言語文化共同研究プロジェクト2024

自然言語への理論的アプローチ

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2025

まえがき

本報告書は、大阪大学人文学研究科言語文化学専攻に所属する教員と大学院生によって構成されている共同プロジェクトによる 2024 年度の研究成果の一部をまとめたものである。今年度もこれまでに引き続き、本研究プロジェクトのメンバーを中心とする理論言語学の研究会が定期的に開催され、毎回活発な議論や意見交換がなされてきた。本報告書に収録されている論文の多くが研究会での議論を反映したものとなっている。なお、本研究プロジェクトのリサーチ・アシスタントである宮前純子さんには研究会の円滑な運営や本報告書の刊行のためにご尽力いただいた。この場を借りてお礼を申し上げる。

ヤン ムイ（2024 年度研究プロジェクト代表者）

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日本語と中国語の複数形態素と類別詞表現の共起に関する考察*

越智正男

1. はじめに

Chierchia (1998) 等によって指摘されているように，日本語や中国語の名詞項には数詞が類別詞を伴って出てくる点や単数・複数の区分を明示的に（かつ義務的に）マークする必要がない等の特徴がある。このような先行研究での知見を受けて，類別詞言語の量化表現や複数形態素の統語や意味の研究も近年大いに進展してきている。本稿では，類別詞表現と複数形態素（特に「連結読み (associative plural reading)」のマーカー）が同じ名詞項領域に生起する場合の意味解釈の制約に焦点を当て，統語構造の観点から説明を試みるものである。

2.名詞句内の複数形態素と類別詞の共起について

本稿で扱うのは以下のような例である（Ochi (2012) を参照されたい）。なお，本稿では主に「ら」を用いるが，これは「ら」の使用が連結読みの解釈を容易にするためである。

(1) 私は 10 人の学生{たち/ら} を招待した

a. I invited ten students.

b. 'I invited a group of people consisting of 10 students and others.'

c. *'I invited a group of 10 people consisting of students and others'

(1a) は複数解釈（sum/additive reading，以下 PL_{sum} 解釈）であり，多くの話者がこの解釈を問題なく許容する。一方, 連結読み (associative plural reading, 以下 PL_{assoc} 解釈) に関しては，可能であるが，制約がある (Ochi 2012)。具体的には，(1b) の解釈が可能なのに対して，(1c) の解釈は厳しい。言い換えると，「10 人」は学生の数であって，学生を含む集合（グループ）のメンバーの数ではない。実際に，Sugisaki (2025) の 5~6 歳の日本語母語話者を対象とした調査でも，このような例文は (1c) のような解釈を許さないことが報告されている。[1]

同様のことが中国語の複数形態素にも言える。まず，Li (1999) が指摘するように，中国語の PL マーカーの*-men* に関しては，類別詞表現と共起しない（傾向がある）。一方，もう 1 つの PL マーカーである *děng* の場合には状況が異なる。この PL マーカーは複数解釈を持

* 本稿は Western Conference on Linguistics 2024 (WECOL 2024) での成果発表を踏まえて，現在行っている調査の経過報告である。Yunwen Chen 氏には中国語のデータに関して協力していただいた。ここに感謝を申し上げる。本研究は科学研究費基盤研究 (C) (No. 24K03963) の助成を受けて行われている。

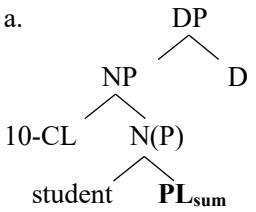
[1] Sugisaki (2025) の研究では「ら」ではなく「たち」を用いているが，議論の本質は変わらない。

たず，常に連結読みを生じるマーカーであるが，話者によっては *děng* と類別詞表現の共起は可能である。実際に，Hu and Pan (2004) ではこのタイプの例文が容認されている。重要なのは，(2b) の解釈が可能であるのに対して，(2c) の解釈がない点であり，これは日本語の場合と同じである。なお，先述の通り *děng* は複数解釈をもともと持たないため，(2a) の解釈はない。

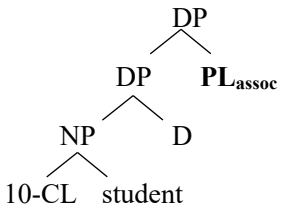
(2) Wǒ yāoqǐng-le shí-ge xuéshēng-**děng** ren. (Chinese)
I invite-Asp ten-CL student-**PL$_{assoc}$** person
a. *I invited 10 students.
b. 'I invited a group of people consisting of 10 students and others.'
c. *'I invited a group of 10 people consisting of students and others'

(1) でも (2) でも (c) の解釈がないという言語事実に対してどのような説明が可能であろうか。Sugisaki (2025) でも論じられているように，(i) PL$_{sum}$ が裸名詞句 (NP) と併合するのに対して，PL$_{assoc}$ が名詞項全体 (DP) と併合する（Ueda and Haraguchi (2008) や Lewis (2022) も参照されたい），(ii)「10 人」等の量化表現は裸名詞句 (NP) と併合する（Li (1999) や Saito, Lin and Murasugi (2008) を参照されたい），と仮定すれば，説明が可能になりそうである。

(3) a.



b.



(3a) にあるように，「数詞 + 類別詞」表現も PL$_{sum}$ も同じ領域（例えば NP の領域）の要素であるとすれば，「学生 +PL$_{sum}$」が「数詞 + 類別詞」表現の作用域内に位置することも可能であろう。これは (1a) の解釈が可能であることと合致する。一方，PL$_{assoc}$ が常に「数詞 + 類別詞」表現よりも構造的に高い位置に併合されるのであれば，後者が前者をその作用域に持つことはなく，(1c) や (2c) の解釈は生じないことになる（(3b) を参照されたい）。

この分析は確かに上述の言語事実を上手く捉えることができる。しかし，Ochi (in press) で論じられているように，PL$_{assoc}$ を含む名詞項構造が (3b) よりも複雑であるとすると，上述の考え方は再考を迫られることになる。以下この点について考えていく。

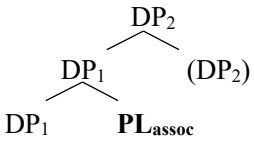
3. 連結読みマーカーを含む名詞句の統語構造

Ochi (in press) では，以下の例のように，PL$_{assoc}$ の後にもう一つ名詞句が来る例を分析の対象とし，Tatsumi (2017) の考えを採用して，PL$_{assoc}$ は常に 2 つの名詞句を選択すると提

案している。例えば，以下の (4a) では，「太郎」と「日本の学生」という 2 つの名詞句があり，Ochi によれば PL_{assoc} はまず DP_1 (= 太郎) と併合し，DP_1 が投射する。[2] そして，{DP_1, PL_{assoc}} が DP_2 (= 日本の学生) と併合し，全体は DP_2 の投射となる。なお Tatsumi (2017) は (5) とは異なる構造を提案しているが，本研究では Tatsumi 分析のエッセンスを採用し，PL_{assoc} の文法機能は，ある集合（グループ）とその集合（グループ）を代表する（あるいは，その集合を特徴づける）部分 (subpart) の関係を規定すること，と考えて論を進める。例えば，(4a) は日本の学生の集合を指し，「太郎」がそのグループを代表する（あるいは特徴づける）部分（そのグループのメンバー）となる。そして (4b) のように，顕在的な DP が 1 つしかない場合でも，常に DP_2 が統語構造に存在することになる。(4c) 及び (5) を参照されたい。

(4) a. 太郎ら日本の学生
b. 太郎ら
c. [$_{DP2}$ [$_{DP1}$ 太郎ら] *ec*]

(5)



Ochi (in press) で論じられているように，(4b) のような場合でも DP_2 が存在するという仮説は，中国語の *děng*「等」を PL_{assoc} として持つ名詞句の振る舞いにその根拠を見出すことができる。概略すると，*děng* 句が動詞の後 (post-verbal) に来る場合，空の DP_2 は容認されず，*ren*（人）や *wupin*（物品）のようなディフォールトと思われる名詞を含め，顕在的な要素が *děng* の後に出現しなければならない。(6) や (7) を参照されたい。

(6) Wo yaoqing-le bàngōngshì zhǔrèn-**děng** *(ren).
I invite-Asp office head-**PL$_{assoc}$** person
'I invited a group of people including the office head(s).'
(7) Wo mai-le shu-**děng** *(wupin).
I buy-Asp book-**PL$_{assoc}$** item
'I bought a set of items including/represented by a book/books.'

(Ochi in press)

一方で，*děng* 句が動詞の前 (pre-verbal) に現れる場合は，顕在的な DP_2 は義務的でなくなる（ただし，この場合でも，*ren* 等の顕在的な要素があった方が良いと判断する話者もいる）。

[2] Ochi (2023) では PL_{assoc} を反ラベリング要素として分析している。この点については本論文の最後に簡単に触れる。

(8) Bàngōngshì zhǔrèn-**děng** ?(ren) zuzhi-le huiyi
Office head-**PL**$_{\textbf{assoc}}$ person organize-Asp meeting
'a group of people including the office head(s) organized a/the meeting' (Ochi in press)

このような言語事実を踏まえ，Ochi (in press) では，中国語における空 DP_2 は削除操作によって派生されると論じている。これは, Huang (1984) による中国語の空目的語の分析を *děng* 句の DP_2 に適用したものである。(9) が示すようにドイツ語の目的語が省略できるのは節の冒頭位置（トピックの位置）に限定されるという観察を踏まえ，Huang は中国語の空目的語も同様にトピック位置へ移動した後に削除されると論じている。

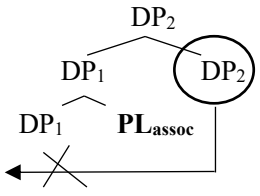
(9) a. *e* hab' ich schon gesehen.
Have I already seen
'I have already seen him.'

b. *Ich hab' *e* schon gesehen.
I have already seen
'I have already seen him.' (Huang 1984)

Huang の空目的語に対する null topic 分析を *děng* 句の DP_2 に適用してみると，以下の様な説明が可能になる。まず，(6) のように *děng* 句が動詞の後にある場合を考えてみる。先述の通り，Ochi (in press) の提案では，*děng* 句は $\{DP_1, PL_{assoc}\}$ が DP_2 に付加した構造を持っている。従って，構造上の理由で，前者を残して後者のみを移動することができない。(10b) が示すように，そのような移動は DP_2 の全体ではなく，セグメントを移動することになるからである。これが (6) で空 DP_2 が許されない理由である。

(10) a. * ~~ren~~ wo yaoqing-le [bàngōngshì zhǔrèn-**děng** t_i]
person I invite-Asp office head-**PL**$_{\textbf{assoc}}$

b.



一方，(8) のように *děng* 句が動詞の前（主語位置）にある場合には，*děng* 句がトピックの位置にあると分析できる。従って，この場合には削除が可能になる。なお，本論文では削除は PF において行われると考えたい。それゆえに，統語操作としての移動とは異なり，DP_2 のセグメントを削除することができると提案する。

(11) [Bàngōngshì zhǔrèn-**děng** ~~ren~~]$_i$ t_i zuzh-le huiyi
Office head-**PL$_{assoc}$** person organize-Asp meeting (Ochi in press)

さらに，*děng* 句がもともと目的語の位置にある場合でも，その目的語全体が主語の前に前置されていれば，空 DP_2 が可能になる。この言語事実も，削除操作自体が DP_2（ここでは *ren*（人））のセグメントに適用できると考えれば，捉える事ができる。[3]

(12) Bàngōngshì zhǔrèn-**děng** (ren) wo yaoqing-le.
office head-**PL$_{assoc}$** person I invite-Asp
'a group of people including the office head(s), I invited.'

(13) [Bàngōngshì zhǔrèn-**děng** ~~ren~~]$_i$ wo yaoqing-le t_i
office head-**PL$_{assoc}$** person I invite-Asp
(Ochi in press)

なお，日本語の空 DP_2 に関してはこのような制約はなく，「ら」を含む名詞句が主語位置にある場合でも目的語位置にある場合でも，空の DP_2 は可能である。

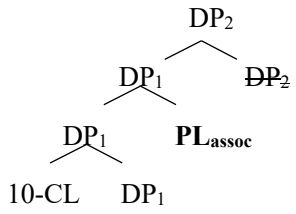
(14) a. 太郎は 阪大生ら（10 代の若者）を招いた
b. 阪大生ら（10 代の若者）が太郎を招いた

従って，日本語の場合には，空の DP_2 が削除操作によって派生されているという積極的な根拠はないが，本稿では通言語的に PL_{assoc} は常に 2 つの DP を関係づける、という Tatsumi (2017) や Ochi (in press) の考えを採用した上で議論を進めたい（日本語の空の DP_2 の派生方法についての考察は別の機会に譲りたい）。

ここで (1) について再度検討してみたい。(1b) の解釈が可能ということは，(15) が示すように，類別詞表現が DP_1（あるいはその内部の NP）と併合する派生が可能であることを意味する。

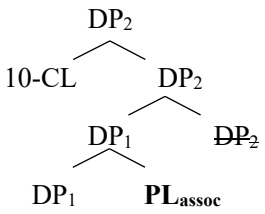
[3] Ochi (2023) の「反ラベリング」に基づく分析（本論文の最後のセクションを参照いただきたい）によれば，{DP_1, PL_{assoc}} は DP_2 に付加しているわけではないので，「セグメント」に言及しない形で，DP_2 の削除をより自然な形で捉える事ができる。

(15)



一方で，(1c) の解釈が生じないということは，(16) の構造が許されないことを意味する。この構造では，類別詞表現が DP_2（より正確に言えば DP_2 全体）と併合できないことを示している。

(16) *



(16) の構造で DP_2 のセグメントが省略されている点に着目すると，(16) を排除する可能性が一つ浮かび上がる。一般的に類別詞表現は空の名詞を修飾できないからである。

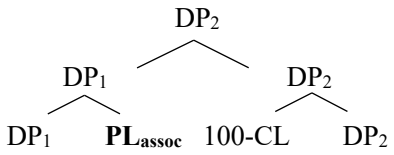
(17) 太郎は 5 冊の本を買った。*私は 10 冊の *ec* を買った。[4]

しかし，(16) をこの観点から排除するという考えは妥当ではなさそうである。なぜなら DP_2 が顕在的な場合でも，やはり (1c) に該当する解釈は難しいからである。例えば，(18a) は「5 人の阪大生を含んだ関西圏の若者のグループ」という解釈はあるが，「阪大生を含む 5 人の関西圏の若者のグループ」という解釈を得るのは難しい。この点は (18b) のような例を考えるとより顕著になると思われる。この例文では，(16) の構造において「5 人」を DP_1 と併合し，「100 人」を DP_2 全体と併合した場合に出てくる語順であるが，容認性はかなり低い。意図した解釈を表すには，(18c) の語順にする必要があるが，これは，(19) にあるように，「100 人」を先に DP_2 と併合し，{100 人, DP_2} を {DP_1, PL_{assoc}} と併合した場合に出てくる語順である。

(18) a. 私は 5 人の阪大生ら関西圏の若者を（大勢）招待した
b. *私は 100 人の 5 人の阪大生ら関西圏の若者 を招待した
c. 私は 5 人の阪大生ら 100 人の関西圏の若者 を招待した

[4] なお，この例文には「話者が 10 冊からなるセット本を購入した」という解釈はあるが，ここでは扱わない。

(19)



したがって，(16) の構造が許されないという問題は (17) の言語事実とは独立して扱われるべきであろう。[5]

ここで PL_{assoc} の文法的役割に再び着目すると，(16) を自然な形で排除する方向性が見えてくる。先述の通り，Tatsumi (2017) によれば，DP_1 も DP_2 も PL_{assoc} が選択する項であり，PL_{assoc} は両者の関係（DP_1 は DP_2 の集合（グループ）を {代表する/特徴づける} subpart である）を規定するものということになる。従って，DP_2 が $\{DP_1, PL_{assoc}\}$ と併合する段階で（言い換えれば，PL_{assoc} の項となる段階で）類別詞表現は DP_2 の一部になっていなければ解釈を受けることができない，ということになる。これが (16) の構造の問題である。なお，(19) はその要求を満たした構造になっているため，(18c) は可能な解釈ということになる。

4. おわりに

本稿では，日本語及び中国語の PL マーカー（特に PL_{assoc}）と類別詞表現が共起した際の解釈の制約について考察し，PL_{assoc} が 2 つの項を取るという Tatsumi (2017) の考えを採用した統語分析を採用して議論を進めてきた。この分析によれば，PL_{assoc} は DP_1 と併合し，その後で $\{DP_1, PL_{assoc}\}$ が DP_2 と併合することになる。本稿ではこれらの併合が付加操作 (adjunction) によるとの仮定に基づいて議論を進めてきたが，もしそうだとすると PL_{assoc} と DP_2 の統語的な関係に関する疑問が生じてくる。前者が後者を項として選択するにも関わらず $\{DP_1, PL_{assoc}\}$ が DP_2 に付加するというのは通常の選択 (selection) 関係の構造とは異なるからである。この点について最後に考えてみたい。

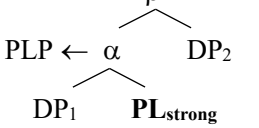
本稿では PL_{assoc} が付加によって統語構造に導入されると仮定してきたが，Ochi (2023) では PL を「反ラベリング」要素とした分析を展開している。この考え方によると，PL_{assoc} は弱主要部 (weak head) であり，「反ラベリング」の性質のために，「投射」はしないが，選択 (selection) に関しては通常の「強主要部」の場合と全く同じと考えることができる。以下の (20a) が PL_{assoc} が強い主要部の場合である。PL_{assoc} と DP_1 が併合すると，PL_{assoc} が α のラベルを提供する。そして，α が DP_2 と併合すると，やはり PL_{assoc} が β のラベルを提供する。一方，(20b) は PL_{assoc} が弱い主要部の場合であり，Ochi (2023) が提案した日本語

[5] (18b) に関しては，数量表現が続けて出てくることが文処理の問題を引き起こし，容認性に影響を与えているという可能性があるかもしれない。しかし，以下の様な例と比較すると，(18b) の容認性の低さは非常に顕著であろう。

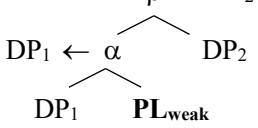
(i) ?100 人の 3 人の子供の母親 ‘100 mothers of three children’

の PL マーカーを含む名詞句の構造である。(20a) の場合と同様に，PL_{assoc} は 2 つの DP を項として取るが，「反ラベリング」の性質のために，α や β のラベルを提供しない。

(20) a.



b.



結果的に，この場合の PL_{assoc} は付加構造を持っている場合と同じ統語構造を形成する。これは Wiltschko (2008) が提唱する ‘modifying plural’ の提案との親和性が非常に高い。そして，2 つの項を選択するという点では PL_{assoc} が強主要部の場合でも弱主要部の場合でも変わらないことになる。

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The Directional Prefixes in Qiang As Telic Marker

Chen Yunwen

Abstract

In Qiang, the addition of a directional prefixes causes the action to shift from an ongoing to a completed state, and thus it is considered a marker of perfectivity (Lapolla & Huang, 2003; Huang, 2021). Zhou & Huang (2006) refer to actions with the directional prefixes as "already-performed actions," indicating that the actions have already taken place. However, upon further analysis, it was found that the directional prefixes can: (i) lead to a telic interpretation, and (ii) appear in contexts where perfective aspect would not normally occur. This paper evaluates the directional prefixes in Qiang based on Borer's (2005) theory of boundedness defined through quantification and concludes that the directional prefixes also functions as a boundedness marker, as its presence imparts a telic interpretation to the predicate.

Keywords

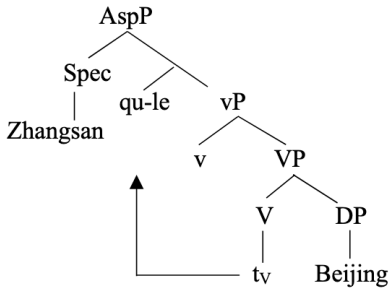
Inner Aspect, Telicity, Quantity, Direction Prefixes, Qiang language.

1.Introduction

This paper primarily investigates whether the directional prefixes in Qiang can be fully regarded as a marker of perfectivity. This issue can be compared with the study of the Chinese particle "LE" In Chinese, "LE" is widely considered a marker of perfectivity. Researchers such as Smith (1997), Soh & Gao (2006), and Huang et al. (2009) argue that sentences with "v-LE" typically describe events that occur from the perspective of perfectivity. They thus propose that "le" occupies the head of AspP. The verb must move from the domain of vP to merge with LE in the head position of AspP.

(1) Zhangsan qu-LE Beijing.
Zhangsang go-LE Beijing.
'Zhangsan went to Beijing.'

(2)



However, Cheng & Li (1991), through their observation of sentences with manner verbs shown in(3)-(4), pointed out that "LE" cannot occupy the head position of AspP.

(3) a. Z hangsan zai dasheng-de chang ge
Zhangsan ASP loud-DE sing song
*b. Zhangsan dasheng-de zai chang ge
Zhangsan loud-DE ASP sing song
'Zhangsan is singing loudly.'

(4) a. Zhangsan qiaoqiao-de hui le jia.
Zhangsan quietly-DE return LE home
*b. Zhangsan hui le jia qiaoqiao-de
Zhangsan return LE home quietly-DE
'Zhangsan returned to home quietly.'

Example(3) shows that manner adverb "dasheng-de(loudly) cannot precede the imperfective marker'zai', indicating taht it can only adjoin to vP not AspP. If 'LE' in (4b) were a perfective marker occupying in AspP, it should correctly precede the vP adverb 'qiaoqiao-de (quietly)'. However, the ungrammatical (4b) explains suggests otherwise. This indicates that "LE' cannot be regard as perfective marker.

Furthermore, Wang (2018) also argues that "LE" should not be analyzed as a perfective marker though the observation in (5) and (6).

(5) wo yao sha le na ge ren.
I will kill LE that CL person
'I will kill that person.'

(6) wo du le baozhi jiu shui.
I read LE newspaper then sleep
'I will sleep after reading newspepers.'

(5) and (6) demonstrate that “LE” can appear in sentences describing events that have not yet occurred at the time of speaking, whereas perfectivity describes events that have already taken place. Therefore, analyzing ‘LE’ as a perfective marker in these examples would conflict with the empirical data. Observations in(3)-(6) provide concrete evidence against treating ‘LE’ as perfective marker located in AspP, instead, they support the analysis that ‘LE’ is syntactically positioned inside the vP domain.

2. Previous review on direction prefixes in Qiang

The directional prefixes in Qiang originally indicated the direction of the action, but it later evolved to signal the completion of the event (Zhou & Huang, 2006). Regarding the nature of the directional prefixes in Qiang, researchers such as LaPolla & Huang (2001), Huang (2021), and Zhou & Huang (2006) argue that the directional prefixes can transform the verb from an ongoing action to a completed one, thus categorizing it as a perfective marker. Zhou & Huang (2006) further coined the term “already-performed aspect” to describe actions that have already been carried out.

（7） a. qupu stuaχa tʰə.
3SG meal/rice eat
‘He is having a meal.’

b. qupu stuaχa sə-tʰə.
3SG meal/rice DIR-eat
‘He had a meal.’

(8) a. qupu nəjmæχa ɕi tʰə.
3SG last.night alcohol drink
‘He was drinking alcohol last night.’

b. qupu nəjmæχa ɕi sə-tʰə.
3SG last.night alcohol DIR-drink
‘He drank alcohol last night’

However, similar to the phenomenon mentioned by Wang (2018) , the directional prefixes in Qiang can also appear in sentences describing events that have not yet occurred.

（9） Wong dʐuʁu tʰe: da-ta tɕʰi.
Wong key DEM DIR-find must
‘Wong must find that key.’

（10） qa stuaχa sə-tʰə ɳi tiænjin tse ka: (<kə+a)
1SG meal/rice DIR-eat CONJ movie watch go:FUT
“I will go to watch movie after having meal.’(Huang&Zhou 2006)

Considering the above, the directional prefixes in Qiang, like the Chinese particle “LE” cannot be fully regarded as a perfective marker. However, previous studies have not provided specific explanations or analyses to clarify this point. So, how can we account for the phenomena described above?

3.Borer’s（2005）definition of Quantity and relationship with telicity and it’s exo-skeletal framework.

Borer (2005) proposed a definition of Quantity suggesting that quantity is related to telicity. She argued that the telic event involves the quantification over event divisions, while atelic event is homogeneous. The definitions are as follows:

（11）a. P is homogeneous iff P is cumulative and divisive.

i. P is divisive iff $\forall x, y\ [P(x) \wedge (y < x) \rightarrow P(y)]$

ii. P is cumulative iff $\forall x,y\ [P(x) \wedge P(y) \rightarrow P(x \cup y)]$

b. P is quantity iff P is not homogeneous.

A concise summary of the two conditions in (a) is that “the whole is composed of parts, and parts are composed into the whole.” Taking water as an example, each individual portion of water is equivalent to water itself, and the combination of any portion of water still results in water. In contrast, (b) explains quantification as “a part does not represent the whole, and the whole is distinct from its parts.” For instance, when three apples are divided, the resulting portions no longer represent the original quantity of three apples, and each divided apple does not equal the total quantity of three apples. In short, quantification occurs when the relationship between the part and the whole becomes unequal.

When there is a discrepancy between the parts of an event and the whole, such that the event’s part cannot derive the entire event, it indicates a telic interpretation. Conversely, if such a relationship does not exist, the event is interpreted as atelic. Consider the following examples:

（12） a.John ate apples.

b.John ate three apples.

In (a), the apples are not quantified; it represents an indefinite quantity and number. Regardless of how many apples George eats, it still falls under the category of “eating apples.” In this case, (a) is a homogeneous event, with an atelic interpretation. In contrast, (b) introduces a quantity, which precisely indicates that the apples have a clear goal and endpoint. Thus, (b) is a quantity event, with a telic interpretation. The same applies in Chinese:

(13)a. Zhangsan chi-le pingguo.
Zhangsan eat-LE apple.
'Zhangsan ate apples.'

b. Zhangsan chi-le san-ge pingguo
Zhangsan eat-LE three-CL apple
'Zhangsan ate three apples.'

(13a) should be regard as homogenous event just like (12a). However, (13a) exhibits an ambiguity between definite and indefinite readings of the bare noun, as noted by Cheng & Sybesma (1999). This ambiguity is explained by Longobardi's (1994) analysis, where the bare noun occupies a DP with an empty D head and gains a definite interpretation via N-to-D movement. Adapting this to Chinese, Sybesma (1999) proposes that bare nouns are generated in a CLP with an empty CL head, acquiring definiteness through N-to-CL movement. Thus, the bare noun's ambiguous interpretation arises structurally.

Furthermore, Sybesma (1992, 1999) argues that telic predicates—marked by aspectual particles like le—require bounded objects. This semantic requirement forces a definite or specific interpretation on bare nouns in object position. For instance, [CL+N] phrases, typically indefinite (e.g., Zhangsan chi ge-pingguo), receive a definite reading in telic contexts (Zhangsan chi-le ge-pingguo), as shown in (14).

(14) a. Zhangsan chi ge-pingguo.
Zhangsan eat CL-pingguo
'Zhangsan ate some apples'

b.. Zhangsan chi-le ge-pingguo.
Zhangsan eat-LE CL-pingguo
Lit:Zhang ate one apple./*Zhangsan ate some apples.

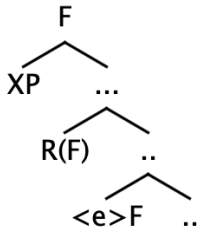
By analogy, in(13a) repeated in(15), although lacking explicit quantification, the telic predicate enforces a bounded event interpretation. This triggers N-to-CL movement, yielding a definite reading of pingguo, implying Zhangsan knows how many apples he ate.

(15) Zhangsan chi-le pingguo.
Zhangsan eat-LE apple
'Zhangsan ate apples.' (and he know how many he ate)

Borer (2005a, b) proposed the exo-skeletal framework, which argues that syntactic structure generation does not depend on the features of lexical items. The relationship between lexicon and syntax is a matter of post-hoc assignment, rather than feature projection. In the exo-skeletal framework, functional heads (such as AspP and v) are responsible for determining the functional

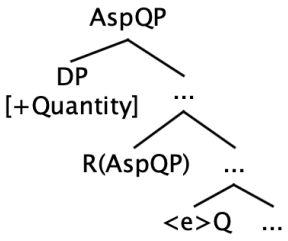
features of the syntactic structure. Each head consists of two parts: the obligatory part, which includes R(F) providing the category label and the open value to which R(F) assigns a value ; and the optional part, which is XP, responsible for the range to be assigned.

(16)

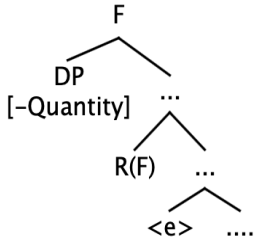


According to Borer's suggestion that quantity related to telicity, in the exo-skeletal framework, the functional head that brings about the bounded interpretation is the Aspect of Quantity (AspQP). XP in the Spec position represents the measurement of quantity. Because the Specifier and the quantity head have a head-spec configuration, when XP contains quantity DP, the functional head also carries the range of quantity, leading the range assigner R(F) assigns the range to the open value <e>Q .In the following examples, the presence of a quantifying object causes "LE" to have a telic interpretation, thus "LE" functions as a telic marker.

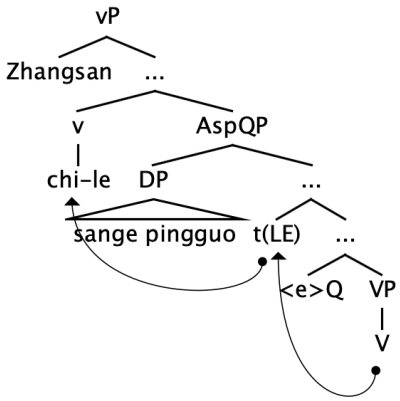
(17)



(18)



(19)



Thus, a question arises: Can the directional prefixes in Qiang be considered as markers of telicity?

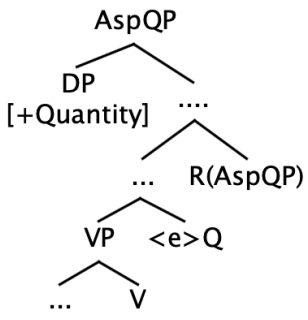
3.data

The relationship between the directional prefixes and the quantified object is equally integral. When a quantified object is present, the directional prefixes adopts quantificational features, thereby imparting a telic interpretation to the event.

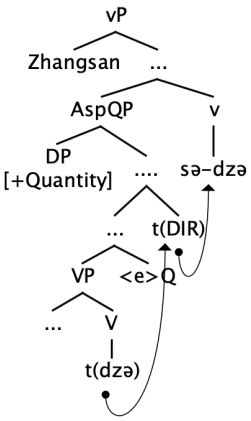
(20)a. Zhangsan pʰinku sə-dzə
Zhangsan Apple DIR-eat
'Zhangsan ate apples.'

b. Zhangsan pʰinku xsizə sə-dzə
Zhangsan Apple three DIR-eat
'Zhangsan ate three apples.'

(21)



(22)



However, this is insufficient to demonstrate that the directional prefixes represent telic；additional tests of telicity are required.

4.Telicity test

Firstly, in the conjunction test proposed by Kamp (1979) and Partee (1984), it is noted that when two verbal predicates are conjoined, if the predicates are atelic, the combined action is interpreted as a coherent event occurring simultaneously. However, if it is telic, the combined actions occur sequentially

(23) a. The vase broke and fell.

b. The vase fell and broke.

(24) a. The apple dropped and reddened,

b. The apple reddened and dropped.

(25) a. Kim ran and sang,

b. Kim sang and ran. (Borer 2005b: 51)

This test is validated in the following examples of Qiang. In the sentences below, where conjoined predicates with directional prefixes are present, the actions occur sequentially.

(26)

a. qupu	lænzi-le	tsi	ŋi̯	mugu-le	jua
3SG	basket-DEF:CL	hold	CONJ	lantern-DEF:CL	carry
“He is holding the basket and carrying the lantern(simultaneously).”					
b. qupu	lænzi-le	te-tsi	ŋi̯	mugu-le	tɕe-jua
3SG	basket-DEF:CL	DIR-hold	CONJ	lantern-DEF:CL	DIR-carry
“He hold the basket (first) and carried the lantern.”					

Secondly, the temporal adverbial test proposed by Vendler (1967) has been widely used to test whether a structure is telic or atelic. In other words, the structures are considered telic when it can co-occur with “in x time”, while those that match with “for x time” are considered atelic.

(27) a. John ate three apples.

b. John ate three apples in ten minutes

c. *John ate three apples for ten minutes.

(28) a. John ate apples.

b.*John ate apples in ten minutes.

c. John ate apples for ten minutes.

In Qiang, the time interval is expressed by “tɕiku,” which is equivalent to “in/within the time.” Furthermore, when temporal adverbials denoting an internal time interval are present, only telic structures are allowed.

(29)

a. Zhangsan	e-dzɻ- tɕiku	suʁu-pies	q^{h}utu	xsi-tʂa	*(sə) /sə-t^{h}ə
Zhangsan	one-hour-within	beef-meat	noodles	three-CL	*(DIR)/DIR-eat

‘Zhangsan ate three beef noodles in an hour.’

b. Zhangsan	e-dzɻ- tɕiku	ləʏʐ	æ-pən	*(ɦe)/ ɦe-zæ
Zhangsan	one-hour-within	book	one-book	*(DIR)/DIR-read

‘Zhangsan read a book in an hour.”

As shown in (29), structures without DIR become ungrammatical when temporal adverbials denoting internal time intervals are present. This proves that DIR functions as a telic marker, in a way similar to the Chinese LE discussed above.

Finally, the “almost” test proposed by Dowty (1979) can also be used to detect the telicity of a sentence. According to Dowty (1979), telic structures can have two interpretations, whereas atelic structures have only one.

(30) John almost reached the top.

(31) John almost walked.

(30) has two interpretations: one suggests that George, who is climbing the mountain, will soon reach the top, while the other implies that George intended to reach the to but gave up before he even started. In contrast, (31) has only one interpretation, which is that George intended to leave but did not.

In Qiang, ‘dojæjy’ is represented as ‘almost. And then,in the ‘almost’ sentence in Qiang, if the structure is telic, two interpretations arise: one is that he is about to finish reading the book, and the other is that he intended to read it but did not succeed. However, if the structure is atelic two outcomes occur: first, the sentence sounds unnatural, and second, if forced to interpret, it can only have interpretation that he almost reading books in the whole day.

(30) a. qupu	dojæjy	ləʏʐ	ɦe-zæ	
3SG	almost	book	DIR-read	

‘He almost read books.’

b. ??qupu	dojæjy	ləʏʐ	zæ
3SG	almost	book	read

‘He almost reading books.’

5.Conclusion

In conclusion, the directional prefixes in Qiang, as a marker of telicity, is closely related to the presence of a quantified object. According to the exo-skeletal framework proposed by Borer（2005）, when a quantified object appears, the functional head carries the range of quantity, leading the range assigner R(F) assigns the range to the open value <e>Q .

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中国語の再帰代名詞“自己”に関する一考察

Zheng Haowen

1. はじめに[1]

Tang（1989）や Huang & Liu（2001）によれば、中国語の“自己”「自分」の先行詞は“自己”「自分」を c 統御しなければならないこと、また、先行詞は主語指向性と有生性といった特徴がある。しかし、中国語では、これらの特徴、特に c 統御関係と主語指向性に反した例も存在する。例えば、(1) と (2) のような例が挙げられる。

(1) 自己$_i$ 的 孩子 没 考 好 的 事 使 张三$_i$ 很 苦恼。
自分 の 子供 ない 受験する いい の こと させる 張三 とても 悩む
「自分の子供が良い成績を取らなかったことが張三を悩ませた。」

(2) 张三$_i$ 做事 小心的态度 救了 自己$_i$。
張三 仕事をする 慎重な態度 救った 自分
「張三の慎重な態度は自分を救った。」

（Tang 1989: 96）

本稿の目的は Charnavel（2020）を用いて、(1) と (2) のような文における“自己”「自分」の先行詞の選択について議論を行い、そして、中国語において再帰代名詞の先行詞の選択差を説明することも試みる。

2. 理論的な仕組み[2]

Charnavel（2020）はフランス語の照応形 *lui-même*‘himself’と *son propre*‘his own’について、照応形がどのように先行詞を取るのかについて説明した。そして、その照応形を含む領域はその照応形の先行詞の視点を表さなければならないと主張した。

Charnavel（2020）によれば、領域[3]外の先行詞を取ることができる除外的照応形の先行詞になれるのは、態度の持ち主（attitude holder）と視点の置き場（empathy locus）しかない。フランス語における先行詞の分類とそれぞれの分別方法は表 1 になる。

[1] 本稿での中国語の日本語訳文は全て筆者が翻訳したものである。
[2] 本節以降でのフランス語のグロスは筆者がフランス語の知識を有する者からアドバイスを受け記載した。また一部は Wiktionary を用いて付けたものである。
[3] Charnavel（2020）によれば、照応形の束縛領域は phase である。

表 1 **フランス語における除外的照応形の先行詞の分別方法**

ロゴフォリック先行詞	ロゴフォリック領域	テスト
態度の持ち主	De se 態度	反態度的エピセット （anti-attitudinal epithets）
視点の置き場	第一人称知覚 （First person perception）	視点を表す *son cher*‘her dear’ （Empathic *son cher*‘her dear’）

（Charnavel 2020: 681）

まず、エピセットテストの根拠について説明する。Dunbinsky & Hamilton（1998）では、視点の持ち主（perspective-bearer）はエピセットの先行詞になれないため、エピセットはアンタイロゴフォリック（antilogophoric）であると結論付けた。

（3） a.*According to John$_i$, the idiot$_i$ is married to a genius.
b. Speaking of John$_i$, the idiot$_i$ is married to a genius.

（4） a.*John$_i$ told us of a man (who was) trying to give the idiot$_i$ directions.
b. John$_i$ ran over a man (who was) trying to give the idiot$_i$ directions.

（Dunbinsky & Hamilton 1998: 688）

（3a）と（4a）の *John* は視点の持ち主であり、エピセットである *the idiot* の先行詞になることができない。一方、（3b）と（4b）の *John* は視点の持ち主ではないため、エピセットである *the idiot* の先行詞になることができる。

Charnavel（2020）では、フランス語のエピセットも同じ特徴があると述べられている。故に、態度文では、もし先行詞と同一指示を持つ照応形がエピセットに置き換えると、文は非文法になり、その先行詞は態度の持ち主であると推測することができる。

以上を踏まえると、先行詞は態度の持ち主であるかどうかの弁別方法は（5）になる。

（5） **エピセットテスト**

a. 除外的照応形は、もしそれを同一指示のエピセットと置き換えた場合に文が容認出来なくなるのであれば、容認される。

b. 除外的照応形は、もしその領域に同一指示のエピセットを挿入するとその文が容認されなくなるのであれば、容認される。

（Charnavel 2020: 684）

（6）はこのテストを使う具体例である。

(6) a. Robert$_i$ dit que son$_{i/k}$ rival a voté pour son$_i$ propre projet.
Robert say that his rival AUX vote for his own project
'Robert$_i$ says that [his$_{i/k}$ rival voted for his$_i$ own project].'

b. Robert$_i$ dit que son$_{i/k}$ rival a vote pour le projet de [cet idiot]$_{*i/k}$.
Robert say that his rival AUX vote for the project of this idiot
'Robert$_i$ says that [his$_{i/k}$ rival voted for [the idiot]$_{*i/k}$'s project].

c. Robert$_i$ dit que le rival de [cet idiot]$_{*i/k}$ a voté pour son$_i$ propre projet.
Robert say that the rival of this idiot AUX vote for his own project
'Robert$_i$ says that [the rival of [the idiot]$_{*i/k}$ voted for his$_i$ own project].'

(Charnavel 2020: 685)

(6a) では、代名詞である *son*「his」は、主節主語 *Robert* あるいは他の男性を指すことができる。また、照応形である *son propre*「his own」は主節主語 *Robert* を指すことができる。(6b) において、除外的照応形 *son propre*「his own」をエピセット *cet idiot*「this idiot」に変更すると、*cet idiot*「this idiot」は主節主語 *Robert* を指すことができなくなるため、(5a) によれば、(6b) の *Robert* は態度の持ち主とみなされる。そして、(6c) では、除外的照応形を含んでいる書き出し領域内にある *son rival*「his rival」は、エピセットを含む *le rival de cet idiot*「the rival of this idiot」に変えると、主節主語 *Robert* を指すことができない。(5b) によって (6c) の *Robert* は態度の持ち主であることが分かる。

次は、先行詞が視点の置き場である場合について説明する。表 1 によれば、除外的照応形が視点の置き場を先行詞として取る場合には、視点投射はその先行詞の視点からしたものである。そして、その視点投射内での *son cher*「her dear」、つまり、*cher*「dear」はその視点の置き場からの評価である。

また、Charnavel (2020: 691) では、*son cher*「her dear」は皮肉表現としても使われることが指摘されている。

(7) Jérôme$_i$ va aller render visite à sa$_i$ chère cousin (qui profite de lui).
Jerome be.going.to take a visit to his dear cousin who take.advantage of him
'Jerome$_i$ will visit his$_i$ dear cousin (who takes advantage of him).'

ここでの内部視点である *Jérôme* の内心感情を表す *sa chère*「his dear」は、話者は *Jérôme* の視点を取らなければならないが、実際に、そうはならないという解釈も可能である。このように *Jérôme* の内心感情と話者の考えの間に感情衝突を起こるため、皮肉表現が現れる。つまり、*sa chère*「his dear」の評価を出すには、話者は必ず視点の置き場である先行詞と視

点共有しなければならないのである。従って、*son cher*‘her dear’テストによって、文の視点の置き場を確定することができる。

(8) ***son cher*‘her dear’テスト**

a. 除外的照応形は、もしそれを同一指示の *son cher* ‘her dear’と置き換えた場合に文が容認されるのであれば、容認される。

b. 除外的照応形は、もしその領域に同一指示の *son cher* ‘her dear’を挿入するとその文が容認されるのであれば、容認される。

(9) Le courage de Paul$_i$ a sauvé des flammes à la fois sa$_i$ propre maison,
the courage of Paul AUX save of.the flameat at the time his own house
celle de ses$_i$ chers enfants, et celle des voisins de [ce héros]$_i$.
that of his precious child and that of-the neighbor of this hero
‘Paul$_i$’s courage saved from the fire his$_i$ own house, his$_i$ dear children’s house, and [the hero]$_i$’s neighbors’ house.’

(Charnavel 2020: 691-692)

(9) からわかるように、エピセットである *ce héros*‘this hero’は *Paul* を指すことができるので、(5) によれば、*Paul* は態度の持ち主ではない。そして、*ses chers*‘his precious’は *Paul* から出した評価であるため、*Paul* は視点の置き場になり、照応形の先行詞になることができる。

さらに、Charnavel (2020) は、純粋な空間的表現 (spatial expressions) のセンターは除外的照応形の先行詞になれないと指摘した。

図 1 ヨハネス・フェルメール 『音楽の稽古』1662–1665

（10） A la droite du professeur$_i$, un portrait de lui$_i$ (*-même) est accroch
At the right to.the teacher a portrait of him self is hang.up
au-dessusé de l’ épinette.
above of the virginal
‘To the right of the teacher$_i$, a portrait of him$_i$(*self) hangs above the virginal.’
（Charnavel 2020: 696）

（10）は図 1 に基づき、作れらた文である。（10）において、ダイクシスセーターである *professeur*‘teacher’は代名詞である *lui* の先行詞になるが、再帰代名詞である *lui-même* ‘himself’の先行詞になることはできない。つまり、空間表現だけを表す文では、照応形は空間表現のセーターである名詞句を取ることができない。また、Charnavel（2020）はフランス語において、心理動詞を使う文は態度文を作ることができないと指摘した。

（11） Les méchants commentaires des internautes sur {a. lui$_i$-même / b. [le pauvre
the bad comment of.the Internet-user on him-self the poor
homme]$_i$} ont atteint le moral de Marc$_i$.
man AUX reach the moral of Marc$_i$
‘The net surfers’ mean comments about a. himself$_i$ / b. [the poor man]$_i$ affected Marc$_i$’s morale.’
（Charnavel 2020: 690）

（11）のエピセット *le pauvre homme*‘the poor man’は *Marc* を指すことができるため、先行詞である *Marc* は態度の持ち主ではなく、視点の置き場である。

3. 分析

3. 1 除外的照応形の先行詞のテスト方法

3. 1. 1 エピセットテスト

エピセットのアンタイロゴフォリシティーは英語とフランス語だけではなく、中国語にもあると言われている（Liu 2004）。

（12） a. *根据 张三$_i$ 的 说法, 这小子$_i$ 要 跟 一位 天才 结婚。
による 張三 の 言い方 こいつ する と 一位 天才 結婚
「張三の言い方によると、こいつは天才と結婚する。」
b. 谈到 张三$_i$, 这小子$_i$ 竟然 要 跟 一位 天才 结婚。
といえば 張三 こいつ なんと する と 一位 天才 結婚
「張三はといえば、こいつはなんと天才と結婚する。」

(13) a. *张三$_i$ 向 我们 提到 一个 试图 给 这小子$_i$ 指引 方向 的 老人。
张三 に 私たち 話す 一個 試す に こいつ 教える 方向 の 老人
「張三は、私たちにこいつに指示を与えようとしているお年寄りのことを話した。」
b. 张三$_i$ 开车 撞到了 一个 试图 给 这小子$_i$ 指引 方向 的 老人
張三 運転 はねた 一個 試す に こいつ 教える 方向 の 老人。
「張三は、車でこいつに指示を与えようとしているお年寄りをはねた。」
(Liu 2004: 279)

(12) と (13) の例から分かるように、中国語ではエピセットはアンタイロゴフォリック的なものである。 そして、フランス語と違い、Charnavel (2020) の分類方法では中国語における心理動詞文での先行詞は、態度の持ち主とみなされる。

(14) a. 自己$_i$ 的 孩子 没 考 好 的 事 使 张三$_i$ 很 苦恼。
自分 の 子供 ない 受験する いい の こと させる 張三 とても 悩む
「自分の子供が良い成績を取らなかったことが張三を悩ませた。」
b. *这小子$_i$ 的 孩子 没 考 好 的 事 使 张三$_i$ 很 苦恼。
こいつ の 子供 ない 受験する いい の こと させる 張三 とても 悩む
「こいつの子供が良い成績を取らなかったことが張三を悩ませた。」

(14a) の“自己”「自分」は“张三”「張三」を指すことができるが、エピセットである“这小子”「こいつ」に変えると、“张三”「張三」を指すことができなくなる。従って、中国語において、心理動詞文は態度文である。

3.1.2 「愛しい」テスト

中国語では「愛しい」に相当する言葉は、“心爱的”或いは“可爱的”である。これらの表現はフランス語と同様に、皮肉表現として使われる。

(15) 张三 会 去 看望 心爱 的 侄子。
張三 会 行く 訪ねる 愛しい の 甥
「張三は愛しい甥を訪ねていく。」

(15) では、話者は“张三”「張三」の甥を愛しいと思う必要がなく、またその甥が嫌がっていることもあり得る。しかし、この文は“张三”「張三」の視点からなり、“张三”「張三」はその甥を愛しいと思っているので、話者は「愛しい」という表現を使ったことが分かる。故に、中国語では「愛しい」テストにより、視点の置き場を弁別することができる。

3.1.3 ダイクシスセンター

Oshima（2006）に基づき、Charnavel（2020）は、主に二種類のダイクシスセンターがあると結論付けた。一つ目は「行く（go）」や「来る（come）」のような移動動詞（motion verbs）が作ったセンターで、もう一つは「～の右側」のようなダイクシス方位表現（deictic angular expressions）が作ったセンターである。

まず、ダイクシス方位表現に関することを説明する。

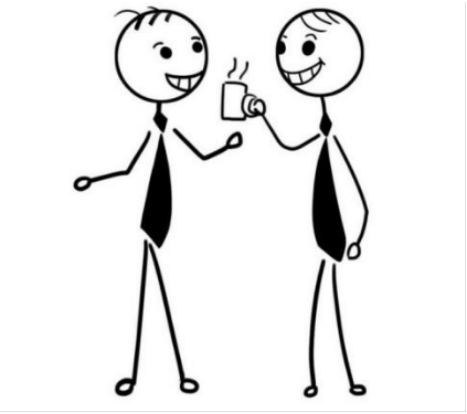

図 2 話をしている二人

図 2 の二人が話をしている。コップを持つ人は A で、コップを持たない人は B と仮定する。そして、B をダイクシスセンターとし、“自己”「自分」を含む文を作ってみると、(16) になる。

(16) *在　　B_i　的 左边，自己$_i$　的 同事 拿着　　一个 杯子。
　　に　　B　の 左側　自分　の 同僚 持っている 一個 コップ
　　「B さんの左側に、自分の同僚はコップを持っている。」

(16) は非文法的になる。つまり、中国語では、ダイクシス方位表現が作ったダイクシスセンターは除外的照応形“自己”「自分」の先行詞になれない。

次は移動動詞について説明する。まず、移動動詞を使う場合、移動動詞の視点センターは常に態度の持ち主や視点の置き場と繋がっていると仮定する。すると、話し手は視点センターにいて、その文の態度の持ち主や視点の置き場が視点センターにいないのであれば、文は非文法的になることが予測できる。(17) は予測通りの結果になる。

(17) 张三$_i$　害怕　　坏天气　会阻止　　自己$_i$　的 儿子 来　　北京。
　　張三　恐れる　悪天候　阻止する 自分　の 息子 来る 北京
　　「張三は悪天候で自分の息子が北京へ来られないことを恐れている。」
　　(i) 張三が北京にいる

（ii）*張三は北京にいないが、話者が北京にいる

（Charnavel 2020: 704；訳文は筆者が翻訳）

(17) のような中国語の文が示したように、移動動詞が作ったダイクシスセンターは必ず態度の持ち主或いは視点の置き場になる。

以上を踏まえて、中国語の除外的照応形に関するロゴフォリックセンターの分類は表 2 になる。

表 2 **中国語においての除外的照応形に関するロゴフォリックセンターの分類**

Charnavel（2020）	態度の持ち主	視点の置き場	ダイクシスセンター
筆者の主張	態度の持ち主	視点の置き場	ダイクシスセンター

3.2 適用

まず、(14) で示したように、心理動詞を使う例において、“自己”「自分」の先行詞は態度の持ち主とみなされるため、“自己”「自分」の先行詞になることができる。

次は sub 統御の例について説明する。

(18) a. [张三$_i$ 做事 小心的态度]$_j$ 救了 自己$_{i/j}$。
張三 仕事をする 慎重な態度 救った 自分
「張三の慎重な態度は自分を救った。」 (2 再掲)

b. 张三$_i$ 做事 小心的态度 救了 这小子$_i$。
張三 仕事をする 慎重な態度 救った こいつ
「張三の慎重な態度はこいつを救った。」

c. 张三 做事 小心的态度 救了 心爱的 小花。
張三 仕事をする 慎重な態度 救った 愛しい 小花
「張三の慎重な態度は愛しい小花を救った。」

(18b) はエピセットテストを用いた文であり、“这小子”「こいつ」は“张三”「張三」を指すことができるため、“张三”「張三」は態度の持ち主ではない。また、(18c) は「愛しい」テストを用いた文であり、“心爱的”「愛しい」という評価を出す人は“张三”「張三」とみなされ、“张三”「張三」は視点の置き場である。故に、(18a) が示したように、“张三”「張三」は“自己”「自分」の先行詞になることができる。

さらに、Charnavel（2020）によれば、照応形を含む領域はその照応形の先行詞の視点を表さなければならない。中国語では“来”「来る」という動詞は話者の視点が終点に近い時に使う傾向があり、“去”「行く」は話者の視点が出発点により近い時が使いやすいのであ

る。先行詞である“李四”「李四」は終点にいるため、“李四”「李四」の視点を表している修飾節にある動詞も“李四”「李四」の視点を表す“来”「来る」を使うのが合理的であると考えられる。

(19) a. 当　张三 **来**　看望　自己$_i$　的 时候，李四$_i$ 很　　高兴。
　　時　張三 来る 見る　自分　の 時　　李四　とても 嬉しい
　　「張三が自分を見に来る時に李四はとても嬉しそうだ。」
　　b.??当　张三 **去**　　看望 自己$_i$ 的 时候，李四$_i$ 很　　高兴。
　　時 張三 行く　見る 自分　の 時　　李四　とても 嬉しい
　　「張三が自分を見に行く時に李四はとても嬉しそうだ。」

4. 結論と今後の課題

4.1 結論

本研究は、Charnavel（2020）の分析方法が中国語に適用できるか、そして、“自己”「自分」がどのような先行詞を取るかについて考察を行った。

中国語の“自己”「自分」は、フランス語の *lui-même*‘himself’と *son propre*‘his own’と同様に、態度の持ち主と視点の置き場しか先行詞として取ることができない。そして、態度の持ち主を弁別するエピセットテストと、視点の置き場を弁別する「愛しい」テストは、中国語においても共通である。しかし、フランス語と違い、中国語では心理動詞文での先行詞は視点の置き場ではなく態度の持ち主である。更に、これらのテストを用いることで、“自己”「自分」がその先行詞に関して示す制約を説明できる。

4.2 今後の課題

Charnavel（2020）では、フェーズに基づき、束縛条件 A を再定義した。このような定義を中国語に適用できるかどうかについて分析する必要がある。

略語一覧

AUX　auxiliary

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Phonological Allomorphs of *sase*[*]

Taika Nagano

1. Introduction

In Japanese, verbs can denote causality by suffixing the morpheme *sase* to the root of a verb. The example in (1b) is a typical causative construction in Japanese, derived from a common transitive sentence in (1a).

(1) a. Mary-ga ringo-o tabe-ta.
Mary-NOM apple-ACC eat-PST
'Mary ate an apple.'

b. John-ga Mary-ni ringo-o tabe-**sase**-ta.
John-NOM Mary-DAT apple-ACC eat-CAUS-PST
'John let Mary eat an apple.'

Although it seems that *sase* simply attaches to the base verb just like English forms a causative construction by means of analytic causative verbs like *make* or *let*, in Japanese *sase* has variants and some of them work as a transitive marker of causative-inchoative alternating verbs, which is not overt in English.

There are a number of generative literatures on this topic, but relatively little attention has been paid to some morphophonological aspects of the morpheme. One of such less unexplored topics is the allomorphs, which have been regarded as independent morphemes that accidentally share similar forms. The goal of this paper is to give an idea that these morphemes are derived from a sole morpheme, and the variation is triggered by some phonological reasons. More precisely, I would argue that causative morphemes in Japanese, including *sase*, are all derived from *as*, and other forms are phonologically derived.

This paper is organized as follows. In Section 2, we will see the variation among causative morphemes in Japanese, and its analysis previously done by Miyagawa (1998). Section 3 will present my idea that the most basic form of the causative variants is *as*, and some phonological factors make *as* change to the other forms. In Section 4, I will touch upon some theoretical implications resulting from my analysis. Section 5 concludes the paper.

2. Causative Morphemes in Japanese

2.1. Syntactic Causative

Japanese can denote causality by attaching the morpheme *sase* to a verb, shown in (2). Since *sase* is possible to attach any kinds of verbs, it is usually referred to as *productive*, or *syntactic causative*.

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[*] The content of this paper is based on part of my master's thesis (Nagano 2024). I thank my thesis committees, Masao Ochi, Akitaka Yamada, and Hirotaka Nakajima, for helpful comments. All errors are mine.

(2) John-ga Mary-ni { hon-o yom-**ase** / ringo-o tabe-**sase** }-ta.
John-NOM Mary-DAT { book-ACC read-CAUS / apple-ACC eat-CAUS }-PST
'John made/let Mary { read a book. / eat an apple. }'

It should be noted that *sase* changes its form according to the phonological property of its left-adjacent verb. When the base verb ends with a consonant, the first /s/ disappears, *sase* changing to *ase*. In (2), the verb *yom* 'read' has a consonant ending (i.e., it ends with /m/), therefore realized as *yom-ase*. This is just because of Japanese phonotactics. Japanese prohibits consonants from blending, so there is no change when *sase* attaches to a vowel-ending (see *tabe-sase* in (2)). This phonological behavior is illustrated in (3).

(3) a. sase → ase / C_____ b. ase → sase / V_____

There is no consensus on whether the base is sase or ase, so, as (3) shows, we have two ways of formalization. If we are for (3a), we have to assume a deletion rule of the first /s/. On the other hand, in order to adopt (3b), some /s/-insertion rule is required. In this paper, I adopt the latter, which we will see in Section 3.2.

2.2. Lexical Causative

In Japanese, some verbs morphologically mark their transitivity especially when they have a(n) (in)transitive counterpart. Take *kowa* 'break' for example. It requires the morpheme *re* (i.e., *kowa-re*) to denote intransitivity, while it utilizes the morpheme *s* (i.e., *kowa-s*) in transitive use.

(4) a. Kinko-ga kowa-**re**-ta.
safe-NOM break-INTR-PST
'The safe **broke** (by itself).'

b. Doroboo-ga kinko-o kowa-**si**-ta.
thief-NOM safe-ACC break-TR-PST
'A thief **broke** the safe.'

As indicated, the translations in (4), in English, verbs do not show transitivity overtly. Japanese has abundant transitivity markers. Jacobsen (1992:59) points out that there are morphological tendencies: "[. . .] every suffix involved in transitive vs. intransitive oppositions containing an *s* is transitive, and affixes containing *r* are preponderantly intransitive."

There are six transitive markers, presented in (5).

(5)

	Transitve	*Gloss*	*cf. Intransitive*
a.	wak-**as**-u	'boil'	wak-**Ø**-u
b.	kowa-**s**-u	'break'	kowa-**re**-ru
c.	horob-**os**-s	'destroy'	horob-**i**-ru
d.	ki-**se**-ru	'dress'	ki-**Ø**-ru
e.	amay-**akas**-u	'spoil'	ama-**e**-ru

In this paper, we focus on *as*, *s*, and *os*, and we set aside *se* and *akas* because we are talking about transitive-intransitive (causative-inchoative, in other words) alternating verbs. The verbal suffix *se* functions as a

ditransitive marker, and *akas* attaches to an adjectival stem. These two cases seem to form more complex structure than simple (in)transitive verbs have. I abstain from looking deep into these due to space limitation. So, we discuss these three transitive markers. Examples are shown in (6)[1].

(6) a. Otya-o wak-**as**i-ta.
tea-ACC boil-CAUS-PST
'Somebody boiled tea.'

b. Terebi-o kowa-**s**i-ta.
TV-ACC break-CAUS-PST
'Somebody broke the TV.'

c. Mati-o horob-**os**i-ta.
city-ACC destroy-CAUS-PST
'Somebody destroyed the city.'

In contrast to *sase*, which does not specify its base verb, the transitive markers cannot appear freely. The transitive morphemes do specify which verbal roots to attach. To put it another way, the contexts of each of the transitive morphemes are root-determined. So we call them lexical causative.

2.3. *(S)ase* as an Elsewhere Form

In the previous subsections, we have seen that there are several variants in the Japanese causative morphology system. Miyagawa (1998) captures the behavior of these causative morphemes under the framework of Distributed Morphology (DM, henceforth) (cf. Halle and Marantz (1993)). He proposed that *sase* was the most unmarked, elsewhere form of the causative morphemes, and the other variants were more marked, each having a root-oriented context.

Miyagawa (1998) first pays attention to the alternation between *sase* and *sas*. As the example in (7b) shows, *sase* can freely be substituted for *sas*, regardless of the phonological property of its left-adjacent verb.

(7) a. John-ga Mary-ni { hon-o yom-**ase** / ringo-o tabe-**sase** }-ta. (=(2))
John-NOM Mary-DAT { book-ACC read-CAUS / apple-ACC eat-CAUS }-PST

b. John-ga Mary-ni { hon-o yom-**as**i / ringo-o tabe-**sas**i }-ta.
John-NOM Mary-DAT { book-ACC read-CAUS / apple-ACC eat-CAUS }-PST
'John made/let Mary { read a book. / eat an apple. }'

However, the lexical causatives cannot. In (8b), it is shown that lexical causative verbs like *wak-as* 'boil' and *nigo-s* 'muddy' are not able to substitute their causative markers for *(s)ase*.

(8) a. John-ga otya-o { wak-**as**i / nigo-**s**i }-ta.
John-NOM tea-ACC { boil-CAUS / muddy-CAUS }-PST
'John boiled tea. / Lit.: John muddied tea (=gave an evasive answer).'

b. *John-ga otya-o { wak-**ase** / nigo-**sase** }-ta.
John-NOM tea-ACC { boil-CAUS / muddy-CAUS }-PST

Putting these facts together, Miyagawa argued that sase has the least specific environment to be phonologically realized, assuming the following Vocabulary Items (VI, henceforth) in (9). Here, we focus on *as* and *sase* due to space limitation.

[1] The vowel *i* like in (6) is usually considered to be an epenthesis, avoiding a consonant cluster.

(9) a. as ↔ CAUSE + BECOME / { $\sqrt{\text{D}}$, . . . } +_____

b. as ↔ CAUSE / { $\sqrt{\text{UGOK}}$, . . . }_____

c. sase ↔ CAUSE / elsewhere (Adapted from Miyagawa (1998:103))

Before discussing what (9) signifies, I should clarify the syntactic structure Miyagawa (1998) assumes, which is in (10). The verbal structure is based on Chomsky (1995), where *v* introduces an external argument (EA).

(10) [$_{v\text{P}}$ EA [$_{\text{VP}}$ IA [$_{\text{AP}}$ . . . $\sqrt{\text{ROOT}}$ . . .] [$_{\text{V}}$ BECOME] [$_{v}$ CAUSE]]

Additionally, following Hale and Keyser (1993), causative-inchoative alternating verbs are derived from AP, because most of them denote change of state, and the heads of VP and *v*P are the loci of the verbal property BECOME and CAUSE.

These verbal properties play a crucial role in determining the phonological realizations. In (9), *as* has two contexts to appear. The VI in (9a) specifies that *as* appears when verbal roots like *d* 'take out' contain BECOME and CAUSE. The other one in (9b) means that *as* also appears as the realization for CAUSE that is adjacent to verbal roots like *ugok* 'move'[2].

The last item in (9c) is the primary proposal of Miyagawa (1998): *sase* is the elsewhere form for CAUSE. According to Halle (1997), when phonological exponents are in competition (e.g., there are several options for phonological realization of one or a set of arbitrary feature(s)), a more marked exponent takes precedence over the other less marked ones. This is what is called *Subset Principle*. In this case, the context in (9a) is the most marked, so when there is a situation that matches with what (9a) says, it applies. Conversely, cases where there is no specification guarantee the realization of the elsewhere form. That is, *sase* has no specification to realize and thus it is possible to appear in a lot of contexts.

2.4. Toward a More Morphophonological Account

Although Miyagawa (1998) succeeds in capturing the distribution of Japanese causative morphemes in DM framework, I think there is room for more morphophonological unification. As Jacobsen (1992) suggests, *sase* and the lexical causative morphemes like *as* share the same origin because their syntactic function is the same: introducing a causer argument. Also, all of such causative morphemes share the same consonant /s/. However, listing approaches like Miyagawa (1998) fail to capture these syntactic and morphological similarities since they are treated as independent vocabularies. So, just specifying the allomorphic contexts is insufficient to find the genuine characteristics of the causative morphemes in Japanese.

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[2] The reason Miyagawa distinguished (9a) from (9b) is that their intransitive counterparts are morphologically different. The intransitive form of *d-as* 'take out' is *d-e* 'go out', with the intransitive marker *e*. When *ugok-as* 'move' becomes intransitive, on the other hand, there is no overt intransitive marker (i.e., *ugok-Ø*).

The core observations in Miyagawa (1998) are (i) *sase* is substitutable for sas only when it is syntactic causative, and (ii) lexical causative markers cannot be replaced with *sase*. The first /s/ in sase appears on account of the purely phonological reason, i.e., avoiding a consonant cluster (see Section 2.1). Then, what happens when a lexical causative morpheme is adjacent to a consonant-ending verb? For example, we have seen the verb *nigo* 'muddy' in (8a), which chooses *s* as its transitive marker. From the lists of transitive-intransitive alternating verbs in Japanese (cf. Jacobsen (1992, Appendix)), I found that every base verb with the transitive marker *s* ends with a vowel, on which no emphasis is put in Jacobsen (1992). In other words, every verbal stem to which *as* or *os* attaches ends with a consonant. So, it is not unnatural to expect that the lexical causative suffix is affected by the phonological characteristics of their base verb as *sase* is. I believe there are some phonological interactions between causative morphemes and their base verb to be investigated more.

There is one more thing I have to mention concerning the VIs in Miyagawa (1998). I have cited the abbreviated version in (9), but I think it is open to dispute. Looking into (9a, b), both of which are VIs for *as*, more precisely, *as* has two cases to be realized, where CAUSE is adjacent to verbal roots like *d* 'go out' with the verbal property become (9a), or where cause is adjacent to verbal roots like *ugok* 'move' (9b). The VI for *as* therefore is reformulated as in (11).

(11) as $\leftrightarrow$ CAUSE / $\begin{cases} \{ \sqrt{\text{D}}, \ldots \} + \text{BECOME} + \_\_\_\_\_ \\ \{ \sqrt{\text{UGOK}}, \ldots \} \_\_\_\_\_ \end{cases}$

However, such disjunctive conditions are inappropriate. According to Embick (2010:98), "[. . .] a single VI has a coherent distribution, which means that a VI cannot contain a 'disjunctive' list of features that are not compatible with one another." VIs guarantee where an exponent should appear, and iff the condition matches with the environment, an appropriate phonological form is chosen. A VI with a disjunctive condition just states that there are two exponents, say, X and Y, but they accidentally have the same phonological form /x/. In the case of (11), we are forced to assume that there are two individual exponents for cause, as_1 and as_2. When the condition in (9a) activates, as1 is realized, and when the situation in (9b) occurs, as_2 is chosen. Is there any need to distinguish as_1 from as_2? Not only is it redundant, but such a disjunctive-conditioned VI fails to correctly capture the distribution of a single morpheme.

3. Proposals

One of the measures to solve the challenges presented in Section 2.4 is to do away with the notion that *sase* is the elsewhere causative morpheme. The crucial points are (i) the first /s/ in sase never appears to avoid a consonant cluster when a causative marker is lexical, and (ii) the lexical causative marker *s* is always adjacent to a verbal root with a vowel ending. Taking these phonological behaviors into account helps find a key to a more simple, unified description.

In this paper, I propose that it is not *sase* but *as* that is the most unmarked causative morpheme. In order to support this, I assume some (morpho)phonological operations. My analysis succeeds in

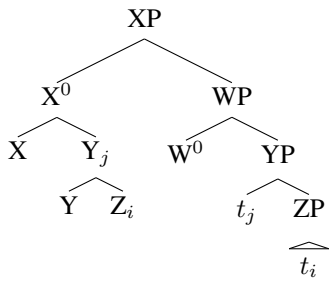
simplifying the VI for the causative morphemes and capturing the generalization that the verbal morphemes with /s/ have the function of augmenting an argument.

3.1. Theoretical Assumptions

Before going on to the technical discussion, I would like to introduce some key theoretical assumptions briefly. In this paper, I adopt the Linearization mechanics by Embick (2007), in which three steps are postulated in the process of Linearization. We are checking one by one, referring to the hypothetical syntactic structure in (12) for exposition.

First, linear orders (adjacency) of elements in a hierarchical structure formed by syntactic operation, Merge, are determined. This step is called *Linearization* (in a narrow sense), and formally represented by an operator *. With this operator, "α*β" means α is left-adjacent to β. The linear relations in (12) are formally represented in (13a). The terminal node Y is left-adjacent to Z_i, the pair of which, Y_j, is right-adjacent to X, and the head X^0 is left-adjacent to WP, whose head W is left-adjacent to YP, and so on.

(12)



(13) *Linearization*

a. Linearization (Define Adjacency):
$((_{X^0}\ X^*(_{Y_j}\ Y^*Z))^*(_{WP}\ W^*(t_j{}^*(ZP^*\ldots))))$

b. Concatenation:
$X \oplus Y$, $Y \oplus Z$, $X \frown W$

c. Chaining:
X-Y-Z-W

The second step, *Concatenation*, is the most important. Concatenation defines which terminal node is adjacent to which terminal node. The concatenation procedure does not take place freely. There are two kinds of terminal nodes: *M-Word* and *Subword*, defined in (14).

(14) a. **M-Word:** (Potentially complex) head not dominated by further head-projection
(cf. Chomsky (1995) "H^{0max}")

b. **Subword:** Terminal node within an M-word (i.e. either a $\sqrt{\text{ROOT}}$ or a feature bundle)

(Embick 2007:307)

For instance, in (12) X^0 and W^0 are M-Words, and X, Y_j, Y, and Z_i are Subwords since they are dominated by the M-Word X^0. Note that an M-Word concatenates with another M-Word, not a Subword. Also, a Subword makes linear relations with another Subword, not an M-Word. For the formalization, two operators $\oplus$, which denotes Subwords concatenation, and $\frown$, representing M-Words concatenation, are used. In (13b), the subwords X and Y_j, and Y and Z_i are concatenated. Also, the M-Words X^0 and W^0 are concatenated. An M-Word never concatenates with a Subword, and vice versa, so the concatenation, for

example, of Y_j and W^0 is prohibited since the former is a Subword and the latter is an M-Word. In this paper, I assume Vocabulary Insertion takes place after the concatenation.

The last step is called *Chaining*. Concatenated terminals become a chain for phonological interpretation. There is much less to be mentioned, but note that Z, the Subword of X, is next to W. When M-Words are concatenated, the rightmost Subword of the left M-Word is left-adjacent to the leftmost element of the right M-Word. In the case of (13b, c), X⁀W ensures that Z, the rightmost element in X^0, is next to W.

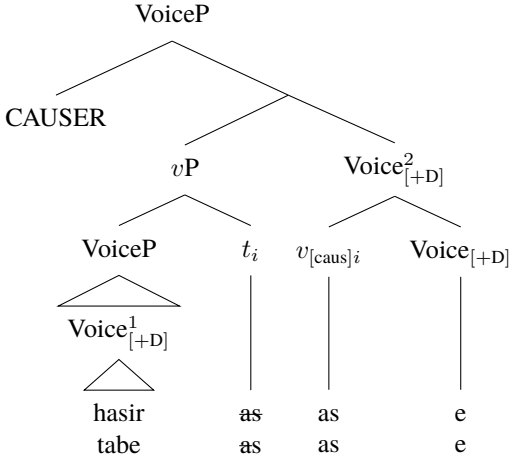
3.2. Derivation of *sase* and lexical causatives

The main proposal in this paper is that as is the most unmarked causative morphemes in Japanese. Following Alexiadou and Lohndal (2017, a.o.), I assume the verbal categorizer *v* defines aspectual semantics. When a verb denote causality, the property of *v* is $v_{[caus]}$. Besides, I assume VoiceP, whose head is set to $Voice_{[+D]}$ (cf. Kastner (2020)), introduces an EA (CAUSER). The functional head v[caus] is the place for as to be realized in combination with $Voice_{[+D]}$, as shown in (15).

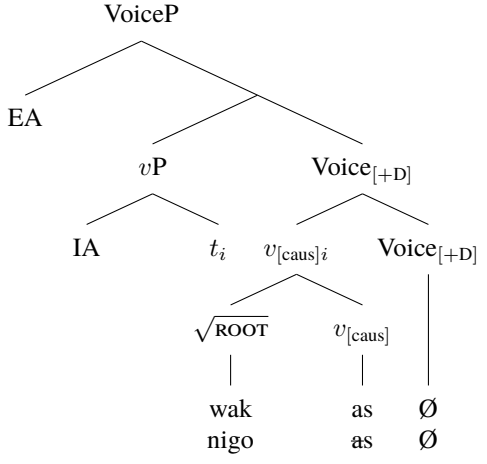
(15) $v_{[caus]} \leftrightarrow$ as / _____*$Voice_{[+D]}$

There is no need to set a number of VIs as Miyagawa (1998) does anymore, but it is impossible to derive *sase* from the VI in (15) alone. Then, what other factors are involved in the derivation of *sase*? As we have seen above, the insertion of as is triggered by both $v_{[caus]}$ and $Voice_{[+D]}$, which implies that sase consists of two functional layers, *v*P and VoiceP, illustrated in (16a).

(16) a.



b.



The VoiceP headed by $Voice^1_{[+D]}$ represents a lexical verb, having a structure like in (16b). I assume that *v*[caus] obligatorily undergoes Head Movement, and adjoins up to $Voice_{[+D]}$, which has *e* as the exponent. I take it that the first /s/ of sase is the phonological form of the trace[3] of $v_{[caus]}$. Traces seem not to contribute

[3] Under the current view, the notion of traces is eliminated and replaced by the copy theory. In this paper, however, I use the term and the symbol *t* for ease of exposition.

to defining linear orders since they are null elements. However, I argue that traces are realized in accordance with some phonological conditions. Here, *as* can be inserted into the trace position, t_i in (16a), in order to avoid a hiatus. Furthermore, I suppose the /a/ of *as* is weak and disappears when it is next to a vowel ending verb. To put it simply, when *as(e)* attaches to a vowel ending, the trace gets activated and the result is "*asase*", but the first /a/ is deleted because of its weakness hence *sase*. The point is that a trace is inactive when there is no phonological requirement[4]. In this case, when *as(e)* suffixes to a consonant ending verb, the trace has no role from the outset of the linearization procedure because nothing violates any phonological conditions.

Take *hasir-ase* 'run-CAUS' and *tabe-sase* 'eat-CAUS' for examples. Since *hasir* 'run' ends with a consonant, the trace of *as* does nothing, as in (17a). When it comes to *tabe* 'eat', on the contrary, it is not preferable that *as(e)* be adjacent to the vowel ending verb (i.e., **tabe-ase*), whereby the trace becomes available (i.e., **tabe-asase*). The first /a/ of *as* is deleted to avoid hiatus, resulting in *tabe-sase*, as in (17).

(17) a. $(\text{Voice}^1_{[+\text{D}]}, ((\sqrt{\text{ROOT}}, \textbf{hasir})\oplus\ldots))\frown\text{~~}(t_i, \text{as})\text{~~}, \text{~~}(t_i, \text{as})\text{~~}\frown(\text{Voice}^2_{[+\text{D}]}, (v_{[\text{caus}]i}, \text{as})\oplus(\text{Voice}_{[+\text{D}]}, \text{e}))$

b. $(\text{Voice}^1_{[+\text{D}]}, ((\sqrt{\text{ROOT}}, \textbf{tabe})\oplus\ldots))\frown(t_i, \text{~~}\textbf{as}\text{~~}), (t_i, \text{~~}\textbf{as}\text{~~})\frown(\text{Voice}^2_{[+\text{D}]}, (v_{[\text{caus}]i}, \text{as})\oplus(\text{Voice}_{[+\text{D}]}, \text{e}))$

One may wonder why *as* in *sase* is not affected by the phonological property of its base verb. This is because it is not $v_{[\text{caus}]}$ but its trace that is linearly adjacent to a base verb, as the Concatenation in (17) shows. That is, the trace functions as an intervener, of which *as* in *sase* is under the protection.

As for lexical causative, *as* directly attaches to its verbal root, which I assume is driven from a syntactic structure like in (16b), and the concatenations take place in the following manners in (18)

(18) a. $(\sqrt{\text{ROOT}}, \textbf{wak})\oplus(v_{[\text{caus}]}, \text{as})$ b. $(\sqrt{\text{ROOT}}, \textbf{nigo})\oplus(v_{[\text{caus}]}, \text{~~as~~})$

When *as* suffixes to vowel ending verbs like *wak* 'boil', as in (18), no phonological modification happens because *wak-as* is phonologically fine. On the other hand, cases where *as* attaches verbs with a consonant ending like *nigo* 'muddy' in (18) causes the deletion of /a/ in *as* to escape from a hiatus. As I have mentioned above, the /a/ in as is phonologically weak and gets nullified when it is right-adjacent to a vowel. This is why the transitive marker *s* always appears next to a vowel ending verb[5].

I should touch on how the transitive *os* is derived. I suppose a Readjustment rule like in (19).

(19) $\text{as} \rightarrow \text{os} \;/\; \{\sqrt{\text{horob}}, \ldots\}$ _____

By this rule, we can specify where *os* appears. However, Aoyagi (2017) presents another account, suggesting that *os* results from Vowel Harmony. For example, *horob* 'destroy' contains the vowel /o/,

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[4] Here, I do not pursue when the trace gets overt. I just consider this happens after phonological information being inserted, i.e., Vocabulary Insertion, because it is driven by phonological reasons.

[5] In (16a), $\text{Voice}_{[+\text{D}]}$ is realized as *e*, but in (16b), it has a zero exponent. This is not sufficient and might be inaccurate. Interestingly, the morpheme *e* sometimes works as a transitive marker, but it also can be an intransitive sign. I make pend how to analyze the ambivalent property of *e*.

whereby the transitive marker changes to *os*. Vowel Harmony succeeds in taking into account the phonological characteristics of verbal roots, but, even so, since Readjustment can also predict where *os* appears, in this paper, I do not pursue which strategy is better.

4. Phonological Roles of Traces

The core proposal in this paper is that a trace, a lower copy, of a head can get a role in a phonological process. It is natural that one is suspicious of a trace, a null element, acting somehow on phonological interpretation, but I think the idea itself is not so wild. In syntactic literature, many researchers have been attracted by the semantic property of traces. That is, lively discussions have been continuing on how traces work in L(ogical) F(orm) (e.g., reconstruction).

As well as semantic aspects, the notion of traces challenges a commonly accepted concept of P(honological) F(orm), or the copy theory. In the name of Economy (cf. Chomsky (1995)), traces, or lower copies, are not supplied with phonological features. However, as is well known, some languages do realize intermediate traces phonologically.

(20) *German* (Fanselow and Mahajan 2000:196)

a. **wen** denkst Du **wen** sie liebt?
who think you who she loves

b. Who$_i$ do you think t_i that she loves t_i?

(21) *Frisian* (Hiemstra 1986:99)

a. **Wa** tinke jo **wa**'t my sjoen hat?
who think you who me seen has

b. Who$_i$ do you think t_i that I have seen t_i?

Here, Germanic languages, German (20a), and Frisian (21a), are presented, which allow an intermediate trace of wh-movement to be overt, with the English translations in (20b) and (21b). In both the examples, as their English counterparts clearly show, it is the intermediate traces alone that can be provided with phonological information. There are some possible reasons the traces in the base generated positions are excepted from being overt. Simple observation tells us that in both cases the base generated positions are A-positions. In terms of the distinction between A and A', the head movement we have seen in §3.2 should be A'-movement. I do not pursue this anymore, but if my analysis is on the right track, it may advance the theory of movement somehow or other.

5. Conclusion

In this paper, we have discussed what phonologically influences on the causative morphemes in Japanese. Contrary to previous studies like Miyagawa (1998), where *sase* is the elsewhere, I have argued that *as* is the most unmarked form of the causative morphemes. To support this, the idea has been presented that the trace of head movement can be overt in accordance with the phonological environment around it. In this case, the first ˆ of the trace of $v_{[caus]}$, for which *as* is the exponent, and it becomes overt iff the left-adjacent vocabulary ends with a vowel. Also, it is assumed that the /a/ in *as* is phonologically weak so it disappears when it is next to a vowel ending verbal root to avoid making hiatus. I have lastly alluded to the possibility that my analysis of *sase* helps discover the roles of traces in phonological interpretation.

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A note on reportative evidentials in Qaraqalpaq[1]

ヤン ムイ（Muyi Yang）

1. Introduction

This note is a continuation of Yang (2024), where I have presented the paradigm of inferential evidentials in Qaraqalpaq based on the standard tests established in Matthewson et al. (2007). The goal of this note is to identify whether reportative evidentials in Qaraqalpaq are epistemic modals or illocutionary operators. For background on Qaraqalpaq as well as an overview of Matthewson et al.'s (2007) tests, the reader is referred to Yang (2024).

The first marker that expresses reportative evidentiality in Qaraqalpaq is -*GAn*, as in (5).

(1) *ʒauɯɳ* *ʒau-**ʁan***.
rain fall-PTCP
p: 'It rained.'
Evid(p): The speaker has reportative evidence that it rained.

Apart from reportative evidentiality, -*GAn* in root clauses can also express perfect, as in (2).

(2) *seneŋ* *toj-ɯŋ-da* *men* *wojna-**ʁan**-man.*
2SG.GEN wedding-2SG.POSS-LOC 1SG dance-PTCP-1SG
'I danced at your wedding.'

Note that among Turkic languages, it is quite common that indirect evidentiality and perfect are expressed by the same morpheme, such as Turkish -*mIš* (Izvorski 1997) and Kazakh/Uzbek *eken/ekan* (Straughn 2011). However, the expressions discussed in the literature are all reported to be compatible with both the reportative and the inferential use. To my knowledge, Qaraqalpaq -*GAn* is the only expression carrying both perfect and evidential meanings, with the latter being limited to reportative evidentiality. (3) exemplifies the use of -*GAn* in morphologically past perfect sentences.

(3) *bər* *waqɯt-tarɯ* *ʒer-de* *dinozavər-lar* *bol-**ʁan*** *je-də.*
one time-at earth-LOC dinosaur-PL be-PTCP AUX-PST
'There were dinosaurs once on the earth.'

Note that the prejacent of this type of reportative evidentials only allows past events. For example, (1) cannot be interpreted as 'They say it will rain'. Sentences conveying events in-progress also do not allow the evidential -*GAn*. The progressive light verb *atuɣr*, as shown in (4), do not allow the root

[1] This note is part of my term paper written for Field Methods in Spring 2019 at University of Connecticut. I am grateful to Elnara Klicheva for sharing her wonderful language with us, as well as the instructor of the class Asia Pietraszko for introducing me to world of linguistic fieldwork. All errors are mine.

-*GAn* intended for the reportative evidential meaning, as in (5).

(4) *wojna-p* *atɯr-man.*
dance-NONF PROG-1SG
'I am dancing.'

(5) *Murat* *aina-nɯ* *sɯn-dɯr-ɯp* *atɯr-**ʁan*** **(je-də).*
M window-ACC break-CAUS-NONF PROG-PTCP AUX-PST
Intended: 'They say that Murat broke the window.'
Actual interpretation (with *je-də*): 'Murat broke the window (I witnessed).'

The second type of reportative evidentials is marked with *-Ep*, as in (6).

(6) *ʒauɯn* *ʒau-**ɯp**-tɯ.*
rain fall-NONF-3
p: 'It rained.'
Evid(p): The speaker has reportative evidence that it rained.

Straughn (2011) notes that Uzbek *-(i)b* and Kazakh *-(I)p* express the speaker's surprise and doubt at the prejacent, and suggests that the information is gained from non-firsthand source. Crucially, they involve a sense of 'non-volitionality', and are often used for describing bodily functions.

(7) *šölde-p* *qal-ïp-pïn.*
thirst-CVB PFV-CPST-1SG
'I've become thirsty.' (Kazakh, Straughn 2011)

The Qaraqalpaq counterpart, namely *-Ep*, shows similar properties. This 'non-volitionality' reading, however, seem to be most salient for first-person subjects, although we found other cases with third-person subjects as well.

(8) *ʃølle-p* *qal-**ɯp**-pan.*
thirsty take-NONF-1SG
'It turned out that I am thirsty (now).'

(9) *wojna-**p**-pan.*
dance-NONF-1SG
'It turned out that I danced (e.g. in my dream).
Not: 'I danced.'

(10) *dala-da* *qɵjaʃ* *ʃɯʁ-ɯp* *tɵr-**ɯp**-tɯ.*
outside-LOC sun exit-NONF stand-NONF-3SG
'It turned out that it's sunny outside (I saw).'
NOT: 'It's sunny (I heard).'

In the next section, I apply Matthewson et al.'s tests to the above reportative evidentials. Table 1 summarizes the predictions of the modal analysis and the illocutionary operator analysis. Again, the reader is referred to Yang (2024) for an overview of the motivation of these tests.

Table 1: Matthewson et al. (2007)'s tests and predictions

	Modal analysis	Illocut. analysis
a. Felicitous if *p* is known to be false?	no	yes
b. Felicitous if *p* is known to be true?	no	yes
c. *Evid*(*p*) cancelable?	no	no
d. *Evid*(*p*) projects over negation?	yes	yes
e. *Evid*(*p*) can be picked up? (Originally: Challengeable?)	yes	no
f. Embeddable?	yes	no

2. Testing the reportatives

• Test a: When *p* is known to be false

Both *-GAn* and *-Ep* are infelicitous when *p* is known to be false.

(11) Context A: I was out for the whole day yesterday and it was sunny. But strangely, Murat came to tell me that it rained yesterday.

*# ʒauɯn ʒau-***ʁan**.
rain fall-PTCP
'It rained (I heard).'

(12) *# ʒauɯn ʒau-***ɯp**-*tɯ*.
rain fall-NONF-3
'It rained (I heard).'

• Test b: When *p* is known to be true

Similarly, both markers are infelicitous when *p* is known to be true.

(13) Context B: I was out yesterday and it was raining for the whole day. Murat didn't know that I went out and came to tell me that it rained yesterday.

*# ʒauɯn ʒau-***ʁan**.
rain fall-PTCP
'It rained (I heard).'

(14) *# ʒauɯn ʒau-***ɯp**-*tɯ*.
rain fall-NONF-3
'It rained (I heard).'

Recall that *-Ep* has a use describing the speaker's bodily functions, events happened in the speaker's dreams, etc. In those cases, one would expect the speaker to know the truthfulness or the falsity of the prejacent. Below is another example showing a similar situation (although the translation given by the consultant is clearly reportative evidential, rather than '*it turned out that*'). At this stage, I have not developed tests for evidential sentences with first-person subjects, and will

thus leave these cases aside.

(15) *men* *ʒʏzək-tə* *ʊrla-**p**-pan.*
1SG ring-ACC steal-NONF-1SG
'I stole the ring (they say) (although that's a lie).'

• Test c: Cancelability

For both markers, *Evid*(*p*) is not cancelable.

(16) *# ʒauɯn* *ʒau-**ʁan**,* *burqa* *men* *ʒauɯn* *ʒau-ʁan-ɯm* *kør-də-m,*
rain fall-PTCP but 1SG rain fall-PTCP-1SG.POSS see-NPST-1SG
heʃ-kəm *maʁan* *ajt-pa-dɯ.*
no-someone 1SG.DAT say-NEG-PST
'It rained (I heard), although I didn't see it and no one told me that.'

(17) *# ʒauɯn* *ʒau-**ɯp**-tɯ,* *burqa* *men* *ʒauɯn* *ʒau-ʁan-ɯm* *kør-də-m,*
rain fall-NONF-3 but 1SG rain fall-PTCP-1SG.POSS see-NPST-1SG
heʃ-kəm *maʁan* *ajt-pa-dɯ.*
no-someone 1SG.DAT say-NEG-PST
'It rained (I heard), although I didn't see it and no one told me that.'

• Test d: Projection over negation

For both markers, *Evid*(*p*) projects over negation. Meanwhile, the consultant points out that these sentences also have an interpretation where the evidential meaning disappears (Reading 2).

(18) *ʒauɯn* *ʒau-ma-**ʁan**.*
rain fall-NEG-PTCP

(19) *ʒauɯn* *ʒau-ma-**ɯp**-tɯ.*
rain fall-NEG-NONF-3
Reading 1: 'It didn't rain (I heard).'
Reading 2: 'It didn't rain (I checked myself).'
But not : 'No one said that it rained.'

• Test e: Picking up by accepting or rejecting responses

For both markers, both *p* and *Evid*(*p*) can be easily picked up when the utterance is accepted, as in (21a) and (21b). As noted before, challenging the utterance involves more difficulty, and uses different phrases for '*No*' depending on how the consultant felt about the strongness of the challenge. But as shown in (21c) and (21d), both *p* and *Evid*(*p*) can be challenged.

(20) Context: Elnara and Horzija stayed together in a windowless room for the whole day and no one else came to this room. Horzija went to another room to look for her toys for three minutes, during which Murat came in to tell Elnara that it rained and then left. Horzija came back with her toys.
a. E to H: *ʒauɯn* *ʒau-**ʁan**.*

rain fall-PTCP

'It rained (I heard).'

b. E to H: *ʒauɯn ʒau-**ɯp**-tɯ.*

rain fall-NONF-3

'It rained (I heard).'

(21) a. H to E: *dorɯs, ʒauɯn ʒau-dɯ.*

correct rain fall-PST

'You're right, it rained.' (20a)/(21a); (20b)/(21a)

b. H to E: *dorɯs, Murat saʁan ajt-tɯ-p atɯr-ʁan-ɯ-n.*

correct M 2SG.DAT say-PST PROG-PTCP-3.POSS-ACC

jesə-tə-m.

listen-PST-1SG

'You're right, I heard Murat saying that to you.' (20a)/(21b); (20b)/(21b)

c. H to E: *jaq, ʒauɯn ʒau-ma-dɯ. men ʒaŋa kør-də-m.*

no rain fall-NEG-PST 1SG just.now see-PST-1SG

'No, it didn't rain. I looked (at outside) just now.' (20a)/(21c); (20b)/(21c)

d. H to E: *qalaj bəl-e-seŋ? senəŋ menen heʃ-kəm søjles-pe-də-ʁo.*

how know-NPST-2SG 2SG.GEN with no-someone talk-NEG-PST-EXCL

'How do you know? No one talked to you.' (20a)/(21d); (20b)/(21d)

• Test f: Embeddability

Finally, *-GAn* and *-Ep* come apart in their embeddability. *-GAn* loses its evidential use when embedded under the verb *say*, while *-Ep* can be embedded.

(22) *Murat ajt-ɯp atɯr ʒauɯn ʒau-**ʁan** dep.*

M say-NONF PROG rain fall-PTCP C

'Murat is saying that it rained (he saw).'

NOT: 'Murat is saying that it rained (he heard).'

(23) *Murat ajt-ɯp atɯr ʒauɯn ʒau-**ɯp**-tɯ dep.*

M say-NONF PROG rain fall-NONF-3 C

'Murat is saying that it rained (he heard).'

NOT: 'Murat is saying that it rained (he saw).'

The results are summarized in the following table.

Table 2: Results of Matthewson et al. (2007)'s tests on Qaraqalpaq reportatives

	Modal analysis	Illoc. analysis	*-GAn*	*-Ep*
Felicitous if *p* is known to be false?	no	yes	no	no
Felicitous if *p* is known to be true?	no	yes	no	no

Evid(*p*) cancelable?	no	no	no	no
Evid(*p*) projects over negation?	yes	yes	yes	yes
Evid(*p*) can be picked up?	yes	no	yes	yes
Embeddable?	yes	no	no	yes

3. Discussion

Overall, it seems that both reportative evidential markers behave like epistemic modals, at least in terms of most of the tests applied. In particular, the results on *-Ep* is completely as predicted by the epistemic modal analysis.

The reportative marker *-GAn* shows one seemingly non-modal-like property, i.e. it cannot be embedded, while it behaves like an epistemic modal in all other respects. However, if we consider the behavior of *-GAn* in non-root clauses, viz. when it serves merely as a participle, a functional explanation may arise. To see this, consider (24), where there are two occurrences of *-GAn*, one of which helps form nominalization in the *when*-clause, and the other attaches to the light verb *tor*. It is quite clear that neither of them expresses evidentiality or present perfect (both clauses are about future events).

(24) *jerteŋ* *sen* *dala-ra* *ʃuq-**qan**-uŋ-da,* *qar* *ʒaw-up*
tomorrow 2SG outside-DAT exit-PTCP-2SG.POSS-COND snow fall-NONF
*tor-**ʁan*** *bol-a-duq.*
PROG-PTCP be-NPST-3
'Tomorrow when you go out, it will be snowing.'

I speculate that this is an indication for how to map the evidential *-GAn* in syntax: it needs to sit at a position where it is high enough to avoid over-generating the evidential (as well as the perfect) meaning in non-root clauses such as (24), and also below the functional projections to avoid functioning as an illocutionary operator.

4. Summary

This note provided the paradigm of reportative evidentials in Qaraqalpaq. Specifically, I applied the standard tests to identify the status of the evidential markers as modals or illocutionary operators. The tentative result is that the two reportative markers behave largely in line with epistemic modals, although more needs to be said regarding why *-GAn* exhibits non-modal-like behaviors regarding embeddability.

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（2025 年 4 月現在）

言語文化共同研究プロジェクト 2024

自然言語への理論的アプローチ

2025 年　5 月 31 日　発行

編集発行者
大阪大学大学院人文学研究科言語文化学専攻