Morphological case marking as phoneticization

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1 Introduction

It is widely held in recent generativist studies of Japanese that case marking is the result of checking of abstract Case features. Under the minimalist assumption, Case features as formal features are uninterpretable; hence, they must be checked and eliminated by functional heads in the course of a derivation. As for Japanese, it is further assumed that Case features, if properly checked, are morphophonologically realized by appropriate case particles, as in the following.

(1) John-ga ringo-o tabe-ta
   - NOM   apple-ACC   eat-PAST
   ‘John ate an apple.’

When introduced to the derivation, the DPs John and ringo are associated with abstract [NOM] and [ACC] features, which must be checked and eliminated by T and v, respectively. After being properly checked, those Case features are spelled out by ga and o at PF.

However, it is obvious that the presence of a case particle is not obligatory in order for a DP to be formally licensed, as indicated below.

(2) a. John-wa ringo-mo tabe-ta
    - TOP   apple-also   eat-PAST
    ‘John (TOP) ate an apple as well.’

b. John-dake ringo-made tabe-ta
    -only   apple-even   eat-PAST
    ‘Only John ate even an apple.’

In (2)a, b each argument DP is fully licensed in the absence of case particles. This strongly suggests that non-case particles like wa (topic marker) and mo ‘also’, dake ‘only’ and made ‘even’ can play the role of case particles in licensing argument DPs.

This paper attempts to argue that what is relevant to case marking in Japanese is morphological case, but not abstract Case. Assuming that the D in Japanese is associated with a morphological [case] feature that is only visible in PF, we will propose that the gist of case marking is to make that feature interpretable by phoneticizing it. If associated with an appropriate phonetic content, the morphological [case] feature in D is properly licensed with respect to the PF output condition, as schematized in (3).

(3) [case]
   /phonetic content/

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1 Early generative studies of Japanese like Kuroda (1965) and Kuno (1973) propose a morphophonemic rule that deletes ga to the left of wa, for instance. However, such a treatment virtually posits a “filter” with no explanatory value. In fact the whole picture of coexistence of case- and non-case particles is far more complex than discussed by these authors. See section 4 below.
The [case] feature may assume a phonetic content in one of the two ways. It may inherit the phonetic content of a morpheme aligned immediately to the right of D (e.g. in (2)a, b), or it may assume the phonetic content of a case particle that is assigned in accordance with a certain convention (e.g. in (1)). The former option is preferred over the latter. In this respect, case marking by case particles is a last resort.

2 Feature checking approach to Japanese case marking

2.1 Checking of abstract Case features

Following Chomsky’s 1991, 1993, 1995 Case checking theory, authors like Tada 1992, Koizumi 1995, Ura 2000, among many others, have proposed that Japanese case marking proceeds as checking of abstract Case features against functional categories, followed by spell-out of the checked features with case particles, as stated in (4).

\[(4)\]
\[
\begin{align*}
a. & \text{Abstract [NOM] features, if checked against T, are spelled out as } ga \text{ at PF.} \\
b. & \text{Abstract [ACC] features, if checked against } v, \text{ are spelled out as } o \text{ at PF.}
\end{align*}
\]

The subject and object DPs are assigned [NOM] and [ACC] features respectively at Numeration, and the same features are inherent in T and v, respectively. The subject DP base-generated in SPEC of vP is moved to SPEC of T, and the [NOM] feature of the former is checked against that of the latter. In the same vein, the object DP base-generated in the complement position of V is moved to the outer SPEC of v, and the [ACC] feature of the former is checked against that of the latter. Finally, at PF the checked [NOM] and [ACC] features on the DPs are spelled out as \(ga\) and \(o\), respectively.

Case checking, together with a morphological spell-out convention as in (4), successfully accounts for paradigmatic cases like (1) above. However, there are cases that reject any principled account under this approach, as shown below.

2.2 Problems with the Case checking account

It is well known that some stative predicates in Japanese allow case-marker alternation. In (5), the predicate is composed of the transitive verb stem \(\text{tabe} \) ‘eat’ and the stative potential auxiliary \(\text{rare} \) ‘can’.

\[(5)\]
\[
\begin{align*}
a. & \text{John-ga susi-o } \text{tabe-rare-ru} \quad \text{(NOM–ACC)} \\
& \quad \text{-NOM susi-ACC eat-POT-PRES} \\
& \quad \text{‘John can eat sushi.’} \\
b. & \text{John-ni susi-ga } \text{tabe-rare-ru} \quad \text{(DAT–NOM)} \\
& \quad \text{-DAT} \quad \text{-NOM} \\
c. & \text{John-ga susi-ga } \text{tabe-rare-ru} \quad \text{(NOM–NOM)} \\
& \quad \text{-NOM} \quad \text{-NOM} \\
d. & \text{*John-ni susi-o } \text{tabe-rare-ru} \quad \text{(*DAT–ACC)} \\
& \quad \text{-DAT} \quad \text{-ACC}
\end{align*}
\]

The NOM-ACC case array in (5)a is the most straightforward reflection of the one that co-occurs with the verb stem alone (i.e., \(\text{John-ga susi-o } \text{tabe-ru} \) ‘John eats sushi.’). When the verb is suffixed with the potential auxiliary as in (5)b, an alternative DAT-NOM array is made possible (but not \(*\text{John-ni susi-ga } \text{tabe-ru} \) without the auxiliary). As exhibited in this alternation, the subject can be marked with either \(ga \) ‘NOM’ or \(ni \) ’DAT’, and the object either \(o \) ‘ACC’ or \(ga \) ‘NOM’. However, the combination is not totally free. While the NOM-NOM array is possible as exhibited in (5)c, the DAT-ACC array is not, as shown in (5)d. Any

\[2\]To the best of my knowledge, the sole argument for the Case checking approach is that from scope (see Tada 1992 and Koizumi 1995). However, it is not as reliable as claimed by the proponents. Due to the limitation on space, I will not go into the details in this paper. The reader is referred to Aoyagi 2002.
appropriate theory of Japanese case marking must provide a principled account of this.

One common view shared by proponents of the Case checking approach is that an abstract [NOM] feature is inherent to finite T. Given the minimalist assumption that Case features assigned to DPs and those inherent to functional heads are both uninterpretable, the [NOM] feature on T must be checked and eliminated against the same feature on a DP. This amounts to saying that the finite clause in Japanese must have at least one nominative DP. If this is the case, (5)d can be correctly excluded since the [NOM] feature on T remains unchecked due to the absence of a nominative phrase.

However, there are examples like the following that include no nominative DPs.

3

(6) a. watasi-ni-wa sonnnanni hayaku hasir-e-masen ‘I can not run that fast.’
   I   -DAT-TOP to that degree fast run-POT-NEG.PRES  (McGloin 1980)
b. hubuk/sigure -te   ki-ta ‘It has begun to snowstorm/shower.’
   snowstorm/shower -ASP come-PAST  (Kuroda 1988)
c. (seken-de-wa) [gaimusyoo-ga uso-o tui-te iru to]  mir-are-te i-ru
   the public-in-TOP M. of F.A. lie-ACC tell-BE that see-SPON-BE-PRES
   ‘It is taken to be true (in the public) that the Ministry of Foreign Affairs is telling a lie.’

In (6)a, the intransitive verb hasir ‘run’ is suffixed with the potential (rar)e, and the sole argument of the verb stem is marked by the dative ni (and further by the topic wa). In (6)b are sentences of weather verbs. Since Japanese does not have expletives, no nominative phrase appears in (6)b. The example in (6)c is passive in form, but it rather expresses a spontaneous action or state of affairs. In neither of the examples (6)a-c does any nominative DP show up.

The presence of examples like (6)a-c challenges the Case checking account of (5)d above. If an abstract [NOM] feature is inherent to finite T, this feature remains unchecked in (5)d, leading the derivation to crash. However, the same feature should remain unchecked in (6)a-c as well, contrary to fact. Thus, the Case checking approach does not seem to be able to provide a principled account for the unattested DAT-ACC case array, on the one hand, and for finite clauses without a nominative DP, on the other, simultaneously.

One might be tempted to claim that T is optionally associated with [DAT] instead of [NOM] in Japanese. However, this does not ultimately solve the problem. Insofar as Case features on DPs are checked by independent functional heads, a question still remains as to why v embedded under T that checks a [DAT] feature on the subject may not check an [ACC] feature on the object. Eventually, the Case checking account fails to capture an important generalization that the accusative in Japanese is a dependent case.

3 An alternative: theory of morphological case

3.1 Assumptions

In this section, we will propose an alternative approach to case marking in Japanese by employing the notion of morphological case introduced by Marantz 1991. To begin with, the following set of theoretical assumptions are necessary for the discussions to follow.

(7) a. Independent of formal features, semantic features and phonetic features, lexical items are associated with morphological features. (cf. Marantz 1989, Halle and Marantz 1993)

b. Morphological features are only visible in the PF component.

c. Features relevant to case marking in Japanese are morphological case features, but not abstract Case features (=formal features).

Cf. Shibatani’s 1977 CASE CANNON and Kuroda’s 1978 CANNONICAL SENTENCE PATTERNS.

One tacit assumption underlying the Case checking approach is that Case checking is exercised via agreement under a spec-head or head-head relation (or by Agree in more recent terms). However, cases of “split ergativity” as in Georgian casts doubt on such an approach. See Marantz 1991 for details.

Morphological features should include order-entailing features like [+prefixal] and [+suffixal], so that morphologically complex words are properly formed.
We also assume with Kuroda 1988 and Fukui 1995 that Japanese has a minimal set of functional categories, including C, T, v and D, but none of them is provided with obligatory agreement features. In this view, the noun phrase in Japanese is a DP without a specifier that agrees with its head, as shown in (8)a below. As exhibited in (8)b, D in Japanese is conceived of as a set of sets of features. Among them are formal features (FFs) including categorial features like [+D] and [+F(unctional), +L(lexical)], semantic features (SFs) such as [±definite] and [±specific], and a phonetic feature (PHF) with no content. More relevant to our present concern is that the Japanese D includes a set of morphological features (MFs), among which are a [case] feature, an order-entailing feature like [+suffixal] and a subcategorization feature (which requires D to be morphologically subcategorized for N). The concerted effort of the last two features results in D attached to N from the right-hand side.

(8) a. \[ [DP NP D\_{\text{[case]}}] \]

b. D: \{FF\{[+D], [+F, +L], ...\}, SF\{[±definite], [±specific], ...\}, PHF\{Ø\}, MF\{[case], [+suffixal], [N _ \_ ], …\}, …\}

We propose that case marking in Japanese is the process of making morphological case features in D interpretable at PF by providing them with a phonetic content (so that the principle of Full Interpretation is satisfied at that level). One way is to associate the [case] feature with the phonetic content P of a [+suffixal] morpheme X immediately to the right of D after the relevant heads are linearized in PF, as schematized in (9).

(9) \[ \ldots \ D\_{\text{[case]}} \quad X_{\{+suf\}} \quad \ldots \]

In (9), P of X supplies the phonetic content that is necessary for the [case] feature to be licensed at PF. However, in the absence of an appropriate X, a case particle is employed in the way to be discussed in section 4 below.

### 3.2 O as dependent case in Japanese

To recapitulate, the possible case arrays in Japanese are listed in the following.

(10) a. (Di)transitive: NOM-(DAT)-ACC

John-ga Mary-ni hon-o age-ta
- NOM - DAT book-ACC give-PAST
‘John gave a book to Mary.’

b. Ergative: DAT-NOM

John-ni tetugaku-ga wakar-u
- DAT philosophy-NOM understand-PRES
‘John understands philosophy.’

c. Intransitive: NOM

Mary-ga hasir-ta
- NOM run-PAST
‘Mary ran.’

d. Intransitive: DAT

watasi-ni-wa sonnnani hayaku hasir-e-masen (=6a)
\[1\] - DAT-TOP to that degree fast run-POT-NEG-PRES
‘I can not run that fast.’

e. Intransitive: no argument

hubuk/sigure -te ki-ta (=6b)
snowstorm/shower -ASP come-PAST
‘It has begun to snowstorm/shower.’
Considering these patterns, we will arrive at a generalization that the accusative \ o \ in Japanese is a **dependent case** in the following sense.

(11) The presence of \ o \ is dependent on the presence of \ ga.\(^6\)

### 3.3 Morphological case assignment

Following Marantz 1991, we will assume that morphological case marking proceeds in accordance with the case realization hierarchy in (12).

(12) **The case realization hierarchy**

- a. inherent case (ni ‘DAT’) assignment
- b. dependent case (o ‘ACC’) assignment
- c. default case (ga ‘NOM’) assignment

The case assignment rules are hierarchically ordered, and they apply in a toptdown fashion, that is, from (12)a through (12)b down to (12)c. The same rule can apply more than once. However, once the rule on a given level applies, there is no return to the rule on a preceeding level.

Furthermore, the accusative \ o \ in Japanese is identified as a dependent case. The principle of dependent \ o \ assignment can be stated as in (13).

(13) **Dependent \ o \ assignment**

Dependent \ o \ is assigned to an unmarked DP within the minimal domain of a finite tense if it is c-commanded by a distinct unmarked DP in the same domain.\(^7\)

Given (12) and (13), the first three major patterns of case marking in Japanese can be accounted for in the following way. In (14) successful reference relations for dependent case assignment are indicated by **unbroken** arrows, and unsuccessful relations by **broken** arrows.

(14) a. (Di)transitive Pattern: NOM-(DAT)-ACC

b. “Ergative” Pattern: DAT-NOM

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\(^6\) As is made clear below, the presence of \ o \ in fact contingent upon that of a theta-marked \ ga \-subject. Then (11) can be taken as a direct reflex of Burzio’s 1986 generalization about the concomitance of subject theta marking and object Case assignment in nominative-accusative languages.

\(^7\) According to Marantz 1991, the ergative case in ergative languages is a dependent case, which is assigned to an unmarked DP that c-commands a distinct unmarked DP.
The configuration of the ditransitive sentence in (10)a is in (14)a. In this case marking pattern, the indirect object is inherently case marked with ni ‘DAT’ (cf. Kubo 1992). The direct object cannot refer to the indirect object for dependent case assignment. However, it can make reference to the subject that is not inherently case marked. Hence, the direct object can receive dependent o ‘ACC’. On the contrary, since the subject has no unmarked position upwards for reference, it gets default ga ‘NOM’.

The structure of the sentence with the DAT-NOM (or ergative) pattern in (10)b can be represented as in (14)b. The stative predicate wakar ‘understand’ optionally takes a non-theme (presumably, experiencer) argument as well as a theme argument. Suppose that it assigns inherent ni to the non-theme argument. Then the theme argument tetugaku ‘philosophy’ does not have any unmarked position upwards for reference because the only candidate, that is, the non-theme argument, is invisible because it is already marked with inherent ni. As a result, tetugaku only has a chance for default ga; hence, the DAT-NOM array results.

Intransitive predicates as in (10)c take only one argument as shown in (14)c. Since this sole argument has no thematic position for reference, it can only get default ga.

Finally, the noted presence of sentences without a nominative phrase as in (10)d and e is not a problem for the present approach. Those sentences are simply without an unmarked DP subjected to either dependent or default case assignment. While the sole argument in (10)d is inherently case marked, there is no argument in the sentences of weather verbs in (10)e.

A qualification is necessary to account for the correct case array in scrambled sentences as in (15)b and the so-called multiple nominative construction in (16).

(15) a. John-ga ringo-o tabe-ta
   - NOM apple-ACC eat-PAST
   ‘John ate an apple.’
  
   b. ringo-o: John-ga t\textsubscript{2} tabe-ta
      apple-ACC John-NOM eat-PAST
  
   c. *ringo-ga: John-o t\textsubscript{2} tabe-ta
      apple-NOM John-ACC eat-PAST
(16) bunmeikoku-ga dansei-ga/*-o heikinzyumyoo-ga/*-o mizika-i\textsuperscript{8}
   civilized countries-NOM men-NOM/ACC average life span-NOM/ACC short-PRES
   ‘It is in civilized countries that the average life span of men is short.’ (Kuno 1973)

(15)b is derived from (15)a by scrambling the object across the subject, but we do not want the subject to refer to the preposed object for dependent o assignment as exhibited in (15)c. In (16) three subjects are all assigned nominative, and neither the second nor the third one should be allowed to refer to a higher subject for dependent o assignment.

Given widely accepted assumptions that the landing site of scrambling is not a theta position, and that all subjects except for the lowest (i.e., rightmost) one are adjuncts in the multiple subject construction, the appropriate case array in (15)b and the fact of multiple ga marking in (16) will follow from the condition in (17).

\textsuperscript{8} The point here is that “major subjects” are not theta marked in the usual sense; they are licensed either by “aboutness” in the sense of Chomsky 1981 or by predication as suggested by Heycock 1993.
The (counter-) visibility condition

Only DPs that are theta marked are visible for dependent case assignment.

Since the preposed object is not in a theta position in (15)b, the subject is not able to refer to it for dependent o. On the other hand, since the preposed object is related to its own trace in a theta position by chain, it can refer to the subject for dependent o assignment. Similarly, since none of the three “subjects” in (16) has a distinct thematic position that c-commands it, none of them can be assigned dependent o; instead, the only available case is default ga.

4 An Implication: relative order among particles

It has long been noted by traditional Japanese grammarians (cf. Yamada 1936) that relative order among different kinds of particles is fixed. Above all, three different kinds of particles have been recognized; namely, case particles (or kaku-joshi) like ga ‘NOM’ and o ‘ACC’. K-particles (or kakari-joshi) like wa ‘TOP’ and mo ‘also’ and F-particles (or fuku-joshi) like dake ‘only’ and made ‘even’.

First, as exhibited in (18)a and b, neither K- nor F-particle may follow the nominative case particle ga. However, as shown in (18)c and d, while F-particles may precede ga, K-particles may not.

Next, as shown in (19), both K- and F-particles may follow, but only F-particles may precede, accusative o.

(a) While nominative ga does not allow any other particle on its right, accusative o allows it.
(b) While F-particles may appear to the left of a case particle (i.e. ga, o, etc.), K-particles may not.

In fact the generalizations in (20) have long been noticed in the literature (cf. Yamada 1936), but no principled account has ever been provided so far.

However, the present approach to case marking in Japanese paves the way toward a principled account. Following Marantz 1989 and Halle and Marantz 1993, we assume that syntactic configuration is preserved on early stages of the morphological component in the PF-side of the derivation. This is a necessary assumption since dependent case assignment refers to structural information. At some point of the derivation in PF, the rule of linearization must apply. We claim that the rules of case assignment and linearization are ordered as in (21).

Ordering the rules

(a) inherent case (ni ‘DAT’) assignment
(b) dependent case (o ‘ACC’) assignment

9 This is a reversed version of Aoun’s 1985 visibility condition to the effect that only Case-marked DPs are visible for theta-marking.
10 O-wa ‘ACC-TOP’ is phonetically realized as o-ba, which is rather archaic but still possible. It must be noted that the particle wa is still orthographically represented as ha, the consonant of which was pronounced as a bilabial fricative in Old Japanese.
11 As noted by Bromberger and Halle 1989, unlike rules in syntax, those in PF may be extrinsically ordered.
c. linearization

d. default case (\textit{ga} ‘NOM’) assignment

In (21) the relative order among the rules of case assignment is preserved from that in (12). Since dependent case assignment requires structural information, linearization must follow it. Default case assignment, on the contrary, does not require structural information. This rule should rather be taken for “the last of the last resorts” to spell out the [case] feature on \(D\). Then, it is not implausible if default case assignment takes place after linearization.

Linearization is a rule in the morphological component in PF that applies to a syntactic configuration and concatenates its terminal morphemes in a linear string in accordance with morphological subcategorization features of heads. We assume that all functional heads in Japanese are \([+\text{suff}]/\text{fixal}]\)\(^{12}\) and morphologically subcategorized for a certain head (\(=X^c\)). For the sake of discussion, let us further assume that K- and F-particles can freely adjoin to any projection levels, i.e., \(X^c\), \(X^r\) and \(XP (=X^{\text{disp}})\)\(^{13}\).

First, let us consider the case where a K- or F-particle adjoins to a DP. The syntactic configuration at Spell-Out is like (22)a,\(^14\) and it results in the linear string in (22)b after linearization applies in the morphological component in PF.

\begin{equation}
\text{(22)}\ a. \text{at Spell-Out} \quad \text{b. after linearization} \\
\begin{array}{c}
\text{NP} \\
\text{DP} \\
\text{K/F}_{\text{[+suff]}} \\
\end{array} \quad \begin{array}{c}
\text{\ldots} \\
\text{N - D}_{\text{[case]}} - K/F \\
\end{array}
\end{equation}

\begin{array}{ll}
c. \text{surface strings} \\
(i) \text{N - K/F (subject)} \\
(ii) \text{N - o - K/F (object)} \\
\end{array}

We assume that the structural information encoded in (22)a is preserved on the initial stage in the morphological component in PF after the derivation diverges at Spell-Out. However, when linearization applies, all morphemes are aligned on a linear string, and the structural information is lost, as presented in (22)b. As noted above, linearization applies in accordance with the morphological nature of each morpheme involved. Since D is \([+\text{suff}]/\text{fixal}]\) and morphologically subcategorized for N (cf. (8)b above), D is attached to N from the right. Furthermore, since K- and F-particles are also \([+\text{suff}]/\text{fixal}]\) by assumption, they are attached to D from the right as well. Hence the linear string in (22)b results.

Remember that we have assumed that linearization applies after dependent o assignment but before default ga assignment. This means that while the former applies to the configuration in (22)a, the latter to the linear string in (22)b. The [case] feature on D must become interpretable at PF by being phoneticized. Since this feature is yet to be phoneticized at the point of (22)a, dependent o assignment takes place and provides a phonetic content to the [case] feature in D (as long as the condition on dependent o assignment in (13) is met). This phonetic content is brought along after linearization. Hence accusative o can be followed by either a K- or F-particle, as in the surface string in (22)c-ii. On the contrary, default case assignment applies to the result of linearization. Let us propose that in a linear string of morphemes in (22)b, the [case] feature of D can be successfully phoneticized by the adjacent morpheme with a phonetic content (i.e., by the K- or F-particle) in the way indicated in (9) above. If nominative case assignment in Japanese has default characteristics, its application in cases like (22)b is prohibited; hence, the surface string in (22)c-i results. This is the reason that nominative \textit{ga} may not be followed by either K- or F-particles.

\(^{12}\) Aoyagi 1998a claims that this is the source of the strict head-finality of Japanese.

\(^{13}\) Aoyagi 1998a, b claims that K- and F-particles are “adjunct clitics” in the sense that they are adjunct-like elements being irrelevant to selection (hence, they can attach to any projection), and they do not project (i.e., they are \(X^c\) and \(X^{\text{disp}}\) simultaneously). Since neither functional nor lexical categories in Japanese induce spec-head agreement by assumption, a maximal projection XP (=X\text{\textsuperscript{max}}) is non-distinct from \(X^c\).

\(^{14}\) If order is undetermined in the derivation from Numeration to LF, the configuration in (22)a is merely one among many possibilities. However, given that morphological requirements must be satisfied under strict adjacency by linearization, (22)a is the only possibility for PF-convergence. This is because the requirements of D and the K- or F-particle can simultaneously be satisfied under adjacency only out of this configuration.
Thus, the generalization in (20)a is explained away.

Next let us turn to the case where a K- or F-particle adjoins to NP. The syntactic configuration at Spell-Out is like (23)a, and it is mapped to the linear string in (23)b by linearization.

(23) a. at Spell-Out
b. after linearization
   (i) ... N - F - D_{[case]} ...
   (ii) *... N - K - D_{[case]} ...

As in the previous case, linearization applies to the configuration in (23)a and maps it to a linear string of morphemes. As long as the conditions are satisfied, dependent o assignment applies to (23)a. If dependent o assignment does not apply, default ga assignment should apply in either of the linear strings in (23)b since, unlike in the previous case, there is no morpheme with a phonetic content on the right-hand side of D. However, the linear string in (23)b-i, which surfaces as either (22)c-i or -ii, is attested, but that in (23)b-ii is not (see (18)c, d and (19)c, d).

This contrast is accounted for by the morphological nature of D. Remember that D is morphologically subcategorized for N. However, while F-particles can satisfy this requirement, K-particles cannot. In other words, the former are nominal in nature, but not the latter. This contrast is in fact independently motivated. First, it is generally agreed that the copulative da may attach to nominal categories as shown in (24)a, b, but not to other categories as shown in (24)c, d.

(24) a. gakusei da (noun) b. sizuka da (adjectival noun)
   c. *tabe(-ru) da (verb) d. *taka(-i) da (adjective)

While F-particles may be suffixed with da, K-particles may not, as exhibited in (25) and (26).

(25) a. tabe-ru-made da eat-PRES-even COP
       F
   'even eat’ or ‘until eating’

(26) a. *tabe-ru-wa da eat-PRES-TOP COP
       K

Secondly, the adjectival noun (AN) suffixed with the adnominal form of the copula, AN-na, can modify F-particles but not K-particles, as demonstrated in (27) and (28).

(27) a. genki\textsubscript{AN}-na dake\textsubscript{P}-ga ziman da healthy only-NOM pride COP
       ‘(He) is proud only of being healthy.’

(28) a. izyoo\textsubscript{AN}-na made\textsubscript{F} koohun-sur abnormal even excitement-do

From these facts, we conclude that F-particles, but not K-particles, constitute a nominal category; hence, only the former can satisfy the morphological subcategorization requirement on the part of D as indicated in (29).

(29) a. * K\textsubscript{[N]} + D\textsubscript{[N]} ...
b. F\textsubscript{[N]} + D\textsubscript{[N]} ...
Remember that a case particle must be employed so that the [case] feature on D in (29)b will be phoneticized for PF-convergence. Hence, F-particles, but not K-particles, may be follow by a case particle, accounting for the generalization in (20)b.\(^\text{15}\)

One remaining case to be considered is where a K- or F-particle is directly adjoined to D forming D\(^0\) as in (30).

\[(30)\]
\begin{align*}
\text{a. at Spell-Out} & \quad \text{b. after linearization} \\
\text{ } & \quad \text{... N - D - K/F...} \\
\text{c. surface string} & \quad \text{N - K/F (subject or object)}
\end{align*}

We consider that the [case] feature can be associated with the phonetic content of the K- or F-particle (in the way indicated in (9) above) the instant that the particle is merged to D since the newly formed D\(^0\) in (30)a is still a word. In this case, dependent o assignment, let alone default ga assignment, need not (hence, must not) apply. This is the source of object DPs that appear with a K- or F-particle but without accusative o (i.e. the surface string in (30)c) as in our earlier examples in (2)a, b.

Given the rule order in (21), accusative o has more chances to appear than nominative ga since the former has precedence over the latter (cf. the contrast between (18) and (19)). However, there are cases in which even the former need not, hence, must not be employed. This indicates that the assignment of nominative and accusative case particles is only the last resort for PF convergence.\(^\text{16}\)

5 Conclusion

As argued above, morphological case rather than abstract Case is the appropriate notion to account for facts of case marking in Japanese. In the proposed approach, case marking is conceived of as a process that makes morphological [case] features on D interpretable at PF by phoneticizing them. This approach not only accounts for the facts of possible and impossible case arrays, but it also sheds new light on the nature of case particles in opposition to other types of particles.

\(^\text{15}\) As noted by Yamada 1936, the relative order between K- and F-particles is also fixed. When they co-occur, K-particles always follow F-particles as illustrated in the following examples.

\[\text{(i) a. John-dake-wa (F - K) b. *John-wa-dake (K - F)}\]
\[\text{only-top} \quad \text{top-only}\]

\[\text{(ii) a. John-made-mo (F - K) b. *John-mo-made (K - F)}\]
\[\text{evenAlso} \quad \text{also-even}\]

This is also expected from the text discussion. Due to the morphological requirement of D, only F-particles may appear immediately to its left. The relevant linear string is as follows.

\[\text{(iii) ... N - F - D[case] - K}\]

If the [case] feature on D is phoneticized by a K-particle from the right, the resultant surface string is N-F-K.

\(^\text{16}\) This does not apply to inherent ni 'dat', as shown in the following.

\[\text{(i) a. John-ga Mary ?*(ni)-mo hon-o age-ta ... b. *John-ga Mary ?*(ni)-dake av-ta}\]
\[\text{nom dat-also book-acc give-past ... dat-only meet-past} \quad \text{... \quad 'John gave a book also to Mary.'} \quad \text{... \quad 'John met only Mary.'}\]

If inherent ni is absent, each sentence becomes marginal. This suggests that the assignment of inherent ni cannot be canceled even in the presence of other particles.
References:


