the vase fall.'

c. [Nani-o], sosite [itu] tabeta
what-Acc and when ate
no?
Q
'What and when did you eat?'
(based on Shiobara (2019: 169-170))

Furthermore, it is noteworthy that the coordinator *to* can occur after the second conjunct as is seen in (20a).[3] This double occurrence of the coordinator can be analyzed in the same way as the path in English in (9), repeated below. Double occurrence of the coordinator *to* in Japanese is formulated in (21).

(9) With P_{from}-P_{to} (where P_{to} = &), FSQ selects X_1 and X_2 of WS and yields:< (P_{from}), X_1, P_{to}, X_2>.

(21) With $\&_{to}$-$\&_{to}$, FSQ selects X_1 and X_2 of WS and yields: < X_1, $\&_{to}$, X_2, ($\&_{to}$)>

5. Theoretical Implications

One of the strongest implementations of the Strong Minimalist Thesis (SMT) is found in Nordström (2017), who argues that we need not assume narrow syntax in the faculty of human language. The phonological approach to the selection of path arguments pursued in this paper (section 3) in contrast employs the syntactic structure and hence assumes narrow syntax, but the direction of giving a non-syntactic explanation to the argument structure is consistent with Nordström.

On the other hand, Chomsky's (2021) FSQ in (10) assumes that word order is involved in the computational component and that it operates when multiple elements are linearized as in coordinating structures. The present analysis of path arguments heavily relies on FSQ and linear order in the choice of the P acting as an adpositional coordinator (*to* in English and *kara* in Japanese). However, it departs from Chomsky and furthers SMT in analyzing an English PP path as identical to an NP path in terms of its prosody and explaining the difference in the paths between English and Japanese in terms of their general phonological properties.

* I am grateful to the audience at the 40th meeting of the English Linguistics Society of Japan for their comments on the oral version of this paper. Many thanks also go to two English informants, and Chris Tancredi for comments and stylistic suggestions. Needless to say, the author is solely responsible for any remaining errors or misunderstanding of the data in this paper.

NOTES

[1] The following abbreviations are used in this paper: Acc = accusative, Cond = conditional, Gen = genitive, Inf = infinitive, Nom = nominative, Q = question, Top = topic.

[2] A Japanese speaker pointed out that as in (i), the V *syuuyoosuru* can take the goal phrase *hyaku-go-nin-made*, or at least, (i) is better than (17b).

(i) ? Kono hooru-wa [hyaku-go-
this hall-Top hundred-five-
nin-made](-o) syuuyoo
people-till-Acc accommodate
dekiru.
can
'This hall can accommodate up to 105 people.'

In this case, however, the accusative marker *-o* can accompany the path phrase, which indicates that the phrase is an NP, not a PP (Fukui (1995:

116, fn. 16) as cited in Hirose (2007: 551, fn.7)). Note that the accusative *-o* cannot accompany the temporal PP path as in (ii).

(ii) Okaasan-no kaifuku-no mikomi-
mother-Gen recovery-Gen prospect-
tosite-wa [mikka-kara
as-Top three.days-from
ituka-(?*made)]-o miteok-eba
five.days-till-Acc estimate-Cond
ii desyoo.
good will.be
'Speaking of the prospect for your mother's recovery, we can say that it will take three to five days maximally.'

It remains as an open issue what the word *made* in (i) is, if not a P. For now, I take it to be an optional element like 'up to' in the English translation of (i).

[3] The optional occurrence of the second coordinator is not limited to Japanese. See Zwart (2005) and Vermeulen (2008) for more examples and discussion.

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Commitment Space Semantics and Japanese Sentence Final Particles*

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Keywords：Japanese, *yo*, *ne*, *sa*

1. Introduction

This short paper aims to explain the basic behavior of the sentence final particles (SFPs) *yo*, *ne*, and *sa* in Japanese declarative sentences, with reference to the notions of S(peaker) and A(ddressee). Specifically, it will be presented that once Davis's (2011) model of *Context Change Potential* (CCP) is modified under the notion of *Public Commitment*, the behavior of the SFPs can be successfully and straightforwardly explicated. Based upon the semantico-pragmatic analysis of the SFPs to be presented, this paper further seeks to provide a concrete syntactic structure for the particles.

The rest of the paper is organized as follows. In the next section, we make a basic observation about the distribution of the SFPs in question in declarative sentences. Section 3 introduces the basic framework of CCP by Davis (2011), and points out some of its empirical drawbacks in light of the issues to be addressed in the present paper. In section 4, we extend Davis's CCP by making recourse to the idea of Public Commitment, and propose concrete syntactic structures for the SFPs in question. Section 5 concludes the paper.

2. The Distribution of *Yo*, *Ne* and *Sa*

In this section, we observe the basic distributions of the SFPs *yo*, *ne* and *sa* in declarative sentences.

2.1. The Distribution of *Yo* in Declaratives

Let us first start with *yo*, which is, to the best of my knowledge, the most intensively studied SFP in Japanese (cf. McCready (2005), Davis (2011)). McCready (2005) claims that the SFP is pertinent to S's *strong assertion*. See (1) below.

(1) a. S: Taroo-ga Kyoto-ni ki-ta.
Taro-Nom Kyoto-Dat come-Pst
'Taro came to Kyoto.'
b. A: Uso!
lie
'No way!'
c. S: Ki-ta (*yo*).
come-Pst (*yo*)
'He came (*yo*).'

She points out that there is a slight but significant pragmatic difference between (1c) with *yo* and the same example without the SFP. First of all, in both cases, (1c) publicizes S's belief that the proposition (p) = "Taro came to Kyoto" is true. If *yo* is absent, however, there is a clear sense in (1c) that nothing more than the publicization of S's relevant belief is involved. In stark contrast, according to her, if *yo* is present, the utterance has a sense that S utters the sentence in order to persuade A with respect to the truthfulness of p.

Let us be a bit more precise. Even though it is intuitively true that *yo* makes the utterance relevant to the persuasion of p's truthfulness, it does not encode this discourse function directly. This is evidenced by the fact that (1c) with *yo* can be felicitously followed by expressions that

exhibit that S does not necessarily want A to come to hold the same belief about p. This is shown in (2).

(2) Ki-ta *yo*. Sinzi-naku-te ii-kedo.
come-Pst *yo* believe-Neg-Ger good-but
'He came *yo*. You don't have to believe it, though.'

Another interesting fact about *yo* is that it makes S responsible/liable for p's truthfulness. This is shown in (3), which is uttered after it turned out that Taro didn't come to Kyoto despite S's utterance of (1c).

(3) Ki-ta *yo* tte it-ta zyan!
come-Pst *yo* that say-Pst right
Usotuki!
liar
'You said he came *yo*! Liar!'

In this sense, we can assume that the persuasion effect of *yo* is only ancillary: it derives from the fundamental function of the SFP which makes S liable to p's truth in the eyes of A.

In sum, *yo* in declaratives makes S responsible for p's truthfulness.

2.2. The Distribution of *Ne* in Declaratives

Let us turn our attention to *ne*. Saito and Haraguchi (2012) assume that the particle is equivalent to a reversed tag question in English (see also Miyagawa (2022)).

(4) Samui *ne*.
cold *ne*
'It's cold, isn't it?'

However, closer scrutiny reveals that this kind of direct association of *ne* with a reversed tag question is not quite correct. See (5) below (see also McCready and Davis (2020) and Oshima (2016)).

(5) a. A: Kore, yat-te.
this do-Imp
'Do this.'
b. S: Iya-des-u.
bad-Pol-Prs
'I'm afraid I don't want to.'
c. A: Yat-te.
do-Imp
'Do it anyway.'
d. S: Iya-des-u *ne*.
bad-Pol-Prs *ne*
'I'm afraid I don't want to *ne*.'

Clearly, the *ne* in (5d) cannot be translated to a reversed tag question in English, since both "I'm afraid I don't want to do it, am I?" and "I don't want to, do I?" sound fairly awkward in this context. Thus, it should be empirically obvious that *ne* is not equivalent to a reversed tag question.

Rather, the *ne*s in both (4) and (5d) connote that S assumes (it is obvious that) A holds the beliefs about the ps. In (4), S assumes that A thinks/believes that it is cold given the temperature/weather. In (5), S marks the sentence with *ne* so as to express that it should have been obvious that S does not want to accept the request by A, which has already been publicized in (1b). Thus, the *ne* in (5d) has the effect of publicizing S's desire to emphasize p's truthfulness/obviousness to A. So (5d) could be roughly translated as "I said I don't want to do it, already".

2.3. The Distribution of *Sa* in Declaratives

Finally, let us briefly discuss *sa*'s discourse

function. First of all, it seems relevant to S's belief that p, is true since the utterance with *sa* cannot be followed by expressions like "I don't believe it, though". See (6) below.

(6) Ki-ta *sa*. # Sinzi-te na-i-kedo.
come-Pst *sa* believe-Ger Neg-Prs-but
'He came *sa*. I don't believe it, though.'

In stark contrast, the same SFP is compatible with an expression which publicizes S's opinion or assumption that A does not have to believe that p is true.

(7) Ki-ta *sa*. Sinzi-naku-te ii-kedo.
come-Pst *sa* believe-Neg-Ger good-but
'He came *sa*. You don't have to believe it, though.'

Therefore, A's belief about p is irrelevant to the use of the SFP.

Another interesting aspect of *sa* pertains to its discourse function that makes S *irresponsible* for p's truthfulness. That is to say, it exhibits the opposite discourse function to *yo*. It makes S not liable to p's truthfulness. See (8) below, which is uttered by S after S said "Taro came to Kyoto *sa*" and it turned out that he actually didn't come to Kyoto.

(8) Ki-ta *sa* tte it-ta zyan!
come-Pst *sa* that say-Pst right
#Usotuki!
liar
'You said he came *sa*! Liar!'

Summarizing so far, we have arrived at the following sketch of the discourse functions of *yo*, *ne*, and *sa*. First, *yo* basically expresses S's willingness to take liability for p's truthfulness; *ne* expresses S's assumption that A believes that p, which cannot always be equated with a reversed tag question in English; finally, *sa* pertains to S's belief that p, but crucially, it makes S irresponsible for p's truthfulness. In the next section, we introduce the framework of CCP by Davis (2011), which will be of crucial importance in explicating the syntax and semantics of the SFPs.

3. Introducing the Framework

In the context of discussing *yo*'s semantics, Davis (2011) proposes an exciting framework of what he calls *relational CCP*. This semantic framework assumes that each declarative is of type <c, <c, t>>, where c is the type for context and <c, t> denotes a set of contexts. And each declarative is further defined to take a certain discourse participant (DP) or DPs, and suggests or requests that in the updated context C' p is a member of S's public belief set (PB). Thus, annotating the context change from C to C' by <C, C'>, we have the following basic semantics of a bare declarative sentence.

(9) $[[\text{p DECL}]] = \lambda x.\{\langle C, C'\rangle \mid p \in x\text{'s PB in } C'\}(S)_{<e, <c, ct>>}$
$= \{\langle C, C'\rangle \mid p \in S\text{'s PB in } C'\}_{<c, ct>}$

Based upon this semantics of a relational CCP, Davis (2011) further claims that if *yo* is used in a declarative sentence, the argument to which the function of type <c, ct> is applied is specified to be (the set of) all of the DPs. Thus, a declarative sentence with *yo* has the following semantics, according to Davis (2011).

(10) $[[\text{p DECL } yo]] = \lambda x.\{\langle C, C'\rangle \mid p \in x\text{'s PB in } C'\}(\forall x \in DP)_{<e, <c, ct>>}$

$= \{\langle C, C'\rangle \mid p \in \text{All of the DP's PBs in } C'\}_{\langle c, ct\rangle}$

An immediate virtue of this idea is that it correctly captures the fact that not just S, but also A, is involved in the use of *yo*.

However, there are some empirical facts that cannot be captured by this analysis. First, it fails to explain the fact observed in (2). That is, if the semantics of a declarative sentence with *yo* is defined in the way depicted in (10), expressions like "sinzi-naku-te ii-kedo" should sound infelicitous after the use of the SFP, contrary to fact, since *yo* should suggest a CCP in such a way that A believes that p is true in the updated context.

Furthermore, it is not clear how the analysis depicted in (10) explains the fact that *yo* makes S liable to p's truth.

In addition, the semantic characters of *ne* and *sa* remain problematic to (10). Even though the aim of Davis's (2011) analysis is to explain the behavior of *yo* and hence it does not necessarily have to capture that of *ne* and *sa*, it should be desirable that we have a unified framework that explains the semantics of *yo*, *ne* and *sa* in a straightforward fashion.

Taking these issues into consideration, it is safe to say that some alternative proposal is needed that subsumes the three SFPs to a single theoretical framework. In the next section, we will see that the aim can be achieved by modifying the relational CCP semantics proposed by Davis based on the idea of Public Commitment.

4. Public Commitment and the Syntax and Semantics of the SFPs in Japanese

4.1. Setting the Stage

Recall that one of the problems inherent to the semantic analysis of *yo* in (10) is its inability to capture the fact that *yo* makes S liable to p's truth(fulness). But what does it mean that S becomes liable to p's truth(fulness) when *yo* is used?

That S is liable to p's truthfulness means that the same DP is committed to act in accordance with the same proposition's truthfulness. To be more precise, following Brandom (1994, 2000, 2008) and Geurts (2019), I claim that it means that S is committed to the other DPs to act upon p. Let us call this type of commitment *Public Commitment*.

Interestingly, Geurts (2019) claims that there is another type of commitment, which we call *Self Commitment*. A DP's Self Commitment to act upon p means that the DP is committed to themselves to act in accordance with p. According to Geurts, this corresponds to the DP's belief that p is true.

Notice already that this is precisely what the DECL operator does: the operator introduces an agent's (public) belief about p to the relevant semantic computation. Thus, it is natural to assume that [[p DECL]] expresses a CCP in such a way that a DP is self-committed to act upon p in the updated context.

If there is an operator relevant to an agent's Self Commitment, then it is equally natural to assume that there is a grammatical encoding of a DP's Public Commitment as well. We claim that the functional element that we call ⊢ does this job. ⊢ is a force modifier to be attached to DECL, and specifies that p is not just a member of a DP's PB, but also a member of the same DP's Public Commitment Set (PCS), which is a pool of ps which an agent is publicly committed to act upon, as in

(11) x's PCS := {p | ∀y ∈ DP − {x}: x is

committed to y to act upon p}

Therefore, if this force modifier is adjoined to the structure, we have the following semantics:

(12) [[p DECL ⊢]] = λx.{⟨C, C'⟩ | p ∈ x's PB ∧ p ∈ x's PCS in C'}(x)

Thus, a declarative sentence with ⊢ is semantically a CCP defined in such a way that in the updated context an agent is committed to themselves and the other DPs to act upon p.

Now we are equipped with the formal apparatus necessary to capture the semantics of the SFPs in question. In what follows, we seek to explain the syntax and semantics of *yo*, *ne* and *sa* based upon the semantics illustrated in (12).

4.2. The Syntax and Semantics of *Yo*

Let us start with *yo*. Recall that the SFP makes S liable to p's truthfulness. This means that by the use of *yo*, S is publicly committed to act upon p in the updated context. In short, if *yo* is present, the argument of [[p DECL ⊢]] is specified as S.

Based upon this, I claim that *yo* is the post-syntactic realization of the *S*-head in the treetop. More precisely, I assume following Halle and Marantz (1993) and many others that the SFP is the result of Vocabulary Insertion to the *S*-head which dominates ⊢. Thus, the relevant syntactic structure is to be depicted as

(13) [$_{\text{ForceP}}$ [$_{\text{Force'}}$ [$_{\text{Force}}$, p DECL] ⊢] yo_S]

and the semantics of this structure is to be defined as

(14) [[p DECL ⊢ yo_S]] = {⟨C, C'⟩ | p ∈ S's PB ∧ p ∈ S's PCS in C'}

Thus, a declarative utterance with yo suggests a CCP from C to C', in the latter of which S publicly believes that p and S is committed to the other DPs to act upon p.

Notice already that McCready's (2005) intuition is correctly captured by this proposal, thanks to the notion of ⊢: together with *S*, which is to be realized as *yo* post-syntactically, the force modifier specifies that in the updated context S is committed to all of the DPs to act upon p. Therefore, A's involvedness is successfully captured in the use of *yo*. Furthermore, (14) does not specify that not just S, but also A should come to believe that p is true. It only suggests a CCP in such a way that S is committed to A to act upon p in the updated context. Thus, the fact observed in (2), which is problematic to Davis's (2011) original account, can be successfully captured by the present analysis. Of course, S's Public Commitment to act upon p makes it easier for A to come to believe that p is true, since S becomes liable to its truthfulness. In a sense, hence, *yo* facilitates the addition of p to the Common Ground (Stalnaker 2002).

4.3. The Syntax and Semantics of *Ne*

Let us next focus on *ne*. Recall that the SFP expresses S's assumption that A believes that p is true, which means that it is pertinent to A's belief about p in the updated context. Furthermore, it is S who assumes that A believes that p is true. These two semantics of the SFP can be straightforwardly captured by assuming that instead of *S*, the *A*-head is fed to (12), which encodes the discourse addressee in the treetop. The *A*-head is to be realized as *ne* in the post-syntactic process of Vocabulary Insertion

only when it dominates ⊢. Thus, the relevant syntactic structure is to be represented as

(15) [$_{\text{ForceP}}$ [$_{\text{Force'}}$ [$_{\text{Force'}}$ p DECL] ⊢] ne_A]

and the semantics of (15) is defined in (16).

(16) [[p DECL ⊢ ne_A]] = {⟨C, C'⟩ | p ∈ A's PB ∧ p ∈ A's PCS in C'}

(16) says that a declarative utterance with *ne* suggests a CCP from C to C', in the latter of which A publicly believes that p and A is committed to the other DPs (including S) to act upon p. This means that in (4) and (5), S suggests a CCP in such a way A is committed to S and the other DPs to act upon p (it's cold/S doesn't want to do it). In (3), by suggesting A to become publicly committed to act upon p, S intends to ascertain that p is true, which yields the reversed tag question reading.

Notice that in both examples, *ne*'s function is the same: it conveys that S suggests a context update in such a way that p is a member of A's PCS in the updated context. In the case of (4), by using *ne*, S intends to convey that "A should (have) acknowledge(d) S's rejection already." Therefore, the present account explains the semantics of *ne* in (4) and (5) in a unified manner, with the difference between them successfully captured.

4.4. The Syntax and Semantics of *Sa*

Finally, let us explain the semantics of *sa*. Recall that this SFP pertains to S's belief about p, and it crucially makes the same DP irresponsible for p's truthfulness. In terms of the present account, this means that *sa* makes S publicly *dis*committed to act upon the proposition, while keeping the DP's Self Commitment intact. How can we model this semantics of the SFP?

The way we take is to assume that there is a complex force modifier that we call ⊬. This force modifier consists of ⊢ and an abstract negational affix, which we find in words like "*non*sensical" and "*dis*commitment". Together with [[p DECL]], the force modifier semantically dictates that p is not a member of an agent's PCS in the updated context. Given the fact that the SFP pertains only to S's belief and Public Discommitment, the *S*-head is Merged in the treetop as an argument for [[DECL p ⊬]]. Thus, a declarative utterance with *sa* has the following syntax and semantics.

(17) [$_{\text{ForceP}}$ [$_{\text{Force'}}$ [$_{\text{Force'}}$ p DECL] ⊬] sa_S]
(18) [[p DECL ⊢ sa_S]] = {⟨C, C'⟩ | p ∈ S's PB ∧ p ∉ S's PCS in C'}

(18) neatly captures the core semantics of the SFP in question: it is a CCP suggested by S in such a way that S publicly believes that p while the same DP is not committed to A to act upon it in the updated context. This means that S publicizes that they are not willing to take liability to p's truthfulness. (8)'s infelicity thus follows. The facts observed in (6) and (7) follow from the assumption that the relevant head is not *A* but *S* (and the semantics of DECL). Ergo, the present account explains the syntax and semantics of *sa* in a fairly straightforward fashion.

5. Conclusion

In this paper, we showed that *yo*, *ne* and *sa* pertain to a particular discourse agent's (dis)commitment. The specific discourse effects of the SFPs are explained in terms of the force modifiers ⊢ and ⊬, and the *S*- and *A*-heads to be Merged in the topmost position in the syntactic

tree to feed a certain DP to the relevant semantic computation.

Many issues are left untouched in this short paper. For instance, ultimate discourse functions of the SFPs should be derived by the combination of the particles and the intonational tunings associated with them (see especially McCready and Davis (2020)). In addition, the SFPs can also be used in other clause types than declarative, such as imperative and interrogative. These issues have to be addressed in future research.

* This work is supported by JSPS KAKENHI: Grant Number 20J20039.

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意味的主要部編入とタイプ同定による強制現象の分析

（An Analysis of the Coercion by Semantic Head Incorporation and Type Identification）

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キーワード : 同格属格名詞句，強制，意味的主要部編入，タイプ同定

1. はじめに

日本語の[NP の NP]形を取る名詞句のうち(1)に挙げる名詞句は特異な統語的、意味的性質を持つ(Hiraiwa (2011, 2012), 三宅(2011), 高橋 (2022))。 以下、高橋 (2022)にならいこれらを同格属格名詞句(Appositive Genitive Noun Phrase, AGNP)と呼ぶ。

(1) a. T シャツの L サイズ
b. 牛丼の大盛
c. ベンツの中古
d. iPhone の 256GB
e. 記念切手の使用済み

本稿では AGNP に観察される意味タイプの変更をいわゆる強制現象(coercion) (Pustejovsky (1995), Jackendoff (1997), Audring & Booij (2016)他)の一事例であると主張し、高橋 (2022)で提案した AGNP の解釈メカニズムである意味的主要部編入(Semantic Head Incorporation)およびタイプ同定(Type Identification)をより一般的な言語学的操作として位置づけ、他の構文への適用可能性を示す。

2. AGNP の特質

2. 1. 内部構造

まず、AGNP は(2)のような表現を許すことから一般に(3)の内部構造を持つと仮定する。

(2) [$_{NP}$ [$_{NP1}$ ユニクロの[$_{N}$ T シャツ]]の[$_{NP2}$ L サイズの[$_{N}$ 赤]]]
(3) [$_{NP}$ NP_1-の-NP_2]

2. 2. 統語的主要部と意味的主要部のずれ

AGNP のもっとも特徴的な性質のひとつは他の[NP_1-の-NP_2]形名詞句と異なり、主要部が NP_1 に来ることである。これを示す証拠としては遊離数量詞の認可が NP_2 ではなく NP_1 によって行われるという事実が挙げられる。所有の「の」を含む名詞句(4a)と AGNP(4b, c)とを比較されたい。

(4) a. 友達の本を２冊/*２人借りた。
b. T シャツの L サイズを２枚/*２個買った。
c. スイカの L サイズを２個/*２枚買った。

さらには生起の義務性に関して、(5a, b)に示すようにNP_2を省略しNP_1だけ残しても文全体の容認度に影響を与えない一方で、その逆は文の容認度を下げる。このことから NP_1 の方が主要部的性質をもつと言える。

(5) a. その T シャツ（の L サイズ）はとても安かった。
b. ??その L サイズはとても安かった。
（高橋 2022: 37）

2.3. 限定属格名詞句と語順倒置分析

Hiraiwa (2011, 2012), 三宅(2011)らが指摘するように, AGNP の NP_1 と NP_2 は倒置可能であり、名詞句全体の指示物は変わらない。AGNP に対応するこのような名詞句(6)を高

橋 (2022)にならい限定属格名詞句（Restrictive Genitive Noun Phrase, RGNP）と呼ぶ。

(6) a. L サイズの T シャツ
b. 大盛の牛丼
c. 中古のベンツ
d. 256GB の iPhone
e. 使用済みの記念切手

Hiraiwa (2012, 2013)はAGNPとRGNPの同義性から名詞句内部の倒置によって後者から前者を派生する語順倒置分析を提案する。

(7) [[みじん切り-の]ネギ]⇒[[ネギの][みじん切り-の[e]]]

しかし、高橋 (2022)で論じたように、(7)の倒置が常に適格な AGNP を派生するとは限らず、(8a-c)の RGNP から派生する AGNP (8a'-c')は容認度が大きく下がるため、語順倒置分析にとっては移動に対する何らかの条件を設けるか、あるいは派生形の AGNP に意味解釈上の制約を課さざるを得ない。

(8) a. 弟は[スチール製の机]を使っている。(RGNP)
a'. ??弟は[机のスチール製]を使っている。(AGNP)
b. これは[勝沼産の葡萄]で作ったワインだ。(RGNP)
b'. ??これは[葡萄の勝沼産]で作ったワインだ。(AGNP)
c. 掃除中にうっかり[九谷焼の皿]を割ってしまった。(RGNP)
c'. *掃除中にうっかり[皿の九谷焼]を割ってしまった。(AGNP)

さらには(9)、(10)から、AGNP 全体の容認度を下げるのは NP_1、NP_2 どちらもその原因になりうることがわかる。

(9) a. 僕は[シェイクのイチゴ味]を飲んだ。
b. *僕は[飲み物のイチゴ味]を飲んだ。
(10) a. *[セーターのカシミア]を買った。
b. ?[セーターのカシミア１００％]を買った。

また後で論じるように AGNP の容認度は談話的要因にも左右されるため、RGNP と AGNP を統語的に関連付けるかどうかに関わらず、後者の適格性を保証する何らかの意味的、談話的な適格性条件を設けなければいけないことは明らかである。

3. 高橋 (2022)の分析

前節で指摘した問題を踏まえ、高橋(2022)では以下のような提案を行う。

まず、AGNP における助詞「の」は NP_1 と NP_2 を「全体・部分」の関係（whole-part relation）で結ぶ意味的機能をもつ。一方、RGNP の助詞「の」は NP_1 と NP_2 を限定修飾関係（restrictive modification）で結ぶ。

次に AGNP の解釈に関わる操作として「タイプ同定」（Type Identification）と「意味的主要部編入」（Semantic Head Incorporation）の２つを仮定する。

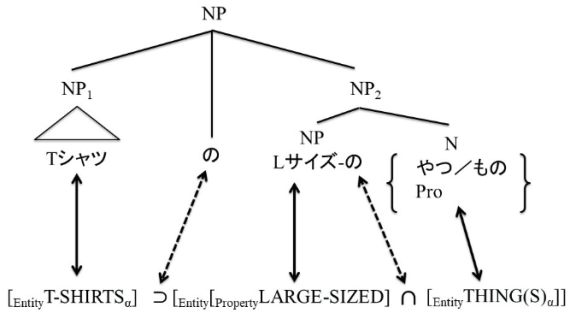
AGNP の類似表現として NP_2 の主要部に軽名詞「やつ」「もの」あるいは音声的に空の代名詞的要素 Pro が現れる(11)がある。これは上で仮定した助詞「の」の機能から(12)のように意味解釈されると考えられるが、ここで軽名詞や Pro は[$_{Entity}$THING(S)]の意味タイプに属するものの、それ自体は具体的な意味内容を持たず、解釈の際にはその意味内容を他に求めなければならない。これを行うのがタイプ同定であり、意味内容の特定をギリシャ文字のアルファベットαを用いた同一指標で示す。[1] (12)においてこのタイプ同定は NP_1 と NP_2 の主要部名詞の間で起こり、名

詞句全体の意味表示と統語構造との対応は(13)のようになる。

(11) この店では[$_{NP}$[$_{NP1}$T シャツ]の[$_{NP2}$[L サイズ]の[$_{N}$ やつ／もの／Pro]]]がよく売れる。

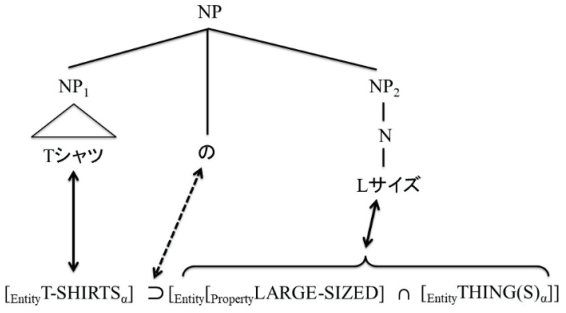
(12) [$_{Entity}$ T-SHIRTS$_{\alpha}$]⊃[$_{Entity}$ [$_{Property}$ LARGE-SIZED]∩[$_{Entity}$ THING(S)$_{\alpha}$]]
ここで‘A⊃B’は「B は A の部分を成す」、‘A∩B’は「A は B を限定修飾する」と解釈される。

(13)



一方、(11)とは異なり軽名詞／Pro を伴わない AGNP の NP_2 には意味的主要部編入によって Entity のタイプをもつ意味的主要部 THING(S)が編入される。これによりもともと意味タイプが Property であった NP_2 の主要部、例えば(13)における「L サイズ」は新たに編入された THING(S)と限定修飾関係を結び、NP_2 全体が Entity のタイプに変換される。これを略記したのが(14)である。

(14)



ここで2.3節の最後で指摘したAGNPに課すべき制約について考える。ポイントとなるのは(8)-(10)の AGNP の容認度は落ちるが、これを(11)のような軽名詞／Pro を伴う形にすると容認可能になるということである。

(15) a. 弟は机のスチール製の（やつ）を使っている。
b. これは葡萄の勝沼産の（やつ）で作ったワインだ。
c. 掃除中にうっかり皿の九谷焼の（やつ）を割ってしまった。
d. 僕は飲み物のイチゴ味の（やつ）を飲んだ。
e. セーターのカシミア製の（やつ）を買った。

(13)、(14)で示したように AGNP も(15)の名詞句も全く同じ解釈が与えられるため、両者の最終的な意味表示にもとづいて AGNP だけを容認不可とすることはできない。両者の唯一の違いは意味的主要部編入が AGNP にだけ適用することであり、それゆえに意味的・談話的な適格性条件は意味的主要部編入の適用そのものに課せられると考えざるを得ない。この考察に基づいて高橋 (2022)は(16)の条件を仮定する。これについては次節でさらに論じる。

(16) 意味的主要部編入の適用条件
ある NP への意味的主要部編入が許されるのは、タイプ同定でその NP の先行詞となる NP の意味タイプが慣習や一般常識など言語外の知識に基づいて有限個の下位タイプに余すところなく分けられる場合に限られる。　　高橋 (2022: 27)

4. 強制としての意味的主要部編入

以上、高橋 (2022)による AGNP の分析を概観してきたが、ここからはその分析で中心

的な役割を果たす意味的主要部編入およびそれに付随するタイプ同定が AGNP の解釈のみならず、人間の言語に広く観察される強制現象を扱うことのできる非常に一般的な言語操作であることを論じていく。

AGNP における意味的主要部編入は一般的に(17)に示す意味の変更をもたらす。

(17) $[_{\text{Property}}\ X] \Rightarrow [_{\text{Entity}}\ [_{\text{Property}}\ X] \cap [_{\text{Entity}}\ Y]]$

このような意味変換は(18)の文の主語名詞句にも見られる。

(18) The ham sandwich over there in the corner wants some more coffee.

これがレストランの店員による発話であるとすると、the ham sandwich over there は明らかにそれを注文した客のことであり、同じ Entity ではあるものの THING から PERSON への意味変換が生じている。このような意味変換は「タイプ強制」(type coercion)(Jackendoff 1997: 58)、または「拡張による強制」(coercion by enrichment)(Audring & Booij 2016）と呼ばれる強制現象(coercion)である。(18)で起こるタイプ強制は概略(19)のように表記でき、これは意味的主要部編入(17)をパラフレイズした(20)の意味変換と重なる。特に変換後にもともとの名詞句主要部が意味的に修飾要素に「格下げ」されていることは重要である。

(19) $[_{\text{Entity}}\ \text{THING}_{\alpha}] \Rightarrow [_{\text{Entity}}\ \text{PERSON CONTEXTUALLY ASSOCIATED WITH THING}_{\alpha}]$

(20) $[_{\text{Property}}\ X] \Rightarrow [_{\text{Entity}}\ \text{THING WHICH HAS THE PROPERTY OF X}]$

次に意味的主要部編入の適用条件(16)に目を向ける。これは Nunberg (1995: 114）が提案する強制にかかる顕著さ（noteworthiness）の談話的制約に包摂可能であると考える。[2] すなわち、(18)のタイプ強制が許されて、(21)においては許されないのは、レストラン従業員にとって客を特定するのに注文品に注目するのは談話的に自然であるが、客の連れは普通注目すべき特徴ではないからである。

(21) #The blonde lady over there in the corner wants a hamburger. (i.e. the man with the blonde lady) (Jackendoff 1997: 57)

一方、(16)の条件で NP_2 が NP_1 の意味タイプを有限個の下位タイプに分けるとは、結局のところ NP_1 の中から下位タイプを選びやすくするように NP_1 の注目すべき特徴を NP_2 が指定することを求めているとも言える。すなわち、(8a'=22a)が悪いのは、通常机の素材に制限はなく、スチール製という性質が机の下位タイプの中から一つを選び出すために注目すべき性質とはいえないという理由からである。ところが家具店のような文脈を与えて、スチール製であることが机を有限個の下位タイプに分ける属性になるようにすると容認度は上がる。[3]

(22) a. ??弟は[机のスチール製]を使っている。
b.（家具店で）?[机のスチール製]でなにか良いのはありますか？

従って、(16)の条件がタイプ強制の顕著さの談話的制約からフォローすることを踏まえると、AGNP における意味的主要部編入をタイプ強制に一般化することには妥当性があるといえる。

AGNP を強制現象とみるもうひとつの理由は、強制の起こりやすさの段階的な違いが AGNP にも見られることである。強制は(18)のように文脈に基づきその場で（on the spot）THING から PERSON へのタイプ強制が起

こるものから、“She drives a Honda.” に見られる下位タイプ強制（subtype coercion; Pustejovsky 1995: 113）のように語彙的情報として Qualia に指定された意味情報に基づいて強制が起こるもの、そして the rich (=[$_{Entity}$ PEOPLE] WHO ARE RICH])、go for a drink (=[$_{Entity}$ ALCOHOLE] FOR DRINKING) のように、慣用表現化されほぼ無条件に強制が生じるものまで段階的な違いがある。

同様に AGNP においても「L サイズ」「大盛」「中古」のように内在的に意味的主要部編入を受けやすい、すなわち強制を受けやすい性質をもつものと、(22b)の「スチール製」のようにその場で周囲の文脈に基づいて一時的な強制を受けるものとに分けられる。

5. 他の構文への応用

これまで論じてきたように、意味的主要部編入とタイプ同定が AGNP を含む強制現象を説明する一般的な意味操作であるとすると、それらがその他の構文にも広く適用されることが期待されるが、そのような事例を以下でみていく。

まず(23)の Qualitative Binominal Noun Phrase (Ike-uchi 1986, Aarts 1998, Dikken 2006)においては隠喩的タイプ強制が生じていると考えられる。例えば、(23a)の意味表示は(24)のようになろう。なお、「=」は同一関係(identical relation)を表すとする。

(23) a. the angel of a girl
b. this jewel of an island
(24) [[PERSON$_{\alpha}$ LIKE AN ANGEL]=[GIRL$_{\alpha}$]]

(24)で示すように、名詞句 angel には意味的主要部編入によって PERSON がもたらされ、もともと主要部であった angel は修飾部へと格下げされる。ここにタイプ同定が適用し、PERSON の意味タイプは GIRL であることが決まり、名詞句全体は‘an angelic girl’の解釈を得ると分析することができる。

次に *Ass* Camouflage Construction (Collins, Moody and Postal 2008)を取り上げる。(25)の動詞の補部名詞句は‘she, who is a stupid person’と解釈されるが、ここでは提喩的なタイプ強制が生じていると考えられる。(26)に当該名詞句の意味表示を示す。ここでは意味的主要部編入によって PERSON が導入されているが、これは‘ass’からの提喩によって駆動される。さらにその PERSON が名詞句指定部の HER とタイプ同定により指示物が特定され、上述の解釈が得られる。

(25) They done arrested her stupid ass.
(26) [HER$_{\alpha}$[[STUPID]∩[PERSON$_{\alpha}$]]]

なお、*Ass* Camouflage Construction は束縛に関して統語的な主要部ではなく指定部が照応形の先行詞として働くという特徴があるが、これは PERSON の編入とタイプ同定によって名詞句指定部 his の意味内容が主要部 ass のタイプ PERSON に持ち込まれるため、として説明可能である。

(27) a. His ass done messed himself up.
b. *His ass done messed itself up.
(Collins, Moody and Postal 2008: 39)

第３に Huddleston and Pullum (2002: 410-)が Fused-head Construction と呼ぶ(28)のような表現を取り上げる。

(28) a. He ignored the most important of her criticisms. (Huddleston and Pullum 2002: 332)
b. Colton Pointz, Brayden Reites and Michael Joyce were not the likeliest of guys to come together. (https://www.bub-city.com/live-music/back-country-roads-band-7-14-22/)

<accessed 15/9/2022>

(28b)の the likeliest of guys to come together では４節で指摘した the rich における強制と同じくタイプ強制、すなわち意味的主要部編入によって Entity X が導入されるが、この構文に特有なのは、同時にタイプ同定が適用し、X の意味内容が付加詞の of guys からもたらされることである。従って the likeliest は‘the guys who are likeliest to…’と解釈される。

(29) $[_{\text{PROPERTY}}$ LIKELIEST$] \Rightarrow [_{\text{ENTITY}}[_{\text{PROPERTY}}$ LIKELIEST$] \cap [_{\text{ENTITY}}$ $X_{\alpha}] \subset [_{\text{ENTITY}}$ $\text{GUYS}_{\alpha}]]$

第４に疑似部分構文（梶田 2011, Keizer 2007）に目を向ける。

(30) Two bottles of wine were fermenting.
(31) [[THING_{α} IN TWO BOTTLES]=[WINE_{α}]]

(30)ではCONTAINER から CONTENT への換喩的タイプ強制[4]が生じていると考えられ、これも意味的主要部編入による THING の導入とタイプ同定によって(31)の解釈を得る。数の一致から two bottles of wine の統語的主要部は bottles であることがわかるが、動詞 ferment の選択制限から意味的主要部は明らかに wine である。(31)の意味表示は意味的主要部 THING の内容が WINE であることを示しており、この事実を説明できる。[5]

最後に菊地 (2008)が評価的同格構文(Evaluative Appositive Construction)と呼ぶ(32)の表現を取り上げる。ここでも意味的主要部編入によって「バカ」という Property が FOOLISH-PERSON という Entity に変換されると考えてもよいが、この構文に現れる罵り語は辞書の中で最初から Entity の解釈が与えられている可能性もある。しかし、いずれにしても、タイプ同定による PERSON の特定は必要である。

(32) 太郎のバカがまたいたずらをした。
(33) [[$_{\text{Entity}}$ TARO_{α}]=[$_{\text{Entity}}$ FOOLISH-PERSON]$_{\alpha}$]

6. 結語

AGNP をはじめとして言語には強制現象としてまとめることのできる様々な意味的主要部の編入が観察される。本稿では高橋(2022)でAGNPを解釈するための意味的操作として提案した意味的主要部編入およびそれに付随するタイプ同定がこれらの広範な強制現象を一般的に扱える普遍的な言語的メカニズムとして人間の言語知識の中に位置づけられる可能性を示した。

注

[1] ここで意味タイプと呼ぶのは Entity、Property、THING、PERSON、T-SHRIT などであり、タイプ同定によって例えば THING=T-SHIRT のように前者のタイプの具体的な意味内容が決まる。また 5 節でみるようにタイプ同定が代名詞の照応に近い関係をもたらすこともある。(26)、(33)を参照。

[2] 正確には Nunberg (1995)が提案するのは‘predicate transfer’と呼ぶ述部に対する意味変更である。しかし、ここでは Nunberg (1995)の制約をタイプ強制に拡張して論じる。

[3]「〜製」という名詞句が NP_2 となる AGNP としては次のような実例が見つかる。

(i) a. [ブリーフケースの革製]でおすすめは？(https://mens-modern.jp/7617) <accessed 3/9/2021>
b. いわゆる[物干し竿のアルミ製]のごついものでも耐荷重は 20kg 位ですし[…](https://realestate.yahoo.co.jp/knowledge/chiebukuro/detail/1466487689/) <accessed 3/9/2021>

[4] これは日本語でも「やかんが沸く」「長い本」

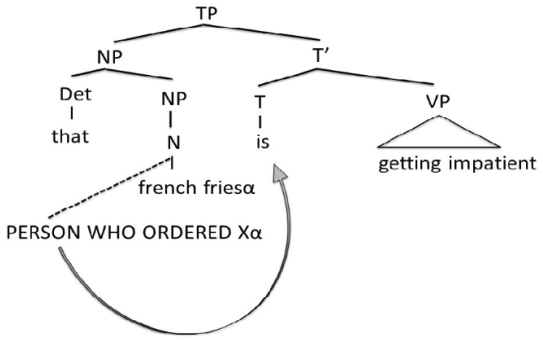
のような表現にみられる。

[5] ただし、数の一致に関してタイプ強制では問題が生じる。Nunberg (1995)が指摘するようにタイプ強制によって(ii)の解釈を得る(i)の主語名詞句は統語的主要部ではなく意味的主要部に対して数の一致が生じる。

(i) That (*those) french fries is (*are) getting impatient. (Nunberg 1995: 120)

(ii) [THAT [PERSON WHO ORDERED FRENCH FRIES]]

(iii)



ここでも意味的主要部編入とタイプ同定が適用し、(iii)のような意味表示が得られると分析可能ではあるが、疑似部分構文とこのタイプ強制で数の一致に統語的主要部が関わるかどうかで違いがあることは何らかの説明が必要である。この問題に関しては今後の課題とする。

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Modalities of Post-Auxiliary Ellipsis: A False Dichotomy? *

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Keywords : post-auxiliary ellipsis, modal syntax, same subject requirement, voice mismatch, modal complement ellipsis

1. Introduction

In this paper, we will propose a new analysis of modal syntax and its interaction with Post-Auxiliary Ellipsis (hereafter, PAE).

There are two well-known observations made in the literature on modality and modally licensed PAE in English. One observation is that PAE licensed by a modal is permitted only when it has a root interpretation (Asakawa and Kamata (1986); McDowell (1987); Imanishi and Asano (1990); Drubig (2001); Gergel (2003, 2007, 2009); Aelbrecht and Harwood (2019), among others). This observation is illustrated in (1−3).

(1) a. John must wash his car every day, and Peter must, too. (root; *epistemic)
b. John doesn't obey his mother, but he must his father. (root; *epistemic)
c. Sam must know more syntax than Max must phonology. (root; *epistemic)
(McDowell (1987:230−234))

(2) a.* John must be eating already, and Bill must, too.
b. John must be a good boy, and Bill must, too. (root; *epistemic)
(Asakawa and Kamata (1986:187, 188))

(3) a.* John must be tall, and Bill must, too.
b. Peter must be polite to his parents, and you must, too. (root; *epistemic)
(Imanishi and Asano (1990:348, 349))

The other observation is that the root interpretation constraint above applies for necessity, but not possibility, modals (Gergel (2003, 2007, 2009); Aelbrecht and Harwood (2019)), as shown by the examples in (4−6).

(4) a.* Mary must have fallen from the old ladder, and Peter must, too. (necessity)
b. Mary may have fallen from the older ladder, and Peter may, too. (possibility)
(Gergel (2007:176))

(5) a.* Mary must be a successful student, and they say Frances must, too. (necessity)
b. Mary may be a successful student, and they say Frances may, too. (possibility)
(Gergel (2007:176))

(6)* Although Mike shouldn't have eaten, Betsy should. (epistemic) (Sag (1976:28))

2. Epistemic Necessity Modals License PAE.

Our point of departure in this paper is that the second observation is not entirely adequate. Contrary to Gergel (2003, 2007, 2009), there are

grammatical cases of PAE licensed by epistemic necessity modals (see also Huddleston and Pullum (2002) and Aelbrehct and Harwood (2019)). Consider examples in (7−11).

(7) A sick feeling coiled in my stomach as I concluded that he already knew about me. − He must.
(Aelbrecht and Harwood (2019:508))

(8) "There must be something wrong with you," Donald said, "So there must."
(Aelbrehct and Harwood (2019:49)

(9) A: They must have made a mistake.
B: Yes, they must.
(Huddleston and Pullum (2002:1520))

(10) A: Does Fred think that Busan is the capital of South Korea?
B: Yes, he must. After all, that's what he wrote on his geography quiz.
(Michael Barrie (p.c.))

(11) A: Do you think Mary will be angry, given that I just broke her favorite mug?
B: She must. (Mike Barrie (p.c.))

In all these examples, the modal auxiliary *must* is used as an epistemic necessity modal, but nonetheless the resulting PAE is grammatical.

3. Cartography of Modal Syntax and Modally Licensed PAE

Our analysis of the facts noted in the previous sections is built on Cinque's (1999) modal hierarchy, particularly, his finding that epistemic modals are located higher than tenses, which are, in turn, located higher than root modals, as schematically represented in (12).

(12) … $\boxed{\text{Mod}_{\text{necessity}} > \text{Mod}_{\text{possibility}}}$ … Tense …
$\boxed{\text{Mod}_{\text{volitional}} > \text{Mod}_{\text{obligation}} > \text{Mod}_{\text{ability/permission}}}$

This hierarchy is supported by many cross-linguistic observations (see Pampell (1975), Brennan (1993), Butler (2003) and Gergel (2009), among others). We mention two such cases here for reasons of space. Firstly, consider examples in (13a, b) from Una.

(13) a. Er bin-kwan-de-darib.
she go-FUT-3SG-PROBABILITIVE
'She might go.'
b. Ni buk-ti-nyi.
I sit-ABIL-PRES
'I can sit.'
(Una: (13a, b) from Louwerse (1988), as cited in Cinque (1999:55))

In (13a), the epistemic modal affix occurs further to the verb stem than the future tense morpheme whereas in (13b), the root modal affix is attached to the verb stem before the present tense morpheme. Given Baker's (1988) Mirror Principle, these morpheme orderings support the relative hierarchy of epistemic and root modals indicated in (12). Secondly, in those dialects that permit double modal constructions, as shown in (14), the first modal must be interpreted as an epistemic modal whereas the second one must be interpreted as a root modal. This interpretive restriction thus further supports the modal hierarchy in (12).

(14) You might could broad jump the Grand Canyon, and John might cold, too.
(Pampell (1975), as cited in Drubig (2001:39))

We propose that root modals, epistemic possibility modals, and epistemic necessity modals are associated with the syntactic derivations shown in (15), (16), and (17), respectively.

(15) The syntax of root modals

[$_{TP}$ Subj …T… [$_{VoiceP}$ ~~Subj~~ [$_{Voice'}$ Voice [$_{Mod1P}$ Mod_1 [$_{vP}$ ~~v+V Obj~~]]]]]

(16) The syntax of epistemic possibility modals

[$_{FP}$ Subj [$_{Mod2P}$ Mod_2 [$_{TP}$ ~~Subj~~ ...T…[$_{VoiceP}$ ~~Subj~~

[$_{Voice'}$ Voice [$_{Mod1P}$ Mod_1 [$_{vP}$ ~~v+V Obj~~]]]]]]]

(17) The syntax of epistemic necessity modals

[$_{FP}$ Subj [$_{Mod2P}$ Mod_2 [$_{TP}$ ~~Subj~~ ...T…[$_{VoiceP}$ ~~Subj~~ [$_{Voice'}$ Voice [$_{vP}$ ~~v+V Obj~~]]]]]]

We suggest that root modals such as *must*, *may* and *can* start their lives in the Mod_1 head position and license the ellipsis of its *v*P complement. This derivation correctly predicts the grammaticality of examples such as (1), (2b) and (3b). As for epistemic possibility modals such as *may/might* and *can/could*, we argue that they are also base-generated in the Mod_1 head, licensing its *v*P complement to elide, but they undergo additional successive-cyclic movement to the higher Mod_2 position responsible for epistemic force. This analysis accounts for examples such as (4b) and (5b). Finally, we propose that epistemic necessity modals such as *must* and *should* are directly base-generated in the Mod_2 head position and this time license their sister TP complement to undergo ellipsis. Since the ellipsis size of the MCE licensed by this type of modal is TP, examples such as (1), (2a), (3a), (4a), (5a) and (6) are correctly excluded on the ground that the TP-internal materials in the elided clause are not identical to those in the antecedent clause, following a standard version of the identity condition on TP-ellipsis such as the mutual identity condition of Merchant (2001).

Now, what about the contrast between these ungrammatical examples, on one hand, and the grammatical examples in (7−11), on the other? Note a critical difference between the two types of examples: in all the grammatical examples, TP-internal materials in the ellipsis clause, including subjects, are identical to their structure-matching correspondents in the antecedent clause. Here, we attempt to capture this identity requirement on the antecedent-elliptical clause pair in terms of the notion of parallelism domain adapted from Takahashi and Fox (2005). To illustrate how this notion works, consider the following representation of an antecedent-elliptical clause pair, which Takahashi and Fox call a re-binding configuration, where variables are free inside both the antecedent clause (AC) and elliptical clause (EC) which are bound by some focus-marked expressions outside these clauses.

(18) Re-binding and Parallelism Domain

Antecedent: [$_{ZP}$… XP_x…[… [$_{AC}$…x…]]]

Ellipsis: [$_{WP}$…YP_x…[… <$_{EC}$…y…>]]

(adopted from Takahashi and Fox (2005:228))

WP, where the variable *y* is bound by YP outside the elliptical clause, bears a parallel structural relationship with ZP, where the variable *x* is similarly bound by XP, also outside the presumed antecedent clause. For this reason, ZP and WP form parallelism domains and are identical, modulo focus-marked materials. Following Rooth (1992), Fiengo and May (1994) and Takahashi and Fox (2005), we assume that it is this sense of structural parallelism that licenses the EC shown in (18). We further assume that identical variable names cannot be assigned to variables bound by distinct binders (Sag (1976); Heim (1997)) in a parallelism domain, as stated in (19).

(19) No Meaningless Coindexation

If an LF contains an occurrence of a variable *v* that is bound by a node α, then all

occurrences of *v* in this LF must be bound by the same node α. (Heim (1997:202))

Given this parallelism theory of ellipsis licensing, let us see how it accounts for the ungrammaticality of PAE in (1a) under the epistemic reading of *must*. A schematic representation of the relevant parts of the antecedent and elliptical clauses is shown in (20).

(20) * John must wash his car every day, and Peter must, too. (root; *epistemic) (=(1a))
Antecedent: [$_{ZP}$…John$_1$…[$_{AC}$…t_1 wash his car]…]]
Ellipsis: [$_{WP}$…Peter$_2$…<$_{EC}$…t_2 wash his car…>]

We claim that this representation does not meet the identity requirement on ellipsis because ZP and WP, parallelism domains, have two different subjects/binders binding two different variables. This way, the notion of structural parallelism derives the 'same subject requirement' imposed on PAE of epistemic necessity modals, for it requires TP-level semantic identity between the antecedent-elliptical clause pair. [1]

4. New Empirical and Typological Predictions

In this section, we wish to explore two consequences of our proposed analysis of modal syntax and its relation with PAE. One consequence is concerned with the availability of voice mismatches under PAE; the other consequence is related to non-trivial similarities between English PAE and Modal Complement Ellipsis (MCE) in Romance languages.

Let us explore the first consequence above regarding voice mismatch by reviewing our analysis developed thus far. Table 1 sums up our main proposals developed thus far in this paper.

Table 1: Root-Epistemic Asymmetries and *v*P vs. TP-Ellipsis

	Root	Epistemic possibility	Epistemic necessity
Modal syntax	(15)	(16)	(17)
Ellipsis size	*v*P	*v*P	TP
Different subj	✔(1a)	✔(4b)	*(4a)
Voice mismatch?	Should be OK	Should be OK	Should NOT be OK

Note that in (15) and (16), the Voice head responsible for voice specifications are external to the ellipsis site, unlike in (17), the relevant head is contained within the ellipsis site. Let us assume Merchant's (2008, 2013) theory of voice mismatches according to which VP-ellipsis, not pseudogapping, allows voice mismatches because only in the derivation of the former case, the Voice head endowed with the feature determining the voice morphology of the sentence is external to the ellipsis site. Given this theory, our analysis makes the prediction highlighted in grey in Table 1, namely, that PAE cases licensed by root and epistemic possibility modals should, but those cases licensed by epistemic necessity modals should not, accept voice mismatch. Examples in (21−22) show that this prediction is borne out.

(21) a. Please read the message carefully, phrased better than I could, below, as we look for new respondents for a workshop with Professor Michael Fishbane. [root]
b. This information should not be released to the media by anyone, but Trump's enemies might. [epistemic possibility]
((21a) from Merchant (2013:80);
(21b) from Si Kai Lee (p.c.))

(22) a.* This information should not have been released to the media, but Trump's enemies must. [epistemic necessity]

b.* The beloved champion must have outperformed his hated rivals as their recent lackluster performances suggest they should. [epistemic necessity]

(Si Kai Lee (p.c.))

The other consequence of our proposed analysis of modal syntax is that it opens a new avenue of research into investigating commonalities between English PAE and so-called Modal Complement Ellipsis (MCE) in Romance (Dagnac 2010; see also Aelbrecht (2010) for examples of Dutch MCE and their analysis in terms of derivational ellipsis). Dagnac makes a couple of observations highly reminiscent of the major properties of PAE we have pointed out above. Firstly, French, Italian and Spanish, all known to be non-VP-ellipsis languages, somehow allow ellipsis only after root modals, as shown in (23). This is quite similar to what we have seen in the English PAE cases licensed by root modals with the different subject as illustrated in (1), (2b) and (3b).

(23) Tom a pu voir Lee, mais Maire
Tom can.PST see Lee but Mary
n'a pas pu. [root modal]
NEG can.PST
'Tom could see Lee, but Mary couldn't.'

(Dagnac (2010:158))

Secondly, MCE prohibits voice mismatch, as shown in (24) and (25), which Dagac takes to show that its derivation involves TP-ellipsis in the same way we have argued that PAE involves TP-ellipsis under epistemic necessity modals on the basis of the impossibility of voice mismatch in those contexts.

(24)* Il faut remplacer l'ampoule, de
it needs replace the.bulb of
l'escalier, mais elle ne peut pas
the.staircase but it NEG can NEG
−elle est coincée.
it is jammed
'Someone should replace the bulb in the staircase, but it can't. − It's jammed.'

(Dagnac (2010:165))

(25)* Ce problème aurait dû être résolu,
this problem must.be.PST-COND solved
mais visiblement personne n'a pu.
but obviously nobody NEG can.PST
'This problem should have been solved, but obviously nobody could.'

(Dagnac (2010:165))

5. Conclusion

In this paper, we have argued that the actual size of modally licensed PAE, *v*P-ellipsis or TP-ellipsis, depends on modal force. If this analysis is tenable, then our new finding challenges the common wisdom that English has TP-ellipsis only under sluicing and fragments. We have further indicated that our analysis allows us to find initially unexpected commonalities between certain cases of PAE in English and MCE in Romance languages. The overall results of our paper show that the observed interaction between modality and ellipsis cannot be captured by simple semantic dichotomies like root vs. epistemic or necessity vs. possibility. Instead, it must be approached with care through fine-grained cartographic structures underlying these distinctions along the lines of Cinque's (1999) cartographic theory of modal syntax and their resulting size differences in ellipsis.

* This research is supported by KAKENHI JP 19K00560 (Yosuke Sato). For valuable discussions on this paper, we thank Mike Barrie, Yoshi Dobashi, Yusuke Imanishi, Yoshiaki Kaneko, Satoru Kanno, Shin Kitada, Si Kai Lee, Taichi Nakamura, Tadao Nomura, Yoshiki Ogawa, Yuta Sakamoto, Motoki Sato, Etsuro Shima, Ken Takita, Yuta Tatsumi, Yusuke Yagi, Dwi Hesti Yuliani, and the audience members at the 40th Annual Conference of the ELSJ.

NOTES

[1] We are aware of two problems with this analysis. Firstly, our analysis implies that subjects must be obligatorily reconstructed into an identity-calculation domain, unlike objects, for the grammaticality of (1b, c) indicates that the antecedent and elliptical clauses do not need to share the same object for PAE to be obtained. Given our analysis, we can only conjecture at this stage of our research that subject reconstruction is obligatory whereas object reconstruction is not forced for some reason we do not understand. We are currently working out a solution to this problem based on von Fintel and Iatridou's (2003) Epistemic Containment Principle. Secondly, the same subject requirement alluded to in the text does not hold for sluicing, another case of TP-ellipsis (Merchant 2001), unlike those PAE cases licensed by epistemic necessity modals (e.g., (7−11)), as witnessed by the grammaticality of (i).

(i) I know which professor$_1$ [$_{TP}$ t_1 likes this paper], but I don't know which student$_2$ ~~[$_{TP}$ t_2 likes this paper]~~.

Thanks to Yusuke Yagi (p.c.) and Yuta Tatsumi (p.c.) for helpful discussions on these problems and suggestions based on von Fintel and Iatridou (2003).

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英語の名詞句からの外置構文における Pair-Merger 分析*

（Pair-Merger Analysis of Extraposition from DP Construction in English）

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キーワード：ラベリングアルゴリズム, Pair-Merger, 名詞句からの外置, 節境界制限, 項と付加詞の対比

1. ラベリングアルゴリズムと Pair-Merger 分析

Chomsky (2013, 2015) では、二項の統語対象物 (syntactic object: SO) の自由併合により作られる統語構造に対して、概念・意図 (C-I) インターフェイスでの解釈のために必要なラベル付与のアルゴリズム (Labeling Algorithm: LA) が提案されている。LA は、最小探査 (Minimal Search: MS) の概念のもとで主要部を中心に(1)のように決定される。

(1) a. SO = {H, XP} ⇒ MS により主要部がラベルとなる ⇒ [H {H, XP}]
b. SO = {XP, YP} ⇒ MS でラベルが決定できない ⇒ [? {XP, YP}] (**XP-YP 問題**)

(1a)の主要部と句の併合では MS にもとづいて主要部がラベルになれるが、(1b)の句どうしの併合では、最小探査のもとでラベルが決定できなくなる（「XP-YP 問題」）。この問題を解決できる方策として、(2)に示す二通りの可能性が考えられる。

(2) a. SO = {XP, YP}で XP がコピーの場合、LA において非可視的となるので YP がラベルとなる ⇒ [YP { $_{XP}$, YP}]
b. SO = {XP, YP}で XP と YP が一致素性を共有する場合、<F, F>がラベルとなる ⇒ [<F, F> {$XP_{[F]}$, $YP_{[F]}$}]

(2a)は名詞句や *Wh* 句の内的併合時の併合要素の基底位置のコピーに対して、(2b)は主語と T 主要部間の φ 一致や *Wh* 疑問詞と C 主要部間の Q 一致で適用される。

しかしながら、(3)に示す副詞要素のラベル付けについては(2)のいずれの方策も適用できず、別の考えが必要となる。

(3) a. Bill was dancing *while he was singing*. ⇒ SO = {*v*P, CP} = [? {*v*P, CP}]
b. John dropped the dishes *with a crash*. ⇒ SO = {*v**P, PP} = [? {*v**P, PP}]

この問題を解決するにあたって参考になるのが Chomsky (2004) における Pair-Merger 分析である。(4)に示すように、これは従来の付加 (adjunction) に相当し、併合対象となる統語対象物間に非対称的な関係を設け、ordered set を作る操作であると定義される。

(4) For SO = {α, β}, Pair-Merger (a descendant of adjunction in earlier theories), as an asymmetric merger operation, makes an ordered set between merged elements <α, β>.
(Chomsky (2004: 117-118))

(4)を応用した分析が、Epstein, Kitahara and Seely (EKS) (2016) である。これは(5)で示されるように、非対格動詞や受動化動詞の派生において、フェイズ主要部の *v**と動詞の R(oot)主要部との間で外的 Pair-Merger が適用され、*v**が派生上非可視的になりフェイズ特性を失った結果、R が当該動詞のラベルに

なることにもとづくと分析される。

(5) In “weak” verbal derivations, *v** becomes invisible (and thus is no longer the phase-head) with the application of external Pair-Merger of verbal R(oot) and phasal *v**, resulting in the label [R <R, *v**>].

(5)の分析を(3)に応用すると、(6)に示されるように、CP・PP が軽動詞句要素に Pair-Merger の適用を受けた結果、それぞれのラベルが軽動詞句要素になると分析される。この場合、CP・PP は派生上非可視的になる。

(6) a. SO = {*v*P, CP} = [*v*P < *v*P, CP>] (= (3a))
b. SO = {*v**P, PP} = [*v**P <*v**P, PP>] (= (3b))

このように、付加詞要素の併合におけるラベル付けについては、Pair-Merger 分析を応用した第三の「XP-YP 問題」の解決法が考えられる。これは(7)のように示される。[1]

(7) SO = {XP, YP}において、XP が付加詞の場合、Pair-Merger の適用によって LA において非可視的となるので、YP がラベルとなる ⇒ [YP <YP, XP>]

次節では、(7)をもとに英語の名詞句からの外置 (Extraposition from DP: ExDP) 構文の派生を分析しその文法的特徴を解明する。

2. 英語の ExDP 構文について

英語では、(8)に示されるように、名詞句内に基底生成した PP や CP が、文末位置に随意的に併合される ExDP と呼ばれる右方併合現象が確認される。[2]

(8) a. [A review _] came out yesterday **of this article**.
b. John read [a paper _] over the summer **of Chomsky’s**.

ExDP は、(8a)のように主語内 (ExSubj) からも、(8b)のように目的語内 (ExObj) からも適用可能で、操作の随意性の観点から外置要素 (Ex(traposed element)) が付加構造を形成すると仮定する分析が一般的である（cf. Ross (1986)、Rochemont and Culicover (1990)、中島 (1995)）。これら文末に生成される Ex は語順的に離れた位置にある名詞句と修飾関係が形成されるのが特徴的である。Tanaka (2009: 183) は、両者の修飾関係に関する文法的特徴は、(9)の C-I インターフェイス条件のもとで導出されると提案した。

(9) The modification interpretation is formed within a single transferred domain.

(9)では、同一文中で修飾要素と被修飾要素が離れた位置にありつつも修飾関係を形成できるような事象において、これらの要素間の局所的な階層関係が C-I インターフェイス上で判読されるという前提のもとで、ExDP 構文における Ex と名詞句の修飾関係は、同一の転送領域のもとで決定されると仮定されている。このことから、Ex の併合位置は転送領域によって規定されることになる。

そこで、LA の枠組みにおける転送領域について考察する。CP フェイズ領域は C 主要部の補部位置の<φ, φ>ラベル（従来の TP）が転送領域になる。一方 *v**P フェイズ領域は、動詞の R 主要部が *v** 主要部に内的 Pair-Merger の適用を受けたのち、*v**ならびに *v**から R に素性継承された φ 素性が派生上非可視的になった結果、移行されたフェイズ主要部の R のコピーの補部位置が転送領域になると想定されている。

これに対して、本稿では(10)に示す転送領域に関する想定を行う。

(10) a. CP 領域：C の補部である<φ, φ>ラベル（従来の TP）領域が転送される
b. *v**P 領域：*v**の補部である<φ, φ>ラベル（従来の RP）領域が転送される

CP 領域については、LA の枠組みと同様に、C の補部である<φ, φ>ラベル領域が転送されると想定する。一方 *v**P 領域については、R から *v**への内的 Pair-Merger の適用により *v**ではなく R が非可視的になると想定する。この内的 Pair-Merger は、R 自身のカテゴリーを決定するために適用される操作である。また(7)で示したように、Pair-Merger 操作は、併合要素のいずれかが統語的に非可視的になると仮定されるので、*v**ではなく R が非可視的になる一方、*v**は可視的でフェイズ性を担えるという想定は理論的に問題ではない。この結果、*v**の補部要素である<φ, φ>ラベル（従来理論での RP）領域が転送領域になる。

このような転送領域に関する想定と、(9)の C-I インターフェイス条件のもとで Ex の併合先を分析する。ExSubj における Ex は主語と同じ転送領域である TP-edge もしくは *v*P-edge に併合される。一方 ExObj における Ex は目的語と同じ転送領域である RP-edge 位置に併合される。[3]

次に外置が適用された要素間のラベリングについて考察する。Ex には Pair-Merger が適用されるので、その非対称的な併合特性により、ExSubj では< TP/*v*P, Ex>、ExObj では <RP, Ex>という ordered set が作られる。その結果、Ex は派生上非可視的になり、併合先の要素（ExSubj における TP もしくは *v*P、ExObj における RP）が、それぞれのラベルになる。これを示したものが(11)である。

(11) a. ExSubj = [TP/*v*P < TP/*v*P, Ex>]
b. ExObj = [RP <RP, Ex>]

以上の分析にもとづくと、(12)と(13)に示す、ExSubj の動詞句削除と ExObj の疑似分裂文に関する文法性を説明できる。[4]

(12) a. [A MAN _] came in **with blond hair**, and [a WOMAN _] did [$_{vP}$ *e*] too.
b. [A MAN _] came in **with blond hair**, and [a WOMAN _] did [$_{vP}$ *e*] **with BROWN hair**.

(13) a. What John did was draw [a picture _] on the wall **of his brother**.
b.*What John did **of his brother** was draw [a picture _] on the wall.
(Culicover and Rochemont (1990: 30))

(12)において、ExSubj では削除された *v*P 領域内に外置 PP が含まれていても含まれていなくても適格となる。これらについては、削除 *v*P 内に外置 PP が含まれた(12a)では *v*P-edge に、含まれていない(12b)では TP-edge に、それぞれ外置 PP が併合すると分析できるので、これらの文法性を正しく説明できる。

(13)は ExObj に疑似分裂文が適用され、動詞句がその焦点化位置に生成された事例である。(13a)のように Ex が焦点化位置にある場合は適格だが、(13b)のように Ex がその位置にない場合は不適格となる。本分析の枠組みでは、ExObj における Ex の併合先は動詞句内である RP-edge となるので、これらの対比を正しく捉えることができる。

このように本分析では、ExSubj における Ex が動詞句内外に生起できるのに対し、ExObj における Ex が動詞句内に制限されるという経験的事実を適切に説明することができる。

3. 分析

3.1. Ex の非可視的特性

前節で提示した Pair-Merger 分析では、Ex が派生上非可視的になるので、その内部からの要素の取り出しや、Ex 自体の更なる内的

併合が適用されないという予測がもたらされる。この予測の妥当性は、(14)と(15)の事例から示される。

(14) a. ***Which book**$_j$ did [a review $_i$] come out last week [**of** $_j$]$_i$? (ExSubj)
(Wexler and Culicover (1980: 335))
b.***Who**$_j$ did you show [a picture $_i$] to Martha [**of** $_j$]$_i$? (ExObj)
(Baltin (1984: 159))

(15) a. [That [a review _] came out yesterday **of this article**] is catastrophic.
b. *[That [a review _] came out yesterday _] is catastrophic **of this article**. (ExSubj)
(Ross (1986: 4))
c. It was believed [that John saw [a picture _] in the newspaper **of his brother**] by everyone.
d. *It was believed [that John saw [a picture _] in the newspaper _] by everyone **of his brother**. (ExObj)
(Rochemont (1992: 375))
(cf. **What** do you think [_ that John eat _]?)

(14)は、ExSubj・ExObj 共に、Ex 内からの要素の取り出しが適用できない事実を示している。これらの非文法性は、それぞれの Ex 全体が Pair-Merger の適用により統語的に非可視的になり、その内側にある *Wh* 句へのアクセスができなくなることが要因であると分析される。

次に(15)は、Ex が連続循環的に節境界を越えて内的併合が適用できない事実を示している（(15a-b)が ExSubj、(15c-d)が ExObj の事例）。これらは節境界制限と呼ばれ、Ross (1986) 等では右屋根の制約 (Right Roof Constraint) という、右方移動独自の制約で規定されてきた現象だった。この現象については、Ex が最初の外置操作の段階（(15a)ならびに(15c)）で Pair-Merger の適用により統語的に非可視的になるので、(15b)や(15d)のようなアウトプットは産出されないと分析される。よって、必然的に右屋根の制約のような右方移動独自の規定も不要になる。

このように ExDP 構文における節境界制限の事実は適切に説明できたが、同様の A バー特性を持つ *Wh* 移動については連続循環的な内的併合の適用が可能である。これは、*Wh* 句の内的併合には *Wh* 句と主節の C 主要部間の[Q]素性の一致と<Q, Q>ラベリングが必要となる観点から説明される。このように、*Wh* 移動と ExDP との間の移動の連続循環性に関する対比については、両者の一致の有無の観点から説明できる。

3.2. 付加詞要素の外置

これまで扱ってきた外置の事例は、Ex が項 (argument) のものだったが、(16)に示されるように、付加詞要素の外置も確認される。この場合、(16a-b)の ExSubj と、(16c-d)の ExObj のいずれも確認される。また、Ex が PP でも CP でも適用可能である。[5]

(16) a. [A man _] appeared **with green eyes**.
b. [A book _] appeared **which was written by Chomsky**. (ExSubj)
c. John read [a book _] over the summer **by Chomsky**.
d. I called [somebody _] yesterday **who I couldn't stand**. (ExObj)

このような付加詞要素の外置の派生を考察する。まず、Ex が修飾対象の名詞句に直接右方付加すると分析すると、Ex 自体が付加詞なので、(15)の節境界制限の事例と同様に、Pair-Merger の適用により派生上非可視的な要素に更なる内的併合が適用できなくなり、(16)のアウトプットが派生されないという問題が生じてしまう。

よって付加詞要素の外置については、Ex

が派生位置に直接外的併合の適用を受けると提案する。この派生位置は、(9)の C-I インターフェイス条件と(10)の転送領域をふまえ、ExSubj については TP-edge もしくは *v*P-edge に、ExObj については RP-edge になるとする。ラベルの特性についても項の場合と同様である。

このような分析の妥当性は、(17)に示す、ExSubj と ExObj の Ex 間の語順の対比から説明される。

(17) a. [A man $_i$] came into [the room $_j$] last night [**that I had just finished painting**]$_j$ [**who had blond hair**]$_i$.

b.*[A man $_i$] came into [the room $_j$] last night [**who had blond hair**]$_i$ [**that I had just finished painting**]$_j$.

(Rochemont and Culicover (1990: 53))

(17a)のように、ExObj における Ex は ExSubj のそれに語順的に先行できるが、(17b)のように、両者が逆の語順の場合は不適格である。この対比は、ExSubj における Ex が TP もしくは *v*P であり、ExObj における Ex の RP よりも上位に併合されるという本分析の枠組みで自然に説明される。

以上のように、本分析では、Ex が付加詞の場合であっても、項と同様の併合構造が考えられるので、文法特性についても同様の予測がもたらされるが、これは(18)と(19)の事例から示される。

(18) a. ***What**$_j$ did [a man $_i$] enter [**who was wearing** $_j$]$_i$? (ExSubj)

(Baltin (1984: 159))

b.***What**$_j$ did John invite [several people $_i$] to the party [**who gave** $_j$ **to Mary**]$_i$? (ExObj)

(Rochemont and Culicover (1990: 39))

(19) a. [That [someone _] exists **who can beat you to a pulp**] is a foregone conclusion.

b.*[That [someone _] exists _] is a foregone conclusion **who can beat you to a pulp**. (ExSubj) (田子内 (1995: 44))

c. [That Sam didn't pick [those packages up _] **which are to be mailed tomorrow**] is possible.

d.*[That Sam didn't pick [those packages up _]] is possible **which are to be mailed tomorrow**. (ExObj)

(Ross (1986: 166-167))

(18)の Ex 内からの取り出しの事例に関して、ExSubj、ExObj いずれも非文だが、これは項の事例と同様に、Pair-Merger の適用により Ex 内からの *Wh* 句の取り出しができない点から説明できる。

次に(19)の節境界制限の事例について、付加詞要素の外置の事例においても、項の外置と同様の節境界制限の対比が確認される。本分析では、付加詞の外置は外的併合の適用により、Ex が直接派生位置に併合されるので、(19b)や(19d)のような非文法的な事例が派生されてしまう可能性があるが、これらの非文法性は(9)の C-I インターフェイス条件のもとで捉えられる。具体的には、(19b)と(19d)では、Ex とその修飾対象の名詞句が同一の転送領域に含まれておらず、(9)の条件違反となる。この点において、付加詞の外置における節境界制限の対比は項の場合とは異なり、(9)のインターフェイス条件違反という観点から説明される。

(19)の事例に関連して、*Wh* 疑問文における外置の事例を考察する。(20)は文頭の *Wh* 句を修飾対象とした関係節が外置の適用を受けた事例である。

(20) a. [How many people $_i$]$_j$ did John say he visited $_j$ last night [**that he has known for a long time**]$_i$?

(Rochemont and Culicover (1990: 37))

b. [What secret documents $_i$]$_j$ did the British government announce they were about to reveal $_j$ last week [**that would change our view of history**]$_i$?
(Rochemont (1982: 152))

(20)の *Wh* 句と Ex の派生位置を見てみると一見節境界制限違反のようだが、これらの Ex は付加詞なので、その修飾対象の *Wh* 句の最終的な併合位置である CP-edge に直接外的併合の適用を受けると分析すれば、*Wh* 句と Ex は共にデフォルトの CP 転送領域に含まれ、収束派生が導出されると説明可能である。このように(9)の条件を基本とした本分析の枠組みでは、一見節境界違反のような付加詞の外置の適格性をも適切に説明することが可能となる。

4. 項と付加詞の対比

これまで、項の外置と付加詞の外置それぞれの派生について分析してきたが、両者の派生位置への併合手段が異なると点を考慮すると、Ex の修飾対象となる名詞句内部に、Ex のコピーが存在するか否かという派生上の相違が導出され、このコピーの有無の観点から、両者の間に文法的対比が生じることを予測する。このような予測の妥当性は、(21)から(23)の対比によって示される。

(21) a. ?*I gave him$_i$ [a picture _] yesterday **of John's$_i$ mother**. (Argument ExObj)
b. I gave him$_i$ [a picture _] yesterday **from John's$_i$ collection**. (Adjunct ExObj)

(22) a. I read [a book _] [before reading an article *pg*] **about John**. (Argument ExObj)
b. *I read [a book _] [before reading an article *pg*] **from John's library**. (Adjunct ExObj)

(23) a. ??I saw [the (best) picture _] yesterday **of the museum**. (Argument ExObj)
b. I saw [the (best) picture _] yesterday **from the museum**. (Adjunct ExObj)
(cf. I saw [a (very good) picture _] yesterday **of the museum**. (Argument ExObj))
(Fox and Nissenbaum (1999: 8-10))

項の外置は内的併合、付加詞の外置は外的併合という、それぞれ異なる種類の併合操作によって派生されるという本分析のもとでは、(21)の束縛原理 C に関する対比については、名詞句内における Ex のコピーの有無の観点から、(22)の寄生空所の認可に関する対比については、内的併合による外置操作が従来の A バー移動に相当すると想定した上で、その内的併合による認可の有無の観点から、(23)の定性効果に関する対比については、名詞句内からの Ex の内的併合の有無という観点から、それぞれこれらの対比の説明をすることが可能となる。

5. 分析

本稿はラベリングアルゴリズムの枠組みで、Pair-Merger の非対称的な併合特性を英語の ExDP 構文の外置操作に応用した。特に、外置操作が(9)の C-I インターフェイス条件のもとで駆動されるという統語派生分析のもとで、その多様な文法特性を説明した。

* 本稿は日本英語学会第 40 回大会で口頭発表した原稿に加筆・修正を加えたものである。本研究の礎を作ってくださった西岡宣明先生、発表の御司会をいただいた今西祐介先生をはじめ、発表時に貴重な御助言を提供していただいた西原俊明先生、大宗純先生の先生方に深く感謝を申し上げたい。

注

[1] ここでは MS は適用されないと想定する。
[2] 内的併合要素を太文字、その基底位置を下線部で表記する。
[3] この結果 Ex の併合先として、Rochemont

and Culicover (1990)の補部原理 (Complement Principle) で定義されたものとほぼ同様の併合位置が導出される。

[4] (12)における大文字表記の要素は対比強勢が置かれることを示している。

[5] 付加詞要素の外置について、(16)以降の例文では名詞句内にその基底位置を示す下線を設けているが、以降で説明されるように、名詞句内に Ex は併合されておらず、この下線は名詞句と Ex 間の修飾関係を便宜的に示す表記なので注意されたい。

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<Special Lecture Report>

θ規準再考－コピー形成操作とラベル付け理論をふまえて

（The θ-Criterion Reconsidered: A Consequence of Form Copy and Labeling）

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キーワード：θ規準, 極小主義アプローチ, ラベル付け, 多重項, 焦点

1. はじめに

θ役割と項が 1-1 の関係にあるとするθ規準は、LGB 理論において最も基本的な原理の一つとして提案された。一方で、D 構造が除去されて以降、この原理に対する疑問が提示されてきた。本講演では、その文法理論からの完全な除去を提案した。

θ規準に対するこれまでの批判は、項が２つ以上のθ役割を担いうるとするものであった。例えば、Hornstein (1991) は、制御の移動分析に基づいてこの結論を導いている。Chomsky (2021) は、この洞察を受け継ぎ、コピー形成により、項が２つ以上のθ役割を担うことを可能にする分析を提案している。

本講演では、θ役割は２つ以上の項に与えられないとするθ規準のもう一方の主張に焦点を当てた。まず、英語では、多重項を含む例が、ラベル付け理論により排除され、θ規準は余剰的であることを指摘した。その上で、日本語においては、Saito (2016, 2018) の提案に基づけば、多重項文が適切にラベル付けされることを論じ、Kuroda (1988) が提示した多重目的語の例を紹介しつつ、実際にθ役割が２つの項に与えられうることを示した。

2. 日英語におけるラベル付け

Chomsky (2013) は、名詞句の分布、特に移動の性質を説明するものとして、ラベル付けのメカニズムを提案している。併合により形成される構造は、以下の３種類である。

(1) a. $\gamma = \{X, YP\}$　b. $\gamma = \{XP, YP\}$
　c. $\gamma = \{X, Y\}$

(a) では、γ内の探索が単独の主要部 X を見出し、X がγのラベルとなる。(b, c) は、このようにラベルを決定することができず、基本的には排除されるが、(b) は、以下の場合にラベル付けがなされ、許容されるとしている。

(2) a. XP がγ外に移動した場合には、YP のラベルがγのラベルとなる。
　b. X と Y が主要素性 f を共有する場合には、γは <f, f> とラベル付けされる。

他動詞文の構造を例にとって、(2) がどのように適用されるかを見よう。

(3) $[_{\alpha}\, DP_1\, [_{TP}\, T\, [_{\beta}\, DP_1\, [_{v^*P}\, v^*\, [_{VP}\, V\, DP]]]]]$

DP_1 がβ指定部からα指定部に移動するため、βのラベルは v^* である。また、DP_1 と T はφ素性を共有しており、αは <φ, φ> とラベル付けされる。

φ素性一致を欠く日本語では、φ素性の共有に基づいて時制文にラベルを与えることができない。Saito (2018) は、Chomsky (2015) が提唱する弱主要部の機能に微修正を加えつつ、日本語の文法格、後置詞、述部屈折を弱主要部とすることにより、この問題を解決し、さらに、日本語の文法的特徴に説明を与えることを提案している。この提案によれば、(4) では、格/P が弱主要部であるためラベルを供給できず、γは T とラベル付けされる。

(4) $\gamma = \{\{DP,\ 格/P\},\ TP\}$

この仮説は、時制文に加えて、同様に (4) の構造を有する多重主語文やスクランブリング文が適切にラベル付けされることを予測する。

3. θ規準の除去へ

英語においてθ役割が２つの項に与えられる例は、θ規準とは独立にラベル付け理論によって排除される。

(5) a. *Mary [$_{\alpha}$ [$_{VP}$ ate only apples] fruits].

b. *Mary [$_{\alpha}$ [$_{VP}$ went to France] to Europe].

(5) のいずれの例においても、αはラベルを与えられない。一方で、日本語の対応する例では、文法格と後置詞が弱主要部であるため、ラベル付けに問題は生じない。したがって、該当する日本語の例が文法的であれば、θ規準を除去すべき直接的な証拠となる。

日本語が、(5a) に類似する例を許容することは、すでに Kuroda (1988) が示している。Kuroda の主張は、抽象格やθ役割の付与を含む関係が英語では 1-1 であるのに対して、日本語では1-0や1-多も許容されるということである。以下は、Kuroda の例である。

(6) a.??正男が花子を頬を打った.

b. [正男が花子を打ったの] は、頬(を)だ.

(6a) は、表層的な二重対格効果により許容度が落ちるが、この効果は、(6b) に見られるように、対格名詞句を１つ移動することにより回避される。また、Kuroda は、(6) では２つの対格名詞句がいずれも主題のθ役割を受けていることを論証している。

多重項現象は、目的語のみならず、後置詞句や外項においても観察される。(7) は、始点を表す後置詞句が重複する例である。

(7) [日本から参加者があったの] は、広島から (だけ) だ.

英語においてθ規準に抵触するとされてきた例がラベル付け理論により説明されるとすれば、Kuroda の議論は、θ規準そのものに対する反証として捉え直すことができる。

4. 多重項に係る意味的制約

(8) が示すように、二重項は常に許容されるわけではなく、意味的制約が課せられる。

(8) *[花子が徹を叱ったの] は、学生を３人だ.

二重項の２つ目に焦点小辞を加えるなどして、焦点として解釈しやすくすると許容性が向上する。また、以下の例が示すように、二重項の１つ目は、焦点として解釈される２つ目の代替集合を表す役割があるようである。

(9) [花子が果物を食べたの] は、りんごを１つだけだ.

(9) は、果物の中で、花子が食べたのは、りんごを１つだけだと解釈される。この事実は、完全解釈の原理を、すべての要素が意味解釈に固有の貢献をしなければならないとすることにより説明されるものと考えられる。

5. 結論

本講演では、英語では、ラベル付け理論が多重項を排除することを指摘し、日本語においては、θ規準に反して項の重複が観察されることを示した。この事実は、θ規準を完全に除去する根拠となる。また、多重項に課せられる意味的条件についても考察した。

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英語の常識・世界の言語の非常識：英語学の知見が個別言語の研究に与える正の影響と負の影響*

（Common Knowledge in English is Not Always Common in World Languages: The Positive and Negative Effects of English Linguistics on the Study of Individual Languages）

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1. はじめに

現在、英語は言語学における実質的な共通言語となり、個別言語に関する知見を共有する際に用いられている。同時に、英語の研究から発展した概念や理論が、個別言語を考察したり言語を比較したりする際の理論的前提や記述装置として広く共有されている。共通の概念や理論を用いることで、言語間の比較が容易となり、世界の様々な言語における普遍性や相対性が明らかになるため、英語（学）の言語研究一般に対する貢献度は高いと言える。[1] 一方で、6000 から 8000 あるとされる言語の 1 つに過ぎない英語から一般化された概念や理論が言語の常識とされ、個別言語の分析や言語の比較を行う際の（暗黙の）基準となることへの懸念が英語学を含む多くの研究コミュニティに存在する。[2]

このような状況の中、本シンポジウムでは、コイサン諸語、ドイツ語、ロシア語、マレー語、タガログ語、ラマホロット語の具体的な現象の分析を通して、英語学における概念や理論が各言語の分析にどのような影響を与えているかを紹介する。特に、各講師が実際に個別言語を分析する際に感じている英語（学）が与える負の影響を検討しながら、英語の研究から発展した概念や理論を言語の比較の指標として用いる妥当性や、英語の現象だけを見て言語一般の普遍的な特徴を語る危険性等、英語学の知見を各言語の分析に応用する際の注意について検討していく。

2. 英語学が個別言語の研究に与える影響例

シンポジウムでは、各講師の発表によって、英語の研究から発展した概念や理論が個別言語の研究に様々な面で影響を与えている点が報告された。最初に、英語（学）が個別言語の研究に与える良い影響の例を記す。

① 知識や発見を共有する際の手段として広く用いられており、自身の研究を国際的に発信する主要な媒体となっている。
② 音韻・形態・文法・意味的構造の記述や比較に用いる記述の装置に、英語（学）の知見が強く反映されている（テンス、アスペクト、ヴォイス、モダリティ、等）。

③ 音韻論・形態論・統語論・意味論・語用論等の様々な部門の言語理論（生成音韻論、分散形態論、生成統語論、認知言語学、関連性理論など）の多くが英語（学）の知見に基づいている。

④ 英語（学）の研究から発展した記述装置や理論を適用することで、個別言語内の研究だけでは捉えにくい現象が発掘されたり、現象に対する理解が促進される。

共通の概念や理論を用いて言語を分析することで、言語間の比較が容易となり、世界の様々な言語における普遍性や相対性が明らかになる。さらに、英語に影響を受けた比較の物差しを通して個別言語の現象を分析することで、個別言語内部の考察だけでは捉えにくい、各言語の特徴が明らかになる。比較の物差しを提供している点で、現代の言語学に対する英語学の貢献は高いと言える。

一方で、英語（学）が個別言語の研究に与える負の影響例についても報告がなされた。

① 個別言語の重要な特徴が、英語を前提とした暗黙の物差しを通して分析することで、見落とされる可能性がある。

② 暗黙の前提である英語的な構造が無標となり、個別言語に見られる特徴が有標（または例外）として処理されてしまうと、潜在的な一般化が断念されてしまう。

③ 複数の記述装置や理論の中で、英語の現象をうまく説明できる記述装置や理論が、個別言語を分析する際に優勢になる。

④ 個別言語を実際に分析する際に、英語に近い構造を想定する方が、一般に受け入れられやすくなる。

⑤ 非英語系の個別言語の研究者のあいだでも、数が多く発信力の強い英語系研究者の影響力の前に、反証に対する議論が十分になされない傾向が見られる。

3. むすび

本シンポジウムでは、英語（学）が様々な面で個別言語の研究に影響を与えている点が確認された。その中には、比較の物差しに英語の構造が強く影響しているという問題だけでなく、研究の発信力やコミュニティの大きさに端を発する問題も含まれていた。一方で、英語（学）が個別言語に対して、研究視点の提供や情報の共有等の点で、恩恵を与えている現状も確認できた。

言語学は共通の目標として「人間が持つ言語知識や言語能力のありようを解明する」という使命を担う学問である。この目的を達成するため、各言語の研究者が可能な限り客観的な物差しを用いて、地道に各言語に見られる現象を観察・記述・一般化したうえで、間言語的に見られる共通性や相対性を論じていくことは不可欠である。本シンポジウムが、今後も続く幅広い交流に向けて、英語学が個別言語の研究に様々な影響を与えている現状を確認する端緒となれば幸いである。

* 本稿は JSPS 科研費の助成を受けています（課題番号 22H04929, 22K18249, 21K00522, 20H00011, 19K00657, 18H00664, 18K00526）

注

[1] これまでに、ギリシア語・ラテン語の文法、国際音声字母（IPA）などが、言語を比較する際の物差しとしての役割を担っている。

[2] 例えば、峰岸 (1988) では、孤立語を分析する際に、ヨーロッパ諸語の影響で、文法範疇としての名詞の性、数、格の区別がない、動詞の活用、法、時制の対立がない、形態論でいう接辞がない、品詞の区別がないという消極的な定義しかできないという「言語学の南北問題」を提示している。

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<Symposium Report>

Tense: Comparison between Japanese and English*

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Keywords：adverb, evidential, modal, *now*, processing

1. Introduction

Tense is one of the most controversial topics in linguistics. This symposium highlighted tenses, tense morphemes and adverbs in English and Japanese from different perspectives. Ogihara and Steinert-Threlkeld discussed the behavior of tense morphemes in temporal adverbial clauses (such as *before*/*mae* and *after*/*ato* clauses) in English and Japanese. Komoto discussed the meanings of the evidential marker *-rashii* and the epistemic marker *-kamosirenai* with the morpheme *-ta*. Nishiguchi considered the so-called past tense of surprise or discovery, which is a modal past, based on the anaphoricity of the pronoun. Nishiyama analyzed the deictic uses of the English and Japanese present-time adverbs, *now* and *ima*, whose referents appear to be located within different ranges of time. Hohaus shared some of the findings from her lab on the processing of tense in English, and ended with some thoughts on Japanese.

2. (Lecture 1) Extensional vs. Intensional Approaches to the Semantics of Non-veridical *Before* (Toshiyuki Ogihara and Shane Steinert-Threlkeld)

We discussed the behavior of tense morphemes in *before*/*mae* and *after*/*ato* clauses in English and Japanese. We compared Anscombe's (1964) purely extensional analysis and Beaver and Condoravdi's (2003) intensional analysis of *before*/*after*. Anscombe's (1964) is deceptively simple and requires no intensional semantics. Beaver and Condoravdi (2003) proposed an alternative analysis in which *after* and *before* are lexical converses and the clausal complement of *after* and *before* denotes the earliest time at which the sentence is true at any of the "accessible" worlds. Anscombe (1964) is more parsimonious than the proposal in Beaver and Condoravdi (2003), and it makes more accurate predictions about the data if it is supplemented by a small number of pragmatic principles. By replacing the universal quantifier in Anscombe's original proposal with a negated existential, we can also explain some additional data involving expletive negation (Jin and Koenig 2019) in many languages.

3. (Lecture 2) Some Evidential and Epistemic Markers, Past Tense Morpheme, and Perspective Shift (Naoko Komoto)

In this talk, I discussed the meanings of the evidential marker *rashii* 'it seems' and the epistemic marker *kamosirenai* 'may' with the past tense morpheme *-ta*. They are sparingly used in spoken language and sometimes in written texts, as studied in Nihongo Kijutsu Bunpoo Kenkyuukai (2003). I am examining their semantics in terms of perspective. Some of these expressions can convey the same meanings without the past tense morpheme *-ta*, while others do not. Investigating both types of examples, I showed that they can be described in terms of perspective shift along the lines of Abrusán (2021).

4. (Lecture 3) Surprise Past and Modal Subordination (Sumiyo Nishiguchi)

This paper argued that the past tense of surprise or discovery as in *While I thought there was no cat in this island, it* ***was*** *here!* when finding what has not been expected or missing (Teramura 1984, others) is a modal past in view of the anaphoricity of the pronoun. While the pronoun in the sentences in past tense can refer back to the indefinites in the antecedent of the conditional or in the previous sentence, those in the present tense do not allow coreference. The antecedent contains an attitude verb or a necessity modal. In order to allow anaphoric reference of pronouns, the subordination relation is required between two sentences, and modal element should be present in the consequent. Modal subordination has been observed in English (Roberts 1989), main clauses in German Konjunctive I (Potts 2005, others) and in Japanese (McCready and Asher 2006).

5. (Lecture 4) Granularity of *Now* in English and Japanese (Atsuko Nishiyama)

This talk compared the uses of the English and Japanese present-time adverbs *now* and *ima* 'now.' They both refer to the time of utterance in conversation and a time in narrative discourse, but they seem different in the range of time they refer to. For example, *ima* can occur in the past out of the blue, while *now* cannot. This talk modified the meaning of *now* in past-narrative discourse in Altshuler (2016) and extended it to the deictic uses of *now* and *ima*. The difference is pragmatically explained, combined with reference time updates in Partee (1984), via different implicatures in the tense and aspect system between English and Japanese.

6. (Lecture 5) Embedded Tenses in English: The View from Processing" (Vera Hohaus, Giuliano Armenante and Britta Stolterfoht)

This talk revisited the temporal interpretation of complement and relative clauses in English, and "...the puzzling fact that most, but not all, occurrences of past tense convey a meaning of anteriority" (Heim 1994). This fact is not only a puzzle for semantic theory and our understanding of the mapping between form and meaning, but also for sentence processing. We first reviewed some of the key approaches to embedded tenses and discuss the processing predictions they translate to. We then presented a battery of comprehension experiments from joint work with Giuliano Armenante (Universität Potsdam) and Britta Stolterfoht (Eberhard Karls Universität Tübingen) that were designed to test these predictions.

* This symposium was supported

by JSPS KAKENHI Grant Number 20K00665.

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「見えない形態素」をめぐる音韻現象：その理論分析モデルと英語音韻論・形態論への意味合い

（Phonological Exponence of 'Invisible Morphemes': Its Formal Analyses and Implications for English Phonology & Morphology）

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キーワード：音韻-形態のインターフェイス,
「見えない形態素」の音声実現,
Realize-Morpheme, 最適性理論

1. はじめに：背景と目的

英語にはゼロ派生（品詞転換）のように、派生接辞を伴わず同じ音列のまま意味を変えて派生する「見えない形態素」が存在する。接辞を伴わず意味を変えるという点では、強勢転換（pérmit / permít）や文音調（Caution. / Caution? / Caution!）も「見えない形態素」に起因する。

本シンポジウムでは、このように固定した分節音としての実体（接辞のような形態）を持たずになんらか音実現する「見えない形態素」に着目し、それにかかわる複合語・非単一形態語レベルの音韻現象を新規発掘・紹介することで、その理論分析のモデルと英語音韻論・形態論に与える意味合いを考察する。理論的には「見えない形態素」の音実現はRealize-Morpheme（形による意味の具現化を要求する制約；RM）が引き金となると考えられるが、どのような「見えない形態素」のタイプがどのように音実現するか、そこにRM がどのように関与するか／しないのか、などの問題を検討する。また、扱った現象と分析が、英語音韻論・形態論にどのような意味合いを与えるかも合わせて考察する。

2. Realize-Morpheme の役割と問題

一般に、音韻-形態のインターフェイスの仕方には２つのタイプがある。ある音韻規則に形態的条件が課せられる形態条件付き音韻論（Morphologically-Conditioned Phonology; MCP）と、ある形態操作に音韻的条件が課せられる音韻条件付き形態論（Phonologically-Conditioned Morphology; PCM）である。

MCP の例として、母音融合（vowel coalescence; dai-kirai→de:kirai「でえ嫌い」、yaba-i→yabe:「やべえ」）には、たとえば派生環境効果（規則適用を派生環境のみに制限する条件; dai (ka syou ka)→*de: (ka syo: ka)「大（か小か）」）や、語種効果（規則適用を和語・漢語のみに制限する条件; raisu→*re:su「ライス」、wai-wai (gaya-gaya)→*we:-we: (gaya-gaya)「ワイワイ（ガヤガヤ）」）、位置忠実性（語頭や語幹など知覚的に目立つ位置の基底情報への規則適用を制限・禁止する条件; ha-isya→*he:sya「歯医者」）などが課せられる。一方、PCM の例では、日本語の過去接辞の異形態交替 (allomorphy)には有声同化（有声性の一致条件; kat-ta→kat-ta「勝った」、sin-ta→sinda「死んだ」）が、省略語形成には最小音節条件（少なくとも２音節を要求する条件; roke:syon→*ro「ロケ」、daiyamondo→*dai「ダイヤ」、ba:tenda:→*ba:「バーテン」）が、重複語形成には最小モーラ条件（少なくとも２モーラを要求する条件; pota→*po-pota「ポタポタ」、su:→*su-su:「スースー」が、それぞれ課せられる。

理論的には、MCP か PCM かで分析の仕方がおのずと異なる。MCP はなんらかの形態的カテゴリー（非派生形、外来語・擬態語、語幹）への規則適用阻止が見られ、こうしたカテゴリーの基底情報への忠実性制約

(faithfulness constraint)が働くものとして分析される。一方で、PCM は当該形態操作または語形成プロセスにおいて、有声性一致条件や最小音節条件、最小モーラ条件などの音韻的な有標性制約 (markedness constraint)が働くものとして分析される。いずれかによって分析方針がすぐ決まるのである。

しかしながら、問題は曖昧な事例が多々存在する点である。たとえば、連濁現象は MCP か PCM かで曖昧である。

(1) a. MCP: 連濁規則における語種効果
sirihuki-kami→sirihuki-gami「尻拭き紙」
toiretto-pe:pa:→*toiretto-be:pa:
「トイレットペーパー」
b. PCM: 複合語形成における主要部有声化
kasa→*ama-kasa / ama-gasa「雨傘」
kasa→*koumori-kasa / koumori-gasa「蝙蝠傘」

連濁規則における語種効果を考えれば MCP となり、複合語形成における主要部有声化を考えれば PCM となるからである。つまり、連濁の本質を捉えつつ、総合的にいかに分析するかの方針を立てるのが困難に見える。

そこで、最適性理論の枠組みのもと、「見えない形態素」を用いてこの曖昧現象の統一的分析に成功したのが、Ito and Mester (2003) である。その分析の骨子は(2)のようにまとめられる。

(2) a. 和語以外の語種 (F, S, M)の連濁阻止
$\text{Faith}_{F,S,M}$ >> RM >> Faith_{Y}
b. 複合語における連濁の発現と例外
sirihuki-[voice]-kami→sirihukigami「尻拭き紙」
miso-φ-siru→misosiru「味噌汁」

すなわち、複合語形成を修飾部と主要部をつなぐ「見えない」連結形態素[voice]によるものとして捉え、これが RM により発現するのが連濁の本質だというわけである（散発的な例外はこの連結形態素がないだけである）。これは音韻変化を伴う形態操作にほかならない（ライマンの法則やローゼンの規則は別として、有標性制約は関わらない）。一方で、外来語・漢語・擬態(声)語（F, S, M）の連濁阻止は、これらのカテゴリーに対応した忠実性制約が RM より上位にあることによって捉えられる（下位にある和語（Y）の忠実性は違反して連濁する）。したがって、この分析から見れば、連濁とは「見えない形態素」である[voice]を音声具現する複合語形態規則であり、そこに語種条件が課せられる MCM（形態条件付き形態論）だということになる。ただし、同時にライマンの法則やローゼンの規則などの音韻条件も同時に課せられるという意味では、PCM でもある。

ただし、これで話が終わったわけではなく、さらなる問題が残されている。「見えない形態素」と「制約ランキング」をめぐるジレンマの問題である。

(3) a. 連濁する外来語・漢語・擬態(声)語
ama-[voice]-kappa→amagappa「雨ガッパ」
boueki-[voice]-kaisya→boueki-gaisya「貿易会社」
simi-[voice]-simi→simizimi「しみじみ」
hono-[voice]-hono→honobono「ほのぼの」
b. 連濁しない外来語・漢語・擬態(声)語
toiretto-φ-peepaa「トイレットペーパー」
kokusai-φ-syakai「国際社会」
sara-φ-sara「さらさら」
hoko-φ-hoko「ほこほこ」

ここで、制約ランキングの観点からは、(3a)の語は和語でないのに連濁するので、(2a)の RM の下の Faith に紐付けされる。ただ、「会社」の[sya]など和語にない音列を含む場合があるので、和語化したわけではなく、Ito and Mester (2003) は Faith_{Y} の「Y」のインデクスを仮定せず忠実性のデフォールトだとして

いる。しかしながら、この連濁適用は和語化(nativization)のプロセスを抜きに語れず、なぜこれらが連濁するのかの理由は不明のままである。一方で、(3b)の連濁阻止は(2b)のように「見えない形態素」の欠如としても説明できる。[voice]を含む複合語連結形態素を用いるのは基本的に和語だけだという説明である。だとするなら、(2a)の制約ランキングは不要となり、単に RM >> Faith だけがあって、和語と一部の和語化したものだけ「見えない形態素」が用いられるという可能性が導かれる。

いったい、(3a)の連濁阻止が $\text{Faith}_{\text{F,S,M}}$ >> RM のランキングによるのか、連濁しない和語と同様にこれらの語種に[voice]形態素がないことによるのか。どちらにしても、(3a)の事例には[voice]が必要であるが、これが「見えない形態素」と「制約ランキング」をめぐるジレンマの問題である。

ただ、問題が残るにせよ明らかなことは、Ito and Mester (2003) が「見えない形態素」を用いて、MCP か PCM か曖昧な連濁現象の統一的分析に成功した、という点である。基本的には PCM であるが、MCP であるかのように見えたのは「見えない形態素」が音韻素性[voice]を含むからであった。そして、「見えない形態素」の音声具現には RM が不可欠である、という点も重要である。

3. 各テーマの知見と結果考察

このように、「見えない形態素」は RM により初めて、指定された音韻素性の具現がなされるが、実際のインターフェイス現象においてその役割が明確に発揮されるかどうかは、その現象の性質による。

西村 (2022) は重複複合語のバリエーション、つまり擬声・擬態語（kata-kata「カタカタ」、pika-pika「ピカピカ」: 連濁なし、機能変化なし）、擬似擬態語（siwa-siwa「しわしわ」、suke-suke「透け透け」、kitu-kitu「きつきつ」、rabu-rabu「ラブラブ」: 連濁なし、機能変化あり）、強調・集合重複語（hito-bito「人々」、kawaru-gawaru「代わる代わる」、samu-zamu「寒々」: 連濁あり、機能変化なし）などを、一般複合語と比較しつつ分析した。そして、これらを正しく導くには、BASE 形態素・RED 形態素・連濁形態素などの形態素群を一定の線形順序で仮定した上で、Struijke (1998)の Word Faithfulness モデルの方が RM モデルよりも妥当であることを示した。また、英語の重複形においては flip-flop（母音交替）、teeny-weeny（子音交替）のように、BASE と RED の間に異化過程が含まれることを示唆した。

同様に、サラングル (2022) は連濁現象の説明には、主要部ごとに有声化した対応異形態が配置されるとする Item-and-Arrangement (IA) 理論よりは RM モデルの方が優れていると認めつつも、複合語母音交替（ame/ama-gu「雨具」、ki/ko-kage「木陰」、tuki/tuku-yo「月夜」、se/so-muku「背く」、siro/sira-giku「白菊」）や英語不規則過去形（sing/sang、see/saw、keep/kept、win/won）の分析には、RM による「見えない形態素」の具現よりは、形態素ごとに固有のプロセスが適用される Bonet (2008) 流の Item-and-Process (IP) 理論の方が妥当であることを示した。

一方で、黄 (2022) はよく知られる右主要部複合語とは対照的に、左主要部複合語（káku-sankásya「各参加者」、hóteru-ikebúkuro「ホテル池袋」）や並列複合語（yamá-kawa「山川」、té-asi「手足」）では左主要部のアクセントが保持される点に注目し、複合語主要部が右側に限られないことを示した。また、英語の並列複合語との違い（singer-sóng-writer、Austria-Húngary）を説明するため、「見えない形態素」である[+and]素性（cf. Scalise et al. 2005）の位置が後置詞言語（左主要部の後）か前置詞言語（右主要部の前）かにより決まるとした（A や、B、C vs. A, B, and C）。

この[+and]が付加する主要部アクセントが、RM によって具現化されるのである。

最後に、田中 (2022) は広東語複合語に見られる変音（pinjam; 主要部の語彙音調が MH に中和される現象）のここ 50 年の歴史変化を調べ、語群により変音適用が[随意的→義務的]、[義務的→随意的]、[随意的→不適用]の３パターンになるという無秩序・混沌の状況を示した。そして、この不可解な歴史変化を「見えない」変音形態素 H の３つの付加法（接尾辞化・接頭辞化・接周辞化）として分析すれば、統一的説明が得られることを立証した。英語形容詞の動詞化接辞 en の付加法が、soften, enrich, enlighten のように３つあるのと同様である。また、提案する分析における「見えない形態素」の具現が、必ずしも RM に依存しないことも主張した。

4. 結論

いずれのテーマも、音韻-形態のインターフェイスを探求するにあたって、最適性理論が用いられる点では共通していた。また扱われた現象が PCM であることも共通し、なんらかの音韻素性（素性値・音調・アクセント）や音韻操作（重複）を指定した「見えない形態素」の具現にあたって必ずしも RM が強く働いているとは限らず、なんらかの音韻的制約によりその形態が形となって現れることもあるとの結論を得た。RM 制約も違反し得るのである。そして、１つの形態の具現にさまざまな音韻的要因が関る限り、最適性理論はその効力や価値を失うことはない。

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<Workshop Report>

Search and Merge in Minimalism*

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Keywords：Merge, Resource Restriction, Minimal Search, Nominal Strength Parameter

1. Introduction

In order to apply an operation, it is first necessary to determine the items to which the operation is to be applied. The process of determining items is called Search Σ, and these items appear in Lexicon (Lex) and workspace (WS). Chomsky (2021: 17) assumes "Search Σ is a third factor element, on the shelf and available for any operation." In the biolinguistics/minimalist program that seeks simple solutions for computational systems, Search Σ is designed to "do as little work as possible." Search Σ is crucially involved in the simplest combinatorial operation Merge, which produces two-membered sets. There are two forms of Merge, External Merge (EM) and Internal Merge (IM), and their inputs are determined and provided by Search Σ. EM and IM require Search Σ to access LEX and WS, respectively, and provide any two elements (P, Q) as input. Chomsky (2021) assumes that EM-Search accessing LEX does not follow minimality, but IM-Search accessing WS does. The biolinguistics/minimalist program imposes one important condition on Merge, called Minimal Yield (MY). MY requires for Merge to generate only one new accessible element in WS, and prohibits the formation of any more. Thus, if EM is applied to P and Q to produce {P, Q}, only {P, Q} is considered only one new accessible element, which satisfies MY. On the other hand, if IM is applied to P and Q, where Q is a term of P, to produce {P, Q}, where P contains a copy of Q, the whole generated {Q, {P, Q}} and the raised Q are considered new accessible elements, which violates MY. Chomsky (2021: 19) suggests that this apparent MY violation in IM is circumvented by Minimal Search (MS): the lower Q is "protected" by MS; hence only one new accessible element is added, satisfying MY. One of the key concepts assumed here is c-command. Elements in a c-command relation are protected by MY, but elements that are not in a c-command relation are not. Therefore, "extensions of Merge" such as parallel, multidimensional, sidewards, and late Merge that add more than one new elements that are not in a c-command relation cannot survive MY. Thanks to MS, only EM and IM have theoretical status as the simplest structure-building operation. Chomsky (2021) makes maximum use of MS not only around Merge but also in FormCopy, an operation to form a Copy relation among structurally identical inscriptions, presenting an interesting analysis for the control module. Also Labeling Algorithm is not discussed in the current framework, but Chomsky (2013, 2015) develops a stimulating analysis of labeling of syntactic objects under MS. In this way, MS is deeply involved in important operations such as Merge,

FormCopy, and Labeling. A deep study of its nature would certainly be meaningful in elucidating the optimal design of language. The purpose of this workshop was to examine Search and Merge from multiple perspectives, particularly within the framework of Chomsky (2021), and to consider the optimal design of language. In addition to the presentations on the latest researches by the lecturers, we provided opportunities for active discussion with audience members, so that the meeting could provide interactive discoveries.

2. Sub-Extraction and Merge

(Yushi Sugimoto)

Yushi Sugimoto discussed the architecture of the workspace-based Merge framework proposed by Chomsky (2021) in terms of the structure building, search and extraction. In Chomsky (2021), Merge is restricted by an overreaching principle Resource Restriction, which yields a minimal output of Merge on workspace. Based on this framework, one of the theoretical consequences was that what is called the Condition on Extraction Domain is not a natural class (the subject condition and the adjunct condition), but rather, the subject island and the adjunct island are independent phenomena, which are generable by grammar.

3. Replacing Endocentricity by Minimal Search within the Nominal Domain

(Andreas Blümel)

Andreas Blümel proposed the Nominal Strength Parameter. The core idea is that the categorizing head *n* comes in the parameters strong and weak for the purposes of labeling in Chomsky's (2015) sense. He showed that the postulation of weak and strong *n* allows for a unification and deduction of the distribution of determiners in languages like English, German and Italian on the one hand, and Russian, Polish and Bosnian-Serbo-Croatian on the other. Weak and strong *n* furthermore exhibit poor/absent and rich noun inflection respectively, lending empirical support for the idea.

4. Merge and Search under Resource Restriction: Its Consequences and Challenges

(Nobu Goto and Toru Ishii)

Nobu Goto and Toru Ishii proposed that Merge, both External Merge and Internal Merge, is totally free from Resource Restriction (*Genuine Free Merge Hypothesis*), and that Search Σ to determine the input of Merge obeys Resource Restriction that includes Binarity and Phase Impenetrability Condition (*Resource Restriction-obedient Search Theory*). They showed that the proposed theory allows us not only to derive the insights/consequences of Minimal Yield, but also create a new natural class, which cannot be obtained otherwise, for various movement restrictions, such as the freezing effect, the *that*-trace effect, the anti-locality effect, *etc*.

* We thank all the participants in this workshop.

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<Workshop Report>

Mapping Out the Dynamics of Variation in Ellipsis Mismatches*

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Keywords：antecedent-contained sluicing, aspectual mismatch, labeling, LF-copy, PF-deletion, causative alternation, gapping

1. Introduction

The objective of this workshop was two-fold. One was to demarcate the range of possible mismatches in ellipsis in language, for, to the best of our knowledge, there is no such project under way. The other objective was to bring specific mismatch phenomena in particular languages to bear on current issues regarding ellipsis mismatch, such as the character of identity conditions on ellipsis, size of ellipsis sites, the operational distinction underlying ellipsis, and the etiology of ellipsis mismatch in natural language syntax.

2. Mismatch under Ellipsis: Its Consequence for the PF-deletion vs. LF-copying Debate

Sakamoto discussed certain cases of aspectual mismatch under ellipsis in English and Japanese and maintained that (in)tolerance of the mismatch in question can be adopted as a diagnostic for the distinction between PF-deletion and LF-copy. He first introduced Matsuo's (1998) observation that aspectual mismatch is allowed under VP-ellipsis and pseudogapping but is disallowed under Antecedent-Contained Deletion (ACD) in English and her analysis of the contrast: VP-ellipsis and pseudogapping are derived via PF-deletion so that aspectual mismatch is possible, whereas ACD is derived through LF-copying, which copies the already determined aspect in the antecedent onto an ellipsis site, thus the mismatch in question being impossible. He further showed that aspectual mismatch is disallowed under argument ellipsis in Japanese, supporting the claim that argument ellipsis is implemented via LF-copying. Moreover, he examined the possibility of extraction out of an English ACD site and a Japanese argument ellipsis site, demonstrating that overt extraction, e.g., *wh*-movement, is allowed out of neither domain, which indicates that the otherwise two different phenomena can be unified through LF-copying.

3. Revisiting Antecedent-Contained Sluicing: A View from Labeling

Takita proposed a syntactic identity-based analysis of "antecedent-contained" sluicing (ACS). In ACS, an infinite regress problem would be inevitable if what is elided within an adjunct clause were TP taking the matrix TP as its antecedent. Although it has been argued that in ACS the elided TP takes the matrix *v*P as its antecedent, he proposed that ACS involves *v*P-ellipsis with syntactically identical *v*P-antecedent, where the elided *v*P directly serves as the complement of the interrogative C. The infinite regress problem does not occur because there is no containment relation between the antecedent matrix *v*P and the elided *v*P within the adjunct clause. As for the otherwise illegitimate selectional relationship between C and *v*P, he proposed to reduce its illegitimacy to

labeling. Assuming that labeling is required for the purpose of linearization, he claimed that ellipsis can "repair" the labeling failure, rendering the selection of *v*P by C possible.

4. Argument Structure Mismatches in Gapping

Nakamura discussed causative/inchoative mismatches in Gapping in English and Japanese. He showed that a causative antecedent allows its inchoative variant to be gapped but not vice versa in English. He also showed that a causative antecedent licenses Gapping of its inchoative counterpart and the opposite is also true in Japanese, as far as the two alternants have an identical morphological form. Then, he developed an account for the cross-linguistic differences, building on the verb phrase structures independently proposed for English and Japanese in the literature to account for the causative/inchoative alternation. Assuming a movement-and-deletion approach to Gapping in English, he argued that an inchoative verb is recoverable from its causative counterpart in English because the structure of the latter contains the structure of the former. On the other hand, he assumed that Gapping is an instance of non-constituent deletion in Japanese and claimed that the causative and inchoative alternants that have an identical morphological form have quite similar structures and only differ in that an external argument is projected in the causative alternant. Thus, not only can the causative verb serve as the antecedent of the gapped inchoative counterpart, but also the inchoative verb can license Gapping of the causative counterpart in Japanese.

5. A Mismatch Theory of Ellipsis

Sato addressed the question why there is mismatch in ellipsis in language. He developed a new generalization, based on a detailed catalogue of possible and impossible mismatches in various languages, that PF-deletion of an XP requires identity of an YP, a sister to X. The mismatch cases examined included voice mismatch under VP-ellipsis and pseudogapping in English, polarity/finiteness/tense mismatches under sluicing in English, antecedent-ellipsis size mismatch under antecedent-contained sluicing, causative/inchoative mismatch under VP-ellipsis in English, case particle/focus mismatches under argument ellipsis in Japanese. Sato then argued that this sort of mismatch is the norm rather than exception, derived through the interaction of a version of the non-simultaneous transfer model with certain conceptions of computational efficiency imposed on PF-LF information trafficking in a dynamic derivational model.

6. International Workshop on Ellipsis Mismatch

The presenters received valuable feedback from the audience at the workshop, but they all agreed that this 135min workshop was hardly sufficient for serious discussion on the nature of ellipsis mismatch. For this reason, the presenters are currently working together to organize an international workshop on this very same topic at Tsuda University in September 2023 as a spin-off from this workshop. Stay tuned for further announcements on the Tsuda workshop!

* This workshop is supported in part by JSPS KAKENHI Grant Numbers 21K00568 (Nakamura), 18K00659 and 21H00532 (PI: Hiroki Narita) (Takita), and 19K00560 (Sato).

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[II]

Fifteenth International Spring Forum

Ga/No-Nominative Conversion and A- and A′-movement*

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Keywords：*ga/no* conversion, A/A′-movement, subject positions, phases

1. Introduction

For the transparent mapping to the syntax-semantics interface, it is important to specify which place an element occupies in the syntactic structure and what kind of property that position exhibits. Especially, it is important to identify whether it is an argument position (A-position) or not (A′-position). Under the configurational definition of A/A′-positions, it is assumed that an A-position is a potential theta position (Chomsky (1981)) or a Case position (Bošković (2001, 2007)), while an A′-position is a position where an element receives a discourse-configurational value, such as topic or focus (Rizzi (1997, 2006)).

(1) *Configurational A/A'-definition*

a. A-position: a potential theta position (Chomsky (1981: 47)) or a Case position (Bošković (2001, 2007)).
b. A′-position: the position where an element receives a discourse-configurational value, such as topic or focus (Chomsky (2000), Rizzi (1997, 2006)).

However, the configurational definition fails to specify the A/A′-properties of intermediate positions of movements. Therefore, Martin and Uriagereka (2019) suggest the possibility that A/A′-movement distinctions are made contextually under the phase theory, based on copy formation/chain; two copies are regarded as A-copies when they are contained in a single transfer domain, while the copies are regarded as A′-chains when only part of the chain is contained in the transfer domain of a phase.

(2) *Phase-based A/A'-definition*

a. A-chain: the two occurrences contained in the same transferred domain is regarded as copies [i.e., A-copies].
b. A′-chain: only part (i.e., the tail and/or some intermediate link) of the chain is contained in the domain of phase.

(Martin and Uriagereka (2014: 176))

I propose that the configurational and copy-based A/A′-definitions are both necessary, and these definitions, in conjunction with the phase theory advocated by Saito (2017a), lead to the expectation that some movements in Japanese exhibit A- and A′-properties (Mahajan (1990), Saito (1992), Tada (1993)). I show that this expectation is borne out based on *ga/no*-nominative alternation in the Hichiku dialect of Japanese (HJ).

2. Assumptions and Proposal

2.1. *ga/no* Nominative Subjects in the Hichiku Dialect

In this section, I examine subject positions in Japanese in light of *ga/no* nominative alternation in the Hichiku dialect of Japanese (HJ), which is spoken in Kyushu, southwestern Japan. Unlike Standard Japanese exemplified in (3a), HJ

allows *no* nominative subjects in cases like (3b). Following Kato (2007), Nishioka (2013, 2018, 2019) assumes that the *ga* nominative subject moves to Spec, TP, while the *no* nominative subject remains in Spec, *v*P in HJ.

(3) a. [$_{CP}$ C [$_{TP}$ DP$_{gai}$ T [$_{vP}$ t_i …]]]
b. [$_{CP}$ C [$_{TP}$ T [$_{vP}$ DP$_{no}$ …]]]

The assumption that the *no* nominative subjects are located in a lower position than the *ga* nominative subjects is confirmed by the contrast in (4). Only the *ga* nominative subject, which moves to TP, may precede the sentential adverb.

(4) a. Uresikakotuni ame-ga/no huri-yoru.
happily rain- NOM/NOM fall-PROG
'Happily, it is raining.'
b. Ame-ga/*no uresikakotuni huri-yoru.
rain-NOM/*NOM happily fall-PROG
(Nishioka (2013: 180))

Kato (2007) and Nishioka (2013) further observe that the difference in the morphology of the nominative element contributes to the semantic interpretation of the subject. Specifically, it is observed that an element marked with the *no*-nominative Case cannot be interpreted as a topic or a focus. That is, *no*-nominative Case possesses the anti-topic/focus property. (5a) shows that in Japanese, the nominative subject only gets the exhaustive-listing focus interpretation when the predicate is individual-level (Kuno (1973)). In light of the obligatory focus interpretation on the subject in (5a), the ungrammaticality of the *no*-nominative subject in (5b) suggests that the *no*-nominative subject resists focus interpretation (Nishioka (2013, 2018, 2019)).

(5) a. Taroo-ga iintyoo (desu) tai.
Taroo-NOM chair COP PRT
'Taroo is the chair.' (exhaustive focus)
b. *Taroo-no iintyoo (desu) tai.
Taroo-NOM chair COP PRT
'Taroo is the chair.' (*exhaustive focus)
(Nishioka (2019: 31))

2.2. The Case Position of Nominative Objects

In Japanese, when a main verb or a causative suffix *(s)ase* is followed by the potential suffix *rare/(r)e*, which makes a complex predicate stative, the object may be marked as either accusative or nominative (Kuno (1973)). (6a) is a case of the potential construction (PC), and (6b), the causative-potential construction (CPC).

(6) a. Mai-ga melon-o/ga tabe-rare-ru.
Mai-NOM melon-ACC/NOM eat-POT-PRS
'Mai can eat melon.'
b. Mai-wa Ken-ni melon-o/ga
Mai-TOP Ken-DAT melon-ACC/NOM
tabe-sase-rare-ru.
eat-CAUS-POT-PRS
'Mai can make Ken eat melon.'

Following Tada (1992), Yatsushiro (1999), and Kasai (2018), among others, I argue that while accusative objects (AOs) are licensed by V, nominative objects (NOs) overtly move to *v*P that hosts the potential affix *rare/(r)e* as its head (*v*P$_{rare}$).

(7) a. [$_{vPrare}$ NomObj$_i$ [$_{vPvoice}$ [$_{VP}$ t_i V]]rare/(r)e] (PC)
b. [$_{vPrare}$ NomObj$_i$ [$_{vPvoice}$ [$_{vP(s)ase}$ [$_{vPvoice}$ [$_{VP}$ t_i V]] (s)ase]] rare/(r)e] (CPC)

2.3. Phases and Transfer Domains

Saito (2017a, 2019) argues that when C/*v*

inherits its φ-features to T/V, the phasehood is also inherited to the lower head. For instance, in English, when C/*v* inherits φ-features to T/V, T/V also becomes a phase. Saito further assumes that a phase is transferred at the completion of the next higher phase. Under the assumption, TP is transferred at the completion of the higher phase CP in English. Under Saito's phase theory, in Japanese, which lacks φ-feature agreement, C does not inherit its φ-features nor the phasehood to T. This in turn leads to the assumption that what is transferred at the completion of CP is *v*P, not TP.

(8) a. T/V inherits phasehood from C/*v** together with φ-features.
b. A phase HP is transferred upon the completion of the next phase up.
(Saito (2019: 32))

(9) a. English
[$_{CP}$ C [$_{TP}$ Subj$_i$ T [$_{vP}$ t_i [$_{VP}$ …]]]]
b. Japanese
[$_{CP}$ C [$_{TP}$ Subj$_i$ T [$_{vP}$ t_i …]]]
(Saito (2019: 32))

Under Saito's phase theory, the movement of the subject from Spec, *v*P to Spec, TP is operated within a single transfer domain in English, as schematized in (9a). In contrast, in Japanese, the subject moves across the transferred domains on its way to its Case position, Spec, TP, as shown in (9b).

Turning to *v*P phases in Japanese, following Bošković (2014), I assume that the highest head in the phase-edge domain is the phase head: hence, in PC the *v*P phase is *v*P$_{rare}$. Regarding CPC, as a *v*P phase is defined as a domain for argument structure and causative constructions have two argument structures, I assume that CPC has two *v*P phases: the matrix *v*P$_{rare}$ and the embedded *v*P$_{voice}$.

(10) a. [$_{vPrare}$ NomObj$_i$ [$_{vP}$voice [$_{VP}$ t_i V]] rare/(r)e] (PC)
b. [$_{vPrare}$ NomObj$_i$ [$_{vP}$voice [$_{vP}$(s)ase [$_{vP}$voice [$_{VP}$ t_i V]] (s)ase]] rare/(r)e] (CPC)

As schematized in (10a), the movement of NO in PC is within the single transferred domain because there is no intervening phase. In contrast, NO in CPC moves across the transfer domains, as shown in (10b).

2.4. Proposal: A and A′-movement

If we entertain the configurational/contextual A/A′-distinctions (1)-(2) under the Phase theory of Saito (2017a, 2019), it is expected that Japanese has A and A′-movement, that is, movement for Case across transfer domains.

(11a) is a schematized derivation where the subject moves from *v*P to TP for the *ga*-nominative Case in HJ. The movement is an A-movement since it is for Case. At the same time, it counts as an A′-movement because the movement crosses the transfer domains. (11b) shows that the *no*-nominative subject resides in a pure A-position, as it is merged in an A-position and does not move. (11c) shows the movement of NO in PC. This movement is a pure A-movement, because it is for Case and is within a single transfer domain. (11d) is a schematized derivation of NO in CPC, where the object undergoes movement from the lower *v*P phase to the specifier position of the higher *v*P phase. The movement is A-movement as it is for Case. This movement is also A′-movement as it crosses the transfer domains.

(11) a. [$_{CP}$ C [$_{TP}$ DP$_{ga}$i T [$_{vP}$ t_i …]]]
b. [$_{CP}$ C [$_{TP}$ T [$_{vP}$ DP$_{no}$ …]]]

c. [$_{vP}$*rare* NomObj$_i$ [$_{vP}$voice [$_{VP}$ t_i V]] rare/(r)e] (PC)

d. [$_{vP}$*rare* NomObj$_i$ [$_{vP}$voice [$_{vP(s)ase}$ [$_{vP}$voice [$_{VP}$ t_i V]] (s)ase]] rare/(r)e] (CPC)

Now, given that *no*-nominative subjects resist A′-properties such as topic or focus, and that A-movement in (11a, d) counts as A′-movement as well, it is expected that the nominal phrases in (11a, d) cannot be marked with the *no*-nominative Case. In the following sections I examine the expectation with *ga/no*-nominative alternation in HJ. First, the next section focuses on the Case properties of NOs schematized in (11c, d).

3. Nominative Objects in (Causative-) Potential Constructions

As is stated in the preceding section, I argue that NOs overtly move to *v*P$_{rare}$.

(11) c. [$_{vP}$*rare* NomObj$_i$ [$_{vP}$voice [$_{VP}$ t_i V]] rare/(r)e] (PC)

d. [$_{vP}$*rare* NomObj$_i$ [$_{vP}$voice [$_{vP(s)ase}$ [$_{vP}$voice [$_{VP}$ t_i V]] (s)ase]] rare/(r)e] (CPC)

The object can receive the nominative Case after moving to Spec, *v*P$_{rare}$ in PC, as this movement is within a single transfer domain, as shown in (11c). Note also that this movement is a pure A-movement, as the movement is for Case and is operated within the same transfer domain.

The object in CPC can also move to Spec, *v*P$_{rare}$, as shown in (11d). This is because the lower *v*P phase is transferred at the completion of the higher *v*P phase. When the object gets its Case licensed by v_{rare}, the lower copy also satisfies its Case requirement under the identity via copy formation (Chomsky (2021)). Thus, the lower copy does not cause any problem when transferred. This movement to obtain Case is regarded as an A-movement under the configurational definition of movement. At the same time, as the object moves out of the lower phase, it is regarded as an A′-movement under the phase-based A/A′-definition. Therefore, the movement of the nominative object in (11d) has both A-and A′-properties.

The assumption that the movement in PC is A-movement, while that in CPC is A- and A′-movement, accounts for the optional/obligatory focus interpretation of NO in these constructions.

Nishioka (2018) observes that the objects of PC in HJ exhibit not only accusative/nominative alternation, but also *ga/no*-nominative alternation, as shown in (12a). However, the *ga*/*no*-nominative alternation on the object does not occur in CPC, as in (12b). This is because the movement in (12b) has both A-and A′-properties. This leads to the obligatory focus interpretation of NO, which in turn prohibits the *no*-nominative object from occurring in Spec, *v*P$_{rare}$ because of the anti-focus/topic property of the *no*-nominative Case.

(12) a. Taroo-ga eigo-ba/?ga/no
Taroo-NOM English-ACC/?NOM/*NOM
dekuru (to).
can PRT
'Taroo is capable of English.'
(Nishioka (2018: 167, slightly modified))

b. Maki-wa Ken-ni kome-ba/ga/*no
Maki-TOPKen-DAT rice-ACC/NOM/*NOM
tabe-sase-rare-ru (to yo).
eat-CAUS-POT-PRS PRT PRT
'Maki can make Ken eat rice.'

4. Other Cases of *ga*/*no* Alternation in HJ

4.1. Restructuring Verbs

Other cases of NOs in complex predicates also disallow *ga/no*-nominative alternation. For instance, restructuring verbs followed by the potential affix such as *kari-ni ik-e-ru* 'can go to borrow' exhibit the nominative/accusative alternation on the object (Takahashi (2012)). In such a case, however, *ga/no*-nominative alternation is disallowed in HJ.

(13) a. Boku-ga tosyokan-ni hon-o
I-NOM library-to book-ACC
/ga/*no kari-ni ik-e-ru.
/NOM/*NOM borrow-NI go-POT-PRS
'I can go to the library to borrow a book.'
b. Hanako-ga atode tosyokan-de zassi
Hanako-NOM later library-at magazine
-o /ga/*no kari-te ik-e-ru.
-ACC/NOM/*NOM borrow- TE go-POT-PRS
'Hanako can borrow a magazine at the library and go (somewhere) later.'

I assume that in such restructuring constructions, NO undergoes A-movement for Case into vP$_{rare}$ in the matrix vP out of the embedded vP phase, which adds A′-properties to the movement; the movement must yield focus interpretation. As *no*-nominative objects resist such focus interpretation, they cannot occur in the restructuring construction.

4.2. Subjects in Spec, TP

The analysis is further extended to the movement of the subject from Spec, vP$_{voice}$ to Spec, TP; this movement is A-movement as the subject is assigned the nominative Case in Spec, TP. The movement also has A′-properties as it crosses the transfer domains, as shown in (11a).

(11) a. [$_{CP}$ C [$_{TP}$ DP$_{ga}$i T [$_{vP}$ t_i …]]]

The A- and A′-properties of the movement leads to the obligatory focus/topic interpretation of the subject in Spec, TP. This accounts for the fact that the *no*-nominative subject may not appear in Spec, TP in an SOV word order sentence, as shown in (14a) and (15a). Note that it may appear in Spec, vP$_{voice}$ in a scrambled sentence, where the object can satisfy the EPP feature of T, as exemplified in (14b).

(14) a. Jiroo-ga/*no son hon-ba
Jiroo-NOM/*NOM that book-ACC
yon-da.
read-PST
'Jiroo read that book.'
b. Son hon-ba Jiroo-ga/no yon-da.
that book-ACC Jiroo-NOM/NOM read-PST
(Nishioka (2019: 33))

(15) ??/?Taroo-no susi-ba kuu-ta ken
Taroo-NOM sushi-ACC eat-PST because
Jiroo-mo kuuta.
Jiroo-also eat-PST
'Because Taroo ate sushi, Jiroo also ate it.' (Nishiokoa (2019: 34))

4.3. wh-*no*

The focus property of the moved element in the above cases are defined in a configurational /contextual way; none of the above nominal elements is intrinsically focused. The configurational/contextual A/A′-distinction is further supported by the Case-marking of wh-phrases in HJ. Saito (2017b) argues that wh-indeterminate phrases in Japanese are operators that need to specify their quantificational force by (covertly) moving to the specifier position of the question particle *-ka* or the focus particle *-mo*. Under the assumption, wh-indeterminate phrases in an A-position is yet to possess a wh-feature. Therefore, it is expected

that wh-indeterminate phrases in an A-position can be marked with the *no*-nominative Case. It is after the movement of a wh-phrase to an A′-position that the wh-phrase receives an interrogative feature.

(16) a. Dai-ga/no ki-ta to?
who-NOM/NOM come-PAST PRT
'Who came?'
b. Hon-ba dai-ga/no yon-da to?
book-ACC who-NOM/NOM read-PST PRT
'Who read the book?'

(17) Kono hon-ba dai-no
this book-ACC who-NOM
yomi-mo se-n-yatta.
read-also do-NEG-PAST
'Nobody read this book.'

Further, under the configurational/contextual A/A′-distinction, it is expected that wh-*no* in PC is allowed, while wh-*no* in CPC is not allowed, because the NO wh-*no* in PC undergoes A-movement, while that of CPC undergoes A and A′-movement, which results in focus interpretation that is inconsistent with *no*-marking.

(18) a. Maki-wa nan-no tabe-re-ru to?
Maki-TOP what-NOM eat-POT-PRS Q
'What can Maki eat?'
b. *Maki-wa Yuki-ni nan-no
Maki-TOP Yuki-DAT what-NOM
tabe-sase-raru-ru to?
eat-CAUS-POT-PRS Q
'What can Maki have Yuki eat?'

5. Conclusion

In this paper, I have argued that NOs undergo A-movement to $v\mathrm{P}_{rare}$ in potential constructions, while those of causative-potential constructions undergo A and A′-movement to its Case position ($v\mathrm{P}_{rare}$). Furthermore, it is shown that *no*-nominative elements exhibit the anti-topic/focus property; that is, they resist being in A′-positions. Some cases of A-movement of NO crosses the transfer domains, and thus exhibit both A- and A′-properties, prohibiting the *no*-nominative Case.

* This research is supported by JSPS KAKENHI Grant Numbers 18K12412, 21K00586 (PI: Nobuaki Nishioka), and 18K00574 (PI: Yoichi Miyamoto). This research is also supported by the JSPS Core-to-Core Program, A. Advanced Research Networks "International Research Network for the Human Language Faculty" (#JPJSCCAJ221702004) given to Yoichi Miyamoto.

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Generative Typological Investigation of Indefinite Pronouns*

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Keywords：indefinite pronouns, generative typology, NP/DP-language distinction, parameterization in minimalism

1. Introduction

In his seminal work, Haspelmath (1997) classifies indefinite pronouns into two major types. One is a *generic-noun-based* indefinite pronoun, which is derived from a generic noun; e.g., *some-thing* in English, which is composed of the quantificational element *some* and the generic noun *thing*. The other type is an *interrogative-based* indefinite pronoun, which is derived from interrogative pronouns; e.g., *shenme* in Mandarin Chinese as illustrated in (3), where the interrogative pronoun is used to express the interpretation of 'something'.

(3) Ta yiwei wo xihuan **shenme**.
he think I like what
'He thinks I like something.' (Li 1992:125)

Haspelmath raises the question whether there is a typological correlation between the type of indefinite pronouns and other properties of relevant languages, but he leaves it open.[1]

In this paper, I address this issue from the generative linguistic perspective. I first establish a novel typological generalization under a more fine-grained classification of the relevant indefinite pronouns; specifically, one type of "interrogative-based" indefinite pronoun is allowed only in languages that have affixal definite articles or lack definite articles. I then propose a deduction of the generalization building on a version of the NP/DP-language distinction advocated by Talić (2017); essentially, variation in the structure of nominal phrases is crucial for availability of the relevant pronouns.

2. Sorting Out the Terminology

Haspelmath (1997) observes that there are two ways to derive "interrogative-based" indefinite pronouns. In one form, interrogative pronouns and indefinite pronouns are morphologically identical, e.g., Chinese *shenme*, which can mean 'what' or 'something', as shown in (3) and (4). In the other form, interrogative pronouns require a quantificational particle/affix to form indefinite pronouns. A representative is Japanese *nani* 'what', which requires the disjunctive/question marker *ka* to have the interpretation of 'something', as shown in (5).

(4) Ta yiwei wo xihuan **shenme**?
he think I like what
'What does he think I like?' (Li 1992:125)

(5) a. Kare-wa nani-*(**ka**)-ga sukida.
he-Top what-KA-Nom like
'He likes something.'
b. Kare-wa nani-(***ka**)-ga sukina no?
he-Top what-KA-Nom like Q
'What does he like?'

It should be pointed out here that the term "interrogative-based" indefinite pronoun is actually quite misleading. Chinese *shenme* is interpreted as an interrogative pronoun (meaning 'what') with interrogative force, but as an

existential indefinite pronoun (meaning 'something') with declarative force (but with no dedicated particle for this use). Likewise, Japanese *nani* is interpreted as an interrogative pronoun (meaning 'what') with interrogative force, but as an existential indefinite pronoun with the particle *ka*. Thus, the interpretation of the relevant pronouns depends on the environment in which they occur, and the interrogative form is not a primitive (i.e., the base form) in these languages; if they were inherently interrogative, the interrogative interpretation would need to be "canceled" somehow in the indefinite usages, and it is unclear how this could be technically implemented. Actually, this point was already noticed and discussed as early as by Kuroda (1965), who calls the relevant pronouns in Japanese *indeterminate pronouns*, and has been discussed a great deal and elaborated on in the formal linguistic literature (e.g., Huang 1982, Nishigauchi 1990, Shimoyama 2006, among many others). Below I gloss indeterminate pronouns with English interrogative pronouns, only for presentational purposes. It should be kept in mind that indeterminate pronouns themselves do not inherently have the interrogative interpretation.

It should be immediately added here that Kuroda's indeterminate pronouns are not sufficient to define the pronouns in question, either. Recall that Chinese indeterminate pronouns do not require any quantificational particles/affixes for the indefinite pronominal usage, unlike those in Japanese, which require a quantificational particle/affix. I take this as indicating that indeterminate pronouns should further be separated into two types. I define the Chinese-type indeterminate pronouns as (6) and the Japanese-type indeterminate pronouns as (7).

(6) A *bare indeterminate pronoun* (BIP) is a pronoun whose interrogative and indefinite uses have the same form.

(7) A *compositional indeterminate pronoun* (CIP) is a pronoun which functions as an interrogative pronoun with interrogative force and functions as an indefinite pronoun with a quantificational particle/affix.

Below I focus on CIPs, establishing a novel typological generalization.

3. Indeterminate Pronouns and the NP/DP-language Distinction

To the best of my knowledge, the first (and only) generative work that addresses the issue of correlation between the typology of indefinite pronouns and another linguistic property is Watanabe (2004). Watanabe first divides "interrogative-based" indefinite pronouns into the Chinese-type and the Japanese type, which exactly correspond in my terminology to BIPs and CIPs, respectively (though he does not provide precise definitions of the relevant pronouns). Interestingly, Watanabe notes that the productivity of CIPs correlates with the absence of definite articles. For instance, Japanese and Russian, which lack definite articles, have productive CIPs, as shown in (8) and (9), respectively (for space reasons, I present partial paradigms taken from Watanabe 2004).

(8) Japanese

	indet	∃	neg	∀
person	dare	dare-ka	dare-mo	dare-mo
thing	nani	nani-ka	nani-mo	nani-mo
place	doko	doko-ka	doko-mo	doko-mo
time	itsu	itsu-ka	—	itsu-mo

(9) Russian

	indet	∃	neg
person	kto	kto-to	ni-kto
thing	cto	cto-to	ni-cto
place	gde	gde-to	ni-gde
time	kogda	kogda-to	ni-kogda

There is also a striking diachronic change that shows this correlation; Latin, which lacked definite articles, had productive CIPs, whereas most Modern Romance languages, which have acquired definite articles, do not have them.

(10) Latin

	indet	∃	neg
person	quis	ali-quis	quis-quam
thing	quid	ali-quid	quid-quam
place	ubi	ali-cubi	usquam
time	quando	ali-quando	umquam

(11) Italian

	Q	∃	neg
person	chi	qualcuno	nessuno
thing	che	qualche cosa	niente
place	dove	in qualche luogo	in nessun luogo
time	quando	qualque volta	(mai)

Although the correlation between articles and CIPs appears to be robust, Watanabe acknowledges that Bulgarian, Romanian, and Hungarian have productive CIPs although these languages have definite articles. Watanabe in fact does not provide a clear descriptive generalization regarding CIPs that accommodate these languages. He attempts to offer an analysis in which CIPs undergo agreement with quantificational affixes/particles, but his analysis is not empirically motivated due to the lack of a clear descriptive generalization.

This being said, there is a possibility that arises from insights of previous works. Notice that Bulgarian and Romanian are languages with affixal definite articles (for the affixal status of the Hungarian definite article, see MacWhinney 1976). Interestingly, Talić (2017) argues that languages with affixal definite articles pattern with languages without definite articles in a number of respects; for instance, she establishes the generalization (12), which is exemplified by (13)-(15).

(12) Languages that allow adverb extraction out of predicative adjectival phrases either lack definite articles or have affixal definite articles.

(13) *Terribly_i, he was [t_i tired]. (English)

(14) Strašno$_i$ je bila [t_i umorna].
terribly is been tired.F.SF
'She was terribly tired.' (Serbo-Croatian)

(15) Užasno$_i$ bjah [t_i umoren].
terribly was tired
'I was terribly tired.' (Bulgarian)

It may then be that affixal article languages pattern with article-less languages with respect to CIPs, too (see also Reuland 2011, Despić 2015, and Oda 2021 for typological generalizations with a similar language cut).

In order to confirm if this is indeed the case, I have conducted a large-scale cross-linguistic survey of indefinite pronouns, in which I have checked 138 languages that have "interrogative-based" indefinite pronouns. Among the 138 languages, 80 languages are identified as having productive CIPs (the remaining 58 have BIPs). Among those 80, 66 languages lack definite articles: Ainu, Awa Pit, Badimaya, Bawm, Bengali, Buriat, Cahuilla, Chantyal, Djingili, Old English, Estonian, Evenki, Garo, Georgian, Gitksan, (West) Greenlandic, Hayu, Hunzib,

Hupa, Jakaltek, Old Japanese, Present Japanese, Kannada, Ket, Kham, Kodava, Korean, Korku, Latin, Latvian, Lezgian, Limilngan, Lithuanian, Maithili, Malayalam, Manipuri, Meithei, Micmac, Mundai, Muruwari, Nanai, Navajo, Newar, Nez Perce, Ngankikurungkurr, Ngiyambaa, Okinawan, Iron Ossetic, Polish, Huallaga Quechua, Imbabura Quechua, Russian, Serbo-Croatian, Shipibo-Konibo, Shoshone, Sinhala, Takelma, Tamil, Telugu, Tiwi, Udihe, Ukrainian, Warndarang, Yakut, Yup'ik, and Yuwaalaraay. Among the remaining 14 languages, 12 have affixal articles: Assamese, Basque, Bulgarian, Hungarian, Itzaj, Karok, Lillooet, Macedonian, Digor Ossetic, Romanian, Tonkawa, and Wichita. The remaining two languages, which appear to have non-affixal articles, are Yiddish and Sorbian.

A word of caution is in order here regarding the two languages that appear to have non-affixal definite articles. The definite articles in Yiddish do not have a form distinct from demonstratives, the two being differentiated only by stress (Margolis 2011:122). Given Bošković's (2016) definition of definite articles I adopt here, under which definite articles obligatorily occur in a definite nominal phrase and have a distinct form from demonstrative, Yiddish articles may actually not be articles. For Sorbian, Schaarschmidt (1984) reports that the younger generation of speakers, who only use Sorbian in schools, use definite articles considerably less frequently than the older generation of speakers, who learned Sorbian through German. Jentsch (1980) and Lötzsch (1968) also note that definite articles in Sorbian are not obligatory in the context of definite interpretation and that they are not used in some cases where definite articles would be expected in German. These points indicate that Sorbian articles may actually not be (fully grammaticalized) articles. Thus, I propose the following generalization:

(16) Languages that have productive CIPs either have affixal definite articles or lack definite articles.

It should be noted that (16) is a one-way correlation; there can be affixal-article languages and article-less languages that do not have productive CIPs. What is important here is that productive CIPs are never allowed in non-affixal article languages, whereas they are in principle allowed in affixal article and article-less languages. Below I offer a deduction of (16).

4. Deduction of the New Generalization

Let us start from the structure of indeterminate pronouns. Kuroda (1965) proposes that Japanese CIPs consist of PRO(noun) and IND(terminate); essentially, PRO specifies the domain of quantification (e.g., person, thing), and IND marks the entire phrase as a CIP. Regarding the categorial status of indeterminate pronouns, Huang (1982) proposes that they are generally NPs. Building on these two works, I propose that indeterminate pronouns in general are NPs which consist of Root that specifies the domain (e.g., person, thing), and N (or *n*; I use the label N hereafter only for presentational purposes). In addition, following Saito (2017), I suggest that this N is the locus of the parametric variation in the presence/absence of an unvalued operator feature. If this N bears an unvalued operator feature, the entire NP is a CIP of the Japanese type, as schematized in (17a). This operator feature is valued as [∀], [∃], etc. by a quantificational particle/affix for indefinite (and similar) usages. On the other hand, if this feature

is absent on N, we obtain a BIP of the Chinese type, as schematized in (17b). Since there is no operator feature that requires valuation, the entire NP does not require a quantificational particle/affix (see Oda 2022 for more discussion of the difference between CIPs and BIPs).

(17) a. [$_{NP}$ N**Op[_]** [Root]] (CIP)
b. [$_{NP}$ N [Root]] (BIP)

Let us now turn to the relevance of the definite articles for the (un)availability of productive CIPs in a given language. Bošković (2008, 2012) argues that languages with definite articles have a DP layer above NP as the highest projection of the nominal domain, whereas languages without definite articles lack the DP layer so that NP is the highest projection in the nominal domain. His main argument is based on a number of cross-linguistic generalizations that he establishes, e.g., (18) (note that (18) is a one-way correlation; see Bošković 2008, 2012 for more generalizations).

(18) Only languages without definite articles may allow adjunct extraction out of a nominal phrase.

(19) a. *[From which city]$_i$ did Peter meet [girls t_i]? (English)
b. [Iz kojeg grada]$_i$ je Ivan sreo [djevojke t_i]?
from which city is Ivan met girls (Serbo-Croatian)

Abstracting technical details away, Bošković proposes that DP blocks the extraction in question in languages with definite articles (cf. (19a)), whereas DP is absent in article-less languages, so that the extraction is (in principle) possible (cf. (19b)). Now, one important aspect of Bošković's generalizations is that they have a two-way language cut, i.e., whether a language has definite articles ("DP-language") or not ("NP-language"). DP must project above NP in DP-languages, whereas it does not in NP-languages. Interestingly, however, based on a number of observations, Talić (2017) claims that we need a three-way cut of the NP/DP-language distinction; namely, non-affixal article languages, affixal article languages, and article-less languages. What is important for our current purpose is that Talić argues that DP may be absent in affixal article languages in the absence of a definite article. For instance, Dubinsky and Tasseva-Kurktchieva (2014) show that in Bulgarian adjunct extraction out of a nominal phrase is disallowed when the definite article is present with a quantifier but it is allowed when the article is absent in such environments, as shown in (20).

(20) [Ot koj universitet]$_i$ sreštna-ha
from which university met-they
nyakolko(***-to**) studenti t_i?
several-the students

Appealing to the deduction of (18) by Bošković, in which the presence of DP blocks the extraction in question, Dubinsky and Tasseva-Kurktchieva (2014) and Talić (2017) argue that DP is absent in (20) in the absence of the definite article (see Talić 2017 for more data and discussion).

Building on this, I propose that in non-affixal article languages DP must project above indeterminate pronouns, which are NPs, whereas it can be absent in affixal-article languages and article-less languages (note that the definite article is absent in the case of indefinite pronouns). In addition, I suggest that

this DP bears a valued operator feature iOp[Q], which gives the value to the operator feature of *n*/N and marks the indeterminate pronoun as an "interrogative pronoun". The structure of "interrogative pronouns" in non-affixal article languages is schematized in (21).

(21) [$_{DP}$ $D_{\mathbf{iOp[Q]}}$ [$_{NP}$ $N_{\mathbf{uOp[Q]}}$ [Root]]]

Thus, in non-affixal article languages, indeterminate pronouns necessarily become interrogative pronouns, resulting in the unavailability of productive CIPs. In other words, indeterminate pronouns are "primitives" across languages, but the presence of the relevant D in non-affixal article languages necessarily makes them interrogative pronouns.

Note that the proposed parametric variation regarding indeterminate pronouns is essentially lexical; (i) the difference between CIPs and BIPs is attributed to the presence/absence of the unvalued operator feature (Saito 2017) and (ii) the presence/absence of D(P) above indeterminate NP amounts to the presence/absence of a bundle of features that corresponds to D under the Bare Phrase Structure Theory (Chomsky 1995). Thus, the proposed deduction of the generalization regarding indeterminate pronouns is appropriate parameterization in minimalism given the so-called Borer-Chomsky Conjecture, according to which all parametric variation is reduced to different feature specifications in the lexicon (Borer 1984, Chomsky 1995, Baker 2008).

5. Conclusion

In this paper, I have addressed the issue of what property in a language correlates with the types of indefinite pronouns, which was left open by Haspelmath (1997). Sorting out the definitions of the relevant pronouns, I have established the novel generalization that languages that have compositional indeterminate pronouns either lack definite articles or have affixal definite articles. I have then offered a deduction of the generalization by adopting Saito's (2017) analysis of indeterminate pronouns and extending Talić's (2017) proposal regarding variation in the structure of nominal phrases. This is an appropriate locus of parameterization in minimalism, given the Borer-Chomsky Conjecture, according to which all parametric variation is reduced to different feature specifications in the lexicon. The generative framework thus sheds new light on the typology of indefinite pronouns, which has been primarily discussed in the non-generative literature.

* This paper stems from chapter 3 of my doctoral dissertation (Oda 2022). I am grateful to Vicki Carstens, Ian Roberts, Mamoru Saito, and especially Željko Bošković for invaluable comments and suggestions. I also thank the audience of SF 15 for comments and discussions. All remaining errors are, of course, my own.

NOTES

[1] Haspelmath (1997: ch.9) first hypothesizes that the word order of VP could be relevant for the division of indefinite pronouns, but based on a large-scale survey, he concludes that there is no such correlation.

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student absent.
(i) *one > likely, (ii) likely > one
(Bobaljik and Wurmbrand (2012: 387))

Default Case and Chain Interpretation*

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Keywords : *there*-constructions, Quantifier Raising, default case, chain, scrambling

1. Introduction

The purpose of this paper is twofold: to discuss what Default case is and to propose the condition posed by the SM interface when a chain is interpreted. This condition successfully accounts for why Quantifier Raising (QR) of an associate in *there*-constructions is prohibited. Finally, this paper will demonstrate intriguing consequences for scrambling in Japanese.

2. The Prohibition of QR of Associates in *There*-constructions

It has been acknowledged that the associate in *there*-constructions cannot induce an inverse scope interpretation, as shown in (1b) and (2b).

(1) a. I haven't met many linguistics students.
(i) not > many, (ii) many > not
b. There aren't many linguistics students here.
(i) not > many, (ii) *many > not
(Chomsky (1991: 38))

(2) a. (Exactly) one student is likely to be absent.
(i) one > likely, (ii) likely > one
b. There's likely to be (exactly) one

In (1a), an existential quantifier can take scope over negation, which is naturally captured by QR. In contrast, the inverse scope interpretation in (1b) is blocked, which is unexpected since QR is available in (1a). For (2b), if QR were applicable to the associate, the existential quantifier could take wider scope than *likely*, just like the interpretation in (2a). However, this is not the case in (2b), which is readily captured by assuming that the associate cannot undergo QR. These facts suggest the prohibition of QR of the associate in *there*-constructions.

3. Case-Marking in *There*-Constructions

Based on Chomsky (2000 *et seq*), Case assignment takes place as a reflex of phi-feature agreement. Chomsky (2000, 2001) argues that the associate in (3) obtains nominative Case since it agrees with a finite T, which is responsible for nominative Case assignment.

(3) There are many people here.

However, the following examples show that this argument is incorrect:

(4) a. There is only me/*I in the garden.
(Sobin (2014: 386))
b. * There's I. (Schütze (1997: 136))

As shown in (4), it is only the associate with accusative form that is licensed. Chomsky's (2000, 2001) idea is thus no longer tenable.

Maling and Sprouse (1995) argue that a copula assigns abstract accusative Case to the associate. However, the copula is claimed to

have no Case-assigning property (Schütze (1997) and Moritake (2022)). Sobin (2014) and Moritake (2022) argue that the associate in *there*-constructions does not receive abstract Case, but is pronounced with default accusative case.[1] We assume with Sobin (2014) and Moritake (2022) that the associate carries default accusative case instead of nominative Case.

4. Default Case

4.1 Theoretical Assumption: [*u*Case]

In the current theory, noun phrases are introduced into the derivation with an unvalued Case-feature ([*u*Case]) (Chomsky (2000) and his subsequent works). The value of [*u*Case] is determined in the course of a derivation.

4.2 Default Case in English

It is assumed that DPs are pronounced with default case when they receive no abstract Case (Schütze (1997, 2001), McFadden (2004, 2007), and others). Schütze (1997, 2001) extensively discusses under what circumstances default case is used. According to Schütze (1997, 2001), left-dislocated DPs reveal what default case is in languages. For instance, they are pronounced with accusative case in English, as shown in (5).

(5) Me/*I, I like beans. (Schütze (2001: 210))

The left-dislocated DP appears with accusative form in (5), although it cannot establish any agreement relation with heads capable of assigning Case. Schütze (1997, 2001) claims that this fact can be accommodated by assuming that *me* in (5) is pronounced with default accusative case. Following Schütze (1997, 2001), we assume that English utilizes default accusative case.

4.3 The Theoretical Implementation of Default Case

At this point, it remains uncertain how default case is theoretically implemented. According to Schütze (2001) and McFadden (2007), default case is not abstract Case but morphological case. It follows that a DP pronounced with default case is marked with morphological case rather than abstract Case.

Although the assumptions offered by Schütze (2001) and McFadden (2007) seem promising, they do not go beyond the description that default case is morphological case. It nevertheless remains unclear how default case can be formally implemented within the recent theoretical framework (Chomsky (2000 *et seq*)). Central to the recent minimalist program framework is that noun phrases are introduced into the derivation with [*u*Case], and its feature specification is determined in narrow syntax. We will establish a theoretical implementation of default case along with this framework.

Recall that DPs lack abstract Case when they are pronounced with default case (Schütze (2001) and McFadden (2007)). This assumption implies that [*u*Case] on such DPs is unspecified in narrow syntax. Based on these assumptions, we put forth the following proposal:

(6) DPs are pronounced with default case when their [*u*Case] remains unvalued at the Sensorimotor (SM) interface.[2]

Crucial to this proposal is that [*u*Case] functions as a command with which to pronounce DPs. Our proposal is more desirable than Schütze's (2001) and McFadden's (2007) in that it provides a theoretical explanation of how default case is implemented in line with Chomsky's recent framework. Moreover, there is no need to

suppose default case assignment in narrow syntax. Rather, our proposal just regulates how the SM interface interprets DPs with [*u*Case].

5. Proposal

5.1 Sportiche (2016)

This subsection reviews Sportiche's (2016) analysis. See the sentence in (7a). According to Sportiche (2016), as shown in (7b), $Mary_0$ has [*u*Case], and $Mary_1$ obtains nominative Case as a reflex of phi-feature agreement via matrix T, after which it moves to matrix Spec-T.

(7) a. Mary seems to be happy.
b. [[$Mary_{2\ [NOM]}$ [T [seems [$Mary_{1\ [NOM]}$ [to [be [$Mary_{0\ [uCase]}$ happy]]]]]]]]

Sportiche (2016) points out that although [*u*Case] on $Mary_0$ in (7b) is illegible at the Conceptual–Intentional interface, the sentence in (7a) is well-formed.[3] Sportiche (2016) then assumes the operation called Neglect in (8).

(8) Neglect
Any material at any interface can be ignored up to crash. (Sportiche (2016: 4))

Based on Neglect, an illegible feature can be neglected at the interfaces. According to Sportiche, Neglect can be applied to syntactic objects with illegible features only if a chain established by them has a valued feature. The grammaticality of (7a) can be captured since $Mary_2$ and $Mary_1$ have a valued Case-feature in their nontrivial chain, which allows $Mary_0$ with [*u*Case] to be neglected at the interfaces. The derivation thus converges at the interfaces.

5.2 The Limit of Neglect

Consider (4a), repeated here as (9).

(9) There is only me in the garden.
(Sobin (2014: 386))

It is argued in Section 3 that an associate in *there*-constructions is pronounced with default case. [*u*Case] on *only me* in (9) is thus unvalued at the SM interface. It has been assumed since Chomsky (1981) that a single syntactic object itself consists of a chain, which is called a trivial chain. Sportiche's (2016) analysis cannot capture the grammaticality of (9) since the trivial chain has no valued feature. This example, of course, does not render Neglect untenable, but we should understand that Neglect is limited to cases with the nontrivial chain.

5.3 Chain Interpretation at the SM Interface

Although Neglect captures cases including the nontrivial chain as we have seen, it cannot be applied to the trivial chain, as in (9). We thus propose the interface condition in (10).

(10) If there are multiple occurrences of a single DP in a derivation, they must have a valued feature in order for them to form a nontrivial chain and be representationally identified as a series of copies at the SM interface; they are regarded as a repetition otherwise. This condition, however, is irrelevant to just one occurrence of a single DP, since it consists of a trivial chain by itself regardless of whether it involves an unvalued or valued feature.

This interface condition entails Neglect, at least in spirit, but we consider that it is in fact the necessary condition for the proper (non)trivial chain, which is relevant at the SM interface.

The intuition behind this condition lies in how the pronunciation of syntactic objects is

determined. The SM interface must identify whether syntactic objects make the nontrivial chain or trivial chain in order to utter them correctly. It has been tacitly assumed that the chain must properly be established for the correct pronunciation (e.g. Chomsky (1981)). Accordingly, there must be some licensing condition for the chain in the theory. Recall that the chain must include the valued feature to apply Neglect, as argued by Sportiche (2016). We do not assume Neglect, but this can be restated as the prerequisite for the nontrivial chain, whereas it does not matter for the trivial chain. We have proposed the feature-based licensing condition for the chain with the distinction between nontrivial and trivial chains. Note that this condition is not intended to neglect illegible syntactic objects at the interfaces.

6. Analysis

First, let us consider (9). The associate *only me* is composed of a trivial chain with [*u*Case]. Based on (10), [*u*Case] does not induce any problem at the SM interface, as the associate consists of the trivial chain. The grammaticality of (9) is thus accounted for by our analysis.

Let us turn to the examples with QR. Take (1b), represented here as (11a), for instance.

(11) a. There aren't many linguistics students here.
(i) not > many, (ii) *many > not
(Chomsky (1991: 38))
b. many linguistics students$_{[u\text{Case}]}$ … many linguistics students$_{[u\text{Case}]}$ …

Assuming that QR occurs in narrow syntax (e.g. Bobaljik and Wurmbrand (2012)), the representation in (11b) poses a problem, in which QR applies to *many linguistics students*. In this case, there are two occurrences of the associate. Since there is no valued feature in the nontrivial chain, these two occurrences are taken to be a repetition, which results in gibberish at the SM interface. Thus, QR cannot apply to the associate in *there*-constructions.

One may wonder why (12a) is grammatical.

(12) a. What$_i$ is there t_i in the refrigerator?
(Aissen (1975: 7))
b. What$_{[v\text{Q}],\,[u\text{Case}]}$ … What$_{[u\text{Q}],\,[u\text{Case}]}$ …

The sentence in (12a) contrasts sharply with that in (11a) with respect to a possibility of movement. Here, an unvalued Q-feature ([*u*Q]) on *what* turns into a valued Q-feature ([*v*Q]) at Spec-C, as in (12b), which satisfies the condition for the nontrivial chain in (10). Thus, two occurrences of *what* in (12b) are identified as the same copy and pronounced correctly.

7. Extension: Bare DP Scrambling

It is assumed that scrambled objects in Japanese must bear an overt Case-marker (Saito (1985)). See (13) (in what follows, DP-ø stands for a DP without the overt Case-maker).

(13) Ringo-o/*ø$_i$ John-ga t_i tabe-ta.[4]
apple-Acc/ø John-Nom eat-Past
'John ate an apple.'

In (13), the scrambled object *ringo* 'apple' must have accusative Case. However, the sentence in (14) is acceptable, although the scrambled object *ringo-dake* 'only an apple' is bare.

(14) Ringo-dake-o/ø$_i$ John-ga t_i tabe-ta.
apple-only-Acc/ø John-Nom eat-Past
'It is only an apple that John ate.'

As discussed in Section 4.2, left-dislocated DPs reveal what default case is in languages (Schütze (2001)). With this in mind, see (15).

(15) John-ø/*ga/*o, kare-wa tensai-da.
John-ø/Nom/Acc he-Top genius-Cop
'John, he is a genius.'

As shown in (15), only the bare DP is appropriate for the left-dislocated DP. We argue that the bare DP is pronounced with default null case in Japanese. In light of this proposal, bare DPs in (13) and (14) have no value of [*u*Case]. See the following rough representation of (13):

(16) Ringo$_{[u\text{Case}]}$ … Ringo$_{[u\text{Case}]}$ …

There are two occurrences of DP with [*u*Case]. It is erroneously expected that they are both pronounced since they are identified as a repetition due to the lack of valued feature. Thus, the scrambled DP needs overt Case when (13) is uttered in out-of-the-blue contexts.

Conversely, Case need not be overt in (14), where the scrambled object obtains a focus interpretation with a focus-particle *dake* 'only' being attached to it. Assuming that the DP can have the unvalued focus-feature ([*u*Foc]), which becomes the valued focus-feature ([*v*Foc]) after it moves to the CP domain, the representation of (14) will roughly be shown in (17).

(17) Ringo-dake$_{[v\text{Foc}],\ [u\text{Case}]}$ … Ringo-dake$_{[u\text{Foc}],\ [u\text{Case}]}$ …

What is crucial here is that [*u*Case] remains unvalued but [*u*Foc] gets a value, which is a striking difference from (16): [*v*Foc] licenses the nontrivial chain in (17). The sentence in (14) is thus correctly interpreted at the SM interface. As long as our discussion is correct, scrambled DPs need some valued feature, not restricted to Case.

As we can see, the proposed chain condition suggests a close association with the theoretical implementation of default case. For one thing, the moved DP with [*u*Case] is licensed only when its unvalued feature other than [*u*Case] obtains a value. For another, the in-situ DP with [*u*Case] is licensed even if it lacks any valued feature. In both cases, the relevant DP is pronounced with default case. Our proposal for the chain condition is thus inseparable from the nature of default case proposed in Section 4.

8. Apparent Counterexamples

One might predict that the examples in (18) undermine our proposal.

(18) a. *Who does it seem to like Mary?
(Chomsky (1981: 175))
b. *It was believed Mary.
(Lasnik (2008: 19))

The nontrivial chain made up by *who* in (18a) should be licensed since [*u*Q] on *who* obtains a value at Spec-C, as shown in (19a). Furthermore, the trivial chain of *Mary* in (18b) should also be licensed without any Case value, as in (19b).

(19) a. Who$_{[v\text{Q}],\ [u\text{Case}]}$ … Who$_{[u\text{Q}],\ [u\text{Case}]}$ …
b. … Mary$_{[u\text{Case}]}$ …

However, (18) may be ruled out by independent assumptions suggested by Chomsky and Lasnik (1977), McFadden (2004), and others. Details aside, these studies suggest that the expletive *it* is licensed only if there is a proper CP associate in the sentence. See the following examples:

(20) a. It is likely [$_{\text{CP}}$ that John is sick].

b. It would be unfortunate [$_{CP}$ for John to be sick].
c. It would be unfortunate [$_{CP}$ to be sick].
(McFadden (2004: 322))
d. It is unclear [$_{CP}$ what to do].
(Chomsky and Lasnik (1977: 449))
e. *It is certain [$_{TP}$ to leave].[5]
(Chomsky and Lasnik (1977: 472))
f. *It is [$_{NP}$ a man] in the garden.
(Lasnik (1995: 18))

In (20a-d), the expletive *it* is available with the CP associate. In contrast, it is not licensed when there is no CP, as in (20e) and (20f). The ungrammaticality of (18) can be reduced to the licensing condition for the expletive *it*. Thus, we argue that (18) is compatible with our proposal.

9. Conclusion

We have argued that DPs with [*u*Case] are uttered with default morphological case (Schütze (2001) and McFadden (2007)). Moreover, we have offered the licensing condition for the (non)trivial chain, which accounts for the ban of QR of the associate in *there*-constructions. The (un)availability of scrambling in Japanese is also claimed to be captured by our proposal.

In our analysis, unvalued features are related to chain licensing, in fact, nominal licensing. Without unvalued features, we cannot explain how the chain (nominal) is licensed. The presence of unvalued features may thus be deduced from chain (nominal) licensing.

* I am greatly indebted to Nobuaki Nishioka for providing me with invaluable comments. I also thank Laurence Craven for suggesting stylistic improvements. All remaining errors are my own.

NOTES

[1] This paper uses the term ‘Case’ when referring to abstract Case, whereas ‘case’ refers to morphological case.

[2] Under our analysis, [*u*Case] is sent to the Conceptual–Intentional (C–I) interface as well. If so, one might consider that the derivation does not converge since the unvalued feature is generally assumed to be illegible at the C–I interface (see also footnote 4). See Epstein, Kitahara, and Seely (2010) for a possibility that [*u*Case] is invisible to the C–I interface and causes no violation.

[3] Chomsky (1995: 27) claims that “there can be no superfluous symbols in representations.” Following this, Sportiche (2016) argues that [*u*Case] induces a problem at LF.

[4] An anonymous reviewer wonders whether the bare object *ringo* ‘apple’ can be interpreted as a topic, with a small *pro* in the object position, instead of the trace, in (13). It is assumed that the sentence-initial topic is base-generated at Spec-C, and the small *pro*, instead of that trace, occupies the argument position in Japanese (Saito (2010) and references cited therein). Given this, the sentence in (13) looks like (15) with respect to the relation between the sentence-initial element and the (overt or covert) resumptive pronoun. However, (13) seems to differ from (15) in that *ringo* ‘apple’ in (13) cannot be interpreted as the topic without a topic marker *-wa*, in contrast with *John* in (15). A further investigation is left for future research.

[5] Chomsky and Lasnik (1977: 472, fn. 84) point out that (20e) is unacceptable only when *it* is used as the expletive. If *it* has a particular reference, the sentence becomes acceptable.

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On the Spatial Meaning of *by*: A Semantic Network Analysis Based on Schema and Predominance *

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Keywords : Preposition, Semantic network, Image schemas

1. Introduction

Some previous studies (e.g., Hanazaki and Kato (2004), Hanazaki (2005) and Hirasawa (2019)) show that the preposition *by* has many uses.[1] Hanazaki and Kato (2004) and Hanazaki (2005) observe various meanings of *by*, and establish their schemas and a semantic network between them, based on predominance. With respect to spatial meanings, they establish two schemas: one is the <Near/Out of the domain> type; the other is the <Bit by bit> type, which is derived from the <Near/Out of the domain> type. However, there are some problems with their analysis: (i) the <Near/Out of the domain> schema cannot explain some differences between the prepositions *by* and *near*; (ii) also, the schema cannot deal with two spatial meanings involving the notion of movement; (iii) *side by side*, which differ from those illustrating the schema <Bit by bit> is not considered. These problems are dealt with in Section 2 in some detail.

This paper is organized as follows. Section 2 reviews the previous studies on preposition *by*, Hanazaki and Kato (2004), Hanazaki (2005) and Hirasawa (2019). Section 3 analyzes spatial meanings of *by* and *X by X*, the latter including the types of <Bit by bit> and <Side by side>, and establishes their schemas and a semantic network between them. Section 4 is a brief conclusion.

2. Previous Studies on Preposition *By*

2.1 Hanazaki and Kato (2004), Hanazaki (2005)

Hanazaki and Kato revise the analysis presented by Tyler and Evans (2003), and propose six steps to determine distinct meanings of *by*, as shown in (1).

(1) A Revised Model for Principled Polysemy
- Step 1: collect authentic data using a bottom-to-top approach;
- **Step 2: identify the distinct senses using two steps;**
  - **[1] abstract away the spatial relations for the TR and LM for sense A;**
  - **[2] combine the resulting schema with linguistic and extra-linguistic information in a sentence that contains B; if the meaning of the sentence can be inferred, B is not a distinct sense; if the meaning of the sentence cannot be inferred, it is a distinct sense.**
- Step 3: attest the polysemous network through meaning extension based on pragmatic strengthening rather than a metaphor;
- Step 4: examine the network from a

diachronic perspective;

Step5: determine the network center in different historical periods for the preposition based on the predominance/most frequently used sense of the central meaning in the semantic network;

Step 6: apply three inferencing strategies: best fit, knowledge of real-world, force dynamics, and topological extension.

(Hanazaki (2005: 428))

Based on the six steps, they establish a semantic network of *by*. In this study, **step 2 and step 5** are crucially relevant to the following discussion (see Hanazaki and Kato (2004) and Hanazaki (2005) for a full account of the six steps and their semantic network of *by*.

In step 2, they identify the distinct meanings of *by* using two sub-steps.

(2) a. I live in the moment day by day.
b. I live in the moment <Near/Out of the domain>.

(Hanazaki and Kato (2004: 29-30))

(2) examines whether *day by day* is distinct from the <Near/Out of the domain> type. If the concept of <Near/Out of the domain> is embedded in (2a), as shown in (2b), the meaning of (2a) cannot be inferred from that of (2b). Therefore, they claim that *day by day* is distinct from the <Near/Out of the domain> type, and classified into the <Bit by bit> type.

Step 5 concerns how to determine the central meaning. Hanazaki (2005) says that the central meaning is the most predominant one, that is, the one used most frequently, which means predominance and has been changing over time.

However, there are some problems with their analysis. First, the schema <Near /Out of the domain> cannot explain the differences between *by* and *near*, as shown in (3).

(3) a. I live near/by the sea and I was on the bench last week…

(Shimada (2013: 28-29))

b. His grandparents were living near/*by the city at the time.

(Shimada (2010: 38-39))

In (3a), both *near* and *by* are available with an entity like *sea*. In (3b), however, *by* is not available with an entity like *city* because it is incompatible with the entity whose area is vague. Second, Hanazaki and Kato do not postulate that <Near/ Out of the domain> involves the notion of movement, so this schema cannot deal with the instances expressing transfer. Consider (4).

(4) a. He'd gone by the Gazette parking lot and peeked inside a blue Ford Fiesta […]

(Mitch Albom, *The First Phone Call from Heaven*, cited in Hirasawa (2019: 130))

b. I said: "Let's go by my place and pick up your fancy suitcase. It kind of worries me".

(Raymond Chandler, The Long Good bye, cited in Hirasawa (2019: 130))

The sentences in (4) include the phrase *go by*. However, these meanings are different from each other. (4a) means that a man had gone across a parking lot, and (4b) indicates that someone will drop in at a place like someone's house. Finally, it seems difficult to directly relate the <Near/Out of the domain> type to the <Bit

by bit> type because there are too many differences between them. Hanazaki seems to overlook a certain type of instances; (5) illustrates this.

(5) Then, as we were sitting in the dull light, side by side on the edge of his bed, he said to me. (*Never Let Me Go*, p. 245)

In the <Side by side> type, focal entities function as TR and LM at the same time, and they are close to each other. Also, it does not have the notion of transfer, which differs from the <Bit by bit> type. Considering this point, the <Side by side> type seems to be located between the types of <Near/ Out of the domain> and <Bit by bit>.

2.2 Hirasawa (2019)

Hirasawa explores what lexical knowledge on the preposition *by* English native speakers acquire from a perspective of Construction Grammar. He claims that native speakers can use *by* appropriately because each meaning of *by* is stored as lexical knowledge in their mind. As for spatial *by*, he proposes three types in (6):

(6) a. he would often stand by the window.
(Kazuo Ishiguro, The Remains of the Day, cited in Hirasawa (2019: 111))
b. I saw it in the window as I went by, so I thought of you and how you were always wanting one.
(Roald Dahl, "Dip in the Pool", cited in Hirasawa (2019: 120))
c. I just came by to visit poor little Stephanie.
(Bewitched, Season 3, Episode 20, cited in Hirasawa (2019: 128))

In (6a), the sentence describes the situation of standing near the window, in (6b), the speaker went across the house, and in (6c), a man dropped in at someone's house. He claims that these meanings are used properly because they employ different types of predicates.

Although his study does not aim to establish a semantic network of *by*, there are at least some relations between the three spatial meanings because they have similarities in term of semantic properties. We assume that native speakers also know the conceptual constitution which *by* itself has, and construe the meaning of *by* in a sentence, especially a new one, by referring to the meaning of a more central or predominance meaning/sense.

3. An Analysis of Three Spatial Meanings of *By* and the Meanings of *X by X*

In order to solve the problems above, we firstly examine the three spatial meanings of *by* and the types of *X by X*, and presents their semantic properties. At the end of the section, a semantic network of *by* reflecting their schemas is established based on predominance.

3.1. Vicinity in the Horizontal Plane

First, we present the <Vicinity in the horizontal plane> type as the central meaning of spatial *by*. Observe the differences between *by* and *near*.

(7) a. There are a few benches by/near the river…. (Shimada (2013: 28-29))
b. A robot submarine is deployed * by/near the sea floor. (Shimada (2013: 28))

As shown in (7), *near* can denote both horizontal proximity to the river and vertical proximity to the sea floor. On the other hand, *by* describes

only horizontal proximity to the river. Judging from this point, this spatial meaning indicates that TR locates horizontally close to LM, and they are either in contact or no contact.[2] This meaning has the following semantic properties of [Horizontal(H)], [No contact or contact (NC/C)] and [Static (S)]. In addition, this spatial meaning has another property: *by* is only compatible with the entity which has the distinct boundary of an area. As discussed in (3), *by* is incompatible with *city*, and cooccurs with *sea*. As for *city*, the boundary is vague between a city center and a countryside. On the other hand, the boundary between a *sea* and sea shore is clear. So, we assume that the *by* has the property of [Bounded (B)].

Summarizing these observations, the <Vicinity in the horizontal plane> type is constructed with the four semantic properties of [H], [NC/C], [S] and [B]. This schema will be shown in Figure 1 below.

3.2. Going Across

Let us see another spatial meaning, the <Going across> type. First, we examine whether it is a distinct meaning through step 2 in (1).

(8) a. A train bellowing by just over my head,… (*The Body*, p. 79)
b. ?? A train bellowing <Vicinity in the horizontal plane> just over my head…

In (8), the verb *bellow* does not involve the notion of transfer. However, the sentence describes the situation of the train going across the speaker's head while blowing its whistle. When the concept of <Vicinity in the horizontal plane> is embedded in the position of *by*, as in (8b), the meaning of (8a) cannot be inferred from that of (8b). Because of this, the <Going across> type is a distinct meaning of *by*.

The <Going across> type has three significant properties. Firstly, by comparing *by* with *through*, we confirm one of its properties, as shown in (9).[3]

(9) a. We drove by the tunnel.
b. We drove through the tunnel.

By describes the situation of going across near the tunnel, whereas *through* expresses the situation of going into and out of the tunnel. This observation leads us to say that the <Going across> type has the properties of [B] and [NC]. In addition, this *by* indicates straight forward movement:

(10) a. A stray cow wanders by.
(Full House, Season 2, Episode 13, Working Mothers, cited in Hirasawa (2019: 123))
b. A stray cow wanders.

(10a) indicates that a stray cow goes straightly, although in (10b) it goes unsteadily. In other words, *by* implies that TR goes straightly. This characteristic makes it clear that this *by* involves the property [TR-horizontal-moving(THM)]. To summarize these observations, the <Going across> type has three semantic properties: [B], [NC] and [THM]. This schema will be presented in Figure 1 below.

3.3. Dropping In

Let us turn to the meaning <Dropping in>. First, we check whether this *by* is a distinct meaning, as the meaning <Going across> does. (11) illustrates.

(11) a. I just came by to visit poor little

Stephanie.
(*Bewitched*, Season 3, Episode 20, cited in Hirasawa (2019: 128))

b. ?? I just came <Vicinity in the horizontal plane>/<Going across> to visit poor little Stephanie.

We claim that this *by* is a distinct meaning because the same meaning of (11a) cannot be inferred from (11b).

The <Dropping in> type has three vital properties. (12) illustrates:

(12) I'll be by to pick the tickets up this afternoon.
(*Full House*, Season 5, Episode 6, cited in Hirasawa (2019: 129))

The sentence indicates that the speaker will move horizontally to and drop in at a shop. Without *by*, the sentence does not describe the horizontal movement. Because of these observations, the <Dropping in> type needs the three semantic properties of [THM], [C] and [B], and its schema will be drawn in Figure 1 below.

3.4. Bit By Bit

In this sub-section, the meaning <Bit by bit> is observed. First, we examine whether this meaning is distinct from the other meanings.

(13) a. I live for the moment day by day. (cf. (2))

b. ??I live for the moment day <Vicinity in the horizontal plane>/<Going across>/<Dropping in> day.

Sentence (13a) denotes that the entities (*day*) are located independently of each other, and a TR is placed close to the LM, which functions as another TR. We argue that the <Bit by bit> type has a distinct meaning because the other meanings cannot express the situation where the LM for a TR can be shifted to serve as another TR, as shown in (13b)

The <Bit by bit> type involves two properties. (14) illustrates.

(14) The house was painstakingly searched, room by room, drawer by drawer, cupboard by cupboard. (BNC)

The sentence denotes that a TR shifts into a LM and a new TR is replaced close to another LM. In addition, the distance between TR and LM is vague. From these observations, the <Bit by bit> type seems to have the two semantic properties of [TR-horizontal-shifting(THS)] and [NC/C].

3.5. Side By Side

This sub-section observes the meaning of <Side by side>. First, this meaning is distinguished from the other meanings of *by* due to the two sup-steps in (1).

(15) a. Then, as we were sitting in the dull light, side by side on the edge of his bed, he said to me. (cf. (5))

b. ?? Then, as we were sitting in the dull light, side <Vicinity in the horizontal plane>/<Going across>/<Dropping in>/<Bit by bit> side on the edge of his bed, he said to me.

(15a) indicates that two persons reciprocally function as TR and LM at the same time. The <Side by side> type is another distinct meaning because the others do not describe the situation where the focal entities function as TR and LM reciprocally at the same time.

We now consider three important properties of the *by* with this meaning.

(16) Side by side on the narrow shawl knelt the two wanderers the little prattling child and reckless, hardened adventurer.

(*A Study in Scarlet*, p. 84)

In (16), two focal entities like wanderers are in the limited area, or *narrow shawl*, and function as TR and LM reciprocally at the same time. In addition, the distance between the two entities is not obvious, as with the <Bid by bit> type. Accordingly, the <Side by side> type involves [B], [TR-LM Switching (TLS)] and [NC/C].

3.6. The Central Meaning and Semantic Network

This sub-section determines which one of the five meanings is the central meaning of *by*, and establishes its semantic network. First, the central meaning is determined based on predominance (cf. (1)), We collected 1320 examples of *by* from seven novels (*Never Let Me Go*, *The Body*, *A Study in Scarlet*, *1984*, *Death on the Nile*, *Lord of the Flies*, and *The Great Gatsby*), and found 177 instances of the spatial meanings and *X by X*. 124 examples of <Vicinity in the horizontal plane> were found, and therefore the <Vicinity in the horizontal plane> type is the most frequently used meaning, or predominance, and occupies the center position of the semantic network. 22 instances of <Going across> and two instances of <Dropping in> were found. Besides these spatial meanings, 22 examples of <Side by side> and 21 examples of <Bit by bit> were founded.

Next, we examine how the semantic network is developed. According to Lakoff (1987), a semantic network has developed by relating one meaning to another, based on the inheritances of some higher-level properties. In this case, the meanings of <Going across>, <Dropping in> and <Side by side> are derived from the central meaning through inheriting such properties as [NC and/or C], [B] and [H]. The <Bit by bit> type is extended from the <Side by side> type through the properties [NC/C] and [TLS], which transform with the notion of movement. The semantic network of *by* is described in Figure 1, which shows the image schemas of the five meanings.

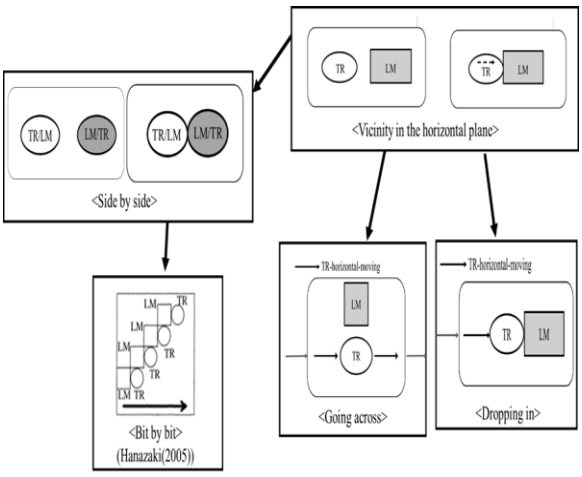

Figure 1 The Semantic Network of *By*

4. Conclusion

In this study, we have constructed the more elaborate image schemas of the three spatial meanings and *X by X*, based on previous studies' observations and the examples collected from seven literary works. With the image schemas of the meanings of *by*, we have shown some differences from the meanings of other prepositions such as *near* and *through*.

The semantic network explains how the meanings of *by* relate to each other, and how native speakers construe the meaning of *by* in a sentence, especially a less frequently used type.

* We would like to express our sincere gratitude to Naoaki Wada for his invaluable comments. Also, we would like to thank Shinya Hirasawa for the helpful comments.

NOTES

[1] Although Otani (2013:12-13) defines prepositions used adverbially as particles, we regard them as "preposition" as well in this paper.

[2] In informant surveys, the <Vicinity in the horizontal plane> type may allow both the cases where TR is in contact to and in no contact to LM (e.g., *The bicycle is by the building.*).

[3] We asked some native speakers to explain the differences between *by* and *through*, obtain the comments in the main text.

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What Do Mongolian Case-Marked Clauses Suggest?*

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Keywords: case-marked clauses, genitive subjects, Japanese, mixed categories, Mongolian

1. Introduction

In the Khorchin dialect of Mongolian (Mongolian, hereafter), an Altaic language, spoken in Inner Mongolia, case-marked clauses show properties slightly different from those in similar languages such as Japanese, as shown below. (1) and (2) are Mongolian and Japanese examples, respectively.

(1) Baɣatur-ø [Tokyo-du
Bagatur-Nom [Tokyo-to
Ulaɣan-ø/-u
Ulagan-Nom/-Gen
ire-gsen]-i(-ni)
come-Past.Adn]-Acc(-PoP3)
čegejile-jü baina.
remember-CVS be.Pres.Con
'Bagatur remembers that Ulagan came to Tokyo.'

(2) Watashi-wa [Tookyoo-ni Taroo-ga/-no
I-Top [Tokyo-to Taro-Nom/-Gen
ki-ta]*(-no)-o
come-Past]-NML-Acc
oboe-te-i-ru.
remember-*te*-be-Pres
'I remember that Taro came to Tokyo.'

In each of (1) and (2), the matrix verb takes a declarative complement clause, but the complement clause is followed by the accusative case marker *-i*/*-yi*, which is optionally followed by the possessive pronoun *-ni*, in the Mongolian example in (1), and is followed by the nominalizing element *-no* in the Japanese example in (2). The difference between (1) and (2) lead us to raise the research question in (3).

(3) *Research Question*
What do Mongolian case-marked clauses suggest for the theory of syntax?

In this paper, we will address research question (3), and argue for the following. First, Maki et al.'s (2016) conditions on genitive subject licensing need to be revised. Second, the predicate followed by the accusative case marker in Mongolian is a kind of mixed category, which is seen in languages such as Quechua. Third, there is no C projection for indirect questions in Mongolian, and the relevant Q feature seems to reside on T in indirect questions in Mongolian. Fourth and finally, in Japanese, accusative case-marked interrogative clauses are a projection of C, and accusative case-marked declarative clauses are a projection of T followed by the nominal element *-no*.

The organization of this paper is as follows. Section 2 reviews (i) the mechanism of genitive subject licensing in Mongolian reported in Maki et al. (2016) and (ii) the mechanism of accusative subject licensing in Mongolian reported in Maki et al. (2015) as background to

the subsequent sections. Section 3 provides examples of Case-marked clauses in Mongolian. Section 4 discusses what the findings of this paper suggest for the theory of (Mongolian) syntax. Finally, Section 5 concludes the paper.

2. Background

First, Maki et al. (2016) propose (4) to capture the genitive subject distribution in Mongolian and Japanese. See Harada (1971) for the origin of the research on genitive subject licensing based on Japanese examples.

(4) *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 predicate.

(4a) corresponds to Miyagawa's (1993, 2011) D-licensing approach, and (4b) to Watanabe's (1996)/Hiraiwa's (2001) C-licensing approach. Maki et al. (2016) claim that genitive subjects in Altaic languages must satisfy both to be licensed, which is evidenced by (5) and (6).

(5) Öčügedür Ulaɣan-ø/*-u ene
yesterday Ulagan-Nom/-Gen this
nom-i qudaldun-abu-ɣsan-siu.
book-Acc buy-take-Past.Adn-Prt
'Ulagan bought this book yesterday.'

(6) Ene nom-i öčügedür
this book-Acc yesterday
Ulaɣan-ø/-u *t*
Ulagan-Nom/-Gen
qudaldun-abu-ɣsan-siu.
buy-take-Past.Adn-Prt
'This book, Ulagan bought *t* yesterday.'

(6) shows that the object is moved to the sentence-initial position by scrambling, and the sentence is grammatical with a genitive subject. Note that in (6), the genitive subject is c-commanded by the scrambled object and is in a local relationship with the adnominal form of the predicate. Note that the Japanese counterpart of (7) disallows the genitive subject, as shown in (8).

(7) Kinoo Hanako-ga/*-no kono
yesterday Hanako-Nom/-Gen this
hon-o kat-ta-yo.
book-Acc buy-Past-Prt
'Hanako bought this book yesterday.'

(8) Kono hon-o kinoo
this book-Acc yesterday
Hanako-ga/*-no *t* kat-ta-yo.
Hanako-Nom/-Gen buy-Past-Prt
'This book, Hanako bought *t* yesterday.'

This is precisely because the contrast between conclusive and adnominal forms of verb is neutralized in modern Japanese, so that the verb *kat-ta* 'buy-Past' in front of the particle *yo* seems to be in the conclusive form, which further supports the necessity for the dual licensing approach in (4).

Second, Maki et al. (2015) argue that while genitive subjects are disallowed, accusative subjects are allowed in clauses headed by C, suggesting the generalization in (9).

(9) *Generalization about the Distribution of Accusative Subjects in Mongolian*
An accusative subject may appear in non-matrix clauses whose heads are not genuinely nominal in nature. Therefore, it may appear in temporal, conditional and reason clauses as well as complement

clauses, but not clauses adjacent to overt nominal heads.

The examples that follow all fall under generalization (9). First, while it is not permitted in a matrix clause, an accusative subject is allowed in a reason clause, as shown in (10) and (11).

(10) Öčügedür Ulaɣan-ø/*-i/*-u
yesterday Ulagan-Nom/-Acc/-Gen
büjigle-gsen ügei.
dance-Past.Adn Neg
'Ulagan did not dance yesterday.'

(11) Öčügedür Ulaɣan-ø/-i/*-u
yesterday Ulagan-Nom/-Acc/-Gen
büjigle-gsen ügei **učir-ača**,
dance-Past.Adn Neg because
bügüdeger-ø sedkiljoba-jai.
everyone-Nom heart worry-Past.Con
'Because Ulagan did not dance yesterday, everybody was worried.'

Second, an accusative subject cannot appear in a relative clause (whose head is clearly nominal), as shown in (12).

(12) [Öčügedür Ulaɣan-ø/*-i/-u
[yesterday Ulagan-Nom/-Acc/-Gen
qudaldun-abu-ɣsan] **nom**-i nama-du
buy-take-Past.Adn] book-Acc me-to
üjegül.
show
'Please show me the book which Ulagan bought yesterday.'

3. Data

Having outlined the particular background, let us now examine accusative Case-marked clauses in Mongolian. Verbs such as *čegejile-jü baina* 'remember-CVS be.Pres.Con' take both declarative and interrogative clauses, as shown in (13) and (14). Note that CVS means converb suffix.

(13) Baɣatur-ø [Tokyo-du
Bagatur-Nom [Tokyo-to
Ulaɣan-ø/-u/*-i
Ulagan-Nom/-Gen/-Acc
ire-gsen]-i(-ni)
come-Past.Adn]-Acc(-PoP3)
čegejile-jü baina.
remember-CVS be.Pres.Con
'Bagatur remembers that Ulagan came to Tokyo.'

(14) Baɣatur-ø [ali qota-du
Bagatur-Nom [which city-to
Ulaɣan-ø/-u/*-i
Ulagan-Nom/-Gen/-Acc
ire-gsen]-i(-ni)
come-Past.Adn]-Acc(-PoP3)
čegejile-jü baina.
remember-CVS be.Pres.Con
'Bagatur remembers which city Ulagan came to.'

In (13) and (14), the complement clauses are directly followed by the accusative case marker *-i*.

Note that declarative complement clauses cannot be followed by the complementizer *gejü* 'that,' or the genitive case maker *-u*, as shown in (15).

(15) *Baɣatur-ø [Tokyo-du
Bagatur-Nom [Tokyo-to
Ulaɣan-ø/-u/-i ire-gsen]
Ulagan-Nom/-Gen/-Acc come-Past.Adn]
gejü/-**u**-yi čegejile-jü
that/-Gen-Acc remember-CVS

baina.
be.Pres.Con
'Bagatur remembers that Ulagan came to Tokyo.'

However, declarative complement clauses can be directly followed by the noun *učir* 'fact,' as shown in (16).

(16) Baɣatur-ø [Tokyo-du
Bagatur-Nom [Tokyo-to
Ulaɣan-ø/-u/*-i ire-gsen]
Ulagan-Nom/-Gen/-Acc come-Past.Adn]
učir-i čegejile-jü baina.
fact-Acc remember-CVS be.Pres.Con
'Bagatur remembers the fact that Ulagan came to Tokyo.'

Let us now consider the Japanese counterparts of the Mongolian sentences shown above. First, let us consider examples with an interrogative complement clause. (17)–(19) indicate that interrogative complement clauses in Japanese must be followed by the question particle *ka*. This kind of overt question particle does not exist in Mongolian.

(17) Watashi-wa [dono machi-ni
I-Top [which city-to
Hanako-ga ki-ta] **ka**(-o)
Hanako-Nom come-Past] Q-Acc
oboe-te-i-ru.
remember-*te*-be-Pres
'I remember which city Hanako came to.'

(18) *Watashi-wa [dono machi-ni
I-Top [which city-to
Hanako-ga ki-ta](-**no**)-**o**
Hanako-Nom come-Past](-NML)-Acc
oboe-te-i-ru.
remember-*te*-be-Pres
'I remember which city Hanako came to.'

(19) *Watashi-wa [dono machi-ni
I-Top [which city-to
Hanako-ga ki-ta]
Hanako-Nom come-Past]
to/**koto**-o oboe-te-i-ru.
Comp/fact-Acc remember-*te*-be-Pres
'I remember which city Hanako came to.'

Second, let us turn to examples with a declarative complement clause. (20) and (21) indicate that declarative complement clauses in Japanese must be followed either by the genitive case marker or nominalizer *-no*, or the noun *koto* 'fact.' In Mongolian, declarative complement clauses must be followed either by the accusative case marker *-i*, or the noun *učir* 'fact.'

(20) Watashi-wa [Tookyoo-ni Hanako-ga
I-Top [Tokyo-to Hanako-Nom
ki-ta]-**no**/**koto**-o
come-Past]-NML/fact-Acc
oboe-te-i-ru.
remember-*te*-be-Pres
'I remember that Hanako came to Tokyo.'

(21) *Watashi-wa [Tookyoo-ni Hanako-ga
I-Top [Tokyo-to Hanako-Nom
ki-ta]-**o**/-**to**
come-Past]-Acc/-Comp
oboe-te-i-ru.
remember-*te*-be-Pres
'I remember that Hanako came to Tokyo.'

4. Discussion

Let us consider what the above facts suggest for the theory of syntax. First, if (4) is correct, there must be a nominal element in each of (13) and (14) that can satisfy (4a). In each of (13) and (14), the subject of the embedded complement

clause can be marked genitive. The question is how it can be licensed. As there is no obvious noun in each example, the relevant licensing element should be the adnominal form of the predicate itself, which is followed by the accusative case marker *-i*. However, if the complex of the predicate and T (V-T complex) is the genitive subject licensor, it cannot c-command the genitive subject due to the T' node, as shown in (22).

(22) [$_{VP}$ [$_{TP}$ NP-Gen (T') [$_{VP}$ V] T] V]
↑_____*_____|

Note that as (23) and (24) are also grammatical, the genitive subject in each case seems to be outside of VP, and in the Spec of T.

(23) Baɣatur-ø [öčügedür
Bagatur-Nom [yesterday
Ulaɣan-ø/-u/*-i tere nom-i
Ulagan-Nom/-Gen/-Acc that book-Acc
qudaldun abu-ɣsan]-i(-ni)
buy take-Past.Adn]-Acc(-PoP3)
čegejile-jü baina.
remember-CVS be.Pres.Con
'Bagatur remembers that Ulagan bought the book yesterday.'

(24) Baɣatur-ø [öčügedür
Bagatur-Nom [yesterday
Ulaɣan-ø/-u/*-i ali nom-i
Ulagan-Nom/-Gen/-Acc which book-Acc
qudaldun abu-ɣsan]-i(-ni)
buy take-Past.Adn]-Acc(-PoP3)
čegejile-jü baina.
remember-CVS be.Pres.Con
'Bagatur remembers which book Ulagan bought yesterday.'

Rather, the complex predicate m-commands the genitive subject in (22). Therefore, 'c-command' in (4a) should be revised to 'm-command.'

Second, as the adnominal form of the predicate in each of (13) and (14) must satisfy (4b) as well as (4a), the complex predicate should be both nominal and verbal. This suggests that the complex predicate followed by the accusative case marker in Mongolian is a kind of mixed category, which is observed in the Quechuan example in (25).

(25) [Xwancha-q-**hamu**-sqa-n-ta] yacha-ni
[Juan-Gen-come-NML-3-Acc] know-1
'I know that Juan came.'
(Lefebvre and Muysken (1988: 2), slightly modified)

Lefebvre and Muysken (1988) demonstrate that languages such as Quechua have mixed categories, based on their study of examples that involve nominalization such as (25). Quechua is one of the official languages of Peru and Bolivia, and spoken in the Andean region of South America by more than 10 million people. Lefebvre and Muysken (1988: 2) state that "Quechua nominalized verbs constitute a true mixed category, defined by the feature combination [+N, +V]" on the basis of the fact that the nominalized verb bears a Case marker *-ta* '-Acc,' which is a property of [+N] elements, and the nominalizing suffix *-sqa-* '-NML-' encodes past tense, which is a property of [+V] elements, given the fact that only verbs can bear a tense marker.

Furthermore, this kind of mixed category is also seen in old Japanese, as shown in (26).

(26) […namida-no **otsuru**]-o
[…tear-Gen drop.Adn]-Acc
oshinuguikakushite…

hide…
'…(he) hid the tears dropping down …'
(Nowaki, *Genji Monogatari* (Chapter 'Nowaki,' *The Tale of Genji*))

Moreover, this kind of mixed category in Mongolian is also followed by the dative case marker or the postposition *du* 'to,' as (27) shows.

(27) Baɣatur-ø [Ulaɣan-u
Bagatur-Nom [Ulagan-Gen
ire-gsen]-du(-ni)
come-Past.Adn]-to(-PoP3)
soči-jai.
surprise-Past.Con
'Bagatur was surprised at the fact that Ulagan came.'

It is important to note here that a predicate can be both nominal and verbal only when it is case-marked; a predicate is only verbal otherwise. This prevents the predicate in (5) from being nominal, as it is not case-marked. Hence, it cannot license the genitive subject in (5), as schematically shown in (28).

(28) [$_{VP}$ [$_{TP}$ NP-Gen [$_{T'}$ [$_{VP}$ V] T]-siu] V]
↑_____*_____|

Third, the fact that (14) is ungrammatical with an accusative subject suggests that there is no C projection for indirect questions in Mongolian. Maki et al. (2015) claim that generalization (9) implies that a clause that allows an accusative subject is characterized as a CP. If their claim is correct, the fact that (14) is ungrammatical with an accusative subject suggests that the indirect question in (14) is not characterized as a CP, which in turn indicates that there is no C projection for indirect questions in Mongolian. If this is true, it suggests that the relevant Q feature seems to reside on T in indirect questions in Mongolian.

Fourth and finally, in Japanese, accusative case-marked interrogative clauses are a projection of C, as shown by (29), and accusative case-marked declarative clauses are a projection of T followed by the nominal element *-no*, as shown by (30).

(29) Watashi-wa [dono machi-ni
I-Top [which city-to
Taroo-ga/*-no ki-ta] *(ka)(-o)
Taro-Nom/-Gen come-Past] Q-Acc
oboe-te-i-ru.
remember-*te*-be-Pres
'I remember which city Taro came to.'

(30) Watashi-wa [Tookyoo-ni
I-Top [Tokyo-to
Taroo-ga/-no ki-ta]*(-no)-o
Taro-Nom/-Gen come-Past]-NML-Acc
oboe-te-i-ru.
remember-*te*-be-Pres
'I remember that Taro came to Tokyo.'

In (29), the subject in the embedded clause cannot be marked genitive, although there is a grammaticality variation among informants of Japanese. The indirect question marker *-ka* cannot be deleted. Since *-ka* is assumed to be a complementizer, accusative case-marked interrogative clauses are a projection of C, although the accusative case marker itself can be deleted. In (30), the subject in the embedded clause can be marked genitive, and the nominalizer *-no* cannot be deleted. The fact that the subject in the embedded clause can be marked genitive seems to suggest that there is a nominal element that m-commands the subject, if we assume that the conditions on genitive

subject licensing in (4) are general enough to apply to Japanese as well as Mongolian. Since the particle *-no* is followed by the accusative case marker, it is not implausible to assume that *-no* functions as a nominal element that contributes to genitive subject licensing. If this is correct, the embedded clause taken by verbs such as *oboeteiru* 'to remember' is a TP, which is nominalized by *no*. Of course, there is a possibility that the complex of the predicate and T in the embedded clause in (30) is characterized as a mixed category, that is, a verbal noun, even in modern Japanese, just like Mongolian. We will leave this issue for future research.

5. Conclusion

This paper addressed research question (3). The answers to (3) are summarized below. First, Maki et al.'s (2016) conditions on genitive subject licensing need to be revised in such a way that 'c-command' in the conditions should be interpreted as 'm-command.'

Second, the predicate followed by the accusative case marker in Mongolian is a kind of mixed category seen in languages such as Quechua and old Japanese.

Third, there is no C projection for indirect questions in Mongolian, and the relevant Q feature seems to reside on T in indirect questions in Mongolian.

Fourth and finally, in Japanese, accusative case-marked interrogative clauses are a projection of C, and accusative case-marked declarative clauses are a projection of T followed by the nominal element *-no*.

* We would like to thank the audience at the ELSJ 15th International Spring Forum, Kazuma Fujimaki, Yusuke Imanishi, Takashi Munakata and Hiromune Oda for valuable comments on an earlier version of this paper. All errors are our own.

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TEXT

Genji Monogatari: written by Murasaki Shikibu around the early 11th century. *Shinpen Nihon Koten Bungaku Zenshuu*, Shogakukan, Tokyo.

Usage-based Construction Grammar and the Study of Language Variation and Change*

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Keywords : Usage-based Construction Grammar, language variation and change, the social turn

1. Introduction

The origins of Cognitive Linguistics (henceforth, CL) can be traced back to the mid-1970s (for details, see Geeraerts 2010). Early studies were followed in the 1980s by a series of epoch-making works including Lakoff (1987) and Langacker (1987). In the 1990s, the framework expanded greatly, backed by many influential studies grounded in the principles and assumptions of CL in areas such as historical linguistics, functionalist typology, and language acquisition. Then in the early 21st century CL faced two major turning points. The first challenge was the "quantitative turn" (Janda 2013: 1), the shift to quantitative (statistical) studies using corpora, experiments or both. The majority of contemporary CL research is now empirically based, which suggests that the framework has moved almost entirely in a quantitative direction. The second challenge is what is sometimes called the "social turn" (Harder 2010: 3), which emphasizes the importance of incorporating a social perspective into CL research. Although there has been a number of publications in this direction (e.g. Kristiansen and Dirven 2008; Geeraerts et al. 2010), the social turn has not yet permeated CL to the point where we can confidently say that it is now firmly established in this framework.

This paper maintains that it is vital for CL to accomplish the social turn. Specifically, the article argues that the study of language variation and change has a deep connection with Usage-based Construction Grammar (henceforth, UBCG; see e.g. Diessel 2015), and that the social turn in CL will play an essential role not only in the development of research on language variation and change, but also in the pursuit of an integrated theory of language (Croft 2016).

The paper is structured as follows. Section 2 provides an overview of what is meant by the social turn in CL. Section 3 illustrates studies conducted from a socially-informed UBCG perspective. Section 4 discusses the contributions that UBCG can make to the study of language variation and change and the construction of a theory of language. Section 5 summarizes the article with a brief note on future prospects.

2. The social turn in CL

The fundamental principle that characterized the 20th century CL research was "the Cognitive Commitment" that the account of human language should align with what we know about the mind and the brain (Lakoff 1990: 40). Guided by this principle, CL rapidly developed as a new paradigm in the late 20th century. However, in the early 21st century, some linguists began to raise questions about the way the CL research had previously been conducted. For example, Croft (2009: 395) highlighted the fact that in traditional CL, consideration of the social aspects of language, such as interactions between speakers, was lacking. At the same time he also emphasized the need for CL to stop

focusing only on the processes that take place "inside the head" and instead go "outside the head" of the language user by incorporating the perspectives of sociolinguistics and pragmatics.

This shift, called the social turn, i.e. the "expansion of CL into the social sphere" (Harder 2010: 443), has important implications. One of the most important changes brought about by the social turn concerns the reformulation of the notion of language users. Simply put, the social turn will require CL to take a more realistic view of language users (Hilpert 2015: 350). Specifically, the idealized view of speakers, as postulated by Chomsky (1965: 3) and implicitly long accepted by cognitive linguists (Dąbrowska 2015: 663), will naturally no longer be tolerated. Instead, what will be required of CL is to pursue the linguistic knowledge of language users as social agents who flexibly change their language use according to the social context.

Hilpert (2015: 350) illustrates this as follows. For example, the way a speaker conveys a request of stepping aside to the interlocutor depends on a variety of social factors including how well the speaker knows the person and how much the request interferes with the person's personal sphere (Brown and Levinson 1987). The socially-grounded use of language can also be seen in the phonological choices by speakers. For example, as has been widely described in the sociolinguistics literature, whether [ŋ] or [n] is used in the pronunciation of the final part of *running* depends on the social relationship between the speaker and the interlocutor. Social factors can also underlie vocabulary selection. For example, while the choice of the words *coat*, *jacket*, and *anorak* is motivated by the prototypicality of the referents in question, the use of these words can also be socially motivated (Grondelaers and Geeraerts 2003).

Incorporating a realistic view of language users will also lead to a non-traditional view of the standard language and of native speakers. For example, discussing the problems inherent in the concept of Standard English and the traditional definition of native English speakers, Shibuya (2022) argues that in order to accommodate reality, UBCG should abandon the idealized view of English and the traditional classification system of its speakers. From a sociolinguistic perspective, Blommaert (2005: 390-391) calls the use of language names such as English and French a manifestation of "folk ideologies of language", arguing that sociolinguists need to focus on varieties of language that speakers actually use, such as repertoires, registers, styles, genres, and modes of usage. As an approach that prioritizes the study of language use similarly to sociolinguistics, it is of natural consequence that UBCG needs to recognize the importance of studying the language that speakers actually use.

Looking at actual language use by speakers, one will quickly realize that language is full of variations and that language is constantly changing. This is the reality of language, as has long been recognized in sociolinguistics (see e.g. Labov 1972). Most strongly associated with studying language variation and change is typically a branch of sociolinguistics called "variationist sociolinguistics" (Tagliamonte 2012). However, as will be discussed below, UBCG can also make a significant contribution in this area of language research.

3. Variation studies in UBCG

Due to limitations of space, only two studies are presented below to illustrate the significance of UBCG in variation research. Interested readers are referred to the relevant literature (e.g.

Grondelaers and Geeraerts 2003; Kristiansen and Dirven 2008; Geeraerts et al. 2010).

Hollmann and Siewierska (2011) investigate definite article reduction (DAR) in Lancashire. In this region of northwestern England, there is variation in the realization of the article in the definite NP construction. For example, DAR can result in a vowel-less form, as shown by the phonetic symbols [θ], [t], and [ʔ] in (1a-c) (Hollmann 2013: 503). There are several interesting points about DAR, but here we focus on the omission of the definite article represented by the symbol Ø in (1c).

(1) a. Oh yes yes they were a primary school (.) Miss Riley she were er (.) er in the/[θ] infants you see and then you went up into the/[ʔ] big school (ED)
b. go through Townley Park (.) and Mr McKay were the/[t] er park keeper then (ED)
c. No it were ni—it were nice because they had them big pipes (.) 'cos we had them big pipes in the/[ʔ] greenhouses up the/Ø smallholdings you know them big (ED)

Note that the omission of the definite article occurs when the subsequent noun is of a specific type, such as *smallholdings*. Hollmann and Siewierska state that frequency effects do not explain this phenomenon, because as with other regions in England, in Lancashire too, *the smallholdings* is found less frequently than commonly frequent definite article NPs such as *the man* and *the house*. In the face of this, Hollmann and Siewierska argue that the omission of the definite article as in (1c) may require an explanation in terms of Lancashire culture. An earlier study on the relationship between pronunciation and local culture includes Coupland (1988), where the relationship between the pronunciation of *a* and the local Cardiff culture was discussed. Inspired by this study by Coupland, Hollmann and Siewierska suggest that speakers of Lancashire dialect may use a local variant in order to mark Lancashire identity in a specific construction which describes a focal element of their local culture. *Smallholdings* refers to small-scale farming, an important part of Lancashire's cultural identity, which, Hollmann and Siewierska argue, underlies the omission of *the* in (1c).

The study on DAR by Hollmann and Siewierska shows that high token frequency does not automatically lead to a reduction. A reduction can be made for focal elements within a given social-cultural context. This is a fact that cannot be explained solely by cognitive factors such as frequency effects. Hollmann and Siewierska's study demonstrates the importance of incorporating a social perspective into UBCG.

The next study to be mentioned here is Hollmann and Siewierska (2007), another study on Lancashire dialect. In this dialect, there is also variation in the realization of the possessive pronoun. As shown by the examples below, the first-person-singular possessive pronoun *my* may be realized as [maɪ] as in (2a), or as the shorter form [mi] as in (2b), or reduced variants as in (2c-d) (Hollmann 2013: 505):

(2) a. I couldn't play for them because they couldn't afford my/[maɪ] football shoes. (JA)
b. I was so young then like and er me/[mi] brother took the opportunity and he went. (HF)
c. when I was four I used to go round this house with my/[ma] eyes closed. (RG)
d. I remember my/[mə] father coming out a

small room. (CS)

Hollmann and Siewierska refer to the "alienability hierarchy" (Nichols 1988): 'body parts and/or kinship terms > part-whole > spatial relations > culturally basic possessed items > other'. In this implicational hierarchy, those on the left side represent possessive nouns that are conceptually closer to the possessor (see also Hollmann 2013: 506). Haspelmath (2006) argues that what underlies the alienability effects is frequency, because the frequency of body part and kinship nouns tends to be higher than that of other semantic categories. Hollmann and Siewierska, however, maintain that the reduction of *my* cannot be explained by frequency effects alone, because they will not explain the high degree of first-person-singular possessive reduction in constructions with a number of relatively infrequent kinship terms such as *stepfather* and *niece*. Instead, Hollmann and Siewierska argue that in high-frequency first-person-singular possessive – kinship noun constructions, the possessive may be initially reduced, which can then result in the creation of the constructional schema [*my* KIN], in which *my* is a reduced form. In their view, as a result of the similarity-based classification, constructions with reduced *my* occur more frequently in low-frequency constructions than would be expected purely from frequency effects.

As demonstrated by the two studies above, a socially-informed UBCG approach, which integrates social and cognitive perspectives, can provide a powerful explanation for language variation (see Hollmann 2013: section 27.4 for further details). Importantly, as will be discussed below referring to the model proposed by Croft (2010), UBCG's full-fledged entry into variation research is crucial not only for studying variation, but also for linguistic theorization.

4. Implications of the social turn in CL

Croft (2010: 1) considers language change to be fundamentally a two-step process consisting of innovation and propagation. For instance, pronouncing or using a word in a novel way which differs from its original usage is an example of innovation. Innovation yields variation, meaning that it is possible that both the original and novel forms can coexist at the same time in a speech community. Propagation is the phenomenon whereby the innovated variant takes root, or is propagated, in the speech community.

In Croft's two-step model, a distinction is made between three types of linguistic variations (Croft 2010: 3). First-order linguistic variation refers to the variation observed in the context of language use in which individual utterances occur as a result of innovations by language users. Second-order variation is the variation that occurs as a result of a gradual process of propagation. This is a variation found in socially-valued variants in a given society, which are known in the sociolinguistics literature as sociolinguistic variables (Labov 1972: 271). Third-order linguistic variation refers to the result of the fixation of variants across dialects and languages. In the two-step model, third-order variation is considered the result of innovation, propagation, and divergence of speech communities.

Croft's two-step model is a usage-based model where language use is assumed to lead to language change (Croft 2010: 3). Each of the linguistic variation types constitutes the research topic for the respective approaches exploring language use. First-order variation can be explained by UBCG. More specifically, UBCG

can be useful in offering accounts for variation in terms of the mechanism by which it arises. These will include explanations based on domain-general cognitive processes, accounts based on frequency effects and constructional schema as seen above through Hollmann and Siewierska (2007, 2011), and the insights from the exemplar model (e.g. Bybee 2010). As for second- and third-order variations, as mentioned above, the former falls under the scope of sociolinguistics, while the latter is covered by linguistic typological studies.

While each of these approaches has its own emphasis and agendas, as approaches to language use, they share a common goal of modeling language variation and language change. This implies that a partnership can or should exist among them. Indeed, the partnership of these approaches has significant implications not only for the study of language variation and change, but also for the theorization of language. Namely, as Croft (2016) argues, the linkage between these approaches will facilitate the construction of a theory of language. A theory of grammar is not a theory of language. The same is true of a morphological theory, a semantic theory, a phonological theory, etc. Furthermore, neither CL, sociolinguistics, nor typology are theories of language. Since language involves a variety of phenomena, a theory of language, by definition, should refer to a model that comprehensively explains a range of phenomena involved in language. More specifically, a theory of language should not only explain variation and change, but it should also include in its scope issues concerning the diversity of the world's languages and also issues related to the death of languages (Croft 2011). Understanding these various issues of language requires the insights of typology and sociolinguistics. These approaches, however, cannot independently explain language diversity and language extinction, because these problems also involve mechanisms underlying language variation and language change, and to explain them, theoretical principles and methodologies developed in UBCG will be essential. Each of these approaches has so far tended to pursue their respective research agendas independently of one another. Consequently, the vector of research has not been directed towards the construction of a theory of language. This is not a favorable situation for linguistics. As Croft (2016: 599) argues, going forward, the relevant approaches should operate together towards achieving a theory of language. The social turn in CL is thus critical, as it can provide a point of contact between different approaches towards the construction of a theory of language.

5. Concluding remarks

This article argued that it is essential for CL (or UBCG as an approach in CL) to accomplish the social turn both from the perspective of its potential contribution to the study of language variation and change, and, as Croft (2016) argues, with respect to its potential contribution to the construction of a theory of language.

Variation and change are among the most fundamental phenomena in language. Studying variation and change implies studying language use. A comprehensive explanation of language use will require close collaboration between not only CL, sociolinguistics, and typology, but also many other relevant approaches. As described by Geeraerts (2010), 20th century linguistics was marked by a high degree of detachment from context, but since the birth of CL, the trend in language research has shifted from

decontextualization to recontextualization. The social turn in CL is part of this recontextualization trend. Despite the fact that the social turn is an important agenda for CL to address, the number of studies in this direction is still limited. Croft (2016: 599) mentions that non-Chomskyan linguistics needs to stop being divided in this century. Approaches that seek to understand language use need to strengthen their interconnectedness, because it is through their collaboration that the construction of a theory of language can be initiated. The social turn of CL thus has tremendous implications. The field of linguistics has now reached a critical juncture: the question is whether it will succeed in breaking out of the age of fragmentation so as to move into the age of integration. Never has there been a time when collaboration between approaches is more needed than now.

* I am grateful to the English Linguistic Society of Japan for inviting me to the 15th International Spring Forum. Special thanks are due to Professor Yosuke Sato and Professor Akira Machida for their support.

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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）

日本英語学会大会運営委員会

日本英語学会事務局

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/) 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のうち比較的よく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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博士論文の場合

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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/). 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.

2023年2月28日発行
編　　集　　日本英語学会大会運営委員会
代 表 者　　金子義明
発 行 者　　日本英語学会
（〒112-0013）
東京都文京区音羽1-22-16二見ビル5F 開拓社内
電話03-5395-7101