INCORPORATION OF INFORMATION AND COMPLEMENTIZERS IN JAPANESE

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1. Introduction

There have been numerous studies on Japanese complementation (e.g., Kuno (1973); Inoue (1976); Josephs (1976); McCawley (1978); Terakura (1980); Maynard (1984); Akatsuka (1985); Kudoo (1985); Makino and Tsutsui (1986); Yamamoto (1987); Horie (1990, 1991); Quinn (1994a); Makino (1996) and Shinzato (1996)). Although these previous studies make insightful observations, they have not necessarily been successful in explaining the actual distribution of complementizers. Despite the importance of context emphasized in recent development in linguistics, contextual factors either do not play any role or play only a minor role in these studies. In most of the studies the researcher bases his/her analysis on intuition and not on observation of actual utterances or written texts.

The present study examines instances of complementizer use in naturally occurring discourse, and attempts to correlate the choice of complementizer to contextual factors. The contextual factors are explained in terms of the notion of incorporation of information.

Another feature that is lacking in previous studies is the exploration of the relationship between the form and function of complementizers. Although a few studies briefly mention the subject (e.g., Kuno (1973: 215) and Josephs (1976: 360)), the question of why particular complementizers are more appropriate than others in certain contexts has not been fully addressed. The present study correlates the choice of complementizers to the degree of incorporation of information, and then examines why a certain complementizer encodes a certain degree of incorporation. It proposes that there are two relevant factors: The original function and meaning.

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1 I would like to thank Masayoshi Shibatani for giving me helpful suggestions on Suzuki (1994). His comments inspired me to write this paper. I would also like to thank Akio Kamio and John Haiman for their advice and encouragement when I was writing earlier versions of this paper. A part of one of the earlier versions was presented at the Fourth International Cognitive Linguistics Conference held at the University of New Mexico in July 1995.

2 The notion of incorporation of information was introduced in Suzuki (To appear). It is fully developed in the present study.

3 Horie (1991) is one of the exceptions. Cognitive motivations for the functions of complementizers in various languages are discussed. With respect to Japanese, however, he only mentions no and koto. Maynard (1984) is also an exception, but she only examines koto and to.
of the complementizers and the degree of integration of the complement clause.

The specific complementizers examined in the study are those that occur in object complement clauses, *no, koto,* and *to.* *Nante,* which is considered to have derived from the combination of *nado* 'the likes of, and so on' and *to,* is also discussed. The use of *nante* is limited compared to the other complementizers.

The data used are authentic written and oral discourses. The written data is taken from books and magazines listed in DATA. A reference is given after each example. No reference after an example means that the example is taken from oral discourse. See Suzuki (1995) about how the oral data was collected. Data from other researchers' studies are also used.

2. Incorporation of information and complementizers

2.1. Incorporation of information

Incorporation of information refers to the process by which the speaker acquires and internalizes a piece of information. The degree of incorporation is high when the speaker has digested and assimilated information into his/her belief system. The degree is lower when the processing of the information is incomplete.

Several contextual variables influence the process. Four variables are identified in this study. First, how strongly the speaker believes that the information expressed in the complement reflects reality is pertinent. If the conviction is strong, it can be assumed that the speaker has incorporated information into his/her belief system. On the other hand, if the speaker is not convinced, s/he is not likely to complete the process of assimilating the information and the degree of incorporation is low. For cases in which the speaker is convinced that the information does not reflect reality, the degree of incorporation is expected to be even lower.

The second factor concerns how closely the speaker is involved with information. When the speaker involvement\(^4\) is high in either acquiring or responding to the information represented in the complement (e.g., when the information is about the speaker's own physical feelings), s/he is likely to fully incorporate the information. The degree of incorporation is low when either the speaker is not directly involved in acquiring the information or is removed from the stimulus/information in his/her response to it.

Third, rhetorical distance\(^5\) from information is relevant. This variable is concerned with the speaker's attitude toward the information expressed in the complement. If the speaker finds information to be congruent with his/her beliefs or values and/or is willing to be associated with it, then the degree of incorporation can be assumed to be high. On the other hand, if the speaker finds information to be incongruent with his/her beliefs or values and/or wants to dissociate him/herself

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\(^4\) The term "speaker involvement" is borrowed from Shinzato (1996). However, the concept is more broadly interpreted than in Shinzato's study.

\(^5\) This term is due to Kamino Akio (personal communication).
from it, then assimilation into his/her system is not likely.

The fourth factor is rapidity of cognition. This pertains to information which is not physically perceptible. Unlike information that is physically perceptible, such information is not immediately assimilable. If cognition is achieved over a certain period of time, it can be assumed that the information has had time to be digested and fully processed. In such a case, the degree of incorporation is considered high. The degree is expected to be low when the information is acquired instantly.

These variables (conviction, involvement, rhetorical distance, and rapidity of cognition) are closely interconnected. For this reason, the choice of a complementizer may be explained using more than one factor. For example, the speaker tends to be strongly convinced that a piece of information reflects reality when s/he is directly involved in acquiring it. The speaker is also likely to be willing to be associated with the information if enough time has passed for assimilation.

In the following subsections the relationship between each factor and complementizers is illustrated with examples.

2.1.1. Conviction

Observe the following examples in which no and koto are used as the complementizers.

(1) Watashi no otoko tomodachi wa watashi
    I of male friend TP6 I
    ga onna tomodachi to no ittaichi
    SB female friend with of one-on-one
    no kaiwa o taisetsu ni shite
    of conversation OB important AM viewing
    iru no o shitte iru node...
    am CP OB knowing is so

    ‘My boyfriend knows that I value one-to-one conversation with my grilfriends, so...’ (Chiba 1988: 151)

(2) Soshite konogoro no yoo ni Matsuzoo
    and these-days of like AV
    ga fui ni kuru koto no aru no o
    SB sudden AV come thing SB exist CP OB
    hanashitara...
    when-told

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6 Note the abbreviations used in the literal glosses: AV (adverbial marker), CP (complementizer), FL (filler), FP (final particle), LK (linker), NM (nominalizer), OB (direct object marker), PN (pronoun), QT (quotation marker), SB (subject marker), TG (tag expression), TP (topic marker). Although some complementizers function as nominalizers and others as quotation markers, they are glossed as complementizers unless there is need to note the other functions.
‘And when (I) told (him)? that these days there are times when Matsuzoo unexpectedly comes over...’ (Kudoo 1985: 49)

(3) *Ikura watashi ga aishite iru koto o how much I SB loving am CP OB itte mo wakatte moraenai no yo. saying even understanding cannot-receive NM FP ‘No matter how often I tell him that I love him, he doesn’t get it.’ (More, Dec., 1992: 330)

(4) *Demo anata no hoo koso konna katachi de but you LK side indeed this-kind form in wakare o tsugeru jinsei nado zettai farewell OB say life something-like never ni erabitakunakatta koto o omoi,... AV did-not-want CP OB think ‘But, thinking that you never wanted to choose a life that ends like this, ...’ (Bungei Shunjuu 1986: 245)

In all of the above examples the speaker is very strongly convinced that the information represented in the complement reflects reality. In fact, the conviction is so strong that the validity of information is taken for granted. The speaker expects the addressee to assume the validity of information as well. For example, while speaking of her best friend who died in an explosion, the speaker of (4) does not have any doubt that the information expressed in the complement (anata no hoo koso konna katachi de wakare o tsugeru jinsei nado zettai ni erabitakunakatta ‘you never wanted to choose a life that ends like this’) is assumed to be true. In such contexts I find either no or koto.

In context where the speaker does have strong conviction, but the conviction is not strong enough for the validity of information to be taken for granted, I find instances of to as illustrated in the following examples.

(5) *Izure ni shite mo, jibun ni nattoku either-way AV doing even self to consent no yukanai shigoto ni tsuite itari, SB not-go job in engaging are-and honrai no jibun no original of self of nooryoki to wa kankei no nai ability with TP relation of not-exist shigoto o erande iru hito ni, job OB choosing are people to

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7 Both the subject and the object of the sentence are ellipted in Japanese. Since Kudoo's example is given only in Japanese and she does not give the reference of the example, the translations ('I' for the subject and 'him' for the object) may not be accurate.
The speaker of both (5) and (6) has some confidence that the information expressed in the complement reflects reality. However, the validity of the information is not assumed. The speaker does not expect the addressee to assume the validity. Note that even though the same predicate omou 'think' is used in both (4) and (5) (omoi 'thinking' is used in (4)), the speaker of (4), in which koto is used as the complementizer, takes for granted the reality of the information in the complement while the speaker of (5), in which to is the complementizer, does not.

In cases where the speaker does not have much confidence in the validity of information, to is again found as in the following examples (In (8) tte, a variant of to, is used).

(7) Tashika ane ga chuugakkoo no ninensei perhaps older-sister SB junior-high of sophomore no toki datta to kiokushite iru. of time was CP remembering am 'I remember that it was perhaps when my older sister was a sophomore in the junior high school.' (Miyamoto 1988: 34)

(8) Chishiki toshite wa ka de knowledge as TP mosquito by wa utsuranai tte wakatte ite mo TP transfer-not CP knowing being even kininarimashita. worried 'Although I rationally knew (lit. I knew as knowledge) that it (AIDS) is not communicable by mosquitoes, I was still worried (when I was bitten by mosquitoes).' (More, Feb. 1993: 327)

As the adverb tashika 'perhaps' explicitly indicates, the speaker of (7) is not entirely
certain that the information in the complement reflects reality. The speaker of (8) has the conventional knowledge that AIDS is not communicable by mosquitoes. However, she is not entirely convinced of the credibility of that information. That is why she was worried when she was bitten by mosquitoes.

When the speaker is strongly convinced that the information expressed in the complement does not reflect reality, to and nante are found in the data.

(9) *Moshi boku ga kansensha da* to wakari,
if I SB infected-person am CP finding
*aite ga mada kansenshite inakattara,*
partner SB still being-infected if-is-not
*kyori o okimasu.*
distance OB place
‘If I found out that I am infected (with AIDS) and if my partner is not yet infected, I would place distance (between myself and the partner).’ (More, Feb. 1993: 323)

(10) *Tsumetai tokoro ni rokunenkan mo*
cold place in six-years as-many-as
*umerarete ite taihen dattaroo.* Demo kuma ya
being-buried being hard must-have-been but bear and
*saru to asonde ita to omoitai.*
monkey with playing was CP want-think
‘It must have been hard that he was buried in such a cold place for six years. But I would like to think that he was playing with bears and monkeys.’ (Yomiuri Newspaper, Nov. 1995: 14)

(11) *Shigoto o shite ite mo, watashi toshite*
work OB doing being even I as
*wa hahaoya dearu koto to yooritsushite iru tsumori.*
TP mother be NM with reconciling am mean
*Ano kotachi no hahaoya dearu koto ga sugoku*
those children of mother be CP SB very
*ureshiishi, jishin mo motte imasu.*
happy-and confidence also having am
*Kosodate o orosokanishite iru nante*
raising-child OB neglecting am CP
*kakarete mo kinishimasen.*
being-written even not-care
‘Although I work, I mean to be reconciling it with being a mother. I am happy and confident to be the mother of those children. Even if they (the media) write that I am neglecting parenting, I don’t care. (More, Jan. 1993: 147)

In (9) the information of the complement *boku ga kansensha da* ‘I am infected (with AIDS)’ is represented as a hypothetical situation. Therefore, the speaker does not believe that the information reflects reality. (10) is uttered by a woman whose grandson was kidnapped and killed. She is talking about the grandson whose body
was found in a mountain after six years. She obviously does not believe that the information represented in the complement, *kuma ya saru to asondeita* 'he was playing with bears and monkeys,' is true. The speaker of (11) is an actress who has been accused by the media for supposedly being a bad mother. As the first and second sentences make clear, she does not believe that the media's accusation, which is represented in the *nante*-marked complement, reflects reality.

To summarize what has been observed so far, the following correlation between the speaker's conviction regarding the reality of information and the selection of complementizers may be drawn.

(12) a. Strongest conviction that information reflects reality (the reality is taken for granted): *Nno, koto*
b. Strong conviction that information reflects reality (although the reality is not taken for granted): *To*
c. Weak conviction that information reflects reality: *To*
d. Strong conviction that information does not reflect reality: *To, nante*

Kuno (1973), Josephs (1976), and Inoue (1976) state that when the information represented in the complement refers to a future event, there is a subtle difference in meaning between *no* and *koto*. Josephs (1976: 335) observes that when *no* is used, "the speaker has a strong conviction or belief that the event is likely to occur in the very near future" while in using *koto* "the sense of urgency or immediacy is absent, and instead, the speaker has a weaker conviction about the likelihood of the future event." Observe the following example.

(13) | *Hanzai* | *ga* | *shoorai* | *okuru* | *no/koto* | *o* |
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<td>crime</td>
<td>SB</td>
<td>future</td>
<td>arise</td>
<td>CP</td>
<td>OB</td>
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<td><em>booshi</em></td>
<td><em>shinakerebanarimasen.</em></td>
<td>prevention</td>
<td>must-do</td>
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'We've got to prevent crime from occurring in the future.' (Josephs 1976: 335)

According to Josephs, the above sentence is interpreted differently depending on which complementizer is used. When *no* is used, crime is expected to occur in the near future while with *koto* the feeling of urgency is not felt. This observation seems intuitively correct and is in accordance with the hierarchy of complementizers that I am proposing in this study. However, the data I collected contain only limited instances of complements referring to future events and therefore, I could not reach a conclusion regarding this matter. At this point I would simply like to suggest that *no* may have a higher degree of incorporation in terms of the speaker's conviction than *koto*, and that this matter awaits further investigation.

Going back to the correlation shown in (12), some may say this distributional pattern is the same as that observed by Kuno (1973). Using the notion of factive presupposition proposed by Kiparsky and Kiparsky (1971), Kuno classifies predicates into two types: Factives and nonfactives. He correlates factivity/nonfactivity of predicates to the complementizer choice. Specifically, factive
predicates occur with *no* or *koto* while nonfactive predicates occur with *to* (Kuno does not discuss *nante*). Since the original definition of factivity refers to "presupposition by the speaker that the complement of the sentence expresses a true proposition" (Kiparsky and Kiparsky 1971) and the notion of presupposition, at least in some interpretations, includes the addressee's acceptance of the truth of the proposition (e.g., Stalnaker 1974), Kuno's correlation of *no* and *koto* with factivity and *to* with nonfactivity appears to be identical with that shown in (12).

What distinguishes this analysis from Kuno's and Kiparsky and Kiparsky's, however, is that factivity (i.e., the speaker's assumption that the information expressed in the complement clause reflects reality) is not linked to particular predicates but to context. In Kuno (1973) and Josephs (1976), the latter of which accepts and builds on the claims made by Kuno, certain predicates are designated as factives while others are considered to be nonfactives. For example, *wakaru* 'know, find out' and *shiru* 'know, find out' are considered factive whereas *omoou* 'think' and *yuu* 'say' are regarded as nonfactive. The former group is supposed to allow only *no* or *koto* as the complementizer and the latter only *to*. However, examples that have been discussed show that this correlation does not hold. The predicate in (2) *hanashitara* 'when (I) told (him),' which contains a verb of saying (thus a nonfactive), is co-occurring with *no*. In (3) *itte* 'saying' follows *koto*. In (4) the nonfactive *omoii* 'thinking' is co-occurring with *koto*. The predicate in (8) is the factive *wakatte* 'knowing.' Yet, it follows *tte*, which is a variant of *to*. What these counterexamples indicate is that factivity, or the speaker's assumption that information reflects reality, is not inherent in predicates or other linguistic forms. Rather, it is determined by context.

Another reason that the correlation shown in (12) may be more adequate than those in the previous studies is its gradient character. The choice of complementizers is correlated to inclining degrees of the speaker's conviction rather than to the discrete dichotomy of factivity/nonfactivity. Evidence to support this continuous characterization comes from examining the complementizer choice for subject complements. Kuno (1973) applies the same principle that he uses for object clauses for analyzing subject complements. He claims that when a predicate is factive, it allows *no* or *koto*. To *yuu* (the complementizer *to* plus the verb of saying *yuu*) may be optionally inserted in front of *no* or *koto*. On the other hand, when a predicate is nonfactive, the insertion of *to* *yuu* in front of *no* or *koto* is obligatory. Thus,

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8 Stalnaker (1974) argues that presuppositions are "something like the background beliefs of the speaker" (Stalnaker 1974: 198) and that a proposition *P* is a presupposition of a speaker "just in case the speaker assumes or believes that *P*, assumes or believes that his addressee assumes or believes that *P*, and assumes or believes that his addressee recognizes that he is making these assumptions, or has these beliefs" (ibid.: 200).

9 Kiparsky and Kiparsky (1971) suggest that the noun the fact is inherently factive. However, the following quote from a newspaper article shows that that may not be the case. Johnnie Cochran Jr., an attorney who defended O.J. Simpson in his murder trial, said that a certain witness gave testimony that is "totally inconsistent with the theory of a lone assailant and is entirely inconsistent with the fact that Mr. Simpson is that assailant" (Los Angeles Times, July 30, 1994). Since he is Simpson's defense attorney, Cochran is supposed to believe that his client is innocent. If the fact is factive, that would be contradictory with his background.
factivity/nonfactivity of predicates is again considered to be the key factor. However, there are counterexamples such as the following.

(14) Ishihama-san o suki ni nata no wa
Mr. Ishihama OB fond AV became CP TP
honto.
true
'It is true that I fell in love with Mr. Ishihima.' (Miyamoto 1984: 163)

Although the predicate honto 'be true' is nonfactive,10 to yuu is not present in front of no. The speaker of (14) is strongly convinced that the information represented in the complement reflects reality, but does not take it for granted. In other words, she is not expecting the addressee to assume the reality of the information. Examples such as this lead me to believe that in the case of subject complements no (and probably koto) reflects the speaker's strong conviction that corresponds to both (13a) and (13b). The overall correlation between complementizers for subject clauses and the speaker's conviction may be something like (15)(See Suzuki (To appear) for discussion of the relationship between the speaker's conviction and subject complements).

(15) a. Strongest conviction that information reflects reality (the reality is taken for granted): No, koto
b. Strong conviction that information reflects reality (although the reality is not taken for granted): No, koto, to yuu no, to yuu koto
c. Weak conviction that information reflects reality: To yuu no, to yuu koto, nante
d. Strong conviction that information does not reflect reality: To yuu no, to yuu koto, nante

As this distributional pattern indicates, the complementizer choice correlates to the gradation of the speaker's conviction rather than to the discrete dichotomy of factivity/nonfactivity. It is reasonable to assume that this continuous character also applies to object complements.

2.1.2. Involvement

The contextual factor discussed in this section concerns how closely the speaker is involved in either acquiring or reacting to the information that is represented in the complement. The general pattern with regard to acquiring information is that when

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10 Hontoo da (a variant of honto) is sometimes erroneously regarded as factive (e.g., Josephs 1976: 360-361). In using hontoo (da) 'be true' the speaker is asserting, not presupposing, that the proposition in the complement clause is true. For this reason, Kiparsky and Kiparsky (1971: 348-349) lists an English predicate true as a nonfactive predicate. There is no particular reason to treat the Japanese equivalent differently.
no or koto is used, the speaker tends to be more closely involved than when to or nante is used. Observe the following examples.

(16) Sugu ni kare wa watashi ga
immediate AV he TP I SB
suimin busoku ni nayamasare, me
sleep lack by being-bothered eye
ni juuketsu o okoshite iru no o
in engorgement OB haing am CP OB
omoidashita.

‘Immediately he remembered that I have been plagued by lack of
sleep and that I have bloodshot eyes.’ (Chiba 1988: 70)

(17) Boku ga koi ni monchuu o taoshita
I SB deliberate AV gatepost OB pushed-down
no o shitte iru to mo toreru
CP OB knowing is CP also can-be-interpreted
no datta.
NM was

‘Her words could also be interpreted to mean that she knew that I
deliberately pushed down the gatepost. (Miyamoto 1988: 149)

(18) Tamatama watashi wa sono shuppanbutsu ni
accidentally I TP that publication to
meotooshite ita node, sono hookoku no hissha
reading was so that report of writer
ga Sunada-san dearu koto o shitte ita no
SB Mr.-Sunada is CP OB knowing was NM
desu ga,...
is but

‘I happen to have read that publication, so I knew that the writer of
that report was Ms. Sunada, but ...’ (Chiba 1985: 31)

(19) Watashi yori zutto wakaku, kenkoo no
I than much young health in
michiafureta otoko ga, omoimokakenai koibito ni
filled man SB unexpected lover of
byooki ni taishite, kooshita taido o
disease to facing this-kind attitude OB
tori, kooyuu kizu o mite kooyuu kotoba
take this-kind scar OB look this-kind word
o hakeru koto ni kandooshita.
OB utter CP by was-moved

‘I was moved by the fact that a man who is much younger than I and
who is quite healthy was able to react in this manner to the
unexpected illness of his lover and was able to say these words after
seeing this kind of scar.’ (Chiba 1988: 154)
(20) Taitei no hito wa zangoo most of people Ob shinaide, goji ka gojihan ni wa shigoto not-doing five-o’clock or five-thirty by Ob o oetai to omotte iru node,... Ob want-finish CP thinking are so ‘Most people (in New York) think that they don’t want to work overtime and want to finish work by five or five thirty, so...’ (Chiba 1990: 26)

(8) Chishiki toshite wa ka de wa knowledge as TP mosquito by TP utsuranai tte wakatte ite mo kininarimashita. transfer-not CP knowing being even worried ‘Although I rationally knew (lit. I knew as knowledge) that it (AIDS) is not communicable by mosquitoes, I was still worried (when I was bitten by mosquitoes).’ (More, Feb. 1993: 327)

(21) Q: Rubinsutain ga mekura ni Rubinstein SB blind to narikakatte iru no o being-about-to become is CP OB shitte imasu ka. knowing are FP ‘Do you know that Rubinstein is going blind?’

A: Maa, hontoo desu ka. lie, ano kata oh true is FP no that person ga mekura ni narikakatte iru SB blind to being-about-to become is nante ima no ima made shirmasendeshita. CP now of now until did-not-know ‘Oh! Is that true? No, up until now, I didn’t know that he was going blind.’ (McCawley 1976: 198 (The translation and presentation are slightly modified))

(22) Futari o minuto, kekkon to shigoto no two OB look-when marriage and work of ryooritsu ga muzukashii nante dooshite iwareru coexistence SB difficult CP why is-said no ka fushigi ni sae omoete kuru. NM FP strange AV even thinking come ‘Looking at the two, one comes to wonder why people say that it is difficult (for women) to balance marriage and work.’ (More, Aug. 1995: 365)

The no-marked complements in (16) and (17) refer to the speaker’s own experiences. With regard to koto, the speaker of (18) explicitly states that she
herself is the source of the information represented in the complement. The speaker of (19) is talking about her experience after surgery for breast cancer. She directly witnessed her boyfriend's reaction to the operation, which is represented in the koto-marked complement. As these examples (and others such as (1) and (3)) show, no and koto often mark information which the speaker acquired directly.

On the other hand, to- and nante-marked complements seem to express information which was acquired indirectly. The information represented in the to-clause in (20) refers to the inner feelings of people other than the speaker. The speaker could not have acquired this information by directly experiencing it. (8), which is repeated here for convenience, also demonstrates that to (in this case tte) marks information that was not directly acquired by the speaker. The information must have been obtained by hearsay. The nante example taken from McCawley (1978) shows a nante-marked complement which refers to information that was just brought to the attention of the speaker by the addressee. The relevant clause in (22) represents the conventional idea held in Japan, not something that the speaker directly experienced.

In this way, the contextual factor of the speaker's involvement in the acquisition of information seems to be relevant. This is natural when the first factor, the speaker's conviction, is considered. It is likely that the speaker is more convinced of the validity of information if s/he was directly involved in its acquisition. The speaker is likely to be more doubtful of information that is obtained indirectly. Thus, it is to be expected that the complementizers that represent higher degrees of conviction coincide with those that represent higher degrees of involvement and vice versa.

However, the two factors do not always concur. There are cases, for example, in which the speaker is strongly convinced that information reflects reality even though s/he did not obtain it him/herself. Observe the following example.

(23) Kare ga amerika ni ryuugakushite ita koto
he SB America in studying-abroad was CP
VB if-think-match
‘If I think (of the fact) that he was studying in the United States, ...’
(Sawaki 1986a: 74)

The koto-clause in (23) refers to the experience of somebody other than the speaker. Although the information was obtained by hearsay, the speaker is taking the truth of the information for granted. It is possible for the speaker to have strong convictions without being closely involved with the acquisition of the information. This suggests that the conviction factor is a broader notion than the involvement factor and that the former can sometimes override the latter.

Some researchers propose that no and koto are different from each other in terms of the degree of the speaker's involvement. Makino and Tsutsui (1986: 195) states that no "indicates something which the speaker can directly perceive or empathize with" while koto "tends to indicate something the speaker does not feel close to." Following these characterizations, they claim that (24a), in which no is used, suggests that the speaker is personally involved with writing a novel whereas in (24b), which has koto, the suggestion is that the speaker is not involved in writing
a novel.

(24) a. Shoosetsu o kaku no wa muzukashii.
   novel OB write CP TP difficult
   ‘Writing a novel is hard.’

b. Shoosetsu o kaku koto wa muzukashii.
   novel OB write CP TP difficult

McCawley (1978) compares (25a) and (25b) and observes that no is much more natural than koto in the complement clause of (25a), in which the speaker’s mental state is mentioned, while the acceptability of koto is higher in the complement clause of (25b), which concerns the internal feelings of somebody other than the speaker.

(25) a. Otoosan ga omoe no koto o konna
   father SB you of thing OB this-much
   ni shinpaishite yate iru no/koto ga mada
   AV worrying giving am CP OB still
   omae ni wa wakaranai no ka.
   you to TP not-understand NM FP
   ‘Can’t you understand yet that I, your father, am concerned this much about you?’ (McCawley 1978: 189)

b. Minasangata ga omoe no koto o anna
   everybody SB you of thing OB that-much
   ni shinpaishite kudasatte iru no/koto ga
   AV worrying giving is CP OB
   mada omae ni wa wakaranai no ka.
   still you to TP not-understand NM FP
   ‘Can’t you understand yet that other people are concerned that much about you?’ (McCawley 1978: 190)

Yamamoto (1987) also offers the following examples.

(26) a. Watashi wa Hanako ga furoga e oriteitta
   I TP SB bath to went-down
   no o shitte iru. Kanojo to rooka
   CP OB knowing am she with hallway
   de surechigatta kara dearu.
   in passed because is
   ‘I know that Hanako went down to the bath. This is because we passed each other in the hallway.’

b. Watashi wa Hanako ga furoga e oriteitta
   I TP SB bath to went-down
The above examples demonstrate that the speaker is more personally involved in acquiring the information represented in the complement when no is used rather than when koto is used.

This aspect of the difference between no and koto is detected in some of the examples I collected. However, the data does not conclusively support the thesis that in using no the speaker is more directly involved in acquiring information than in using koto. Instead, the difference between no and koto is more clearly observed when the speaker’s involvement in responding to information is considered. This point is most evident when predicates which express the speaker’s emotional response (e.g., surprise, shock, annoyance, happiness, regret) toward the information represented in the complement are concerned.

Such predicates occur with both no and koto. Josephs (1976) cites the following examples to illustrate the differences between the use of no and that of koto.

(27) a. **Kanojo ga wattos nakidashita no/*koto**
she SB loudly started-crying CP
ni wa heikooshita.
by TP was-embarrassed
‘I was embarrassed that she burst into tears.’

b. **Kanojo ga wattos nakidashita no/koto**
she SB loudly started-crying CP
ni wa heikooshite iru.
by TP being-annoyed am
‘I’m annoyed that she burst into tears.’

(28) a. **Kare ga biiro o juppon mo nonda no/*koto**
he SB beer OB ten-bottles as-many-as drank
CP by TP was-shocked
‘I was shocked by his having drunk all of ten bottles of beer.’

b. **Ano okusan ga akanboo o nakasete no/koto**
that wife SB baby OB making-cry
ita ni wa gamandekimasen.
was CP with TP cannot-stand
‘I can’t stand it how that woman just let her child keep crying.’

(Josephs 1976: 342-343)

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11 The translations are copied from Shinzato (1996).
Josephs notes that when *heikoosuru* 'be annoyed, be embarrassed' is used in the past tense (*heikooshita*) as in (27a), *no*, but not *koto*, occurs as the complementizer. On the other hand, when *heikoo suru* is used in the present (progressive) form (*heikooshite iru*), *koto* becomes acceptable, if not even preferred. Similarly, (28a) shows that *odoroiita* (the past form of *odoroku* 'be surprised') occurs with *no*, but not with *koto* while (28b) shows that the present form *gamanekimasen* 'cannot stand' is compatible with both *koto* and *no*.

Josephs attributes this difference in distribution to the characteristics of *no* and *koto*. He characterizes *no* as the marker of directness, simultaneity, immediacy, or urgency and *koto* as the marker of indirectness, abstractness, nonsimultaneity, or nonrealization. When a predicate which expresses emotional response is used in the past tense, he argues, it "portrays a quick, relatively instantaneous response to a directly experienced event" (Josephs 1976: 342). Therefore, its complement is marked by *no*, which represents directness. On the other hand, when a predicate of emotional response is in the present tense, it designates a delayed response. In other words, it represents a durative state that "is not instantaneous and is separated from the stimulus event by a considerable duration of time" (Josephs 1976: 342). *Koto* is compatible with the present tense of the predicate since it is the marker of indirectness.

The following are examples from the authentic data which support this observation by Josephs. *No* is occurring with predicates of emotional response in the past tense in (29) and (30) while *koto* is appearing with them in the present tense as shown in (31) and (32). Although Josephs stated that *no* is also possible with the predicates in the present tense, I rarely found any such instance.

**Example 29**

(29) *Watashi ga bonyari nagame te iruto shoonen*

I SB blankly watching when-am boy
*ga chikazuitekite itta. Juzu o kawanai ka.*
SB approaching said rosary OB not-buy FP
*Sore ga amari ni mo joozu na nihongo na*
that SB very AV even good LK Japanese LK
*no ni odoroita.*
CP by was-surprised

'When I was blankly watching it, a boy approached me and said. Won't you buy a rosary? I was surprised by the fact that his words were in such fluent Japanese.' (Sawaki 1986b: 84)

**Example 30**

(30) *Marude aza no yoo na kuroi shimi ga,*

as-if birthmark of like LK black stain SB
*me no shita ya hoo ni arawareta no ni*
eye of under and cheek on appeared CP by
*wa bikkurigyooten'itashimashita.*
TP extremely-surprised

'I was extremely surprised that black stains that looked like birthmarks appeared under the eyes and on the cheeks.' (Ito 1992: 38)
(31) Ano kotachi no hahaoya dearu koto ga sugoku ureshishi jishin mo motte imasu.

‘I am happy and confident to be the mother of those children.’ (More, Jan. 1993: 147)

(32) Watashi wa chuuzetsu shujutsu o shita koto o ima demo kookaishite irushi, ...

‘I still regret that I had an abortion and ... ’ (More, Aug. 1995: 335)

However, there are also some counterexamples as shown below.

(33) Hotel fee OB a-little save tried koto kookaishita.

‘I regretted that I tried to save a little on hotel money.’ (Fujiwara 1993: 287)

(19) I than much young health in michiafureta otoko ga, omoimokakenai koibito no filled man SB unexpected lover of byooki ni taishite, kooshita taido o disease to facing this-kind attitude OB tori, kooyuu kizu o mite kooyuu kotoba take this-kind scar OB look this-kind word o hakeru koto ni kandooshita.

‘I was moved by the fact that a man who is much younger than I and who is quite healthy was able to react in this manner to the unexpected illness of his lover and was able to say these words after seeing this kind of scar.’ (Chiba 1988: 154)

(33) shows that koto is occurring with kookaishita, the past tense form of kookaisuru ‘regret.’ Similarly, in (19) koto appears with kandooshita ‘was moved.’ This suggests that Josephs’s observation that no, but not koto, is compatible with the past tense form of predicates which designates emotional response is not accurate.

I would like to argue that Josephs’s analysis is in principle correct, but needs some modification. Josephs claims that koto, the marker of indirectness, is appropriate when the speaker’s emotional response is removed from the stimulus by "a considerable duration of time" (Josephs 1976: 342). Since this explanation is incompatible with examples (33) and (19), in which koto appears with the past tense forms of the predicates, it is inadequate. Let us look at (33) and (19) closely. The background of (33) is the following. The speaker’s father, who was a famous writer,
died about a year ago. The father died while writing a novel about a Portuguese missionary who came to Japan. The speaker has been traveling in Portugal, tracing the tracks of his father who traveled there to do research for the novel. The speaker found the hotel where his father stayed. Since he thought that the room where his father stayed was too expensive, he got a cheaper room. The stimulus for the emotional response in (33) is this act of frugality (hoteru dai o shooshoo kenyakushi yoo to shitā 'I tried to save a little on hotel money'). Considering the background of the sentence, the emotional response (regret) must have involved deliberation of some factors such as the fact that the speaker came all the way from Japan to Portugal to trace the tracks of his father, and the fact that the hotel room where the father stayed was not that much more expensive than the room he stayed in. The speaker is separated from the stimulus by this deliberation. Even though the past tense form is used in the sentence, the emotional response cannot be characterized as direct and instantaneous. It is as if the speaker took a step back from the stimulus and gave a response.

Similarly in (19) the emotional response could not have been made without deliberation. The speaker was moved by her boyfriend's mature and supportive reaction to the scar that she showed him after her breast cancer surgery. In giving the response (kandooshita 'was moved'), she must have considered things such as the reaction she was expecting from him and the implication of his reaction on their relationship. She is in this sense separated from the stimulus (his reaction). In this way the essence of the use of koto in (33) and (19) is that the speaker's emotional response is separated from the stimulus. The separation is not in terms of time as Josephs analyzed. Rather, it is psychological.

Now let us look at examples (29)-(32) with this perspective in mind. Notice that when emotional response is shock or surprise as in (29) and (30), the complementizer may be no. These types of responses do not necessarily require the speaker to take a step back from the stimulus. The response is immediate and does not require deliberation. On the other hand, when emotional response requires that the speaker separates him/herself from the stimulus, koto is used as the complementizer. This is exemplified in (31) and (32). In fact, in my data I found that the majority of sentences in which predicates of emotional response other than shock or surprise occur takes koto as the complementizer regardless of the tense form of the predicates. The following are more examples.

(34)  Watashi  wa  kooyuu  roojin  ni
I  TP  this-kind  old-man  with
aeta  koto  o  fukaku  yorokobu.
was-able-to-meet  CP  OB  deeply  am-delighted
I am deeply delighted that I was able to meet an old man of this kind.' (Hotta 1957: 58)

(35)  Sonna  girigiri  no  shinkyoo  de  ita
that-kind  on-edge  of  state-of-mind  in  was
watashi  nitotte,  musuko  ga  igirisujin  ni
I  for  son  SB  English  by
ijimerare, bujokusare, haibokushi, naite
bullied insulted beaten crying
kaettekuru koto wa, dooshitemo taerarenakatta.
come-home CP TP by-any-means could-not-stand
‘To me who was feeling like I was at the edge, it was unbearable that my son was coming home crying, bullied, insulted, and beaten by the English kids.’ (Fujiwara 1997: 774)

In summary, koto tends to be used when the speaker’s emotional response requires that the speaker take a step back from the stimulus and no tends to be used when no such separation is involved. In other words, the selection of no or koto depends on the degree of the speaker’s involvement in responding to the information represented in the complement.

In this subsection the notion of the speaker’s involvement was discussed. The notion includes both involvement in acquiring information and involvement in responding to information. By broadening the concept in this way, it is possible to capture the account by the evidentiality-based analyses (e.g., McCawley 1978) and the essence of the often discussed differences between no and koto (i.e., the former is concrete, direct, perceptual while the latter is abstract, indirect, and conceptual). The correlation between the degree of the speaker’s involvement and the selection of complementizers is shown in the following:

(37) a. Direct involvement: No
b. Direct involvement (but less so than (a) at least in terms of response to information): Koto
c. Indirect involvement: To, nante

2.1.3. Rhetorical distance

The contextual factor of the speaker’s involvement discussed in the last subsection concerns a type of distance which may be defined as how far the speaker is located from information. If the speaker is closely linked with information, the distance is minimal whereas if the speaker is only indirectly involved, the distance is larger. In this section another type of distance is discussed. The speaker’s attitude toward information is at issue. If the speaker finds information to be congruent with his/her beliefs or values, the distance is considered to be small. On the other hand, if the speaker wants to dissociate from, or has beliefs that are incongruent with
information, the distance is large. This contextual factor is most relevant in distinguishing the use of nante from that of others. Let us look at the other complementizers first.

No and koto are used when the speaker finds information to be congruent with him/herself. This can be detected in most of the examples already discussed. Some of them are repeated here for illustration.

(1) Watashi no otoko tomodachi wa watashi
I of male friend TP I
ga onna tomodachi to no ittaiichi
SB female friend with of one-on-one
no kaiwa o taisetsu ni shite
of conversation OB important AM viewing
iru no o shitte iru node...
am CP OB knowing is so
‘My boyfriend knows that I value one-on-one conversation with my girlfriends, so...’ (Chiba 1988: 151)

(3) Ikura watashi ga aishite iru koto
how much I SB loving am CP
o itte mo wakatte moraenai
OB saying even understanding cannot-receive
no yo.
NM FP
‘No matter how often I tell him that I love him, he doesn’t get it.’ (More, Dec., 1992: 330)

(25) Minasangata ga omae no koto o anna
everybody SB you of thing OB that-much
ni shinpaishite kudasatte iru no/koto ga
AV worrying giving is CP OB
mada omae ni wa wakaranai no ka.
still you to TP not-understand NM FP
‘Can’t you understand yet that other people are concerned that much about you?’ (McCawley 1978: 190)

In all of the above examples, the speaker finds the information expressed in the complement to be compatible with his/her beliefs or values. If asked, s/he would be willing to be associated with the information.

The situation is similar in some instances of to. To is often used when the speaker regards the information represented in the complement congruent with him/herself as in the following examples.

(5) Izure ni shite mo, jibun ni nattoku
either-way AV doing even self to consent
no yukanai shigoto ni tsuite
SB not-go job in engaging
Satoko Suzuki

In any case, I think that nobody could teach how to use time effectively to people who keep jobs that do not satisfy them or people who choose jobs that have nothing to do with their original ability.’ (Chiba 1990: 21)

(6) Sore dake wa uso de wa nakatta,
that at-least TP lie being TP was-not
to, boku wa ima demo shinjite iru.
CP I TP now even believing am
‘I believe even now that at least that was not a lie.’ (Miyamoto 1988: 115)

However, as was discussed earlier, to may be used to mark information that is obtained by hearsay as in (8).

(8) Chishiki toshite wa ka de
knowledge as TP mosquito by
wa utsuranai tte wakatte ite mo
TP transfer-not CP knowing being even
kininarimashita.
worried
‘Although I rationally knew (lit. I knew as knowledge) that it (AIDS) is not communicable by mosquitoes, I was still worried (when I was bitten by mosquitoes).’ (More, Feb. 1993: 327)

In cases like this, where the information comes from an outside source, it is unlikely that the speaker feels like the information belongs to him/herself. S/he may not necessarily want to dissociate from it, but the distance between the speaker and the information is larger in such cases than cases in which the information reflects the speaker's own experiences or values.

*ante is also used to mark information obtained by hearsay.

(21) Q: Rubinsutain ga mekura ni narikakatte
Rubinstein SB blind to being-about-to
iru no o shitte imasu
become are CP OB knowing are
ka.
FP
‘Do you know that Rubinstein is going blind?’

A: Maa, hontoo desu ka. Iie, ano
oh true is FP no that
kata ga mekura ni narikatte
person SB blind to being-about-to
iru nante ima no ima
become is CP now of now
made shirimasendeshita.
until did-not-know
‘Oh! Is that true? No, up until now, I didn’t know that he was going blind.’ (McCawley 1976: 198 (The translation and presentation are slightly modified))

(11) Shigoto o shite iie mo, watashi
work OB doing being even I
toshite wa hahaoya dearu koto
as TP mother be NM
to ryooritsushite iru tsumori. Ano kotachi
with reconciling am mean those children
no hahaoya dearu koto ga sugoku
of mother be CP SB very
ureshiishi, jishin mo motte imasu.
happy-and confidence also having am
Kosodate o orosokanishite iru nante
raising-child OB neglecting am CP
kakarete mo kinishimasen.
being-written even not-care
‘Although I work, I mean to be reconciling it with being a mother. I am happy and confident to be the mother of those children. Even if they (the media) write that I am neglecting parenting, I don’t care. (More, Jan. 1993: 147)

In (21) nante marks information that was just obtained from the addressee. The nante-marked complement in (11) represents information that belongs to somebody other than the speaker. It is clear from the context that she does not believe that the information is compatible with her beliefs.

From the discussion so far, the notion of rhetorical distance may not seem distinguishable from that of the speaker’s involvement or conviction. However, the following examples illustrate that the notion is distinct from the other factors.

(38) Jibun no kekkon aite o tanin
self LK marriage partner OB other
ni kitememorau nante shinjirarenai.
by receive-decide CP cannot-believe
‘I can’t believe that some people have other people decide marriage
partners for them.' (More, Feb. 1993: 306)

(39) \( Sore \) \( ni \) \( shitemo \) \( naze \) \( honoo \) \( no \) \( naka \)
that AV even-do why flame LK inside
\( de \) \( shootenshiteyuku \) \( sugata \) \( o \) \( mita \) \( nante \)
in ascend-to-heaven image OB saw CP
\( hanashita \) \( no \) \( daroo \) \( to \) \( ima \) \( demo \)
told NM I-wonder CP now even
\( kuyamarete \) \( iru. \)
regretting am
'I still regret, wondering why I told her that (in my dream) I saw her
ascend to heaven in flames.' (Bungei Shunjuu 1986: 239)

The speaker of (38) does have strong conviction that the information marked
by \( nante \) (jibun no kekkon aite o hito ni kimetemorau 'some people have other
people decide marriage partners for them') reflects reality. Arranged marriage is a
traditional and still widely practiced custom in Japan. In this utterance \( nante \) does
not signify the speaker's doubt or denial, but her disapproval of what is expressed
in the complement. She does not regard the information congruent with her beliefs
or values.

The speaker of (39) is regretting telling her friend the information expressed
in the complement (\( honoo \) \( no \) \( naka \) \( de \) \( shootenshiteyuku \) \( sugata \) \( o \) \( mita \) ' \( (\) In my
dream \) I saw her (the friend) ascend to heaven in flames.' Because the friend died
in an airplane explosion after the conversation, the speaker feels that telling her
about the dream was a bad omen. Even though the speaker is strongly convinced
of the truth of the information since she herself was the witness of the event
represented in the information, she wants to dissociate herself from it.

In this way the contextual factor of rhetorical distance can override the other
factors, the speaker's involvement and conviction. Rhetorical distance involves
the notion of distance that the speaker creates between information and him/herself
rather than distance that exists between them. The fact that the factor of rhetorical
distance overrides other factors suggests that the speaker's own manipulation takes
precedence over other existing contextual determinants in the selection of
complementizers.

The summary of the correlations between the factor of rhetorical distance
and complementizers is given below.

(40) a. The speaker finds information congruent with him/herself: \( No, \)
\( koto, \) \( to \)
b. Information is obtained by hearsay and thus, the speaker
considers it to belong to somebody else rather than to
him/herself: \( To, \) \( nante \)
c. The speaker finds information incongruent with him/herself:
\( Nante \)
2.1.4. Rapidity of cognition

Predicates which express cognition such as kizuku ‘notice,’ shiru ‘find out, know,’ wakaru ‘find out, know,’ and kanjiru ‘feel’ occur with no, koto, and to. The differences among the complementizers can be partly accounted for by the speaker’s conviction factor as shown in the following examples.

(41) Ki no tsuyoi watashi kara, sukkari
spirit SB strong I from completely
ki ga nukete iru no o jikakushite, 
spirit SB escaping is CP OB becoming-aware
awateta.
panicked
‘I became aware that spirit was completely gone from me, who is daring (lit. who has strong spirit), and panicked.’ (Fujiwara 1991: 106)

(42) Kangaete iru uchi ni, jibun ga itsunomanika
thinking am while AV self SB before-knowing
hyakudoru o kaketeshimatta koto
hundred-dollars OB ended-up-betting CP
ni kigatsuki gakuzentoshita.
OB noticing was-shocked
‘While thinking, I realized that I had bet a hundred dollars before I knew it and was shocked. (Sawaki 1986a: 150)

(43) Nanimokamo shitta ue de itte iru
everything knew on being saying is
no daroo, to chokkanshita.
NM probably CP knew-by-intuition
‘I (instantly) knew by intuition that he was probably saying that while knowing everything.’ (Yoshimoto 1988: 178)

In both (41), in which no occurs as the complementizer, and (42), in which koto occurs, it is taken for granted that the information expressed in the complement reflects reality. On the other hand, in (43) in which to is used as the complementizer, the speaker lacks strong conviction. This is clear from the presence of the auxiliary verb daroo ‘probably,’ which conveys doubt.

However, the contextual variable of the speaker’s conviction alone cannot account for the selection of complementizers with predicates of cognition. Another variable, rapidity of cognition, plays a role in the selection of complementizers when the information expressed in the complement represents that which cannot be physically perceived. When information represents something that can be physically perceived, such as by sight, there does not seem to be significant differences among the complementizers.

Let us look at (43) one more time. In this example, in which to is used as the complementizer, what is expressed in the complement (nanimokamo shitta ue de itte iru no daroo ‘he was probably saying that while knowing everything’) represents
information that is not perceived physically. As the English translation above shows, the predicate *chokkansuru* (‘know by intuition’) connotes that the cognition was made instantaneously.

The instantaneity of cognition is explicit in (44), in which *to* is also used.

(44) *Shuppatsu mae no akegata, futon* departure before of dawn bed  
*no naka de insupireeshon ga hirameita.* of inside in inspiration SB flashed  
*Dekita! to kakushinshita.* got-it CP felt-convinced  
‘At dawn of the day I was leaving, the inspiration flashed upon me in the bed. ‘I got it!’ I felt convinced.’ (Fujiwara 1991: 102)

The speaker of (44) is a mathematician. He had been thinking about a mathematical problem for two days. At the moment of inspiration, he knew he solved the problem. This example cannot be accounted for by the conviction analysis since, as the English translation shows, the speaker has strong conviction. Rather, this use of *to* may be attributed to the instantaneity of cognition.

On the other hand, some instances of *koto*-marked complements suggest that the acquisition took place over a certain period of time as in the following examples.

(45) *Shikashi jikan to tomo ni igirisujin* but time with together AV English  
*no kokuminsei ya wagaya ga* of national-character and our-family SB  
*tokubetsu denai koto mo wakatte kita* special not-be CP also came-to-realize  
‘But with time I also came to realize the national character of the English and also the fact that our family was not an exception.’ (Fujiwara 1991: 30)

(46) *Jitto mitsumete iru uchi ni, kono* steadily watching am while AV this  
*kibishisa ga kanojo no shinri* severity SB she of mentality  
*jootai no han ’ei de wa naku, kaoni* state of reflection being TP not facein  
*keshigataku kizamikomareta nenrin dearu* indelibly engraved growth-ring is  
*koto ni kizuita.* CP OB noticed  
‘While I was watching her, I noticed that this severity is not a reflection of her psychological state, but (an expression which results from) the growth rings engraved indelibly on her face.’(Fujiwara 1993: 216)

The time it takes for the speaker to process information also tends to be
longer than an instant in the case of no.

(47) Shikashi, honkon de nanshuukan ka
but Hong-Kong in several-weeks FP
sugoshite iru uchi ni, kotoba nitsuite
spending am while in language about
wa jibun ga hotondo fuan o
TP self SB almost anxiety OB
motanakunatte iru no ni kizuita.
having-not am CP OB noticed
'But while I was spending several weeks in Hong Kong, I noticed that
as far as language was concerned, I was almost not worried about it
at all.' (Sawaki 1986a: 111)

(48) (While the speaker was listening to Kinjiroo's talk)
Boku wa, Kinjiroo ga tsuma o nikunde
I TP SB wife OB hating
wa ite mo, koroshite made sono nijuu
TP is even killing even that twenty
paasento no kaku o teniireoyo
percent of stock OB trying-to-obtain
to wa kangaete inakatta no o
CP TP thinking was-not CP OB
shitta.
found-out
'It became clear to me that even though Kinjiroo hated his wife, he
was not thinking about obtaining that twenty percent of stock from
her by killing her.' (Miyamoto 1988: 92)

Thus it seems that the distribution of to, koto, and no is influenced by how rapidly
information is processed. When a piece of information is acquired instantaneously,
to tends to be used while koto and no are likely to be used when the time it takes
for the speaker to acquire information is longer than an instant.

(49) shows the distributional pattern of the complementizers discussed in
terms of rapidity of cognition.

(49) a. Deliberative cognition: No, koto
b. Immediate cognition: To

We have seen in the previous subsections that no and koto tend to be used when
the speaker is strongly convinced that information reflects reality, when s/he is
directly involved with acquisition of information, and/or when s/he finds information
to be congruent with him/herself. On the other hand, to tends to be used when the
speaker has weaker conviction, when s/he is not involved with acquisition of
information, and/or when s/he finds information to be incongruent with him/herself.
In other words, no and koto marks information which is well processed and
considered to belong to the speaker while to marks information which is not well
processed and which is considered to not belong to the speaker. How do the correlations between the complementizers and rapidity of cognition shown in (49) relate to this overall distributional pattern? Further, why does this contextual factor of rapidity of cognition only pertain to cases which involve information that is not physically perceptible?

The answers lie in the different nature of information. Let us compare the processing of information in our cognitive system with the processing of food in our digestive system. Information which is physically perceptible may be likened to liquids. It is possible to assimilate liquid immediately after it is taken into our bodies. An extra step such as chewing is not necessary. Similarly, it is possible to instantly assimilate physically perceptible information into our cognitive system since this type of information is directly perceivable by the five senses.

Information which is not physically perceptible may be likened to solid food in our analogy. It is not possible to instantly digest solid food. Solid food has to be chewed and broken down by digestive juices before being absorbed. Similarly, it is not possible to immediately assimilate into our system information which is not physically perceptible. When information is acquired instantaneously, it is analogous to solid food which is swallowed quickly without being chewed. If solid food is not chewed, it is not easily digested. Similarly, if information is obtained instantaneously without much deliberation, it is not easily digested/incorporated into the speaker’s system. On the other hand, when information is attained over time, it has time to be well digested and absorbed into the speaker’s cognitive system.

The distributional pattern of the complementizers regarding the processing of information which is not physically perceptible summarized in (49) shows that koto and no are used when information is obtained over time while to is used when information is acquired instantly. In the former case information is well digested while in the latter case information is not well incorporated into the speaker’s system. Thus, the pattern shown in (49) fits the general distributional pattern of no, koto, and to.

2.2. Hierarchy of complementizers

The correlations between the four contextual variables of incorporation of information and complementizers are reproduced in (50).

(50) I. Conviction
   a. Strongest conviction that information reflects reality (the reality is taken for granted): No, koto
   b. Strong conviction that information reflects reality (although the reality is not taken for granted): To
   c. Weak conviction that information reflects reality: To
   d. Strong conviction that information does not reflect reality: To, nante

II. Involvement
   a. Direct involvement: No
   b. Direct involvement (but less so than (a) at least in terms of response to information): Koto
c. Indirect involvement: To, nante

III. Rhetorical distance
a. The speaker finds information congruent with him/herself: No, koto, to
b. Information is obtained by hearsay and thus, the speaker considers it to belong to somebody else rather than to him/herself: To, nante
c. The speaker finds information incongruent with him/herself: Nante

IV. Rapidity of cognition
a. Deliberative cognition: No, koto
b. Immediate cognition: To

From the above correlations it can be deduced that the complementizers in question constitute the following hierarchy.

(51) no -- koto ------- to -- nante

This hierarchy corresponds to the hierarchy of incorporation of information. No corresponds to the highest degree of incorporation while nante corresponds to the lowest degree. The reason why there is more space between koto and to than other locations in the hierarchy is that no and koto on the one hand and to and nante on the other constitute natural classes which tend to behave similarly.

Several questions come to mind. Why do these certain complementizers represent certain degrees of incorporation? For example, why is the form nante chosen to signify that information is not well incorporated? Why do no and koto tend to group together? Why do to and nante behave similarly? The next section attempts to answer these questions.

3. Forms and incorporation

3.1. Function and meaning as an individual item

The first determinant in the relationship between forms and degrees of incorporation is the original function and meaning of the forms. The distinction between no and koto on the one hand and to and nante on the other may be attributed to the fact that the latter may be used as a quotation marker. To, its variation tte, and nante may follow what is quoted as shown in the following examples.

(52) Kare wa "moo zettai sore o yaritai"
    he TP really absolutely that OB want-to-do
    to yuu kara.
    CP/QT say so
    ‘He says "I really want to do that, so."'
As was discussed earlier, *to*, *tte*, and *nante* are used when the degree of incorporation is relatively low. Why do linguistic forms that function as quotation markers also function to signify that the speaker has not incorporated information? It is because, as Maynard (1996: 210) notes, "quoting someone's words, involves, by definition, the voice of another, which results in a double-voiced discourse." Maynard observes that this multivoicedness of quotation is present even in self-quotation. Thus, what is quoted represents the voice of the other (literally or symbolically) in discourse. Tannen (1989: 133) observes that the creation of voices "occasions the imagination of alternative, distant, and others' world by linking them to the sounds and scenes of one's own familiar world [The emphasis is provided by SS]." In other words, what is quoted represents what the speaker finds distant from him/herself.

Because of this inherent characteristic of quotations, linguistic forms that may be used as quotation markers (*to*, *tte*, and *nante*) are appropriate in marking information which the speaker has not incorporated into his/her belief system. Information is treated as essentially belonging to others, not to the speaker. On the other hand, *no* and *koto*, which do not function as quotation markers, are not used to mark such information.

How do we account for the differences between *no* and *koto* and between *to* and *nante*? Let us look at *no* and *koto* first. In this regard Horie (1991) discusses *koto* in relation to *no*. He refines Kuno's analysis, which associates *koto* with abstract concepts and *no* with concrete events, by arguing that while the former represents indirectly/mentally perceived events (IPEs), the latter represents directly/physically perceived events (DPEs). His study is significant in that it examines why *koto* and *no* are IPE and DPE markers, respectively. One of the reasons Horie discusses is that *koto* retains its original meaning as an independent noun. He argues that since *koto*'s original meaning is 'fact' or 'abstract event,' it is appropriate for
representing IPEs rather than DPEs. His argument is relevant to our discussion of the relationship between forms and incorporation because DPEs correspond to highly incorporated information while IPEs correspond to less incorporated information.

On the same subject Makino and Tsutsui (1988) offer an interesting perspective. Bachnik and Quinn (1994) observe that the concepts of uchi ‘inside’ and soto ‘outside’ are keys to understanding Japanese culture including the language. Uchi is characterized as "enclosed, concave, indoors, family, lineal, "us," shared, familiar, informal, private, experienced, known, in control, sacred, and primary" while soto is characterized as "open, convex, out-doors, non-family, extralineal, "them," not shared, unfamiliar, formal, public, observed, unknown, uncontrolled, profane, and secondary" (Quinn 1994b: 38). Makino (1996) associates no with uchi because it is more direct and koto with soto because it is more indirect. Makino and Tsutsui (1988) state that sound symbolism is an integral part of Japanese language and that nasal consonants [m] and [n] symbolize tactuality, warmth, and softness while velar consonants [k] and [g] tend to represent hardness, sharpness, separation, and detachment (Makino and Tsutsui: 51-52). They attribute the difference between no and koto to the fact that no starts with the nasal sound [n] (a more personal sound) and koto with the velar sound [k] (a more impersonal sound).

Similarly to Makino (1996), Quinn (1994a) associates no with uchi ‘inside’ and koto with soto ‘outside.’ He also identifies to with outsideness. He attributes to’s function as a quotation marker to its lexical meaning, ‘with.’ He argues that if one entity Y is related to another entity X in a relation mediated by to, "Y does not co-occupy an identical locus but rather takes a position alongside, that is, outside X" (Quinn 1994: 275).

How about the difference between to and nante? As was discussed earlier, they are both appropriate in marking information which the speaker has not incorporated into his/her belief system because of their function as quotation markers. Taking another look at the correlational patterns shown in (50), one notices that to and nante behave similarly in all aspects except for when the contextual variable of rhetorical distance is concerned. Namely, to may be used when the speaker regards information to be congruent with his/herself while nante is not used in such contexts. I would like to argue that this difference is due to the original lexical meanings of nante.

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John wa Mary ga toori o watatta koto o

omoidashita.
remembered

‘John remembered that Mary had crossed the street.’ (Horie 1991: 240)
Note that in examples of nante already discussed the speaker often has a belittling attitude toward information that is marked with nante. Representative examples are repeated below.

(11) **Shigoto o shite ite mo, watashi toshite work doing being even I as wa hahaoya dearu koto to ryooitsushite TP mother be NM with reconciling iru tsumori. Ano kotachi no hahaoya am mean those children of mother dearu koto ga sugoku ureshiishi, jishin be CP SB very happy-and confidence mo motte imasu. Kosodate o also having am raising-child OB orosokanishite iru nante kakarete mo neglecting am CP being-written even kinishimasen. not-care

‘Although I work, I mean to be reconciling it with being a mother. I am happy and confident to be the mother of those children. Even if they (the media) write that I am neglecting parenting, I don’t care.’ (More, Jan. 1993: 147)

(38) **Jibun no kekkon aite o tanin self LK marriage partner OB other ni kimetemorau nante shinjirarenai. by receive-decide CP cannot-believe

‘I can’t believe that some people have other people decide marriage partners for them.’ (More, Feb. 1993: 306)

This connotation of the speaker’s belittling or contemptuous attitude is also present when nante has functions other than marking a complement, such as marking a topic (as in (55)) and as a part of an expression [S nante N] in which S describes N (as in (56)).

(55) **Chuuzeatsu wa kekkyoku, josee no abortion TP after-all women LK no gawa ni fukai kizu o nokosu LK side in deeply scar OB leave dake de, otoko nante only being men men this-kind thing da ta omouto kanashii. are CP when-think sad

‘Abortion after all leaves a deep scar on women only. When I think

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14 The phrase otoko nante ‘men’ is not the topic of the whole sentence. It is the topic of the complement clause of omou ‘think.’
that men are just like this, I feel sad.’ (More, Aug. 1995: 333)

(56) Ojoosama wa hontoo wa ikite
mademoiselle TP really TP living
ita no desu. Soreni, naze, hito wa,
was NM is and why people TP
shinda nante, iikagen na uso o
died such unfounded LK lie OB
tsku no desho.
say NM I-wonder
‘Mademoiselle was really alive. And, why do people tell such an unfounded lie that she was dead?’ (Kokuritsu Kokugo Kenkyuujo 1951: 134)

Examples of to do not seem to contain the same connotation. This suggests that while low degrees of incorporation of information of to are due to its characterization of information to belong to somebody other than the speaker, which is evoked by its function as a quotation marker, even lower degrees of incorporation in the case of nante are attributed to its function as a quotation marker plus its connotation of belittling attitude. Because of this attitude, the speaker finds information incongruent with his/her belief or value system.

Where does this connotation of contempt come from? According to Martin (1975), the lexical meanings of nante are ‘the likes of; such a thing/person/place etc.’ Masuda (1986) lists ‘such as [like]; any [some] such; also; nor; and so on’ as the English translation of nante. What these meanings imply is that when one says X nante, X is one member of a group of entities which are similar to X. In other words, they suggest that there are others like X. Similar expressions in English such as the likes of X and X and all that also have the same connotation. Haiman (Ms.) cites the use of blah blah and and so on in the popular Garfield comic strip and observes the following:

The metamessage of phrases like etc. and blah blah is presumably something like this:

"this item is one element of a long list which it is not worth my effort to continue enumerating the members of (and the reason it is not worth my effort is that you can supply the words as well as I can. We are both familiar with this routine)."
(Haiman Ms.: 18)

These expressions suggest the repeatability of X. X is dismissed as cliché. X is repeatable and thus is not unique. X is not special and therefore, there is a connotation of the speaker’s belittling or contemptuous attitude toward X (See Suzuki (Ms.) for more discussion on the relationship between the notion of

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15 Martin (1975: 163) considers nante to have developed from the combination of nani ‘what’ and to ‘and’. Kindaichi et.al. (1993: 386) consider nante to have developed from the combination of nado and to. Nado is described to have derived from the combination of nani and to (Shinmura 1991: 1917).
repeatability and the speaker's attitude).

3.2. Integration of complement clauses

In the last subsection I argued that the distinction between no and koto on the one hand and to and nante on the other can be attributed to the function of the latter complementizers as quotation markers. The use of linguistic forms that are used as quotation markers evokes the function of quotation, which is to present the voice of the other (i.e., the perspective that the speaker does not regard as his/her own). The fact that to, its variation tte, and nante are used as quotation markers is significant in another aspect.

As Inoue (1976) points out, a quoted clause has several syntactic characteristics that are similar to those of an independent sentence. For example, while the subject of an embedded clause (no- or koto-marked clauses as well as relative clauses) may be marked by the nominative particle ga or the genitive particle no, the subject of a quoted clause can only be marked by ga. Unlike embedded clauses, quotes may have final particles or politeness markers. Another characteristic is its interaction with the particle wa. Wa may function to mark the topic of a sentence or the focus of contrast. In an embedded clause, the noun marked with wa cannot refer to the topic of the clause but the contrasted element. On the other hand, it is possible for the wa-marked noun in a quote to refer to the topic of the quote.

In addition, a quote has the following characteristics that are similar to an independent sentence. First, a quote can be an imperative or interrogative sentence. (57) is an example in which an imperative sentence is quoted. In (58) an interrogative is quoted.

(57) Gakko kara kaettekuruto, "Yoku kita na, school from when-return well came FP maa nome" to tsukamari,... FL drink CP/QT being-caught ‘When I came home from school, I was caught (by the friend who would say) "Welcome, well, drink up."' (More, Aug. 1996: 269)

(58) Kare ga waza to bakku de he SB deliberate AV backing with atetekita n janai no? nante itte came-to-hit NM TG FP CO/QT saying masu. are ‘(My friends) are saying something like, he deliberately hit your car by backing up his car, didn’t he?’ (More, Dec. 1995: 281)

The characteristics discussed in this paragraph are pointed out by Terakura (1980) with respect to to yuu-marked clauses.
Second, a grammatically incomplete clause (e.g., a clause that lacks a predicate) can occur in a quote as shown in the following examples.

(59) Kanari izen kara kibishiku okonawaretekita
very before from strictly be-conducted
no dakara nantoka kitchiri mamoranakute
SB so somehow perfectly if-keep-not
wa... to omoigachi da ga.
TP CP/QT tend-to-think CP but 'Because it has been done strictly from a long time ago, we tend to think that we have to keep it perfectly (lit. we tend to think that if we do not keep it perfectly...).' (Inoue 1981: 134)

(60) "Masaka watashi ga" to odorokimshita.
by-no-means I SB CP/QT was-surprised
I was surprised, (thinking) "lt cannot be me (lit. by no means I)."
(More, Aug. 1996: 269)

Third, a copula is in its final form (--- da) rather than attributive form (--- na).

(61) "Jibun wa dame na n da" nante
self TP no-good LK NM is CP/QT
omou hitsuyoo wa arimasen.
think need TP not-exist
'There is no need to think something like "I am no good."'(More, Dec. 1995: 442)

(62) Maa, sooyuu jookyoo no, sono futari
FL that-kind situation LK that two
ga Akino no koto o ritchi da tte
SB LK thing OB rich is CP/QT
hinanshite iru no o miruto totemo
accusing are CP OB when-look very
kokkei.
funny
'When I see those two who are in that kind of situation accusing Akino (saying) that he is rich, I find it very funny.'

In this way, what is quoted shares many characteristics with an independent sentence. In addition to these characteristics, a quotation is often set apart from the rest of the sentence by a pause. Thus, a quotation is not a well integrated part of a sentence. It is treated as if it were a separate entity from the rest of the sentence.\footnote{The separateness of quotations is found in other languages as well. In her cross-linguistic survey Munro (1982) observes that quotation-ascribing verbs have some intransitive characteristics and that the quotations they introduce are often very different from normal objects. In other words,}
This character of quotations (that they are not well integrated into the matrix sentence) is transferred to the use of to, tte, or nante as complementizers. For example, (63) shows that a final particle na is occurring at the end of the to-marked complement. The copula is appearing in its sentence-final form (--- da) in the nante-marked complement in (64). The punctuation markers at the end of the complements in (43) and (44) suggest that there is a pause right after the complements if the sentences were spoken.

(63) Ninshinshite iru na to kigatsuita.
being-pregnant is FP CP noticed
'She noticed that she was pregnant.' (Bungei Shunjuu 1986: 104)

(64) Gengo no tensai da nante sondemonai.
language of genius am CP absurd
'_that I am a genius in languages is an absurd idea.' (Martin 1975: 166)

(43) Nanimokamo shitta ue de itte iru
everything knew on being saying is
no daroo, to chokkanshita.
NM probably CP knew-by-intuition
'I (instantly) knew by intuition that he was probably saying that while knowing everything.' (Yoshimoto 1988: 178)

(44) Shuppatsu mae no akegata, futon
departure before of dawn bed
no naka de insupireeshon ga hirameita.
of inside in inspiration SB flashed
Dekita! to kakushinshita.
got-it CP felt-convinced
'At dawn of the day I was leaving, the inspiration flashed upon me in the bed. 'I got it!' I felt convinced.' (Fujiwara 1991: 102)

On the other hand, no- and koto-marked complements do not have any of the features of an independent sentence that have been discussed. The what is quoted is not well integrated into the matrix sentence as one of its arguments, the object of the verb. Munro's work is inspired by Partee (1973:418) who concludes "the quoted sentence is not syntactically or semantically a part of the sentence which contains it."

Future studies should explore the difference in the degree of integration between no clauses and koto clauses. The fact that while no cannot be used by itself, koto can be used as an individual noun as shown below might be relevant.

(a) Koto wa Nixon no nerai doori ni susumu
thing TP of aim as AV advance
daroo ka.
I-wonder FP
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Complements behave as arguments of matrix sentences. In other words, no- and koto-marked complements are well integrated parts within a sentence.

I would like to argue that an iconic principle discussed in Haiman (1985) (linguistic distance reflects conceptual distance) is relevant in this discussion of the distinction between no and koto on the one hand and to and nante on the other. We saw that the former complementizers indicate higher degrees of incorporation of information while the latter complementizers indicate lower degrees. If we follow the principle that conceptual distance is reflected in linguistic distance, then it is natural that what is well incorporated into the speaker's belief system is expressed with no- or koto-marked complements, which are grammatically well integrated. When information is not well incorporated into the speaker's system, the speaker is detached from the information. Thus, s/he is likely to use a to- or nante-complement, which behaves as if it were a separate entity. The degrees of incorporation of information correspond to the degrees of integration of complement clauses.¹⁹

4. Conclusion

In this paper I proposed that the choice of complementizers in Japanese is correlated with the degree of incorporation of information represented in the complement clause. The degree of incorporation is determined by four variables: conviction, involvement, rhetorical distance, and rapidity of cognition. It is necessary

'I wonder if things will develop as Nixon planned.' (Martin 1975: 841)

Other potential evidence is given by Horie (1991). He observes that the no-clause cannot occur in the pre-copular position of the cleft-type construction, while the koto-clause can as illustrated below.

(b) *John ga mita no wa Mary ga toori
SB saw PN TB SB street

\[ \text{ o wataru no datta.} \]
\[ \text{OB cross CP/NM was} \]
\[ \text{ 'It was Mary crossing the street that John saw.' (Horie 1991: 238) } \]

(c) John ga shitta no wa Mary ga toori
SB learned PN TP SB street

\[ \text{ o watatta koto datta} \]
\[ \text{OB crossed CP/NM was} \]
\[ \text{ 'It was that Mary crossed the street that John learned.' (ibid.) } \]

This might indicate that because the no clause is more integrated in the sentence John wa Mary ga toori o wataru no o mita 'John saw Mary cross the street', it resists being removed from the sentence.

¹⁹ In his discussion of direct quotation in English, Haiman (1989) states the following.
They [quotes] are entities which exist in a different conceptual framework from the material in which they seem to be embedded. Their failure to undergo [grammatical] incorporation is then an instance of the general iconic principle that linguistic distance reflects conceptual distance." (Haiman 1989: 134; [] added by SS)
to take all of these four variables into consideration since the behavior of complementizers in Japanese cannot be analyzed in just one dimension. The variables are interrelated with each other. Among the variables, there seems to be a hierarchy. For example, the variable of rhetorical distance sometimes overrides the variables of conviction and involvement. This matter awaits further examination.

Taking all the variables into account, the most incorporated information tends to be expressed by the *no* clause. A little less incorporated information tends to be expressed by the *koto* clause. Little incorporated information is likely to be represented by the *to* clause. The *nante* clause tends to encode the least incorporated information. In this hierarchy of complementizers, distances between complementizers are not equal. *No* and *koto* tend to behave similarly with each other while *to* and *nante* tend to be grouped together.

The second part of the paper examined why these forms encode certain degrees of incorporation. It is proposed that two factors influence the relationship between the complementizers and the degree of incorporation that they express. The first factor is the original meaning or function of the complementizers. Second, the degree of integration of the complement clause in a sentence is correlated with the degree of incorporation that the clause represents. These two factors may not be the only determinants of the relationship between the form and function of the complementizers in Japanese. This study is significant because it is one of the first attempts to explore such a relationship.

The list of contextual variables discussed in relation to the notion of incorporation of information is not meant to be exhaustive, either. There may be other contextual factors that dictate the use of the complementizers. One candidate is the notion of recency of cognition discussed in McCawley (1978) and Akatsuka (1985). Examining examples taken from Kuno (1973), McCawley (1978: 199) observes that when *to* is possible with predicates which express cognition (i.e., (65b) and (65c)), "the speaker acquired the new piece of information at that very moment."

(65)  

a.  

\[
\begin{array}{llll}
\text{Anata} & \text{wa} & \text{Mary ga} & \text{tsunbo} \\
\text{you} & \text{TP} & \text{SB} & \text{deaf} \\
\text{da} & \text{to} & \text{shitte} & \text{imasu ka.} \\
\text{is} & \text{CP} & \text{knowing} & \text{are FP} \\
\end{array}
\]

‘Do you know that Mary is deaf?’

b.  

\[
\begin{array}{llll}
\text{Watakushi} & \text{wa} & \text{Mary ga} & \text{tsunbo} \\
\text{I} & \text{TP} & \text{SB} & \text{deaf} \\
\text{da} & \text{to} & \text{sono toki shitta.} \\
\text{is} & \text{CP} & \text{that time found-out} \\
\end{array}
\]

‘I found out (got to know) that Mary was deaf at that time.’

c.  

\[
\begin{array}{llll}
\text{Watakushi} & \text{ga} & \text{Mary ga} & \text{tsunbo} \\
\text{I} & \text{TP} & \text{SB} & \text{deaf} \\
\text{da} & \text{to} & \text{shitta} & \text{no wa sono} \\
\text{is} & \text{CP} & \text{found-out} & \text{NM TP that} \\
\text{toki} & \text{datta.} \\
\text{time was} \\
\end{array}
\]

‘It was then that I found out (got to know) that Mary was
McCawley’s conclusion is that when predicates that express cognition occur with no or koto, the complement represents knowledge while when these predicates occur with to or nante, the complement represents what the speaker suddenly realized.

I did not include the notion of recency of cognition as one of the contextual variables in this study because I found some counterexamples. For example, (8) shows that the concept of knowledge is compatible with the use of to (in this case tte).

(8) Chishiki toshite wa ka de
knowledge as TP mosquito by
wa utsuranai tte wakatte ite mo
TP transfer-not CP knowing being even
kininarimashita.
worried
‘Although I rationally knew (lit. I knew as knowledge) that it (AIDS) is not communicable by mosquitoes, I was still worried (when I was bitten by mosquitoes).’ (More, Feb. 1993: 327)

Further, both no and koto may mark information that the speaker acquired at that moment if the information is physically perceptible as in (66) and (67).20

(66) Futo tonari no heya kara myoo
suddenly next of room from strange
na oto ga kikoetekuru no ni
LK sound SB come-audible CP OB
kigatsuita.
noticed
‘All of a sudden, I noticed that strange sound was coming from the next room.’ (Sawaki 1986a: 62)

(67) Sono toki, fui ni watashi wa
that time sudden AV I TP
jibun ga honkon no kane o
self SB Hong-Kong of money OB

20 Akio Kamio (personal communication) suggests that instead of recency of cognition, unpredictableness or unexpectedness of the content of information may be relevant. Unpredictableness of information could be another candidate to be included in the list of contextual variables in incorporation of information. When information is not expected, the mind of the speaker is not prepared to accept it easily. In their analysis of Turkish evidentials Slobin and Aksu (1982: 198) say that when a mind is unprepared, one “stands back, saying, in effect: ‘It seems that I am experiencing such-and-such’ or ‘It seems that such-and-such an event must have taken place.’ An unprepared mind has not had normal premonitory consciousness of the event in question.” Consequently, the information cannot be immediately incorporated. Slobin and Aksu (ibid.) also say that in such situations the speaker “feels distanced from the situation he is describing.”
However, the notion of recency of cognition should not be dismissed without further investigation since it seems to be applicable to other types of linguistic phenomena. Akatsuka (1985) finds the notion useful in the analysis of conditionals, Shinzato (1991) in the analysis of Old Japanese auxiliaries, and Kamio (1994) in the analysis of sentence-final forms. The presence of counterexamples by itself should not be the reason for dismissal. They may be explainable if the interaction and hierarchy among the contextual variables are investigated.

Finally, the notion of incorporation of information may be applicable to other linguistic phenomena. In her analysis of Old Japanese past tense auxiliaries, -ki and -keri, Shinzato (1991) discusses the interplay among three notions: temporality, evidentiality, and epistemicity. She compares the auxiliaries with Turkish past suffixes, which are analyzed in Slobin and Aksu (1982). It is argued that as in the case of the Turkish suffixes, the Old Japanese auxiliaries, which have been discussed mostly in terms of evidentiality, are analyzed more accurately if the three notions are taken into account. She also argues that the correlation among the notions is not coincidental but occurs as a consequence of implicational relationships among them. Some of the notions discussed in the her study are similar to those in this study. Her "evidentiality" corresponds to a type of the speaker's involvement discussed here. Her term "epistemicity," which is defined as "how a piece of acquired information is integrated or assimilated into one's body of knowledge" (Shinzato 1991: 27), is close to what I mean by incorporation of information. Further, she briefly mentions that what Slobin and Aksu (1982) call "psychological distance" may also be applied to the analysis of the auxiliaries. The fact that the two independently developed analyses employ similar notions suggests that the concept of incorporation of information may apply to wider range of linguistic phenomena.

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**Data**


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21 I would like to thank Masayoshi Shibatani for introducing me to Shinzato's work.
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