Phi-Agreement by C in Japanese:

Evidence from Person Restriction on the Subject

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Abstract

The goal of this work is to present additional empirical evidence for C-agreement in Japanese. We specifically focus on the interaction between discourse modals and the verb *give* in Japanese. By extending Miyagawa's (2017) analysis of politeness marking in Japanese, we demonstrate that C in Japanese triggers phi-agreement with the subject without transferring phi-features to T.

1 Phi-Agreement by C in Japanese

Since Chomsky (2000), phi-agreement has played an important role, especially in constructing syntactic dependencies between linguistic elements. Under Chomsky's (2007) feature inheritance, unvalued phi-features are introduced to the derivation with phase heads (C/v) and inherited by non-phase heads (e.g. T/V). In English, for example, phi-features transferred from C to T agree with the subject, and nominative Case is assigned as the reflex of agreement. By extending this system, Miyagawa (2017) suggests that languages can be categorized into the following four types:

(1) a. Category I: $C_{ø}$, T_{δ} - Japanese
b. Category II: C_{δ}, $T_{ø}$ - English
c. Category III: C, $T_{\delta/ø}$ - Spanish
d. Category IV: $C_{\delta/ø}$, T - Dinka
(Miyagawa 2017: 18)

In Category I and IV, phi-features are not inherited by T but stay at C, in contrast to Category II and III. (δ stands for topic/focus features, which we put aside for ease of discussion in this paper.) (See also Ouali 2006 for relevant discussion.) As supporting evidence for Category I, Miyagawa demonstrates that phi-agreement by C with a speech act head takes place for politeness marking in Japanese:

(2) a. Watasi-wa pizza-o tabe-mas-u.(formal)
I-Top pizza-Acc eat-MAS-Pres
"I will eat pizza."
b. Watasi-wa pizza-o tabe-ru. (colloquial)
I-Top pizza-Acc eat-Pres
"I will eat pizza."
(Miyagawa 2017: 18)

The morpheme *-mas-* in (2a) is the politeness marker in Japanese. An appropriate form needs to be chosen depending on whom the speaker is talking to.

Miyagawa finds allocutive agreement in Souletin (an eastern dialect of Basque) similar to Japanese politeness marking:

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(3) a. *To a male friend*
Pettek lane gin
Peter.Erg work.Abs do-Pres
di**k**.
Aux-3Sg.Abs-2Sg.Colloq.M-3Sg.Erg
allocutive agr. subj. agr.
'Peter worked.'

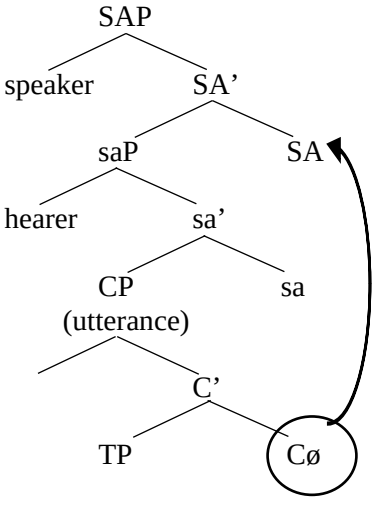
b. *To someone higher in status (formal)*
Pettek lane gin
Peter.Erg work.Abs do-Pres
diz**ü**.
Aux-3Sg.Abs-2Sg.Formal-Sg.Erg
'Peter worked.'

(Miyagawa 2017: 22)

If the speaker is talking to someone higher in status, the auxiliary is marked with the formal form as in (3b) in contrast to (3a), in which the speaker is talking to a (male) friend. According to Oyharçabal's (1993) analysis, allocutive agreement is triggered by C, since allocutive agreement morphemes are in competition with other materials at C, including question morphemes.

By extending Oyharçabal's analysis to Japanese politeness marking, Miyagawa (2017) proposes that C undergoes head movement to the head of the Speech Act Phrase (SAP), which is proposed in Speas and Tenny (2003) as well as in Haegeman and Hill (2011), and that phi-features on C are valued 2nd person formal, in which politeness marking is allowed:

(4)



(modified from Miyagawa 2017: 26)

In the following sections, we consider another type of phi-agreement by C in Japanese by examining cases of person restriction on the subject imposed by discourse modals and by the Japanese verb *give*, which supports Miyagawa's (2017) view.

2 Two types of Person Restrictions in Japanese: Discourse Modals and the Verb *kure(ru)* 'give'

2.1 Person Restriction on the Subject in Japanese Discourse Modals

Although phi-morphemes are rarely observed in Japanese, discourse modals (Inoue 2006), which express the speaker's attitude toward the utterance or the hearer, impose a specific person on the subject (i.e. person restriction):

(5) *Prohibition*
{*boku/✓kimi/*Taro}-wa sonnakoto
I/you/Taro-Top such a thing
kinisuru-**na**.
care-never
'You, not others, don't worry about such a thing.'

(6) *Intention*
{✓boku/*kimi/*kare}-ga sugu ik(u)-**oo**
I/you/he-Nom right now go-Intention
'I, not others, go there right now.'

(Ueda 2008: 134)

The prohibition marker *-na* in (5) requires a 2nd-person subject, while the intention marker *-oo* in (6) requires a 1st-person subject. It has been widely assumed that the discourse modals occur in the CP-domain (part of C, Rizzi 1997).

Although Ueda (2008) demonstrates that U(tterance)-modals including the morphemes *-na* in (5) and *-oo* in (6) impose a specific person on the subject, she does not discuss how exactly the agreement relation is constructed between the subject and C/Modal. In order to elucidate the dependency between them, we overview another type of person restriction observed in the verb *give* in Japanese and combine both types of person restriction in the next sections, which have important implications for how features on C and T are distributed in Japanese under Chomsky's (2007) feature inheritance.

2.2 Person Restriction on the Subject in the Japanese Verb *kure(ru)* 'give'

Person restriction on the subject is also triggered by the verb *give* (and only *give*) in Japanese (cf. Kuno and Kaburaki 1977). Since this type of person restriction is unique to this specific verb, it is arguably pre-specified in the lexicon:[1]

(7) *English 'give'*
{✓I/✓You/✓Hanako} gave Taro a book.

(8) *Japanese 'kure(ru)'*
{*Watasi/✓Anata/✓Hanako}-ga Taro-ni
I/you/Hanako-Nom Taro-Dat
hon-o kure-ta
book-Acc give-Past
'I/You/Taro gave Taro a book.'

Unlike in the English example (7), the verb *kure(ru)* 'give' disallows the 1st person subject as in (8), which exhibits person restriction.

How does person restriction imposed by the verb apply to the subject in the syntactic derivation? In English, on one hand, unvalued phi-features on T are valued by phi-features on the subject and no person restriction arises, as in (7). In (8), on the other hand, the specific verb *kureru* requires [2nd person] or [3rd person] for the subject. One might think that English also shows person restriction in the case of the 3rd person singular subject. The 3rd person singular subject requires overt inflection on T in English: once phi-features on T are valued by the 3rd person singular subject, the morpheme *-s* is inserted into T at the morpho-phonological level. This looks like person restriction, but note that neither T nor V limits the person of the subject in this case. Rather, T's realization varies depending on phi-features of the subject, which means this is not person restriction.

How can the agreement in (8) be implemented? Although agreement takes place between T and the subject, person restriction is a property of the verb *kureru*, not T. Following Obata and Sugimura's (2014) head movement analysis, a V-v-T amalgam is formed by head movement and the amalgam including T (not solely T) agrees with the subject and only [2nd] or [3rd] subject is ruled in:

(9) a. [T [Subj. v V …] *by head movement*

b. [V-v-T [Subj. <v> <V> …]
The V-v-T amalgam is formed and agrees with the subject for phi-features.

Before phi-agreement takes place, the V-v-T amalgam bears unvalued features: person is not specified as to [2nd] or [3rd], and number has no value yet, as in (10). Through phi-agreement with the subject, person is specified as either [2nd] or [3rd], and number gains a value.

(10) V-v-T
Per: [2nd/3rd]
Num: [---]

(11) a. *Subj.
Per: [1st]
Num: [Sg]

b. ✓Subj.
Per: [2nd]
Num: [Sg]

If the amalgam in (10) agrees with the subject in (11a), the underspecified person feature is never specified, which causes the derivation to crash. If the amalgam agrees with the subject in (11b), person is specified as [2nd] and number gains a value, satisfying the person restriction. Note that [3rd] on the amalgam becomes inactive after specification through phi-agreement with the subject and is no longer available. This is how person restriction is applied to the subject through phi-agreement by the V-v-T amalgam in the case of the verb *kureru*.[2]

3 Phi-Agreement by C vs. Phi-Agreement by T: Evidence from the Verb *kure(ru)* 'give'

In Section 2, we overviewed two types of person restrictions in Japanese. In the first case, discourse modals (i.e. C/Modal) impose a person restriction on the subject. In the second case, the verb *kure(ru)*, the V-v-T amalgam imposes a person

[1] Another verb, *ageru*, which also means 'to give', imposes person restriction on the dative object: the first person dative object is not allowed to occur. In Obata and Sugimura (2014), we suggest that person restriction of *ageru* is also pre-specified in the lexicon, just like in the case of *kureru*.

[2] In this paper, we assume that person restriction is applied through phi-agreement. Although Chomsky (2000) suggests that Case is assigned as a consequence of phi-agreement, we limit our discussion only to phi-agreement and do not go into controversial issues of Case-assignment in Japanese in this paper.

restriction on the subject. What happens if a person restriction is imposed on the subject both by discourse modals and by the verb *kure(ru)* in a single sentence?

(12) *Prohibition*
a. (kimi-wa) musuko-ni sonna hon-o
you-Top son-Dat such a book-Acc
kureru-na
give-never
'Don't give such a book to my son.'
b. {*watasi/*Taro}-wa musuko-ni
I/Taro-Top son-Dat
sonna hon-o kureru-na
such a book-Acc give-never

(13) *Intention*
{*boku/*kimi/*kare}-ga Taro-ni hon-o
I/you/he-Nom Taro-Dat book-Acc
kure-yoo
give-Intention
'I/you/he gives Taro a book.'

The verb *kure(ru)* co-occurs with the prohibition marker in (12) and the intention marker in (13). With respect to the person restriction, the verb requires either [2nd] or [3rd] and the modal requires [2nd] in (12), so that the sentence becomes grammatical only when the subject is [2nd] as in (12a). In (13), the verb imposes either [2nd] or [3rd] on the subject while the modal imposes [1st]. The sentence is ungrammatical with any subject.

What do (12) and (13) imply concerning phi-agreement by C and/or T? (14) and (15) show the logical possibilities for phi-feature distributions on C and T in (12) and (13), respectively.

(14) a. *NO inheritance from C to T in (12):*

C/Modal	V-v-T
[2nd]	[2nd] or [3rd]

b. *AFTER inheritance from C to T in (12):*

C/Modal		V-v-T
[---]	→	[2nd], [2nd] or [3rd]

(15) a. *NO inheritance from C to T in (13):*

C/Modal	V-v-T
[1st]	[2nd] or [3rd]

b. *AFTER inheritance from C to T in (13):*

C/Modal		V-v-T
[---]	→	[1st], [2nd] or [3rd]

No feature inheritance from C to T takes place in (14a)/(15a), while phi-features are inherited by T in (14b)/(15b). If phi-features on C/Modal are inherited by T, as in (14b)/(15b), all the phi-features are combined to form a single probe, which applies person restriction to the subject. If feature inheritance does not occur, as in (14a)/(15a), T (amalgam) and C serve as probes independently.

What does this difference predict? In (14b), if phi-features on C are inherited by T, either the [2nd] or [3rd] subject in (14b) (i.e. *kimi* 'you', *Taro*, respectively) should be allowed, despite the fact that the [3rd] subject in (12) is ungrammatical. Also in (15b), if feature-inheritance takes place from C to T, any subject (i.e. *boku* 'I', *kimi* 'you', *kare* 'he') should be allowed, contrary to fact. (Note that inherited [1st] in (15b) needs to be listed with [2nd] and [3rd] by disjunction (or), not by conjunction (and), since persons are mutually exclusive in nature and combining two different persons is logically impossible, independent of our discussion.)

If, however, C and T agree with the subject separately for phi-features, as in (14a)/(15a), the overgeneration mentioned above never happens. In both (14a) and (15a), T (amalgam) first imposes [2nd] or [3rd] on the subject. Then, C bearing [2nd] agrees with the subject in (14a). Thus, only when the subject is [2nd] does the derivation converge, which explains the (un)grammaticality of (12b). Also in (15a), after T-agreement, C bearing [1st] agrees with the subject. However, since only the [2nd] or [3rd] subject can survive after agreement with T, C's agreement for [1st] always fails. As a result, any subject in (13) is ungrammatical.

In this section, we examined if phi-features stay at C or are inherited from C to T by focusing on discourse modals and the verb *kure(ru)* in Japanese. These cases both impose specific person restrictions on the subject. In the case of discourse modals, C/Modal requires a specific person for the subject. In the case of the verb *kure(ru)*, on the other hand, person restriction is one of the properties the verb *kure(ru)* specifically bears, so that V undergoes head movement to T and the resulting V-v-T amalgam imposes specific persons on the subject. We combined these two elements in a single sentence and demonstrated that phi-features on C/Modal are never inherited by T in these cases.

4 Consequences and Conclusion

The proposed system has several theoretical consequences. First, if the proposed system is on the right track, it lends further empirical support to Miyagawa's (2017) view that phi-features stay at C for agreement in Japanese without being inherited by T, in contrast to languages like English. Furthermore, under our analysis, the verb *kure(ru)* undergoes head movement to T forming an amalgam, which enables T to bear V's properties (i.e. person restriction). Also, the subject can never be included in the search domain of V for agreement if no head movement takes place. These points imply that head movement is a syntactic movement, in contrast to Boeckx and Stjepanović (2001), where head movement is phonological movement. Finally, it was demonstrated that the amalgamated heads (and inherited features from T to C if inheritance happens) serve as a single probe by keeping the person restriction each of the heads originally displays (not by prioritizing one of them). This is why phi-features on C need to be separated from those on T, as in (14a)/(15a). Hiraiwa (2001) also shows that the amalgam C-T-V serves as a single probe/Case-assigner, maintaining the heads' original properties. C and T originally assign genitive Case and nominative Case, respectively. As a result of amalgamation, C-T-V can assign both Cases by keeping their original Case-assignment abilities. Therefore, the proposed analysis is compatible with Hiraiwa's (2001) view on how amalgams work for agreement in the syntactic derivation.

In this work, we presented additional evidence for phi-agreement by C in Japanese, focusing on the person restriction observed in discourse modals and the verb *kure(ru)*, although it is still unexplained why only the verb *kure(ru)*, and not other verbs, imposes person restriction on the subject. Also, we clarified several theoretical consequences obtained from the proposed analysis.

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