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### Case Particle Omission in Nominative-Accusative Dependency in Japanese

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#### Abstract

This paper defends Marantz's (1991) dependent case theory through the study of case particle omission in Japanese. We show that case particle omission is not merely an instance of a morpho-syntactic or morpho-phonological process, but it instead applies in tandem with syntaxphonology syntax-semantics and conditions imposed on C. The study also supports the full phasal transfer/spell-out model (Bošković 2016; Saito 2017a,b, 2020), where CP, rather than TP, and vP, rather than VP, are phasal spell-out domains in Japanese.

### **1** Introduction

Whether Japanese employs the abstract Case system is an important and widely discussed issue among researchers. Advocates of the abstract Case theory claim that Case is licensed by certain functional categories in the designated structural configurations (Tada 1992; Koizumi 1995; Ura 2000 a.o.). In contrast, Saito (2014, 2016) argues that the language has no  $\varphi$ -feature agreement and that Case itself plays a role in determining labels for syntactic constituents. Another view, which we support in the current study, is presented in the framework of morphological case theory (Marantz 1991). There, case does not play a role in the syntax, and case features are instead inserted and licensed

at the Morphological Structure (MS) on the PF side. Aoyagi (2004, 2006) posits Marantz's case dependency system, proposing that case features are already present in the syntax but become interpretable by being phoneticized at the MS/PF.

This study examines case particle omission, as exemplified in (1), to provide insight into case theory.

(1) Taroo\*(-ga) kuruma(-o) kat-ta.<sup>1</sup> Taro(-Nom) car(-Acc) buy-Past 'Taro bought a car.'

It is well known that case particles in Japanese are omittable in colloquial speech. However, a case particle is often said to be omittable only when an NP is adjacent to a verb (Saito 1983, cf. Kuroda 1988). Thus, the nominative marker -ga often resists omission, while the accusative marker -o tends to be more easily omitted (Kuno 1973).

However, Masunaga (1988) points out that the subject/object asymmetry is lost when a sentence-final particle (SFP) like *yo* is added. She claims this addition can de-focus an NP and instead focus a verb, thereby enabling case particle omission, as shown in (2).

<sup>&</sup>lt;sup>1</sup> Abbreviations used in this paper are as follows: Acc = accusative, Gen = genitive, Nom = nominative, SFP = Sentence Final Particle

(2) Burondo-no otokonoko(-ga) Taroo(-o) blond-Gen boy(-Nom) Taro(-Acc) nagut-ta yo. hit-Past SFP
'A blond boy hit Taro.' (adapted from Masunaga 1988: 148)

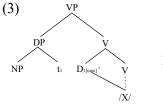
In what follows, we explore the conditions in which case particle omission is allowed. Through such an exploration, we observe that realization of the accusative -o depends on the presence of the nominative -ga, which supports the dependent case theory.

The organization of this paper is as follows. In Section 2, we review several previous works on case particle omission, taking up Aoyagi (2004, 2006), Endo & Maeda (2020), and Fukuda & Furukawa (2023), pointing out the issues found in each analysis. In Section 3, we examine data on case particle omission and propose our own version based on dependent case theory, a hybrid of Baker (2015) and Aoyagi (2004, 2006). We further claim that both case assignment and omission work in tandem with independently motivated constraints imposed by the syntax-phonology and syntaxsemantics sides. Section 4 further examines case particle omission in other constructions and extends our proposal. Section 5 concludes this paper.

### 2 Case particle omission in Japanese: Previous studies

### 2.1 Aoyagi (2004, 2006)

In Section 1, we saw that the accusative marker -o is generally more omittable than the nominative marker -ga. Aoyagi (2006) captures this fact by utilizing D-to-V incorporation within the framework of Marantz's (1991) morphological case theory. Aoyagi (2004, 2006) refines Marantz's theory by proposing that a morphological [case] feature on the D head of a DP is licensed by being phoneticized. For Aoyagi, case particle omission is an instance of feature phoneticization by a verb in terms of D-to-V incorporation, as illustrated in (3).



X = V's phonetic form (adopted from Aoyagi 2006: 106)

While Aoyagi's incorporation analysis can well accommodate the *-o* omission, the *-ga* omission, as seen in (2), is left unexplained.

In Section 2.2, we look at the work of Endo & Maeda (2020), who attempt to explain the -ga omission in point.

### 2.2 Endo & Maeda (2020)

Based on Masunaga's (1988) observation of *-ga* omission in the presence of an SFP, Endo & Maeda (2020) propose that case particle omission is an instance of truncation, which applies to the outmost layer of an NP (i.e. where a case particle appears) to be placed at the CP-peripheral position. They claim that the presence of an SFP forces an entire TP (IP for them) to move to a CP-peripheral position—more precisely, to the Spec of a Speech-Act Phrase for discourse-related reasons. This enables the outmost layer of an NP to be truncated; as a result, the NP appears without a case particle.

While their truncation analysis can now account for *-ga* omission, the mechanism of *-o* omission becomes unclear, as pointed out by Fukuda & Furukawa (2023). Let us now see how Fukuda & Furukawa accommodate case particle omission.

### 2.3 Fukuda & Furukawa (2023)

Fukuda & Furukawa (2023) propose a PF externalization condition tied to a semantic requirement. They argue that the case particle of a focused NP must be phoneticized, while non-focused NPs can appear without case particles.<sup>2</sup> Fukuda & Furukawa adopt Miyagawa's (2022) framework of SFPs. They assume that an SFP can be adjoined either to a v or CommitP, a domain above CP.

When it is attached to a v, either the whole VP or V can be focused.<sup>3</sup> In both cases, the subject NP is outside of the focus domain, and *-ga* can, therefore, be omitted. In addition, when only V is focused, *-o* can also be omitted. When an SFP is attached to a

<sup>&</sup>lt;sup>2</sup> Fukuda (2022) has proposed a PF-externalization condition on a focused NP, focusing on the data from the Kumamoto dialect and multiple nominative constructions in Standard Japanese. We refer to his analysis in note 6.

<sup>&</sup>lt;sup>3</sup> Fukuda & Furukawa (2023) adopt Miyagawa's (2010, 2017) feature-inheritance system, positing a [focus] feature on either v or C, which we do not go into details here.

CommitP, the entire TP is focused; consequently, none of the NPs can appear without case particles. Fukuda & Furukawa point out that (4) has two interpretations:

(4) Burondo-no otokonoko-φ Taroo-o blond-Gen boy Taro-Acc nagut-ta yo. hit-Past SFP.
'A blond boy hit Taro.' (adapted from Masunaga 1988: 148)

In one interpretation, the verb is focused. In this case, -ga can be dropped without any problems because the subject NP is not focused. Moreover, under this interpretation, -o can also be dropped, resulting in particle omission from both NPs. The other interpretation is that the entire VP is focused. Fukuda & Furukawa claim that in the VP-focused case, the object is inside the focus domain, and -o cannot be omitted, while -ga can be omitted because the subject is outside of the focus.

Although Fukuda & Furukawa ban case particle omission of an NP inside a focus domain in (4), -o can be dropped even under the VP-focus interpretation, contrary to their prediction. Suppose (5) is preceded by a question such as, "What did the blond boy do?". The VP can obtain a focus interpretation.

(5) Burondo-no otokonoko-φ Taroo-φ blond-Gen boy Taro nagut-ta yo. hit-Past SFP.
'A blond boy hit Taro.'

Thus, while we admit that focus plays an important role in case particle omission, we explore an alternative account in Section 3.

# **3** A closer examination of case particle omission

### 3.1 Further data and generalizations

Although both -ga and -o can, in principle, be omitted, the omission does not occur freely. To see this restriction, suppose that (7a-d) is uttered after (6).<sup>4</sup>

- (6) Saikin nanika at-ta?recently something happen-Past'What's new?'
- (7) a. Taroo-ga/\*wa kuruma-o kat-ta yo. Taro-Nom/Top car-Acc buy-Past SFP b. Taro-ga kuruma-φ kat-ta yo. Taro-Nom car-q buy-Past SFP c. \*/??Taro-ø kuruma-o kat-ta yo. Taro car-Acc buy-Past SFP d. (?)Taro-ø kuruma-ø kat-ta yo. buy-Past SFP Taro car-q 'Taro bought a car.'

(6) introduces the following sentence as new information. In (7a), the subject must be marked with the nominative -ga; the topic marker -wa is incompatible. In (7b), -o is omitted. While -wa is known to be more omittable than -ga (Kuno 1973), (7a) ensures that what is omitted in (7c) and (7d) is -ga and not -wa. We find a clear contrast between (7c) and (7d), although it might be subject to some speakers' variation. Crucially, -ga is only omittable if -o is also omitted.<sup>5</sup> Put another way, we can make the first generalization in (8).

 (8) Generalization I The case particle -o can only be licensed in the presence of -ga.

None of the previous analyses reviewed in Section 2 can account for (8). Fukuda & Furukawa (2023), for example, cannot attribute the contrast between (7c) and (7d) to the placement of focus on a particle-less NP because the entire sentence is inside the sentential focus domain; thus, none of the NPs may appear without a case particle.

In addition, an SFP is necessary for case particle omission, especially for the omission of -ga.

<sup>&</sup>lt;sup>4</sup> We are grateful to Tomokazu Takehisa for pointing out that a new-information-inducing question like (6) needs to be presented in order to see the *ga*-omission instead of the *wa*-omission.

<sup>&</sup>lt;sup>5</sup> Aoyagi (2006: 118) points out that the same pattern holds in the Kansai dialect, although his examples do not require an SFP. We leave this parametric variation for future work.

- (9) Saikin nanika at-ta?<sup>6</sup>
   recently something happen-Past
   'What's new?'
- (10) a. Taroo-ga/\*wa kuruma-o kat-ta. Taro-Nom/Top car-Acc buy-Past
  - b. Taro-ga kuruma-φ kat-ta. Taro-Nom car-φ buy-Past
  - c. \*Taro-φ kuruma-o kat-ta. Taro car-Acc buy-Past
  - d. ??/\*Taro-φ kuruma-φ kat-ta. Taro car-φ buy-Past
     'Taro bought a car.'

The pattern here conforms to what has been observed in earlier works. (10c) is equally or nearly as bad as (7c), but (10d) is no longer acceptable without an SFP. Because -o is dropped in (10b), we take it that the ungrammaticality of (10d) is caused by the omission of -ga, which we state in (11).

(11) Generalization  $II^7$ 

Without an SFP, -ga resists omission.

We now present an analysis of our generalizations.

### **3.2** Analysis: Case particle omission via the dependent case assignment theory

We argue that Generalization I in (8) is captured within the framework of the dependent case theory (Marantz 1991). Marantz (1991: 245) proposes that "case morphemes are added to stems at MS [(Morphological Structure)] according to the morphological requirements of particular languages." Marantz assumes that a noun bears a case affix, and this case affix, N+CASE, looks for case features such as [nom], [acc], etc., which a noun then acquires according to its structural configuration and the disjunctive case hierarchy.

 (i) Kumamoto-ga saikin suikabatake-ga ooi.
 K.-Nom nowadays watermelon-fields-Nom many 'Nowadays, Kumamoto has a lot of watermelon fields.' (12) Case realization disjunctive hierarchy

- a. Lexically governed case
- b. Dependent case
- c. Unmarked case
- d. Default case
  - (adapted from Marantz 1991: 247)

According to Marantz, the more specific rule wins over the more general rule in (12). Thus, the precedence goes from the top of the list to the bottom. What is relevant for us is the dependent case and default case, which we assume are the accusative -*o* and the nominative -*ga* (Aoyagi 2004, 2006). As for the structural configuration, although Marantz defines the domain for case assignment in terms of government, we adopt Baker's (2015) updated version of the spell-out domain for dependent case.

(13) If there are two distinct NPs in the same spell out domain such that NP1 c-commands NP2, then value the case feature of NP2 as accusative unless NP1 has already been marked for case. (Baker 2015: 48)

Baker (2015) claims that case assignment is implemented upon spell-out, whereby the assigned case feature is phonologically realized at PF.

As for the *-ga* assignment, we follow Aoyagi (2004, 2006) and assume that it is a default case assigned to any NP to which none of the more specific rules in (12a-c) apply, as shown in (14).<sup>8</sup>

(14) -ga is a default case assigned to any NP not marked for case.

In addition, we assume the syntax-phonology conditions in (15) and the syntax-semantics conditions in (16).

(i)	John-wa	dareka*(-ga)/Masao*(-ga)
	John-Top	someone(-Nom)/Masao(-Nom)
	Hanako(-o)	tazune-te kita-toki
	Hanako(-Acc)	visit-TE came-when
	soko-ni	inak-at-ta.
	there-at	not-be-Past
'John was not there when somebody/Masao came to visit.'		
		(adapted from Kuroda 1988:114)

<sup>8</sup> Baker (2015) claims that Japanese is a marked nominative language instead of an accusative language, where the nominative case is assigned as a marked case, which we do not adopt in this study.

<sup>&</sup>lt;sup>6</sup> Fukuda (2022: 163) elucidates the neutral interpretation of the thematic subject in the multiple nominative subject constructions by using the adverb *saikin* 'nowadays'.

As for the focused interpretation of the thematic subject, Fukuda (2022: 163) elucidates it by introducing the appropriate question-answer pair.

We get to the multiple -ga constructions in Section 4. <sup>7</sup> (11) can also explain that case drop is not permitted with an embedded subject because SFPs can only be licensed in a root clause (cf. Endo & Maeda 2020).

(15) Conditions for Syntax-Phonology

a. Edge (X) must be phonetically overt.

b. Edge (X) includes both X (the head) and the specifier of X.

(adapted from Collins 2007: 3)

(16) Conditions for Syntax-Semantics

- a. CP is a discourse domain whose head is associated with a [topic/focus] feature (cf. Miyagawa 2010).
- b. At least one element must enter the discourse domain to establish a [topic/focus] relation imposed by C. (cf. Miyagawa 2010; Nishioka 2018)

Departing from Collins (2007), we do not assume that (15) "applies in a minimal way so that either the head or the specifier, *but not both,* are spelled out overtly" (Collins 2007: 3, emphasis added). We instead assume that either the head or the specifier of Edge (X) must be phonologically overt.

As for Generalization II in (11), we take it to mean that an SFP plays an important role in satisfying the edge condition (cf. Collins 2007; Richards 2023) in (15). More specifically, we suggest that an SFP is a C-element, which makes the edge (i.e. the C head) phonologically overt.

Furthermore, we take case particle omission to be a product of the morphological operation called *obliteration* (Arregi & Nevins 2007, 2012). Obliteration removes the entire terminal node responsible for a case feature (Kasai 2024; cf. Tagawa 2023), which we assume is a K(ase) head (Travis & Lamontagne 1992; Fukuda 1993 a.o.). We further assume that obliteration is applied in the morphological component (MS) after syntax (Arregi & Nevins 2007, 2012; Tagawa 2023; Kasai 2024).

However, we take it that timing plays an important role in obliteration, assuming that it is applied at MS but *before* the case feature is assigned or phoneticized at MS. This means that case features are *not* assigned upon spell-out but are inserted and interpreted at MS according to the syntactic configuration of the spell-out domain in (13), and in reference to the case realization hierarchy in (12).<sup>9</sup>

Based on these premises, we assume (17a, b).

(17) a. *vP* and CP are phases.

b. What is spelled out/transferred is a phase itself and not a complement of a phase (Bošković 2016; Saito 2017a,b, 2020).

(17a) is the standard assumption about phases, but (17b) differs from the popular view that a complement of a phase (TP/VP) is a spell-out domain (Chomsky 2001 and his succeeding works). Following Saito's works, we assume that vP, not TP, is spelled out upon completion of CP when  $\varphi$ feature agreement between T and a subject NP via feature inheritance from C-to-T (Chomsky 2008) is absent. While transfer of a root CP domain is not explored in Saito, we assume that a CP is also spelled out/transferred upon completion along with its head and complement (Obata 2010).

Now that we have some tools to form the basis of our analysis, let us propose (18).

#### (18) Conditions for K-Obliteration

- a. A K(ase) head can be obliterated for free only if the associated KP is inside a vP domain.
- b. A K head cannot be obliterated if it is inside a CP domain.

(18a) ensures that both subject and object KPs can appear with or without a case particle as long as they are inside vP upon spell-out. However, (18b) states that if a KP is outside of vP and is instead in the CP domain, K cannot be obliterated. This means that a KP inside a discourse domain must appear with a case particle, in line with Fukuda & Furukawa's (2023) observation.<sup>10</sup> We also assume that obliteration must apply *all at once* at *vP*. To put it more precisely, obliteration cannot apply after a case feature is assigned.

Finally, we propose the conditions in (19).

(19) *Conditions on Dependent Case Assignment* A KP can be assigned a dependent case only when it is dependent on another KP.

(19) ensures that an object KP cannot be assigned a dependent case if a subject's K head is obliterated. We believe this is a natural assumption because it is precisely the K head that is responsible for a

<sup>&</sup>lt;sup>9</sup> Baker (2015) in fact takes this position as seeing spell-out as "the process of transducing a syntactic representation into a PF representation" (Baker 2015: 230). Although he

assumes that case assignment happens upon spell-out, spellout in this view is compatible with the current study.

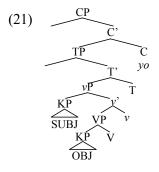
<sup>&</sup>lt;sup>10</sup> We will argue shortly that (18a,b) in fact follows from an independent corollary and a principle.

morphological case assignment/realization; an object KP depends on another KP, not another NP. In this precise sense, a KP cannot undergo K obliteration after case feature assignment.

Bearing these assumptions in mind, let us return to our examples in (7), repeated below as (20).

- (20) a. Taroo-ga/\*wa kuruma-o kat-ta yo. Taro-Nom/Top car-Acc buy-Past SFP
  - b. Taro-ga kuruma- $\phi$  kat-ta yo.
  - c. \*/??Taro- $\phi$  kuruma-o kat-ta yo.
  - d. (?)Taro-φ kuruma-φ kat-ta yo.
     'Taro bought a car.'

Under our analysis, (20a) results when neither the subject nor object KP undergoes obliteration, with both KPs inside a *v*P at MS/PF, as shown in (21).



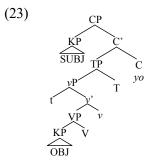
In this configuration, on the syntax/phonology side, the edge externalization condition in (15) is satisfied because the SFP yo occupies the C head. On the morphology/phonology side, due to the disjunctive case hierarchy in (12) and the ccommanding configuration for dependent case in (13), the object KP is assigned a dependent case because it is c-commanded by the subject KP. As for the subject KP, it is assigned the default case -ga (Aoyagi 2004, 2006). As for the syntax/semantics side, when both KPs are inside vP, the syntax/semantics condition in (16) requires at least one topic/focus element in CP. We claim that in this configuration, an event argument, which Nishioka (2018) calls a s(tage)-pro, occupies a CP spec, by which the sentence gets a neutral interpretation.<sup>11</sup>

(22) [ $_{CP}$  s-pro [ $_{C'}$  [ $_{TP}$  [ $_{\nu P}$  [ $_{KP}$  Taro-ga] [ $_{\nu'}$  [ $_{VP}$  [ $_{KP}$  kuruma-o] bought] $\nu$ ]]T] SFP]]

<sup>11</sup> While Nishioka (2018) posits s-pro in Spec, TP, we assume that s-pro is in Spec, CP because C is associated with a focus/topic feature in our analysis.

That is, (20a), when associated with its structure in (22), is interpreted as a recent event and not about, for example, Taro's action (cf. Nishioka 2018).

Another option for (20a) is for the subject KP to enter a CP domain, while the dependent case is assigned to the object KP. For this to happen, the subject needs to move out of vP, as shown in (23).



The subject's movement should not be a problem since we assume that vP is transferred upon completion of CP. Thus, the subject moves out of a vP into a CP domain (Oseki & Miyamoto 2018) in the narrow syntax, while the dependent case is successfully assigned to the object KP at MS. We claim that the dependent case assignment is possible because the object KP can depend on the copy of the moved subject KP.

If the subject KP moves out of the vP-domain to enter the CP-domain in (20a), the sentence yields a different semantic interpretation. Now that the subject KP is in the discourse domain, it becomes the focus/topic of the sentence (i.e. the sentence is interpreted as being about Taro's action).

Crucially, we argue that the subject KP in (23) cannot undergo obliteration after its movement to CP. But suppose it does. In that case, the moved subject (i.e. NP) and its copy (i.e. KP) are not identical. In other words, the chain of movement is not uniform. On a related point, Takahashi (1994) proposes a condition on adjunction called *The Uniformity Corollary on Adjunction (UCA)*, which bans adjunction to a non-uniform chain (Takahashi 1994: 25). In our case, obliteration cannot be applied to a sub-part of a chain because it would otherwise create a non-uniform chain. Thus, on the assumption that the corollary in point is also applied in MS, (18a,b) can now be subsumed to this corollary.

On another related point, Fox & Pesetsky (2005a,b) propose a condition on spell-out called Preservation, which requires Order that "information about linearization, once established at the end of a given Spell-out domain, is never deleted in the course of a derivation (Fox & Pesetsky 2005b: 6, emphasis in original).<sup>12</sup> They claim that spell-out only adds information and does not *delete* it. In this view, (18a,b) can also be reduced to this property of spell-out in that obliteration of a sub-part of a chain is banned because information about linearization in each spell-out domain, vP and CP, would not be identical. This is because the phonological content in each domain would be different due to partial obliteration.

There is another option for (20a): both the subject and object KPs have moved to a CP domain, being spelled out at the CP phase. In this scenario, both the subject and object are focused (i.e. the sentence is about Taro's action against a car), which is compatible with Fukuda & Furukawa's (2023) observation that focused NPs must appear with a case particle.

Let us now turn to (20b), where the subject is case-marked, but the object's case is dropped. This case is also straightforward because when both the subject and object KPs are in the vP spell-out domain, the object's K head can be freely obliterated due to (18a), and the subject KP can be assigned the default case -ga because of (12).

### (24) $[_{CP} s-pro[_{C'}[_{TP} [_{\nu P} [_{KP} Taro-ga]][_{\nu'}[_{VP} [_{NP} kuruma] kat]_{\nu}]]$ -ta] SFP]] default case K obliteration

As was the case with (22), when both KPs are inside vP, the s-pro occupies the Spec, CP to satisfy the topic/focus requirement in (16), and the sentence obtains a neutral interpretation.

Alternatively, in (20b) the subject KP can move to a CP domain and be spelled out at CP, whereas the object is spelled out at the vP phase. Unlike (20a), since the dependent case need not be assigned to the object because its K head is obliterated, the subject can enter the CP domain with no problem. In this case, the subject KP fulfills the topic/focus requirement in (16b). As a result, the sentence is interpreted as Taro's action because the subject gets a focus/topic interpretation.

In contrast to (20a), the case-less object NP in (20b) does not have an option of moving to a CP domain. This is because K obliteration is applied at MS, which means that the relevant NP never has a chance to move in the narrow syntax. Consequently, the object cannot have a topic/focus interpretation in (20b), again, in conformity with Fukuda & Furukawa's observation.

Let us now turn to our crucial, unacceptable example in (20c), where the subject's case particle is dropped, while the object is case-marked. We argue that this is excluded because the object KP can never be assigned a case in this configuration. That is, the object KP cannot depend on the subject for case because our dependent case assignment condition in (19) requires the presence of another KP that c-commands the object KP. However, the K head of the subject in (20c) is obliterated, as shown in (25).

# (25) \*[ $_{CP}$ s-pro [ $_{C'}$ [ $_{TP}$ [ $_{\nu P}$ [ $_{NP}$ Taro] [ $_{VP}$ [ $_{KP}$ kuruma-o] bought]]T] SFP]] \*not a KP \*dependent *o*

Finally, (20d), where the case particles of both the subject KP and object KP are dropped, is obtained because the K head of both KPs can be obliterated for free as long as they stay inside vP in the narrow syntax and are spelled out at the vP domain.

(26) [CP s-pro [C' [TP [VP [NP Taro] [VP[NP kuruma] bought]]T]SFP]] K obliteration K obliteration

As for the interpretation, as with (22) and (24), the topic/focus requirement is satisfied by the s-pro, which brings about the neutral interpretation. Crucially, the subject and object NPs cannot move to CP to get the topic/focus interpretation because both NPs have undergone K obliteration. This in turn suggests that an NP inside a CP domain must appear as a KP with a case particle.<sup>13</sup>

<sup>&</sup>lt;sup>12</sup> See also Ke (2022), who argues for a full phase transfer with edge effects, which he claims is independently guaranteed by Fox & Pesetsky (2005a,b). See also Baker (2015) to support Fox and Pesetsky's view in relation to the role of spell-out.

<sup>&</sup>lt;sup>13</sup> It seems that in (20d) the subject can have a topic/focus interpretation as long as the case-less NP is followed by a phonological pause. We tentatively speculate that leaving a

pause can stress an NP, which can then become a topic/focus. The same observation can be held in (20c): it is acceptable only if the subject NP is followed by a pause, acting as a topic/focus. We conjecture that the NP in point is somehow base-generated in the CP domain like a "bare-topic" (Taguchi 2009; Takita 2014), as exemplified in (i).

### 4 Further predictions and implications: A study of the multiple *ga* construction

The proposed analysis can also account for the distribution of multiple *-ga* marked subjects in (27).

- (27) a. Kagosima to Miyazaki-ga Kagoshima and Miyazaki-Nom syootyuu-ga umai (yo). shochu-Nom tasty SFP
  - b. Kagosima to Miyazaki-ga syootyuu-φ umai (yo).
  - c. Kagosima to Miyazaki-φ syootyuu-ga umai \*(yo).
  - d. Kagosima to Miyazaki-φ syootyuu-φ umai \*(yo).
    'Kagoshima and Miyazaki have good shochu.'

(adapted from Fukuda & Furukawa 2023: 76)

Fukuda & Furukawa observe that the -ga omission from the major subject in (27c) and from both subjects in (27d) is possible when an SFP is present. They argue that the case particle omission in (27b,c) reflects non-focus interpretations of the thematic subject and the major subject, respectively. Based on the observation that the major subject must obtain the exhaustive-listing interpretation (Kuno 1973) without an SFP, while the thematic subject receives a neutral interpretation, they argue that the case particle of the major subject cannot be dropped when an SFP is absent because the subject must of necessity be focused. However, when an SFP is present, they claim that it is possible for just the verb to be focused. In that case, neither major nor thematic subjects need to be focused; consequently, (27b-d) all become possible.

We observe that (27a) and (27b) can also have a neutral interpretation. For example, suppose that two people are talking about good places to eat in Japan (e.g. "Hokkaido has good salmon, while Ishikawa has good crabs."). The conversation continues as follows:

- (28) A. Osake-wa doo? liquor-Top what about 'What about liquor?'
  - B. a. Kagosima to Miyazaki-ga Kagoshima and Miyazaki-Nom syootyuu-ga umai yo. shochu-Nom tasty SFP
    - b. Kagosima to Miyazaki-ga syootyuu-φ umai yo.
    - c. Kagosima to Miyazaki-φ syootyuu-ga umai yo.
    - d. Kagosima to Miyazaki-φ
      syootyuu-φ umai yo.
      'Kagoshima and Miyazaki have good shochu.'

All (28Ba-d) are acceptable answers to (28A), but an SFP is necessary. Our analysis can account for this by positing the structure in (29).

(29) [ $_{CP}$  s-pro [ $_{C'}$  [ $_{TP}$  [ $_{\nu P}$  [ $_{KP}$  Kagoshima and Miyazaki-ga] [ $_{\nu P}$  [ $_{KP}$  syootyuu-ga] [ $_{\nu'}$  tasty  $\nu$ ]]] T] SFP]]

In (29), the SFP satisfies the edge condition in (15), and thereby both major and thematic subjects can stay inside the vP domain. Thus, the K head of either KP can undergo obliteration for free because our analysis allows for obliteration as long as the target KP is spelled out at a vP domain. If, however, K is not obliterated and both KPs are spelled out in the same domain, we need to explain how the thematic subject avoids obtaining dependent case *-o* from the major subject, yielding (30), for example.

(30) \*[ $_{CP}$  s-pro [ $_{C'}$  [ $_{TP}$  [ $_{\nu P}$  [ $_{KP}$  Kagoshima and Miyazaki-ga] [ $_{\nu P}$  [ $_{KP}$  syootyuu-o] [ $_{\nu'}$  tasty  $\nu$ ]]] T] SFP]] \*dependent -o

Given that the major subject is not theta-marked, we argue that (30) is excluded due to Aoyagi's (2004, 2006) (counter-)visibility condition in (31).

 <sup>(</sup>i) <u>Ano hon-φ</u>, Taro-ga Δ kat-ta yo. That book Taro-Nom buy-Past SFP (lit.) 'That book, Taro bought Δ.' (adapted from Takita 2014: 142)

Takita analyzes the boxed NP in (i) as a bare-topic and argues that it is an instance of Hanging Topics (Cinque 1977 a.o.). In fact, we find some similarities between our case and bare

topic/hanging topic constructions. For example, both bare topics (Taguchi 2009, Takita 2014) and case particle-less subjects (Kuroda 1988) are restricted to root clauses (see Taguchi 2009, Takita 2014, and Kuroda 1988 for relevant examples).

#### (31) The (counter-) visibility condition

Only DPs that are theta marked are visible for dependent case assignment. (Aoyagi 2004: 7)

The ungrammaticality of (27c,d) without an SFP can also be accommodated because without an SFP, at least one element, most naturally the major subject, must enter the discourse domain to satisfy the topic/focus requirement imposed by C. Once the major subject is inside the CP domain, its case cannot be dropped because of the condition on K obliteration in (18), in line with Fukuda & Furukawa's (2023) phonological externalization of a focus element.

Interestingly, when (28Bb-d) are introduced by a multiple wh-question like (32A), (28Bc,d) are no longer eligible as an answer, as shown in (32Bb,c).

- (32) A. Nihon-wa dono tiiki-ga Japan-Top which area -Nom nani-ga oisii-ka osie-te. what -Nom tasty-Q tell-TE lit. 'Tell me what tastes good in which area of Japan.'
  - B. a. Kagosima to Miyazaki-ga Kagoshima and Miyazaki-Nom syootyuu-φ umai yo. shochu-Nom tasty SFP
    - b. ??/\*Kagosima to Miyazaki-φ syootyuu-ga umai yo.
    - c. ??/\*Kagosima to Miyazaki-φ syootyuu-φ umai yo.
      'Kagoshima and Miyazaki have good shochu.'

While the thematic subject can appear without a case particle (=32Ba), when the case particle of a major subject is omitted, the sentence becomes bad. We suggest that the unacceptability of (32Bb,c) arises because the higher wh-phrase of a multiple wh-question exhaustively must be listed (Comorovsky 1989) or D-linked (Comorovsky 1996). Framing it in the current analysis forces the major subject to enter the CP domain, which prevents K obliteration. Consequently, (32Bb,c) are both unacceptable. The observation conforms to Fukuda's (2022) and Fukuda & Furukawa's (2023) observations in that focused elements cannot drop their case particles. Yet, our observation is slightly different from theirs in that exhaustivity is only relevant to the higher NP, forced with D-linking.

### 5 Conclusion

We presented an analysis for case particle omission in support of the dependent case theory advocated by Marantz (1991) and updated by Baker (2015). Along the lines of Marantz's (1991) case realization disjunctive hierarchy applied to Japanese case realization (Aoyagi 2004, 2006), together with Baker's domain-sensitive case assignment upon spell-out, we explored an analysis where a case particle omission is an instance of obliteration that can apply freely within the *v*P spell-out domain.

We proposed that case particle omission interacts with the independently motivated edge externalization condition (cf. Collins 2007; Richards 2023) and with the topic/focus condition imposed on the CP domain.

We then extended our analysis to the multiple subject constructions in Japanese, confirming that the major subject and the thematic subject can in principle be spelled out within the same vP domain. Alternatively, the major subject can be spelled out at the CP domain, while the thematic subject is spelled out at the vP domain. Either way, the timing of the case assignment and the applicability of K obliteration are determined according to this information. We also observed that the sentence structure is in conformity with its interpretation.

Thus, we concluded that case particle omission is not just a morpho-phonological phenomenon but is, in fact, in agreement with the semantics as well as with the syntax-phonology. One remaining issue is how the current study can be extended to other languages as well as to other linguistic phenomena, which we continue to explore for further study.

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