2. Previous Approaches to the Zero-Marking of (o) in Japanese

2.1 Introduction

In this chapter, I will review the past studies on the accusative case marker variation in various frameworks, from theoretical, generative to empirical or sociolinguistic. I will first take a close look at each work in separate sections, then I will conclude the chapter with a general characterization of all the preceding works, making it clear what was missing in the past approaches, and what has to be done in the current research.

1 Various authors use different terms in describing the same phenomenon under study here (e.g. dropping, deletion, etc). In this chapter, I will use the original author’s terminology in quotes when referring to their work.
2.2 Some Early Observations: Kuno (1973) and Tamori (1977)

During the 1970s, there emerged two main works on the topic, Kuno (1973) and Tamori (1977). Neither of them was comprehensive in nature, but nevertheless they made several important first observations about the factors affecting \( o \)-marking, and its envelope of variation. Kuno (1973) is probably the first, albeit short, study of the accusative case marker marking, and his main thesis is summarized as the following generalization: while the nominative case marker \( ga \) cannot be zero-marked, the accusative marker can. The underlying hypothesis here is that the alleged instances of nominative zero-marking are actually instances of zero-marking of \( wa \).

Although his point that the nominative \( ga \) cannot be zero-marked was challenged by later studies (most notably by Tsutsui (1984), Masunaga (1988)) and whether it is \( wa \) (and not the nominative \( ga \)) that is zero-marked is still at issue at best, his observation concerning the zero-marking of the accusative case is basically correct and was later taken for granted by the other researchers (Tsutsui (1984), Saito (1985), Masunaga (1988)). Kuno, however, stopped short of exploring the exact
conditionings of the phenomenon further. Thus, his basic contribution was making a distinction between *ga and the accusative case marker for their deletability.

Tamori (1977) took up the topic in a short but empirically well-grounded study that used a telephone conversation as data. His major findings are (i) identification of two important syntactic constraints on the marking and (ii) discovery of a deletion hierarchy for various particles. He found that in a Topicalization structure where an object NP is fronted with a particle *wa added at the end, the deletion is obligatory for *ga (2.2) and *o (2.3) but not for *ni (2.4) and *de (2.5) that is, *NP-ga-wa and *NP-o-wa, but NP-de-wa and NP-ni-wa:

(2.1) John-ga kyoositu -de Mary -ni eigo - o
      NOM classroom at DAT English ACC
      taught
      ‘John taught English to Mary in the classroom’

[Tamori’s (197a)]
The same holds true for pseudo-cleft sentences:

(2.6) Kyoositu-de Mary-ni eigo-o osie-ta-no-wa John *-ga/ø
      TOP
      -da
      COP
      ‘The person who taught English to Mary in the
classroom is John’
      [Tamori’s (20)a]
(2.7) John-ga kyoositu-de Mary-ni osie-ta no wa eigo -?o/ø-da
[Tamori’s (20)b]

(2.8) John-ga kyoositu-de eigo-o osie-ta no wa Mary -ni/ø-da
[Tamori’s (20)c]

(2.9) John-ga Mary-ni eigo-o osie-ta no wa kyoositu-de/ø-da
[Tamori’s (20)d]

On the other hand, the zero-marking is said to be impossible in a scrambling structure where a zero-marking of the particle would cause a meaning change or ambiguity. In the examples below (originally from Tamori’s (25a-d)), (2.11) is derived from (2.10) via particle deletions, and (2.13) can be derived from (2.12) in the same manner, where the object NP Hanako is scrambled to the front:
Tamori observes, that, although the first three sentences hold the same argument relationship, (2.13) can be ambiguous between (i) ‘Taro loved Hanako’ and (ii) ‘Hanako loved Taro.’ He then goes on to hypothesize that in such cases as (2.13) where the deletion would cause semantic loss/ambiguity, the deletion rule is prohibited from applying.

The last notable point about Tamori’s work is a hierarchy on the particle zero-marking. He proposes the following hierarchy that orders the particles from most likely to be “deleted” to the least likely one:
(2.14) Tamori’s Particle Deletion Hierarchy [Tamori (1977)]

Subject Marker > Direct Object Marker >
Indirect Object Marker > Other Particles

That is, the subject marker \( ga \) is the easiest particle to “delete,” followed by direct object marker \( o \), indirect object marker \( ni \) and lastly, all other particles.

In retrospect, Tamori’s research was one of the first detailed studies of the phenomenon, and such findings as the obligatory deletion of \( o \) after topicalization or deletion hierarchy are all followed and replicated by the later studies (Hinds (1982), Tsutsui (1984)). It is one of the few studies — together with Tsutsui (1984) to which I will turn next — that combined detailed linguistic analysis and empirical orientation.

2.3 Hinds (1982)

Given that Japanese also has null elements in various syntactic positions (pro-drop or zero object, \( etc. \)), it is reasonable to attempt to find
some general rules governing all kinds of markings, whether it is a marking of a syntactic element (as pro-drop) or a part of a syntactic elements (as case markers). Hinds (1982) is one such attempt, where he approaches the problem of case marker marking as a part of a bigger problem of accounting for the general rule for marking of various elements in Japanese mostly from a cognitive-functional viewpoint.

Hinds’ central claim on particle deletion is that they may be “deleted,” “when they do not contribute necessary, non-redundant information” (Hinds 1982: 155). That is, as the most important function of the particles is to indicate the grammatical relationship among NPs in a sentence, they may be “deleted” when there is another indicator showing the “correct” grammatical relationship other than the particle, i.e., word order and what he calls “markers.” For word order, he assumes a neutral

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2 Hinds (1982: 11 ff) makes a distinction between ellipsis and deletion, restricting the latter notion strictly to a removal of syntactic elements from a P-marker via transformation. Ellipsis, in contrast, refers to a surface-level phenomenon that occurs when an element in the surface frame pattern may be omitted” (Hinds 1982: 18), where the surface sentence pattern includes four basic sentence pattern in the language (transitive, ergative, intransitive, and ditransitive). This distinction, however, seems problematic for two reasons. First, as Hinds himself admits (Hinds 1982: 18ff) there are overlaps between these two categories, so that some phenomena can be described as an instance of deletion or ellipsis (e.g., gapping). Secondly, the later development of the syntactic theories since Hinds (1982) makes this distinction an awkward one in a number of cases. For example, the so-called pro-drop phenomenon in Japanese — which Hinds (1982) classifies as ellipsis — is now simply dealt with by positing a pro in the D-structure in the appropriate position, thus making it non-surface phenomenon. In
word order of the language to be subject - indirect object - direct object, and a marker is just another name for selectional restriction in Transformational Grammar (Chomsky 1965). Then, Hinds’ position is best described in the hypothesis below (Hinds 1982: 168):

\[(2.15) \text{At least one of the three types of indicators of grammatical relationships must be present in a given utterance so that a correct interpretation will result.}\]

The three types of indicators of grammatical relationship, of course, refer to the particles, markers and word order. In his system, marker is also associated with a case frame (or “surface frame patterns”) that shows, for various sentence patterns, which NP is attached with which case markers.

Let us see how Hinds’ theory works in actual sentences. Consider the following example \((2.16)\) where the pronominal kore ‘this’ means ‘the fact of becoming prejudiced’, and the relevant case frame and marker \((2.17)\) (Hinds 1982: 169-170):

what follows, I will ignore the distinction and uniformly refer to both cases as deletion.
(2.16) Koo, nante iu -no, kore - wa boku-ø itumo
uh what say FP this TOP I NOM always
kangaete-ru - n -desu -kedo,
thinking COMP COP but
‘So, what should I say, this I’m always thinking about,
but ...’

(2.17) NP-ga NP-o
[ ] kangaeru ‘think’
sentient abstract
being concept

The word order is different from a neutral one (Subject - Object), and the particle o is now replaced with wa, a topic marker. What makes the correct interpretation possible, Hinds argues, is the correspondences between each of the NPs and the description in the markers: boku is a sentient being, while kore refers to an abstract concept. Thus, the reconstruction of the argument structure is done correctly.

The markers cannot always make a correct parsing possible, and when the two arguments have exactly the same characteristics, then the grammatical relation has to be reconstructed in some other way. Word
order is used as another device in such a case in Hinds’ system, and this is best seen in Tamori’s example (2.13) above (repeated as (2.18) below) where the post-scrambling structure changed the interpretation completely:

(2.18) Hanako-ø Taroo-ø aisi-ta

(2.19) NP-ga         NP-o
       [        ] ai-suru/sita ‘love/loved’
       sentient  sentient
       being     being

Since the verb ai-suru takes sentient being for both subject and object, and since both Hanako and Taroo are sentient beings, there is no way to disambiguate the sentence by the marker alone. Then, as an alternative device to reconstruct the grammatical relationship among the NPs, a neutral word order, Subject - Object - Verb is evoked, and the sentence receives the interpretation that Hanako is the one who loved Taroo.
Hinds’ approach gives a unique qualitative observation from a functional point of view in identifying the environments where the zero-marking is possible. One problem must be mentioned here, however. It is the lack of more local grammatical analysis, especially focused on the relationship between the object noun and the verb. As we saw, Hinds put more emphasis on the global grammatical relationship holding among the subject, the object and the verb; when it comes to the variable marking of the accusative case, as the matter concerns the object noun governed by the verb, it would be quite natural to examine closely the relationship between these two elements that affects the likelihood of the o-deletion. Indeed, Tsutsui (1984), which we will review in the next section, found that one of the key factor governing the likelihood of zero-marking is the adjacency between the two elements.

But Hinds’ highly functionally-oriented approach makes it difficult to capture this generalization in his theoretical tools: there is not much in the three devices that Hinds pointed out as indicating the grammatical relationship to mark the adjacency between the object NP and the verb. The neutral word order, though it is the most likely candidate, fail to capture this as he did not take adjuncts into consideration. To integrate
such a relationship, one would be either forced to enrich the kinds of neutral word order, amending them with the ones with adjuncts in between, or set up a separate component that focus on the object-verb relationship. Either way, it would be necessary to incorporate some more grammatical information into the system. We will see next how the object-verb adjacency was conceived by Tsutsui, and how it was then incorporated into the GB framework.

2.4 Tsutsui (1984)

Tsutsui (1984) is the most comprehensive work to date on the topic of particle deletion. His account of particle deletion has a two-fold structure: first, there is a set of general rules on particle deletion as a whole; then there are different sets of zero-marking rules for different particles. Working in a way that was not committed to any particular theoretical framework, and using his own intuitions as well as results from a formal survey on grammaticality judgements, Tsutsui proposed general rules for ellipsis of case particles, and particular sets of rules for

3 Note the use of the term “particle deletion” in place of “case marker deletion.” While all the case markers are particles, there are non-case marking particles as well. Tsutsui’s
wa, ga and o respectively. Here, I cite the general rule and the particular rule for o:

(2.20) Case Particle Ellipsis Rule (CPER) [Tsutsui 1984: 90-101]

(i) The lower the formality level is, the more natural the ellipsis of a case particle is.

(ii) The ellipsis of the case particle (CP) of an NP-CP is unnatural if the NP-CP conveys the idea of exclusivity.

(iii) The ellipsis of a case particle is unnatural if it is in a generic sentence.

(iv) The ellipsis of a case particle marking a monosyllabic NP is less natural than that of a case particle marking a multisyllabic NP.

(2.21) o-Ellipsis Rule (OER) [Tsutsui 1984: 132-135]

Unless the speech is very formal, the ellipsis of the o of an NP-o in a sentence is natural if the NP-o is immediately followed by the predicate of the sentence.

study encompassed the “deletion” of all those particles.
As we see, Tsutsui acknowledged the fact that the account of ellipsis of case particles requires an examination of various factors across different linguistic levels; he included as factors controlling the distribution of particles stylistic, pragmatic, semantic, phonological and syntactic environments. The finding of the multivariate nature of the particle ellipsis is definitely one of his most significant contribution to the field.

Although Tsutsui’s work was full of insights, the descriptive nature of his work leaves us with some questions. Why is it the case that, as stated in OER, that the ellipsis becomes natural when the NP in question is immediately followed by the predicate? If the case marker was just indicating the functional relationship among NPs in a sentence, then the marking of another NP (i.e., subject) must be more important than the adjacency between the verb and the object NP, as that would be enough for the hearer to recover the argument structure of the sentence. Then our natural question here is why it should be the case that the object NP and the verb must be adjacent, with no regard to the position of nominative NP. One would like to have a principled explanation for this curious constraint.
Next, there is a question as to why it is that the accusative case marker can be more freely zero-marked than the nominative marker, the point that Tamori (1977) also mentioned. Again, on functional grounds, each argument should be on a par, and there does not seem to be any principle by which zero-marking of accusative case marker is favored over that of nominative case marker. Here, too, Tsutsui’s description leaves one wondering why things are as they are.

On the empirical side, Tsutsui (1984) was the first linguist to take actual data from the speakers of the language when testing his hypothesis on the topic, and this well-balanced approach between empirical data and linguistic analysis is definitely another outstanding point of his work. We must note, however, that despite his empirical orientation Tsutsui did not venture to see how much of the actual variation in natural speech can be accounted for by his framework. Certainly, formal elicitation methods can be quite useful when looking at some unusual syntactic phenomena or some constructions with clear-cut judgements. Nevertheless, the danger of relying solely on introspective data as a source for linguistic investigation is well documented in literature (Labov 1975). To see how well Tsutsui’s proposed factors fare in accounting for native speakers
linguistic activity, one must look at natural speech data from the speech community. This was done for the first time by Shibamoto (1985).

2.5 Shibamoto (1985)

Shibamoto (1985) took up the accusative case marking as part of her study of women’s language use in Japanese. With natural speech data which she collected through her sociolinguistic fieldwork in an uptown, or Yamanote, section of Tokyo, she sets out to depict gender difference in language use by analyzing the actual speech of the speakers. In doing so, she considered several linguistic variables: (i) sentence length, (ii) type of predicates, (iii) ellipsis of nominals, (iv) adverbial usage, (v) particle ellipsis, and (vi) word order.

With respect to the accusative case marker, she divided the tokens of object marker into three cases: (A) explicit marking by o/ga or by focus markers mo and wa, (B) Marking by object marker substitutes and (C) Zero object marker. Their examples are as follows:
(2.22) Shibamoto’s Token Categorization
[from Shibamoto 1985: 127]

A. $o$ (for active verbs) and $ga$ (for stative verbs), including
focus markers $mo$ and $wa$:

Example [Shibamoto’s (36)]:

\[
\text{Zibun de sinkoku -o dasu wake -ne self by report ACC submit reason FP}
\]
‘You file your (income tax) report yourself’

B. Object marker substitutes, such as -tte, -nante, etc.

Example [Shibamoto’s (37)]:

\[
\text{Nakanaka issyo -ni au zikan te -nai -n hardlytogether DAT meet time TOP NEG COMP}
\]
\[
\text{desu -yo-ne COP FP FP}
\]
‘You hardly have time to get together, do you’

C. Zero object marker

Example [Shibamoto’s (38)]:

\[
\text{Kensyuu tantoo -no baai, yappari ano, training in-charge GEN case after all well}
\]
\[
\text{kikaku -o sitari, ne planning ACC do FP}
\]
‘In the case of the person in charge of training, after all, well, you make plans and so on’
Shibamoto then gives the following breakdown of variants for each gender’s speech sample:

<table>
<thead>
<tr>
<th>Category</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>45.1%</td>
<td>65.2%</td>
</tr>
<tr>
<td>B</td>
<td>14.5%</td>
<td>9.5%</td>
</tr>
<tr>
<td>C</td>
<td>40.4%</td>
<td>35.3%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Table 2.1

Percentage of Direct Object Markers by Variants

[Shibamoto’s Table 4.22]

Shibamoto, commenting on the distribution above, says that “[W]ith direct object nominals, even more than with subjects, male speakers are found to retain particles with much greater frequency than female speakers: zero marking in particular occurs much less often.” (Shibamoto 1985: 127-8).
Unfortunately, such a statement must be taken with care for three reasons. First, her linguistic analysis of the natural speech data shows some problems which puts into doubt her quantitative analysis. This in particular involves her definition of the envelope of variation. Secondly, when assessing the effect of gender, she does not take such effects as styles or other social variables into consideration. It is clear from her examples, however, that speech from male speakers was considerably more formal than that from female speakers, and thus style has to be considered as a contributing factor before drawing any definite conclusion about sex differentiation. Providing only a result from a univariate analysis of the dependent variable, she failed to give sufficient evidence that the observed difference are all due to the gender effect which she hope to find. Let us examine each points more closely below.

Linguistic analysis in quantitative analyses becomes especially important when identifying a set of environments where the variation is possible, and locating the relevant factors governing the variation. In the present case, researchers must first locate the environments where only one of the variants — ø or ø — is possible, or where one cannot tell whether either variant has occurred (“ambiguous context”). For example,
as we will see in the following chapter, the light verb construction (NP-o + verb suru, e.g., kenkyuu-o suru ‘to study’ or shigoto-o suru ‘to work’) is a well-known case of ambiguity where one cannot tell, once o was zero-marked, whether there was an absence of o (suru was used as a regular verb) or not (it was an incorporation structure where NP suru as a whole is the verb). Needless to say, such ambiguous cases are all to be excluded from the corpus if one is looking at the zero-marking rule.

For the second point, there are already several linguistic constraints found by previous researchers, such as adjacency of the verb to the object (Tsutsui 1984) or the effect of scrambling (Tamori 1977), as we saw above. If there are such well-known syntactic constraints on o-marking, it is extremely important to include these factors into analysis, and to exclude any intersecting effects that may mask the true effect from the gender difference. This becomes quite serious when one considers her results against different rates of scrambling and postposing, where the females show a higher rate of scrambling and postposing of NPs (Shibamoto 1985: 129ff). Given that object NPs are moved from their canonical position adjacent to the verb governing them, it would not be very surprising that the females show less absence, as the absence
becomes less likely when the object NP is not adjacent to the verb, as Tsutsui (1984) showed.\footnote{Note that one of the most crucial assumptions here is the independence between the linguistic (the effect of the verb-object adjacency in the current case) and social factors (sex) in language variation in speech community (Labov 1982).}

Shibamoto, however, does not seem to have taken any of these factors into account. For instance, she cites sentences with a light verb construction for category C (kikakusuru in her example (38) on p. 127) or a sentence with no grammatical object for category B (example (37) on p. 127, where -te is only marking a subject of nai, a negative form of an intransitive verb aru ‘to exist’). Although it is quite possible that she has other genuine cases that are within the envelope of variation, and where the NP is an object of a transitive verb, inclusion of such cases as above makes her results difficult to accept fully in their present form. To gauge the gender difference in o-marking in an accurate manner, then, one has to take contributions from such linguistic factors as adjacency, as well as from such social factors as gender, into consideration.

Style difference is another such possible intersecting factor that Shibamoto did not investigate in her study. While the females were interviewed in a relaxed atmosphere close to that of coffee klatch in
American suburbs, the males were interviewed over lunch at their company office (Shibamoto 1985: 73ff), and this difference makes it quite likely that the interviewer had only limited access to the casual speech of the male speakers, and thus we would expect that style differences would overlap the gender differences. Naturally, it makes it hard to separate the true gender effect from the effect due to the skewed style distribution by gender, unless style was coded independently. The stylistic difference should certainly show up in particle variation, as Tsutsui observed (Tsutsui 1984: 90-101). That there are indeed sizable stylistic differences in Shibamoto’s corpus which approximately parallel the gender differences becomes clear when we see samples such as:

(2.23) De, maa, gozonzi-no toori, haisengo, nihon-gano, amerika-ne, sidoo-no moto-ni, sisoo-ga hizyoo-ni amerikikasisoo-ga nihon-e hizyoo-ni sisoo-ga koo amerika sisoo-ga haitte kiteru ‘And, the so-called, as you may know, after the war, Japan America’s, you know, under American guidance, ideas, very much, ideas are coming into Japan, very much, ideas, like American ideas.’

[M4033, Shibamoto 1985: 132]
Example (2.23) would fall into the soapbox style in Labov and Sankoff’s style hierarchy (Labov and Sankoff 1985), example (2.24) probably into careful style, a typical interview style. In both of these cases, speakers use honorific forms (*e.g.*, *gozonzi*, *ossyatta*), while (2.26) does not contain any; it is quite casual as a speech style in Japanese.

Example (2.25) is another form of careful speech, where the speaker is talking about language as a topic. Needless to say, any careful study of
natural speech should distinguish examples like [2.26] from others, and separate such stylistic effect from other effects that are the focus of the research.

Aside from the stylistic differences, we also have to be aware of the possibility of interacting social variables. That is, while interaction among linguistic factors or interaction between a linguistic factor and a social factor is rare, the interaction of such social variables as sex and age are rather common (Labov 1982). Indeed, for Tōkyō Japanese, Matsuda (1993a) reported an instance of three-way interaction among sex, age and residential areas for the use of the innovative potential. In such cases, a close examination of several social variables is called for, and one cannot make such a bald generalization as that women use the variant X more than men. Instead, sex differences are segmented according to the levels of other social variables (e.g., age or residential areas) so that the gender difference pattern becomes specific to the subgroups of the speech community in question. What is needed here, obviously, is a more demographically balanced sociolinguistic research that will enable us to see a comprehensive picture of gender differences in the use of the variable.
Summarizing, Shibamoto’s study was the first sociolinguistic approach to ο-marking, and it is still the only research in this domain. Moreover, her result gives us an impression that this could be a very fertile area of further exploration in Japanese sociolinguistics. Nevertheless, mostly due to her analytical methodology, we cannot be sure to what extent her results concerning the gender difference on the accusative case marker marking might be substantiated, when linguistic, as well as social and stylistic factors are all teased out.

2.6 Saito (1985)

So far, generative grammar had little to say about the variable marking of the accusative case, except perhaps for Tamori’s conjectural comment on the prohibitive effect of scrambling. With the advent of Chomsky’s Government and Binding framework (Chomsky 1981), however, the phenomenon has suddenly come to attract much attention from GB syntacticians. Saito 1985 is the first of such attempts during the 1980s. In Saito’s formulation, the accusative case in Japanese is assigned by the verb, but the nominative case is inherent, in the sense that it is not
assigned by any element. Saito uses the Case Filter (Chomsky 1981) to account for this asymmetry:

\[
(2.27) \quad \text{Case Filter [Chomsky 1981: 49]:}
\]

*NP if NP has phonetic content and has no Case.

Since the nominative case is not assigned by any element, it must have an overt case marker, otherwise it will be ungrammatical via the Case Filter above. The same is not true with the objective case, which is assigned from the verb, hence no overt (obligatory) marking is required. Assuming that the abstract case assignment licenses an NP when it is adjacent to the verb (“adjacency requirement” by Stowell 1981), this neatly explains the fact that the “o-dropping” is natural when it is immediately followed by the predicate.

Saito’s contribution to the problem of the zero-marking of the accusative case marker was, thus, two-fold: (i) He accounted for why the accusative case marker was easier to zero-mark than the nominative case marker (“subject-object asymmetry”) through the different ways that
each case is assigned; (ii) He also succeeded in explaining why adjacency can be an important factor in the zero-marking by using a condition that also holds for other languages, namely the adjacency requirement. Note that these two phenomena, as empirical facts, were already observed by Tsutsui, but as I showed above, he failed to give us the grammatical mechanism that brought them about. Saito was able to construe these facts in a coherent perspective of Government-Binding Theory, thereby also showing that the adjacency effect is not a coincidental fact about Japanese, but something that holds true across languages. The limitation of Saito’s approach is, obviously, that he did not show how factors other than adjacency might affect the variable marking of the accusative case. Powerful factor as it is, adjacency can be overridden in natural discourse, so that one also has to keep one’s eyes open to the factors of the sort discussed by Tsutsui (1984). Such issue was taken up by Masunaga (1988), which I will consider below.

2.7 Masunaga (1988)

In contrast to the mostly syntactically-oriented approach by Saito (1985), Masunaga (1988) sheds some light on the pragmatic side of the
issue. She argues for the “deemphasizing” factor that covers the zero-marking, not covered by Saito’s theory. In (2.30) - (2.29) below, the acceptability of the sentences without the accusative marker correlates with the presence/absence of the final particle, with the acceptability of the “dropped” sentences becoming better with the final particles than otherwise [Masunaga’s (8) - (11) in Masunaga (1988: 147)]:

(2.28) (Kinoo Boston-de) “Ran” -o/???-ø mita

(2.29) Hanako-o/???-ø yonda

(2.30) (Kinoo Boston-de) “Ran” -o/-ø mita-zo/y0 yesterday POSTP ACC saw FP
‘I saw “Ran” in Boston yesterday’

(2.31) Hanako-o/-ø yonda-zo/y0
ACC invited FP
‘I invited Hanako’

As Saito’s claim hinges only on the verb-object NP adjacency, these examples are not amenable to his theory of Japanese case marking.

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5 Masunaga (1988) deals also with the “deletion” of the nominative case marker ga and
Here, she argues that attaching the final particle to a sentence has a function of focusing on the verb, which, in turn, defocuses the object so that “whenever the pertinent NP is deemphasized or defocused, the case marker can be deleted” (Masunaga 1988: 147).

The deemphasizing effect is not limited to the final particles. For example, intensifiers have the same function:

(2.32) Boku-wa “Ran” -o/ø sando -mo mita
    I TOP ACC three times INTENS. saw
    ‘I saw “Ran” (as many times as) three times”

Also, the use of shared information leads to the deemphasis of the NP:

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6 Note that, as Japanese is an SOV language, the final particle actually are attached to the right side of the verb.
(2.33) [The speaker knows that Yamada is interested in buying a car]
Yamada-kun, kuruma -ø katta?
car ACC bought
‘Did you buy a car, Mr. Yamada?’

Thus, Masunaga was able to augment what Saito left untouched, namely a pragmatic aspect of the zero-marking through the use of the notion of deemphasis. Although Masunaga’s observations are quite correct, her explanation is not without problems. First, it is not clear how the attachment of the final particle leads to deemphasizing of the verb. Does it follow automatically whichever final particle was attached? The final particles generally express modality of the sentence, and their meanings vary greatly.

(2.34) Kore-wa hon-desu-yo
this TOP book COP FP
‘I am telling you that this is a book’

7 The following examples were taken from Kuno (1973: 5).
(2.35) Kore-wa hon-desu -ne
this TOP book COP FP
‘I hope you agree that this is a book’

(2.36) Kore -wa hon -desu -ka
this TOP book COP FP
‘I ask you if this is a book’

(2.37) John -wa baka-sa
TOP fool FP
‘It goes without saying that John is a fool’

Given such wide range of meanings that those final particle may cover (Uyeno 1971), it is natural to expect that the deemphasis should show some association with those different meanings. This becomes most obvious when one considers the final particle *wa*[^8] that is usually used to mark female speech. Certainly one would not expect to find much defocusing function for such a particle.

Secondly, the notion of “shared information” is vague at best. Prince (1981) demonstrates that the traditional given-new dichotomy should be rearranged by what she calls *Assumed Familiarity*, comprising

[^8]: Not to be confused with the separate topic marker -wa.
New, Inferrable and Evoked as its main components (see Section 3.3.1.3 for more details). For example, *kuruma* (‘car’) in (2.33) has a status of brand new, and presumably what are grouped under a single heading of “shared information” by Masunaga might be regrouped under this new, more refined taxonomy. By following Prince’s fine-grained taxonomy, one might be able to derive a more refined generalization that escaped Masunaga’s broad classification.

But above all, the most serious problem of Masunaga’s work may be her nebulous formulation of the notion of “deemphasis” which is central to her analysis. Covering a wide range of phenomena from particle-attaching to shared information, deemphasis is certainly a powerful concept. However, there is not much known about how to define it, or what constructions and expressions count as causing deemphasis in a linguistic system. For example, how about the word order differences? What would her theory of deemphasis predict for the difference between (unmarked) SOV and (scrambled) OSV order? If one assumes a general tendency of information flow within a sentence from “given” to “new,” then the Object in OSV order is likely to carry shared or given information. Would one then predict more zero-marking in this
case, even though the object is not adjacent to the verb? Or, consider negation. What would happen to deemphasis when the verb was negated? Does it deemphasize the verb or is it neutral to negation? Whichever it might be, why? Since Masunaga did not provide any independent criteria to diagnose deemphasis, one is left with scores of such questions as these. Unless one can come up with some independent criteria for deemphasis, linguists should look for some other reasons to cover the phenomenon which Masunaga ascribed to its effect.

2.8 Miyagawa (1989)

The works I have looked at so far have examined the variable phenomenon from a synchronic point of view, attempting to locate the factors affecting the variation in the grammar of Japanese. Not much attention, however, has been paid to the historical development of the variability, and the next two works are probably the sole exception to this general characterization. Miyagawa (1989) and Motohashi (1989) both approached the issue from a historical point of view, though in doing so, they also took a generative grammatical viewpoint in syntactic analyses.
Below, I will first look at Miyagawa (1989), and then turn to Motohashi (1989).

Miyagawa (1989) approached the issue from a historical point of view, taking his data from texts in Old Japanese (OJ — around the Eighth Century), Post Old Japanese (around the 10th Century), as well as documents dated much later. He contrasts two grammars of Japanese at different historical stages — OJ and Modern Japanese (ModJ) — and attempts to explain the difference in the form of resetting a parameter for case marking.

As I showed in Saito’s review above, the Case Filter in GB Theory (2.27) (Chomsky 1981: 49) would outlaw any sentence with an overt NP without case, and every NP has to be given a case in either of two ways: overt marking or abstract case assignment. In our case, overt case marking refers to the marking by particles such as お or が. The latter obtains only when a case assigner (i.e., a verb in a conclusive form) governs, and is adjacent to the NP. In this case, then, the object NP can appear as a bare NP. Miyagawa’s contention is that OJ had this second option in its grammar, while the ModJ does not. To support his claim, he
reports that every instance of a bare object NP in OJ is from environments where this Adjacency Condition is met (Miyagawa 1989: 203), as in (2.38):

\[(2.38) \text{ Ware-wa imo } \circ \text{ omou} \]

I TOP wife ACC think
‘I think of my wife’

\[\text{[Man’yooshuu 133 = Miyagawa’s (8)]}\]

The case governor in OJ was mostly limited to the conclusive form of a verb, that is, an inflectional form that concludes a sentence. An interesting fact is that the case-marking option in OJ was apparently inflection-sensitive. Aside from conclusive, there were five other verbal inflectional forms: attributive, perfect, conjunctive, imperfect and imperative. Citing Zenno’s work (Zenno 1987), Miyagawa shows that at least for attributive and perfect forms, o-marking was required. As for the conjunctive, it optionally assigns abstract case, with both overt o and the bare NP appearing in the text (Zenno 1987). Examples are as follows (Miyagawa 1989: 208ff):

\[\text{\footnotesize{\textsuperscript{9}}The number is the so-called }\text{Kokka Taikan (”Anthology of National Songs”) number, which is traditionally used for reference in classical studies of Japanese literature.}\]

51
(2.39) **Attributive:**

Kimi-ga mi-fune -o itu to ka matamu
you GEN fineboat ACC when KAKARI wait (ATTR)
‘when may we await your fine boat back?’

[Man’yooshuu 3707 = Miyagawa’s (23)]

(2.40) **Perfect:**

Umi- -o miyareba
sea ACC look across (PERF)
‘gazing out across the sea’

[Tosa Diary = Miyagawa’s (31)]

(2.41) **Conjunctive:**

Te - o arai, rei-no kotodomo -o
hand ACC wash (CONJ) usual things ACC
site, hiru-ni narinu
do (CONJ) noon became
‘It was around noon by the time people had washed
their hands and performed the usual offices’

[Tosa Diary = Miyagawa’s (34)]

---

10 KAKARI stands for *kakarimusubi* particle, which triggers an agreement on the clusemate verb so that it surfaces as an attributive form (Kokugo Gakkai 1980: 140-1). There are three sets of such particles, depending on which conjugation form agreement it places: (1) *wa, mo* (conclusive), (2) *zo, namu, ya, ka* (attributive) and (3) *koso* (perfect). In the above example, the *kakarimusubi* particle *ka* triggers the agreement, and the verb appears in attributive form.

11 *Tosa Diary* is a 10th-century writing by Kino Tsurayuki.
(2.42) Conjunctive:

Kore-o nomi itagari,
this ACC only appreciate (CONJ)
mono -o nomi kuite yo fukenu
things ACConly eat (CONJ) night fell
‘They uttered words of praise and kept on eating, (and
it became late)’

[Tosa Diary = Miyagawa’s (35)]

Then, at any rate, OJ grammar permitted a bare object NP under
government in an adjacent position to the governor. When the object
marking was done explicitly through an attachment of o, the grammar
also allowed application of a scrambling rule, just as in ModJ (Saito 1985).
Now, as Miyagawa puts it, ModJ is in a totally different situation, where
“aside from a handful of exceptions that are easily explained, the
requirement that the accusative marker o must accompany a direct object
is inviolable” (Miyagawa 1989: 199). What happened between OJ and
ModJ? He argues that language change has reset this parameter of the
grammar (following Lightfoot 1979), obliterating the abstract-case-
assigning option and making the overt marking obligatory for the 
ModJ.\textsuperscript{12}

To see it a little more in detail, by the 15th century, an independent morphological change has occurred, and the conclusive form of verbs merged with the attributive form, a form without the case-assigning ability, and consequently OJ’s option for abstract case-assignment was lost. He supports this hypothesis with textual evidence showing that these two independent changes coincide in time.

As he contends, his theory succeeds in accounting for some of the problems in Japanese historical syntax, thereby giving further support to the GB theory on which his hypothesis is based. The problem is, however, that since ModJ does not have any option for abstract case marking, one would expect the NP’s in ModJ are all overtly marked, which is far from the truth. Our pilot study shows that native speakers of Tokyo Japanese can zero-marked as much as 70 - 80% of the accusative marker in their most natural speaking style. Moreover, as I will demonstrate later, a

\textsuperscript{12} Miyagawa expresses this principle in the following proposal (Miyagawa 1989: 200-201): “Diachronic and Synchronic Variation: From the perspective of universal grammar, diachronic variation within a language (of the sort examined here) and synchronic variation among contemporary languages, are, in principle, \textit{nondistinct}.” That is, both of these instances can be explained by resetting of of some parameter(s) in the grammar.
multivariate analysis indicates significant contribution to the prediction of marking of \( o \) from the existence of adjuncts between the verb and the object NP (Matsuda 1992b, 1993b, 1993c, 1993d, 1994), a state of affairs not expected from Miyagawa’s theory, but from that of Saito (1985) that acknowledges the option of abstract case assignment in the synchronic grammar of ModJ. Obviously, here one must seek a different grammatical analysis from that of Miyagawa’s.

The obvious picture that emerges here is that the ModJ is still in the process of losing the option of abstract case assignment, with basically similar constraints controlling the case marker distribution. That is, our conjecture is that the variation is a case of a long-term historical continuation of the variation, with the change slowly proceeding. If this is the case, then, it makes more sense to look at the OJ grammar in detail, to see if there were further constraints governing the variation. I next turn to Motohashi (1989) for further insight into the OJ grammar.
2.9 Motohashi (1989)

Motohashi (1989) continues the historical approach to the problem, but takes a much wider theoretical perspective than the one adopted by Miyagawa (1988), with a more thorough empirical examination of the literary texts. Unlike Miyagawa, Motohashi’s main focus is set on OJ, and he attempts to capture the historical development of the case marking system of the language by taking OJ as the starting point, while Miyagawa looked at the grammar of the era by taking ModJ as the frame of reference. In doing so, Motohashi takes two major distinct but complementary theories as his overall framework: Government-and-Binding (or Principles-and-Parameters) Theory and Hopper and Thompson’s Transitivity Hypothesis (Hopper and Thompson 1980). Let us see in turn how each of these are incorporated into his work.

As was the case with Saito (1985) or Miyagawa (1989), one of the most relevant subtheories of GB framework in Motohashi’s thesis is the Case Theory. One theoretical change that has taken place between Chomsky (1981) and Chomsky (1986), however, is that instead of dividing Case marking into overt and abstract, Chomsky (1986) considers all the Case markings to be abstract, with some of them being
phonologically realized and others not. Furthermore, in Chomsky (1986: 186-204), abstract Case marking is divided into two cases, structural Case and Inherent Case. The difference between these two markings concerns the levels of Case assignment and the relation to theta-marking. That is, they differ in the following way:

<table>
<thead>
<tr>
<th></th>
<th>Structural Case</th>
<th>Inherent Case</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level of Marking</strong></td>
<td>S-structure</td>
<td>D-structure</td>
</tr>
<tr>
<td><strong>Theta-Marking</strong></td>
<td>Not related</td>
<td>NP must be theta-marked</td>
</tr>
<tr>
<td><strong>Example</strong></td>
<td>English Nominative/Accusative</td>
<td>English Genitive</td>
</tr>
</tbody>
</table>

**Table 2.2**

**Structural and Inherent Case in Chomsky (1986)**

That is, while the Structural case is given in the S-structure, Inherent Case is given in the D-structure under a sisterhood condition. Secondly, theta-marking is only relevant to the Inherent Case, but not to the Structural Case. Motohashi takes this distinction as one of the pivotal
differences between the two grammars, and argues that at least some of the accusative case marker o was an Inherent Case marker in OJ, while it became (via parameter resetting) a Structural Case Marker in ModJ. For this position, he offers three types of evidence, Topicalization of objects, Case-marking of the causee of the causative construction, and Coordination of objects.

The first evidence concerns the permissibility of the NP-o-wa sequence, where the object NP is topicalized with a topic marker -wa. Such a construction was possible in OJ, but became ungrammatical in ModJ (Motohashi 1989: 110):

(2.43) OJ:  Tuki kahete kimi -o -ba
      month changing you    ACC TOP
      mi -mu -to
      look will COMP
      ‘Next month (I) can see you’

ModJ: *kimi-o-wa

[=Motohashi’s (70a)]
Supposing that OJ o was an Inherent Case marker, it can move with the NP to the topic position, as the case is already given in the D-structure. After the Topicalization, wa is given to the NP, giving the NP-o-wa sequence (which is turned into o-ba through rendaku, an independent phonological rule). Unless one sets up some arbitrary constraints on the case-marker co-occurrences, this fact would remain an inexplicable behavior of the case markers.

Motohashi’s second type of evidence comes from a causative construction, which has a general structure as in (2.44) where in OJ, the causee NP cannot take o.

(2.44) OJ Causative Construction:

Subj-NP [ Causee-NP VP] su (causative verb)

In this structure, the causee, which is also a subject of the embedded clause, is not theta-marked by the matrix predicate; it is not theta-marked either by the embedded VP (as the causee is not within the VP governed by the Case-assigning V). That is, the causee is not theta-
marked by any constituents. This prohibits the causee NP from having
the Inherent Case marker \( o \). Indeed, in the Nara and Heian Period, the
causee are generally unmarked for Case:

\[
(2.45) \text{Hito \ -so \ tama \ nageka \ -suru} \\
\quad \text{person EMPH pearl grieve CAUSE} \\
\quad \text{‘the person makes the pearls grieve’} \\
\quad \text{[ = Motohashi’s (90a)]}
\]

\[
(2.46) \text{(Hototogisu) kohi \ masara \ -si \ -mu} \\
\quad \text{nightingale love increase CAUSE INFER} \\
\quad \text{‘(the nightingale) will make my love for him} \\
\quad \text{increase’} \\
\quad \text{[ = Motohashi’s (90b)]}
\]

In contrast, in ModJ the structural case-marker \( o \) can appear after
the causee NP (or at least, the causee NP cannot be bare):
Motohashi provides a third kind of evidence from certain coordination in OJ, where the accusative case-marker precedes the conjunction [2.48] in ModJ, it follows the conjunction [2.49].

(2.48) Coordination in OJ

ko -o -to tuma -o -to oki -te
child ACC and wife ACC and leave and
‘leaving my child and wife behind’

[ = Motohashi’s (95b)]
Motohashi argues that this will be expected if o was an inherent case marker in OJ, and if we assume the generation of coordinate structure by Godall (1987), who derives it as a union of reduced phrase markers. Under such a hypothesis, the coordinate conjunctions (such as Japanese to) are inserted later than D-structure, whereas o is realized at D-structure. The same does not hold true for ModJ, as the case marker, being supplied as a Structural Case, is realized at S-structure after the conjunction. Thus, in ModJ, the only possible ordering is NP to NP-o.

Motohashi thus established that the OJ o was an Inherent Case marker, while the same particle was given the status of Structural Case marker in ModJ. The question remains, however, of where the o appears
in OJ. In his framework, the OJ particle o was licensed only where the internal arguments were assigned case (Motohashi, 1989: 69). For regular transitive verbs, what decides where o appears are the Transitivity Features (TF) as proposed by Hopper and Thompson (1980); that is, for inherently Case-marked accusative case, o is selected where TF are manifest in the context, otherwise, a non-overtly marked form of the object is selected.

Hopper and Thompson’s Transitivity Hypothesis states that transitivity is a gradient notion that is determined for an entire clause by a number of components (or parameters), such as kinesis, aspect, punctuality, agency, etc. The whole set of parameters are given below:
Thus, a given verb may be more or less semantically transitive depending on in what kind of grammatical context it is used. As such, it is quite reasonable to expect that the notion should have some bearing on the case marking of an object of a sentence, given that the transitivity
involves an activity transferred from an agent to a patient (Hopper and Thompson 1980: 251), and the patient often happens to be an object of a verb. Motohashi found that these features (or the set of features modified by Inoue (1986) can predict where OJ o occurs. Below I cite some examples from Motohashi (1989):

(2.51) Human vs. Inanimate nouns [ = Motohashi’s (31a,c)]

a. mono -ø omohe - ba
thing ACC think when
‘when (I) think’

b. imo -ø omohi i -no
wife ACC think sound sleep GEN
nera -e- -nu -ni
sleep able NEG CONJ
‘thinking of (my) wife, I cannot sleep well’

(2.52) Definite vs. Indefinite [ = Motohashi’s (34a, b)]

a. hitomoto-nonadesiko-ø uye - si sono kokoro
one stem GEN wild pink plant PERF that heart
‘the reason (that I) planted a wild pink’
b. [[ sigeyama -no tanibe -ni densely wooded mountain GEN valley in ohu -ru] yamabuki ]
grow PASS wild butterbur
‘(I) moved and planted a wild butterbur that was
growing on the valley of the densely wooded
mountain’

(2.53) Count vs. Mass [ = Motohashi’s (35a, b)]

a. ki -ø nomi -ki
sake ACC drink PERF
‘sake was drunk’

b. hitotuki-no nigore -ru sake -ø
a cup GEN unfine PERF sake ACC
nomu -beku
drink should be
‘it seems best to drink a cup of sake’

(2.54) Affirmative vs. Negative [ = Motohashi’s (37a, b)]

a. kokoro -ø sira -zu -te
heart ACC know NEG CONJ
‘not knowing (my) feeling’

b. noti -no kokoro -ø siru hito
later GEN heart ACC know person
‘the person who know how (he) feels later’
Thus, it seems that when the contextual features make the transitivity high, \( o \) appears in the OJ texts. Although Motohashi does not give any statistical support for his claim, his claim matches well with an observation by an OJ philologist who found that nominal and demonstrative objects denoting humans are more likely to have the accusative case marker than otherwise (Matsuo 1938, 1944), giving further credibility to Motohashi’s argument.

Motohashi’s study of \( o \), as well as \( ni \), in OJ leads him to the view that the change from the case-marking system in OJ to that of ModJ is from ergative/absolutive marking to nominative/accusative marking. OJ marked the subject of an intransitive clause and object of a transitive clause with \( \varnothing \), and the subject of a transitive clause (or \textit{ergative}) was left unmarked unless it was in a causative construction; in ModJ, subject marking and object making were separated with distinct case markers, while the marker for an intransitive subject was unified with the one for transitive. That is, the change from OJ to ModJ is schematically represented as follows:
Comparing a series of GB treatments of the variable accusative case marking by Saito (1985), Miyagawa (1989) and Motohashi (1989), Motohashi’s work is clearly one of the most empirically-based studies of the phenomenon, at least on the case marker in OJ. It is also the most
flexible framework, involving the Transitivity Hypothesis as well as GB theories. One important point that Motohashi’s work makes is that although both OJ and ModJ have the zero-marking rule, their grammatical natures are different — for OJ, it is a non-realization of the Inherent Case, due to the low Transitivity feature present in the context, while it is a non-realization of the Structural Case for ModJ, possibly, again, due to the low Transitivity feature in the context (Motohashi, p.c.). While Motohashi’s work set its focus in OJ grammar, his framework seems to provide a good perspective for the case system of the ModJ grammar.

2.10 Hosaka et al. (1992)

Hosaka et al. 1992 (henceforth HTU) is an attempt to use a large corpus for an empirical study of variable case marking in Japanese, as a basis for automatic speech recognition in the language. Using approximately 15,000 sentences from the ATR Dialogue Database, they looked at the “drop” rate for 7 particles (wa, ga, o, ni, no, de and to). Acknowledging the absence of a sufficient amount of spoken language
data for the previous research, HTU attempts to examine their
distribution in natural data, with special emphasis on recoverability of
the “deleted” postpositions. This emphasis is quite natural given their
research objective on automatic speech recognition, as the correct
recovery of case relationship among NPs is understandably essential for
reliable parsing, and for the natural generation of sentences; one has to
know when and where to zero-mark the postpositions.

Though this empirical study is theoretically unaligned, HTU
reports several notable points. First is the distinction between natural and
unnatural retention. For the accusative case marker お, they list two such
data examples:

(2.55) Sanka お/ø arigatoo gozaimasu
      attendance ACC thank you (POLITE)
      ‘thank you for your participation’

(2.56) Toorokuyoushi お/ø oyobi happyoosyorui -o
      registration form ACC and    author’s kit ACC
      okurimasu
      send
      ‘we will send you the registration form and the
      author’s kit’
The first example involves an idiomatic expression where absence is the norm. Hinds (1982) also notes some lexically peculiar cases of "o-droppings" as in *ki-o tukeru* (‘to take care of’) where deletion is rather rare (Hinds 1982: 178-9). In these instances, one may assume that the phrase is fossilized or "frozen" (Weinreich 1969) as an idiom so that the whole phrase is registered in the lexicon with the case marker. Certainly, idiomatic expressions are one of the areas where variation is severely constrained, and one has to remove such cases from counting for a fair assessment of the variation in the grammar.

The second example involves another possible invariant environment, namely a conjunctive construction. When the phrase is a form [[NP1 to NP2] V], and the whole NP is governed by a single verb, then attachment of *o* to NP1 sounds unnatural.

Another notable point in HTU is the finding that zero-marking is more frequent after common nouns than other kinds of nouns. In particular, they found zero-marking to be rare after pronoun (HTU 1992: 1252). For *o*, they found the following distribution of what they call
recoverable postpositions for two sources, telephone conversation and keyboard conversations\(^{13}\) (“style”):

<table>
<thead>
<tr>
<th></th>
<th>Telephone</th>
<th>Keyboard</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nouns:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common</td>
<td>13.9 % (N = 348)</td>
<td>6.0 % (N = 70)</td>
</tr>
<tr>
<td>Pronoun</td>
<td>0.6% (N = 3)</td>
<td>—</td>
</tr>
</tbody>
</table>

**Table 2.3**

Rate of Zero-Marking of the Accusative Case by Style and by Nouns

[From Tables 2 and 3 in HTU (1992: 1252-3)]

Although the numbers are quite small in some of the cells so that one cannot be completely sure of their reliability, it at least tells us something about two dimensions of variation: style and noun type, neither of which has been systematically studied before in any empirical manner.

\(^{13}\) Keyboard refers to records of conversation through a computer communication.
Despite the interesting findings and the empirical nature of the work, HTU suffers from several drawbacks. One is their lack of interest in various linguistic factors already proposed in previous studies. For instance, one would like to know how well the Adjacency Condition works in natural speech, or what kind of pragmatic factors are important, none of which was tested by them.

The other problem of HTU is the data quality, in particular, the fact that we do not know which dialect sample they collected. As mentioned by a number of researchers (Martin 1975, Tamori 1977, Hinds 1982, Saito 1982, Tsutsui 1984), the Kansai dialect has a considerably higher rate of zero-marking compared with the Tôkyô dialect. In other words, the process at issue here is rather dialect-sensitive, and this makes data-control a quite crucial matter, something that HTU did not discuss in detail.

2.11 General Problems of Previous Approaches

Reviewing the work done on this case-marker marking phenomenon, we find that there were some serious limitations of the
preceding studies and that a number of important questions were left unanswered about the process. Most notably, it looks as if there is an almost complementary distribution between syntactic (or other linguistic) analysis and empirical data. Thus, aside from OJ texts, natural data has almost no place in the works done in the GB or some other generative framework (as in Saito (1985), Miyagawa (1989), Motohashi (1989), Kuno (1973)). On the other hand, we see such quantitative studies as Shibamoto (1985) or HTU (1992) that take no syntactic factors into consideration. The most balanced work in this respect still remains Tsutsui’s study that utilized formal elicitation data as an empirical demonstration of his hypothesis (Tsutsui 1984), and Tamori’s study, which took natural speech from a telephone conversation between two females.

Without any doubt, any successful account of the variable marking of the accusative case marker in ModJ has to have both a solid grammatical analysis and an empirical basis such that the hypothesis is demonstrated against natural data. Furthermore, the unfortunate complementarity of grammatical analysis and empirical grounding in

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14 The sole exception which took actual data from natural speech is Tamori (1977), who
previous approaches prevent them from answering a number of interesting questions that can be only raised and answered when these two elements of research are combined.

On the theoretical side, there is first a question of the grammatical mechanism of the phenomenon. Is it a variable zero-marking of \( o \) which is inserted invariably under certain conditions, or is it a variable insertion, whereby a \( zero \) works as an accusative marker, except for under some specified environments? But in either case, we have to explain how those numerous instances of bare-NP’s are licensed in the grammatical system of the language. As I pointed out above, Miyagawa’s theory cannot explain the numerous instances of \( o \)-absence, though it is consistent with the historical facts. Saito’s analysis is consistent with the synchronic data, but how does it tie up with the historical data? The analysis of synchronic variation would permit further progress towards the solution of these grammatical issues.

As we think of the grammatical mechanism of the variation, we are naturally led to the issue of the functionality of variation. Given the possibility that both the nominative case marker and the accusative case used a telephone conversation data between two females.
marker can be zero-marked in the same clause, one might expect a grammatical factor to be modified by a functional one, so that the hearer can identify the theta-roles of the arguments correctly. The study of variation in natural speech consistently has shown, however, that the functional effects are not as strong as one would expect, and that there are numerous instances of counter-functional effects which are empirically demonstrated through quantitative methods (Poplack 1979, Labov 1992).

Also, there is a question of change. Given the historical review by Miyagawa (1989), the general drift of the language is toward the overt marking of the accusative case, and one would expect some synchronic reflection of such a general trend by age differentiation. But this, of course, requires one to take data from a speech community and examine the age distribution of the variable.

Related to the age distribution is the issue of sex differentiation. Notice that the question of social distribution is of special interest in the context of Japanese language, where the sex difference is coded into the grammar in such forms as, for example, pronominal forms or final particles/endings that are sharply differentiated by the sex of the
speaker. Given such a sociolinguistic situation, one could expect sharp sex differentiation in other parts of the grammar, and to be sure, that was the original motivation that led Shibamoto to undertake her ambitious project on gender difference in Japanese (Shibamoto 1985). Nevertheless, as we saw above, her methodology does not permit us to draw much decisive conclusion on the issue, and it still remains to be explored.

To answer the questions concerning the sex differentiation in Tôkyô Japanese, then, it is imperative that an integrated approach be used where diverse factors from syntax, pragmatics, styles and social variables are all taken into account through a quantitative analysis of natural speech, something that was lacking in the 20-odd years of previous inquiry. We will describe such a methodology in detail in the next chapter.