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Distinction in Japanese

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Question Pull: A Diagnostic Test for
the Complement/Adjunct Distinction in Japanese
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1. Introduction

Although there is no consensus as to how complements and adjuncts should be characterized in theoretical terms, and some researchers have even concluded that the distinction should be given up (e.g. Vater 1978), most of the current syntactic theories claim that complements and adjuncts differ syntactically and semantically in their relationships to the head. The distinction between missing complements and mere unmentioned adjuncts becomes particularly crucial when we analyze constructions which contain internal gaps.

In general, the term *complement* is used to refer to those elements which are indispensable to "complete" the meaning of a given predicate, whereas *adjunct* is used to refer to those which are essentially optional but add information to the central predication as a whole. Complements are said to be subcategorized for by the predicate (or valency-bound); in contrast, adjuncts are not governed by any particular predicate, and thus fall outside the subcategorization frames (or the valence descriptions).

The most important notion in the complement/adjunct distinction (CAD) is *obligatoriness*. The non-predicative elements can be divided into those which are obligatory in some sense and those which are not. There are two kinds of obligatoriness: one is *ontological* (semantic) and the other *syntactic*. Ontologically obligatory elements are those which appear in the logical predicate-argument structure (PAS), which formalizes the native speakers' knowledge of a given predicate. The formalization procedure itself is said to be informal, however. One must make use of his/her intuitive understanding of the language.

Various criteria for the CAD in English have been proposed: some are general and others are more specific, testing a particular type of complement. For example, (1) adjuncts can be eliminated from the sentence without rendering it ungrammatical (Helbig and Schenkel 1973); (2) adjuncts can be added freely to any sentence when relevant (Schmidt 1986); (3) the minimum element that *do so* replaces is the predicate plus any complements, except the subject, which is also a complement (Somers 1984); (4) at least some sentential adjuncts disallow internal gaps while sentential complements generally allow them (Pollard and Sag 1987); (5) among *for*-NPs, only object complements can be passivized, e.g. *Paul was waited for* vs. **This country has been died for* (Emons 1974), and so forth.

Even though no single test can successfully determine the distinction by itself, we find these tests valuable because they can serve to clarify and contrast the nature of the relationship between the head and its complements on the one hand, and that between the head and adjuncts on the other. Also, a grammatical theory is more precise if it provides the criteria on which the CAD is made, rather than simply stating "we consider this element as a complement/adjunct." This is particularly the case when an entity is claimed to be an *optional complement*.

However reliable they may be, many of these diagnostics, based on the properties of strongly configurational languages, are not applicable to languages which have drastically different syntactic characteristics. For example, Japanese tolerates ellipsis to a much greater degree than English, i.e. even obligatory complements need not be overtly expressed; therefore, for example, the elimination test is not helpful.

Certain criteria have been suggested to make the CAD for Japanese. In this paper, we will consider the extent to which such criteria succeed or fail. We will then propose an alternative diagnostic test which is based on the appropriateness of ellipsis-clarifying questions.

2. CAD Tests for Japanese

For languages that tolerate elliptical constructions to an extreme degree, such as Japanese, syntactic obligatoriness is virtually nonexistent. Therefore, we need to rely heavily on semantics. There are, to my knowledge, two diagnostics suggested for the CAD in Japanese.

2.1. Do so Test

Somers (1984) claims that the *do so* test is applicable to Japanese.

(1) (Somers' ex.49)

- a. Keiko ga kinoo hon o kaimasita; watasi mo asita
 SUB yesterday book DO bought I too tomorrow
 soo simasu.
 so do
 Keiko bought a book yesterday, and I will do so tomorrow.
- b. *Keiko ga kinoo hon o kaimasita; watasi mo zassi
 SUB yesterday book DO bought I too magazine
 o soo simasita.
 DO so did
 Keiko bought a book yesterday, and I did so a magazine.

The ill-formedness of (1b) shows that *soo suru* 'do so' must replace *zassi* 'magazine', which is the DO complement, in addition to the verb *kau* 'buy'. In (1a), by contrast, the temporal adjunct, *asita* 'tomorrow', may remain.

This test, however, does not give consistent results. First of all, *soo suru* is not equivalent to *do so*. Lakoff and Ross (1976) mention that *do so* may replace any VP containing a nonstative verb. *Soo suru* has a stronger restriction: the verb must be intentional, i.e. the subject must be an Agent. The following sentence is not acceptable because the subject of *nakusu* 'lose' is an Experiencer, not an Agent.

- (2) *Alice wa hon o nakusimasita; watasi mo soo simasita.
 TOP book DO lost I too so did
 Alice lost a book, and I did so, too.

When the verb suggests a high degree of intentionality of the Agent, e.g. *korosu* 'kill', even the DO, which is clearly valency-bound, can be extracted.

- (3) Alice wa titi-oya o korosita-n datte;
 TOP father DO killed Evid(hearsay)
 watasi mo syuzin o soo si-tai.
 I too husband DO so want-to-do
 I heard that Alice killed (her) father; I want to do so (my) husband.

Second, the IO (complement), can be extracted in many cases.

- (4) Alice wa haha-oya ni seikatu-hi o okutteiru;
 TOP mother IO living-expenses DO is-sending
 Bob mo titi-oya ni soo siteiru.
 too father IO so is-doing
 Alice sends her mother living expenses, and Bob does so to his father.

Third, elements whose adjunct status is not controversial (e.g. Means) often cannot be extracted.

- (5) *Alice wa geppu de kuruma o kaimasita;
 TOP monthly installment by car DO bought
 watasi mo/wa genkin de soo simasu.
 I too cash in so will-do
 Alice bought a car on monthly installments, and I will do so in cash.

Finally, some pragmatic factors may affect the extractability.

- (6) a. Alice wa resutoran de kani o tabemasita;
 TOP restaurant at crab DO ate
 watasi mo uti de soo simasu.
 I too home at so will-do
 Alice ate crabs at a restaurant, and I will do so at home.

- b. *Alice wa resutoran de ban-gohan o tabemasita;
 TOP restaurant at dinner DO ate
 watasi mo uti de soo simasu.
 I too home at so will-do
 Alice ate dinner at a restaurant, and I will do so at home.

As for (6), the more specific (and scarce) the Theme is, the more natural the *do so* sentence becomes. The overall performance of this test rates low.

2.2. Referability

Kameyama (1985) makes a distinction between invariable (or "global") event components, which are usually encoded as adjuncts, and "locally" obligatory arguments selected by a predicate (complements). She argues that there is a difference between an unexpressed complement and a mere non-mention of an adjunct phrase in discourse. A missing complement can have an implicit reference to an element which has been already introduced in discourse, whereas a mere non-mentioned adjunct cannot have such a reference.

- (7) 1. Mary ga Tokyo ni asobi ni kiteiru.
 SUB to play for has-come
 Mary has come to Tokyo for a leisure visit.
 2. kinoo wa Tom ga doobutuen ni turete-itta.
 yesterday TOP SUB zoo to took
 Yesterday, Tom took [her] to the zoo.

(8) (Kameyama's ex.73)

1. kono hootyoo wa yoku kireru.
 this knife TOP well cuts
 This knife cuts well.
 2. watasi wa itumo niku o kitteiru.
 I TOP always meat DO cut
 I always cut meat [with it].

(9) (Kameyama's ex.74)

1. Mary ga Tokyo ni asobi ni kiteiru.
 SUB to play for has-come
 Mary has come to Tokyo for a leisure visit.
 2. kinoo wa Tom ga doobutuen ni itta.
 yesterday TOP SUB zoo to went
 Yesterday, Tom went to the zoo *[with her].

In (7), the missing DO of the second sentence has an implicit reference to Mary, which is mentioned in the first sentence as the subject. In Lexical Functional

Grammar, which Kameyama uses as a theoretical framework, the Instrumentals are *optional complements* (Bresnan 1982). Therefore, she argues, the second sentence in (8) also can have an implicit reference to the knife in the first sentence although there is no overt oblique phrase in the second. In (9), on the other hand, even though Mary has been introduced in the first sentence, the second sentence cannot have an implicit reference to her as an unexpressed element. She claims that this is because the comitative notion is not one of the subcategorized arguments for *iku* 'go'.

As in the cases of other diagnostic tests, this difference does not hold without exception. For example:

- (10) 1. tikaku ni ii kooen ga dekita.
 vicinity in nice park SUB be-made
 A nice park was made in the neighborhood.
2. watasi wa mai-asa sanpo-siteiru.
 I TOP every-morning take-a-walk
 I take a walk [there] every morning.
- (11) 1. akegata wa kuuki ga sundeiru.
 dawn TOP air SUB clear
 The air is fresh at dawn.
2. watasi wa zyogingu o tuzuketeiru.
 I TOP jogging DO continue
 I'm still jogging [at dawn].
- (12) 1. Oshima de zisin ga atta.
 in earthquake SUB there-was
 There was an earthquake in Oshima.
2. watasi wa Seki-zyuuzi ni okane o okutta.
 I TOP Red Cross IO money DO sent
 I sent some money to the Red Cross [because of/for it].

What is referred in (10) and (11) is Spatio-Temporal Location, whereas that in (12) is Purpose/Cause or Beneficiary. These adjuncts, in fact, have reference to an element in the previous sentence.

The fundamental problem of this test is that it is based on inference rather than direct interpretation of the sentence. In real discourse, even simply positioning two sentences in sequence conveys an implicit relation between them. In other words, the addressee links the two pieces of information in one way or another. Therefore, if the addressee believes that the speaker is cooperative, (s)he may make a connection between the two sentences by any reasoning available to him/her. Consider the following example.

- (13) 1. Mary ga Tokyo ni asobi ni kiteiru.
 SUB to play for has-come
 Mary has come to Tokyo for a leisure visit.
2. dakara Tom wa maiban disuko e itte-iru.
 therefore TOP every night disco to is-going
 Therefore, Tom is going to a disco every night [with her].

Provided richer context, native speakers interpret (13-2) as "Tom is going to a disco with her."¹

3. Question Pull

Finally, we propose another diagnostic test for the CAD in Japanese. In Japanese discourse there is a style in which the speaker initiates conversation saying only the predicate; e.g. *mityatta* 'have/has seen'. The cooperative addressee is expected to ask questions, such as 'who/what/when/why?', to carry on the conversation. An excessive use of such maximally elliptical sentences is annoying, but, if used effectively, it induces the addressee's active participation in the conversation. Conversation initiating *Guess what* or *You know what?* in English are the same in spirit. Let us call this style in Japanese *Question Pull*.

It is likely that in Question Pull the PAS attached to the articulated predicate in the addressee's mental lexicon is evoked, and the addressee asks questions to identify the elements corresponding to each argument in the PAS until (s)he thinks that (s)he has understood the original one word sentence (cf. Hinds 1978). Of course, the addressee can ask not only for complements but also for adjuncts, if (s)he so desires. However, the addressee cannot ask questions eliciting those which correspond to adjuncts, without rendering the sequence of discourse ill-formed, until all complements have been identified. In other words, the addressee cannot query possibly accompanying adjunct phrases unless (s)he has already understood the complements.²

- (14) S: mityatta. '[I] have seen [something].'
 A: nani o? 'What [have you seen]?'
 (15) S: mityatta. '[I] have seen [something].'
 A: #itu/naze/doko de/dare to? 'When/why/where/with whom [have you seen something]?'³

In order to see this restriction clearly, we need to idealize the situation by assuming that (i) the addressee asks only one question at a time, (ii) there is no non-linguistic (e.g. deictic) information available, and (iii) the addressee has no previous knowledge about the topic of conversation.

One more thing to mention here is that when the subject is *I*, it is rarely overtly expressed in declarative sentences in Japanese. Therefore, it is not clear in

(14) whether A thought the subject was S, or A thought the subject was somebody else, and yet (s)he asked the direct object first.⁴ We can avoid this ambiguity by creating a situation where the referent of the subject cannot be the speaker.

- (16)

S: netyatta. ‘[I/somebody] slept.’

A: itu/doko de/naze? ‘When/where/why [did you/somebody sleep]?’

(A might have interpreted that the subject was the speaker.)
- (17)

S: neteiru. ‘[Somebody] is sleeping.’

A: dare ga? ‘Who [is sleeping]?’

A’: #doko de/naze? ‘Where/why [is somebody sleeping]?’
- (18)

S: kesita rasii. ‘It seems that [somebody] erased [something]’

A: dare ga? ‘Who [erased something]?’

A’: #itu/doko de/naze? ‘When/where/why [did somebody erase something]?’

To use Question Pull as a diagnostic test for the CAD, we ascertain whether or not a question which asks for the entity corresponding to a clear adjunct (e.g. *when*) may come before the question asking for a given entity. In other words, we list all entities that **MUST** be identified **BEFORE** asking *when* in idealized discourse situations. We consider the listed entities as complements. The following tables show the test results for some Japanese verbs.

3.1. Simple Verbs

Postpositional particles mark: *ga*=Subject, *o*=Direct Object, *ni*=Indirect Object, unless otherwise specified.

Verb	Gloss	Must be asked before <i>itu</i> ‘when’ (no. of comp’s)
aruku	walk	dare ga ‘who’ (1)
kieru	disappear	nani ga ‘what’ (1)
iku	go	dare ga ‘who’, doko e/ni ‘where[GOAL]’ (2)
matu	wait	dare ga ‘who’, nani/dare o ‘what/whom’ (2)
kiru	cut	dare ga ‘who’, nani o ‘what’ (2)
kihu-suru	donate	dare ga ‘who’, dare/doko ni ‘who/where[GOAL]’, nani o ‘what’ (3)
turete-iku	take	dare ga ‘who’, dare o ‘whom’ doko ni ‘where[GOAL]’ (3)

This test accurately reflects the native speaker’s intuition about these predicates: *aruku* ‘walk’ is unary, *iku* ‘go’ is binary, *kihu-suru* ‘donate’ is ternary, and so on. The results also confirm (in principle) the two-level case frames proposed by Hinds (1978).⁵ Notice that Instrumentals are not classified as complements according to

this test. None of our informants felt that a discourse is unnatural if *when* is asked about immediately after the subject and DO, before an Instrumental is queried.

When temporal adjuncts are not appropriate, we replace *when* with some other WH-words whose status with respect to the CAD is unproblematic. The following table shows that both *niteiru* 'resemble' and *niau* 'fit' are binary predicates.

Verb	Gloss	Must be asked before <i>dono-gurai</i> 'how much'
niteiru	resemble	dare/nani ga 'who/what', dare/nani ni 'whom/what' (2)
niau	fit	dare/nani ga 'who/what', dare/nani ni 'whom/what' (2)

3.2. Derived Causative Verbs

Let us now apply the Question Pull test to causatives. One type of causative verb is derived from a simple verb by attaching a causative morpheme *-(s)ase*. The next table presents some examples of the results.

Verb	Gloss	Must be asked before <i>itu</i> 'when'
aruk-aseru	make X walk	dare ga 'who', dare o 'whom' (2)
kie-saseru	make X disappear	dare ga 'who', nani o 'what' (2)
ik-aseru	make X go	dare ga 'who', dare o 'whom' doko e/ni 'where[GOAL]' (3)
mat-aseru	make X wait	dare ga 'who', dare o 'whom' (2)
kir-aseru	make X cut	dare ga 'who', dare ni 'who' nani o 'what' (3)
kihi-s-aseru	make X donate	dare ga 'who', dare ni 'who', nani o 'what', dare/doko ni 'whom/where' (4)
turete-ik-aseru	make X take	dare ga 'who', dare ni 'who', dare o 'whom', doko e/ni 'where[GOAL]' (4)

Again, the results agree with the native speaker's intuition, viz. "causativization" creates $n+1$ -arity for n -ary verbs. There are exceptions; e.g., the causative form of *matu* 'wait' does not increase the arity. However, this can be attributed to the idiosyncrasy of *matu*. If *X* makes *Y* wait for *Z*, the most natural interpretation is $X=Z$, unless otherwise specified.

3.3. Derived Passive Verbs

The accuracy of the Question Pull test for isolating complements is limited by the degree to which pragmatic principles of default interpretation provides the semantic values for unexpressed complements. Japanese contains three distinct passive constructions, each with a different array of complement types. Question Pull

responses following an elliptical passive sentence, therefore, reveal which type of passive the addressee assumes the speaker to have in mind.

Similar to causatives, passives are derived by adding a passive morpheme *-(r)are-* to the stem. In Question Pull with passives, we used an inferential evidential marker *rasii* to signal that the subject was not the speaker.

As noted, there are three types of passive in Japanese.⁶ Generally speaking, Type I is parallel to the English passive construction in which the subject is a Patient, and the Agent may be expressed as an oblique NP. Shibatani (1972) calls this type *direct passive*. Type II contains a predicate which is derived from an intransitive verb. We call this type *intransitive root passive*. Type III has a Patient DO and may contain an agentive oblique NP. The subject of this type is someone who has a "strong relation" with the DO. Shibatani (1985:841) describes Type III as that in which "the affected nature of the passive subject...may lead to the use of passive morphology/syntax in a situation where the subject is indirectly affected by the event...the possessor of body part or an article that is directly affected can stand in subject position in a passive expression." Let us call this type *patient object passive*.

(19) Direct Passive

John ga Alice ni nagur-areta.
SUB by was-hit
John was hit by Alice.

(20) Intransitive Root Passive

John wa haha-oya ni nak-areta.
TOP mother by cry(Pass)
John had his mother cry on him.

(21) Patient Object Passive

John ga okane o nusum-areta.
SUB money DO was-stolen
John had his money stolen.

Both the subject and the Agent/Experiencer NP are clearly complements in intransitive root passives, e.g. *nak-areru* '<(derived from) cry', *hikkos-areru* '<move away', *isuwat-areru* '<stay on', *sin-areru* '<die'.

In other types of passives, the results vary from verb to verb. The agentive NP must be identified before *when* with some verbs, e.g. *damas-areru* 'be deceived', *homer-areru* 'be praised', *mitomer-areru* 'be recognized', *ais-areru* 'be loved'. However, the Agent need not be identified with *koros-areru* 'be killed', *nusum-areru* 'be stolen', *kowas-areru* 'be broken', etc.

Another point to mention is that the patient object passive interpretation seems to be more salient than the direct passive interpretation for many

predicates. For example:

(22) S: *nakus-areta rasii*. 'It seems that [something] was lost.'

A: *nani o?* 'What? (DO)'

S: *hon o*. 'A book.'

A: *dare ga?* 'Who? (affected person)'

S: *John ga*. 'John.'

A: *dare ni?* 'By whom? (the person who lost the book)'

S: *sensei ni*. 'By the teacher.'

(John had the teacher lost his book.)

None of the informants came up with the direct passive interpretation for *nakus-areru* 'be lost', *kowas-areru* 'be broken', *mi-rareru* 'be seen', *tabe-rareru* 'be eaten', *kizuk-areru* 'be noticed', etc. This result reflects the fact that non-human NPs rarely appear as the subject in the Japanese passive constructions. The claim that the passive operation creates n-1-arity verbs from n-ary verbs is not empirically justified.

4. Conclusion

We have discussed three diagnostics for the Japanese CAD. In contrast to English, the *do so* test is not reliable with the Japanese CAD. The Referability test seems to be more promising. However, if strong contextual support is provided, it fails to discriminate even prototypical adjuncts from complements due to its heavy reliance on inference rather than direct interpretation of language. The Question Pull test is reliable as far as active sentences are concerned, but its overall accuracy is yet to be established.

Notes

* My thanks go to Charles Fillmore, Paul Kay, and Yoshiko Matsumoto for their comments on an earlier version of this paper.

¹ If uttered in appropriate context (e.g. Mary is a zoo fanatic), even (9-2) could be interpreted as "Tom went to the zoo with her".

² C. Fillmore has pointed out to me that the English equivalent to (14) may be *I've seen it*, without mentioning what *it* refers to. In such a case, it is strange to ask *where, when, with whom* unless the addressee knows what *it* is.

³ The sequence in (15) could occur in real discourse, in which case the interpretation would be that the addressee refuses to be cooperative.

⁴ There may be a natural preference in the order of identification among complements; e.g. SUB > DO > IO, etc. None of our informants asked for the IO prior to the subject or DO. Between the subject and DO, the latter was sometimes identified first. For example:

S: nakusita mitai. 'It seems that [someone] lost [something]'

A: nani o nakusita no? 'What did [someone] lose?'

S: tegami. 'A letter'

A: dare ga? 'Who [lost a letter]?'

As for adjuncts, we assume that there is no ordering: after all complements have been identified, the addressee can ask questions for relevant adjuncts in any order.

⁵ Hinds considers the Ablative NP of *kuru* 'come' as an obligatory argument in neutral situations. Our test, however, indicates that the Ablative is not a complement. In fact, our informants did not even mention the Goal. They might have thought that the Goal was wherever the speaker was. We could not override this default indexical interpretation of the verb.

⁶ For syntactic and semantic properties of these three types of passive, see Alfonso (1971), Akatsuka-McCawley (1972), Shibatani (1972), Kuno (1973), or Howard and Howard (1976).

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