

A Quantitative Study of English and Japanese Animacy Constraints on Grammatical Subjects¹

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Inanimate nouns are said to be far less likely to be grammatical subjects in Japanese transitive sentences than in English transitive sentences (Anzai, 1982 ; Kuno, 1973 ; Okutsu, 1980 ; Moori, 1975). In other words, the animacy and concreteness of the referents of nouns play different roles in the selection of English and Japanese subjects. This difference between English and Japanese subject selection can readily be seen in translating English transitive sentences with inanimate subjects into Japanese. That is, the inanimate subjects of the English sentences may not be necessarily translated as the subjects of Japanese sentences.

For example, *The news surprised the students* may be translated into Japanese in the following two ways :

- (1a) (sono) shirase wa/ga (sono) gakusei-tachi o odoroka-se ta
the news sub. the student plu. obj. surprised
- (1b) (sono) gakusei-tachi wa/ga (sono) shirase ni/de odoroitā
because of

(“Sub.” and “obj.” indicate subject and object case particles, *wa/ga* and *o*, respectively. *Ni/de* is a “causative” case particle.) It is important to note that the inanimate subject of the English sentence, *the news*, is translated as the subject of (1a) and as a “causative” adverbial phrase in (1b), namely *shirase ni/de* (“because of the news”). This is significant because (1b) would ordinarily be found to be more acceptable than (1a) would (Anzai, 1982 ; Okutsu, 1980). This is because the nominal subjects of Japanese transitive sentences are in principle restricted to animate nouns (Anzai, 1982 ; Moori, 1974). That is, inanimate nouns are less likely to function as grammatical subjects in Japanese sentences than in English sentences.

The primary purpose of this study is to investigate the different roles of the animacy and concreteness of the referents of nouns in the selection of English and Japanese subjects in a quantitative way. To be more specific, this study is focused on how often animate and inanimate nominal subjects of English transitive sentences in several texts are actually translated as subjects or as something else (e.g., “causative” adverbs) in Japanese sentences.

The basic hypothesis of this study is that inanimate noun subjects of English transitive sentences are far less likely to be translated as subjects of Japanese sentences than are animate noun subjects of English transitive sentences. In other words, the animacy and concreteness of the referents of nouns play different roles in the subject selection of English and Japanese

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transitive sentences. Furthermore, it is possible to discuss several linguistic phenomena associated with English and Japanese subject selection, such as “personification” and “nominalization.”

For the sake of analysis, six texts of English and American short stories were chosen, each of which contains Japanese translations along with the original works. These texts were edited as English reading materials for senior high school students. The titles and translators of the six texts are as follows: *American Short Stories*, Yoshinori Yoshitake (Nan'un-do, 1953); *Aesop's Fables*, Takeo Teranishi (Kenkyusha, 1951); *Gulliver's Travels*, Shigeru Shimizu (Kenkyusha, 1959); *Hemingway-I*, Masaji Onoue and Hiroshi Hayakawa (Nan'un-do, 1959); *Here and There*, Tadashi Muramatsu (Kinseido, 1955); and *Tales from Shakespeare*, Rintaro Yagi (Kaibunsha, 1951).

The procedure was to see simply whether the nominal subjects of English transitive sentences were translated as subjects or as something else (e.g., adverbials) in Japanese sentences. More specifically, the analysis was focused on the percentages of animate, concrete and abstract noun subjects in English transitive sentences which were translated as the subjects of Japanese sentences. Mean percentages were then obtained for each of the six texts and for each of the three types of noun groups, namely “animate,” “concrete” and “abstract.” The mean percentages are presented in Table 1.

An analysis of variance was performed with these mean percentages. Two independent variables were Animacy-Concreteness (Animate, Concrete vs. Abstract) and Text (the six texts and the translators). As expected, the main effect of Animacy-Concreteness was found to be highly significant ($F(2, 10) = 59.25, p < 0.01$); while the main effect of Text was not significant. The main effect of Animacy-Concreteness can readily be seen in Figure 1.

These results clearly support the basic hypothesis tested here: Inanimate noun subjects of English transitive sentences are less likely to be translated as subjects of Japanese sentences than are animate noun subjects of English transitive sentences. It is also interesting to note that this hypothesis holds independently of the individual translators. This is because the main effect of Text was not found to be significant (see Table 1).

Newman-Keuls *a posteriori* tests were carried out with three mean differences among the Animate, Concrete and Abstract conditions in order to examine in more detail the main effect of Animacy-Concreteness. As expected, two mean differences between the Animate and Abstract and between the Concrete and Abstract conditions turned out to be significant ($Q2$

Table 1
Mean Percentages

Texts	Amimate	Concrete	Abstract
<i>American Short Stories</i>	93	82	21
<i>Aesop's Fables</i>	97	86	56
<i>Gulliver's Travels</i>	100	83	16
<i>Hemingway-I</i>	95	93	55
<i>Here and There</i>	93	77	17
<i>Tales from Shakespeare</i>	100	100	50

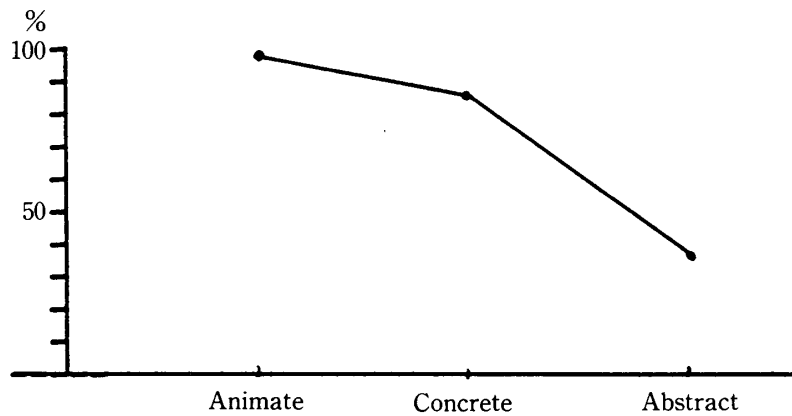


Figure 1. Main Effect of Animacy-Concreteness

(10)=11.98, $p < 0.01$ and $Q3(10)=14.37$, $p < 0.01$). The mean percentage for the Animate condition (i.e., 97.00%) was slightly higher than the mean percentage for the Concrete condition (i.e., 86.83%), but the difference between these two noun groups did not reach a significant level. Taken together, these results suggest that there is a significant clustering of the Animate and Concrete on one hand and the Abstract on the other, with the mean percentages for the former being significantly higher than those for the latter (see Figure 1).

We now turn to a discussion of the results of this quantitative analysis in terms of English and Japanese subject selection. A number of authors (e.g., Anzai, 1982; Ikegami, 1980; Kuno, 1973) argue that grammatical nominal subjects of Japanese sentences are in principle restricted to animate (i.e., human and animate non-human) nouns. That is, inanimate nouns do not usually serve as subjects of Japanese transitive sentences. This is why Japanese transitive sentences with inanimate noun subjects, such as (1a), are usually judged to be less acceptable than ones with an adverbial phrase such as that in (1b).

It was found, however, that there was a significant clustering of animate and concrete nouns on one hand and abstract nouns on the other with regard to Japanese subject selection, with the former being significantly more likely to be realized as subjects of transitive sentences than the latter. In other words, concrete yet inanimate nouns were found to be far more likely to be grammatical subjects in Japanese transitive sentences than the above authors suggest.

The following can be concluded concerning the role of the animacy and concreteness of the referents of nouns in the subject selection of Japanese transitive sentences: The nominal subjects of Japanese transitive sentences are restricted not only to animate, but also to concrete yet inanimate nouns, while abstract nouns are significantly less likely to be used as subjects in Japanese transitive sentences than in English transitive sentences (cf. Anzai, 1982; Itagaki & Prideaux, 1983, 1985; Ikegami, 1980; Kuno, 1973; Moori, 1975).

A question can be raised at this point: Why are the nominal subjects of Japanese transitive sentences in principle limited to animate and concrete nouns? Put another way, why are abstract nouns far less likely to be subjects in Japanese transitive sentences than in English transitive sentences?

A possible answer is that inanimate nouns, whether they are concrete or abstract, can be personified more freely as subjects in English transitive sentences than as subjects in Japanese

transitive sentences. As a result, inanimate nouns come to be acceptable as nominal subjects in English transitive sentences, but not in Japanese transitive sentences (Ikegami, 1980 ; Ogawa, 1970 ; Moori, 1975).

Furthermore, a syntactic process of “nominalization” is often made use of in English (Anzai, 1982 ; Moori, 1975). That is, events and states are often nominalized by abstract nouns or gerunds, and are for the most part expressed in clauses. For example, an event such as “Tom reflects upon his father’s death” may be nominalized as “Tom’s reflection on his father’s death.”

The point is that the abstract noun subjects of English transitive sentences tend to refer to events and states, such as that in *Tom’s reflection on his father’s death depressed him*. The use of abstract nouns as the nominal subjects of English transitive sentences may be attributed to this relatively free use of nominalization.

In conclusion, the animacy and concreteness of the referents of nouns have been shown to play different roles in the selection of English and Japanese subjects. More specifically, abstract nouns were found to be far more likely to be nominal subjects in English transitive sentences than in Japanese sentences.

It was also shown that concrete yet inanimate nouns were more likely to be nominal subjects in Japanese transitive sentences than several scholars have previously suggested.

Referents

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