Japanese Learners' Criteria to Judge English Nouns' Countability

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Despite the difficulty in understanding English noun countability and its relevance to the use of English articles, research on noun countability has been rather sparse, and the results have not been integrated into a larger picture. Therefore, this study reviews previous research and summarises the criteria that Japanese learners use to make countability judgments: (1) a tendency to regard English noun countability as fixed, (2) a tendency to regard concrete or visualisable entities as countable and abstract entities as uncountable, (3) a tendency to regard something non-specific as uncountable and (4) a tendency to be unable to apply the idea of 'boundedness' when making countability judgments on abstract nouns. Finally, the reasons for the difficulty in deciding the countability of abstract nouns are discussed and the best and most practical way to cope with the difficulty is proposed.

1. Introduction

1.1. Difficulty in understanding English nouns' countability and the rationale for the present study

Previous research indicates that Japanese learners of English have great difficulty in understanding English noun countability. As Swan and Smith (2001) point out, 'Many Japanese learners achieve really creditable proficiency in all aspects of written English, except for articles and the number-countability problem...' (p. 304). Judging nouns' countability (especially that of abstract nouns) is considered so difficult that it remains problematic even for advanced learners' (Butler, 2002, p. 462) (cf. similar remark by Yoon, 1993). Therefore, learners need help understanding English noun countability for them to use English articles more accurately. However, little research has been conducted to discover the problems faced by Japanese learners when judging English noun countability. Because there exists a close relationship between the accuracy in judging English nouns' countability and the accurate use of English articles, it seems important to examine how Japanese learners decide the countability of English nouns.

Below is a list of studies concerning English noun countability and the use of English articles in general, categorised according to discipline and focus. The latter studies are included because although they are not particularly concerned with English noun countability, they make some sparse references to the issue. When considering the scarcity of specific studies focusing exclusively on the criteria that Japanese learners use to judge countability, the latter studies should not be simply excluded from the reviews because they may have at least some indirect implications for how learners decide countability.
(a) Linguistic studies

(b) SLA studies focusing on the semantic features that determine the definite/indefinite distinctions

(c) SLA studies focusing on the parameter setting between specific and definite
E.g. Ionin, Ko and Wexler (2004), Snape (2005), White (2010)

(d) SLA studies concerning the relationship between Japanese learners’ judgments on English noun countability and the use of the English articles

In this list, the studies in category (a) are purely linguistics related, and therefore are not particularly concerned with the relationship between how Japanese learners judge countability and how that affects their use of English articles. Some linguistic research suggests that the count/uncount distinction reflects how we perceive the world outside. For example, ‘individuated’, ‘bounded’ entities tend to be regarded as countable; ‘unindividuated’, ‘unbounded’, ‘homogeneous’, ‘expansible’ (or contractible) or ‘replicable’ entities tend to be regarded as uncountable. (Please refer to Langacker, 2008. See also, Hewson, 1972; Igarashi, 2003; Ishida, 2002; Lakoff, 1987; Langacker, 1987; Lock, 1996; Oda, 1982; Shinohara, 1993; Wierzbicka, 1988). Conversely, other research claims that every noun can be used both as countable and uncountable, and that noun countability varies according to the context (cf. Pelletier, 1979). Due to space limitations, I cannot fully discuss linguistic research on countable/uncountable distinctions. (Please refer to Joosten (2003) for a more detailed summary of previous linguistic research on this topic). Finally, although these linguistic studies are useful in understanding the underlying cognitive or conceptual principles that explain how the count/uncount noun distinctions are made, these principles are not necessarily the same as those applied by Japanese learners when judging countability.

Studies in category (b) focus on the process of second language acquisition and examine the semantic features that determine definite/indefinite distinctions (e.g. specific reference, assumed as known to the hearer). Similarly, studies in category (c) investigate the relationship between the parameter setting(s) and English as a Second Language (ESL) learners’ use of English articles. Studies in categories (b) and (c) concern the use of English articles in general; they do not necessarily consider noun countability – with the exception of Snape (2005). Although Snape (2005) studied Japanese learners’ article usage, using not only singular noun contexts, but six other contexts (definite anaphoric plural and mass, plural or mass in either indefinite specific or indefinite non-specific conditions), he did not specifically discuss the criteria that Japanese learners use to judge countability.

Unlike studies in the other categories, the studies in category (d) concern the relationship between Japanese learners’ judgment on English noun countability and their use of English articles. For example, Hiki (1990) examined Japanese learners’ understanding of English noun countability and found that the difficulty of choosing the correct article was related to the noun class (e.g. abstract, common, proper) and the countability environment (i.e. nouns’ countable usage vs. its uncountable usage). Similarly, Yoon (1993) examined the intuitive judgment of English noun countability (made in a context-free situation) and its influence over the choice of the indefinite (or zero) article. He argued that native English speakers and Japanese learners perceive English noun countability
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Japanese learners tend to apply their L1-influenced countability judgments regardless of the particular noun's context. Unlike Hiki (1990) and Yoon (1993), Butler (2002) examined various factors affecting the selection of English articles such as the hearer's knowledge (HK) and specific reference (SR), together with noun countability. However, Butler (2002) did not specifically focus on how Japanese learners make countability judgments.

This list of research is not meant to be exhaustive or fully representative; instead it is meant to demonstrate how little research has focused on the criteria that Japanese learners use to make countability decisions and the aspects of noun countability that cause them great difficulty. Although noun countability has been claimed to affect English article choices, surprisingly little attention has been paid to how Japanese learners actually make countability judgments.

Previous studies tend to specifically focus on a particular research area and be unconcerned with neighbouring issues or disciplines. For example, linguistic researchers' main concerns are how certain theories account for the English article usage observed in linguistic data. Often, they seem to lack interest in noun countability judgment by ESL learners. Similarly, although many second-language acquisition (SLA) researchers are interested in the parameter setting of ESL learners from the language universality perspective, they are not particularly interested in the criteria used by ESL learners (including Japanese learners) to judge countability. Thus, neither Japanese learners' criteria for countability judgments have fully been explored, nor have the results of research concerning the countability criteria (only sparsely described) been integrated into a larger picture. Therefore, it seems important to review the research in various fields and form an integrative understanding of how Japanese learners make countability judgments. We need to ascertain the findings of past research and what remains to be discovered on this issue.

However, it should be noted that because of the limited availability of published research, this study does not cover research concerning the relationship between Japanese learners' noun countability judgment and the use (or non-use) of plural forms.

1.2. Outline of the present study

Based on the literature review (of the published articles listed in the References section below), this study identified several tendencies among Japanese learners in judging noun countability. These tendencies fall into two major types: First, Japanese learners depend on memorised chunks and collocation to judge countability. The second type is rule-based and can be divided into four subtypes. Japanese learners tend to (1) regard English noun countability as fixed, (2) regard concrete or visualisable entities as countable and abstract entities as uncountable, (3) regard something non-specific as uncountable, (4) be unable to apply the concept of 'boundedness' when making countability decisions about abstract nouns.

The sections below discuss each tendency.

2. Tendency to exercise a non-rule-based approach for judging English noun countability

2.1. Role of memorised chunks and collocation in judging countability

Previous research indicates that learners (especially during the early stages of language acquisition) utilise memorised expressions 'without knowledge of their underlying
structure' (Parrish, 1987, p. 377) while judging English noun countability. These expressions are referred to as 'memorised chunks' by Beaumont and Gallaway (1994). They are also what Hakuta (1976) called 'prefabricated patterns' and what Thomas (1989) called 'idiomatic use.' examples of such expressions include 'There is a ...', 'I've got a ...'; 'Yesterday I met a ...'.

In her longitudinal study, Parrish (1987) showed that Japanese learners of English depended on memorised chunks in the selection of English articles. (See also Takahashi (1997) for Japanese learners' reliance on memorised sequences for choosing the definite article). Butler (2002) also pointed out the possible influence of 'collocational rules' by quoting a Japanese learner: 'I think that no articles come after by'. I don't know why I got this idea. Maybe because some phrases that I had learned such as by bus were stuck in my head' (Butler, 2002, p. 468). Thus, it seems likely that the treatment of a noun as countable (indicated by the use of an indefinite article) or uncountable (indicated by the use of a zero article) does not truly reflect a rule-based decision process. Although students in the early stages may accurately use the zero article for a phrase like go to school, they have not necessarily made an accurate, conscious judgment. Hiki (1990) suggests the possibility that Japanese learners are accurate in the judgment of noun countability when knowledge of commonly used expressions such as go to school can be applied (p. 30).

2.2. Japanese learners' tendency to judge English noun countability based on the stored list of countable/uncountable nouns or the co-occurrence patterns of (un)countable nouns

It is often believed that Japanese learners decide an English noun's countability based on its semantic category. For example, a learner in Butler's (2002) study confesses, 'I know there are some mass words that are countable. I really don't know how to tell which ones are countable' (p. 466). Thus, despite the lack of research, it does seem very likely that Japanese learners associate certain semantic categories (e.g. the categories of non-count nouns such as those listed in Davis (1989)) and noun classes (e.g. mass nouns, proper nouns) with uncountable nouns, partly because many school grammar books (e.g. Ishiguro, 2006, p. 462) explain that food, sports, school subjects, etc. are non-count nouns. Hiki (1990) found that Japanese learners' accuracy at editing was substantially higher when proper and mass nouns were used as uncountable more often than when they were used as countable. This is probably because the learners tended to make countability judgments based on a stored list of countable/uncountable nouns, reflecting what Allan (1980) called 'countability preferences'.

Another possibility is that as students are exposed to multiple instances of nouns used with the indefinite article or in plural forms, or to multiple sequences of 'many' plus nouns in plural forms, they may have developed an association between these features and English noun countability, based on the co-occurrence patterns of countable nouns with the indefinite article or those with 'many' and plural -s (cf. According to Downing and Locke (2002, pp. 422–423), whether many or much can precede a noun is the most reliable indicator of the English noun countability). This possibility remains to be explored.

Although most research on English articles' usage focuses on rule-based decisions of EFL learners, non-rule-based decisions should be included in the examination of how Japanese learners judge countability.
3. Rule-based criteria for English noun countability

3.1. Japanese learners’ tendency to regard English noun countability as fixed

Based on previous research, it seems that Japanese learners tend to regard English noun countability as fixed and use this ‘fixed rule’ to determine this countability with no regard to the context in which they occur. Yoon (1993) revealed a strong relationship between Japanese learners’ intuitive decisions (made out of context) about English nouns and the suppliace of English articles (such as the indefinite article or zero article) in a gap-fill task that the learners were later asked to engage in. This result suggests that, unlike native English speakers, Japanese learners tended to use English articles based on a fixed notion of English noun countability and did not change them according to the context (cf. White, 2010, p. 18). Similarly, Butler (2002, p. 466) reported that Japanese learners (especially low-proficiency learners) tend to regard English noun countability as ‘a fixed or static entity’.

3.2. Japanese learners’ tendency to regard concrete or visualisable entities as countable and abstract entities as uncountable

Consistent with research findings on early language and conceptual development, Japanese learners tend to regard concrete entities as countable and abstract entities as uncountable. For example, Imai and Gentner (1997) demonstrated that unlike their Japanese counterparts, whose language lacks a count/mass distinction, American infants tended to distinguish between objects and substances when the objects were solid and bounded; this indicates the influence of, in this case English, language experience on conceptualisation. Thus, it seems that the cognition of count/mass distinction is relatively easy when the object is individuated and bounded, whereas recognition of noun countability takes longer (or takes greater exposure to linguistic data) under different conditions.

Moreover, the countable-concrete/uncountable-abstract tendency is consistent with the result of Kobayashi (2008), who analysed the International Corpus of Learner English (ICLE), error-tagged Japanese sub-corpus data and found that Japanese learners ‘tend to have a fixed notion that specific nouns, especially abstract nouns, are uncountable’ (p. 73).

Previous research also shows that being able to visualise a word’s referent is a criterion for countability judgments. That is, when a noun’s referent is visualisable, the noun is regarded as countable, and the indefinite article is used (for singular nouns), whereas when a noun’s referent is not visualisable, the noun is regarded as uncountable and the zero article is used.

For example, White (2010, p. 24) reported that ESL learners (41 Asian learners with article-less L1s, including two Japanese students) favoured the indefinite article for ‘imaginable nouns,’ but disfavored it for non-imaginable nouns. In the same way, they favoured using the zero article for non-imaginable nouns (i.e. abstract nouns), but disfavored its usage before imaginable nouns. Young (1996) also showed the effect of the noun type on the choice of English articles. Although the participants of White’s (2010) study were mainly Korean (out of 41 participants, only two were Japanese), the result seems applicable to article-less-Japanese ESL learners. Butler (2002, p. 469) quoted a participant in her study, ‘I don’t know whether or not you can count something that you cannot see [emphasis added], such as feelings and time. I don’t think they can be counted, but I sometimes see them used with a. So I don’t know what to do’. This quotation seems consistent with the result of White’s (2010) study.

Although anecdotal, another illustrative example comes from Matsui’s (2000) study.
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The student used 'a big dog' while visualising the concrete image of the dog that had bitten the student (i.e. I was bitten by a big dog when I was a child) (p. 31). On the other hand, the same student used dog (the zero article + singular dog) when referring to dogs in general (i.e. 'I don't like dog very much, especially big dog'). Similarly, Matsui (2000, p. 24) reported that when another student did not have a concrete, visualisable image of a specific foreign country in mind, the student wrote, 'live in foreign country' when referring in general to foreign countries.

This research indicates a relationship between whether learners can visualise a noun's referent and whether learners regard a noun as countable and use the indefinite article (or the zero article).

3. 4. Japanese learners' tendency to regard something non-specific as uncountable

Based on anecdotal evidence, many previous studies suggest that learners tend to regard something referred to generally as uncountable (Butler, 2002; Hiki, 1996; Master, 1994; Matsui, 2000). For example, Butler (2002, p. 470) quotes a student directly addressing English article selection: 'I judge whether [a noun] is countable or not based on the context. When it refers to something as a whole, then it should be uncountable'.

This approach is not incorrect in itself, and many linguists who are native English speakers seem to think the same way. For example, Whitman (1974, p. 261) says nouns 'without an article are abstractly understood; if a noun is to refer to a real thing, it must have an article. Thus book, by itself, is really “book-concept” or “book-abstraction,” and a book is something that you can hold and read'. Similarly, Jones (1997, p. 49) says, 'If I speak of "examination" without an article, this simply indicates the general procedure which includes all and every kind of examination; an examination by implication selects a special type or kind of examination which, we infer, will be suitable for carrying out the particular operation already decided upon'.

As the illustrative examples of the students in Matsui (2000) indicate, students may use the zero article plus a singular noun (instead of the zero article plus a plural noun) to refer to something in general even after they have come to use the indefinite article to refer to a concrete, individuated entity (e.g. 'I was bitten by a big dog' vs. 'I don't like dog very much, especially big dog' from p. 31). Matsui's examples are consistent with those of White (2010, p. 26), who reported that when Japanese learners mistakenly regard an abstract countable noun (typically referring to something general) as uncountable, they tend to use the zero article for the referent irrespective of whether it is definite. (Master (1995) reported that approximately 90 percent of errors produced by advanced learners consisted of either the incorrect use of the zero article for either the or a(n), or of the incorrect use of the for the zero article).

3. 5. Japanese learners' tendency to be unable to apply the concept of 'boundedness' when making countability decisions about abstract nouns

As many linguists suggest, 'boundedness' (e.g. whether the referent has individuated or discrete/indivisible interpretations) is considered to determine English noun countability. Since concrete objects have clear boundaries, Japanese learners make relatively accurate decisions about countability when the noun is concrete. On the other hand, when the noun is abstract, Japanese learners have difficulty judging countability correctly (Butler, 2002; Hiki, 1990; Ogawa, 2008). Using an editing task, Hiki (1990) found that L2 English learners made most number of errors in countability judgment on abstract nouns (e.g. education and height—both used as countable nouns). As Butler (2002, pp. 466, 471) points
out, Japanese learners seem to have difficulty in making countability judgments on abstract nouns because abstract nouns refer to 'indivisible entities' that are neither 'bounded' nor 'individuated'. This situation seems to explain the result of Ogawa's (2008, p. 146) study, in which EFL learners failed to perceive the appropriate countability of abstract nouns according to their contexts.

It is often explained that even a typical count noun is used as an uncount noun when the thing it refers to is converted into a homogeneous substance by using the universal grinder (Pelletier, 1979) (cf. "After I ran over the cat with our car, there was cat all over the driveway", Langacker, 1987, p. 67). However, this mechanism only works for concrete nouns and does not work for abstract nouns which have no defining shape or boundary. Thus, Kodera (2004, p. 53) points out that the idea of the universal grinder 'does not bear much importance in the analysis of the countability of nouns' because this idea is not generally applicable to abstract nouns. He also added that 'even in the cases of count nouns, the application of the universal grinder is essentially restricted to the area of food'.

Apart from the general tendency to regard something non-specific as uncountable (see Section 3.4), students do not have any particular criteria for making countability judgments in the case of abstract nouns. Therefore, it may be that repeated exposure to English nouns is considered to help Japanese learners develop count/uncount distinctions, it is a time-consuming process. Probably, this is why even advanced learners have difficulty in the count/uncount distinction, especially in the case of abstract or mass nouns.

It may be relatively easy for Japanese learners to use the zero article for mass nouns (e.g. when referring to foods like rice or milk) because they can store information on 'countability preferences' (Allan, 1980) and make the countable/uncountable distinction accordingly. However, Japanese learners usually have difficulty judging countability for abstract nouns correctly. Therefore, regarding abstract nouns, 'the countable/uncountable distinction must be learned on an item by item basis' (Takahashi, 2006, p. 119).1

4. Conclusion

It is often said that Japanese learners face difficulty in making countability distinctions. Surprisingly, little attention has been paid to analysing the criteria used by Japanese learners in making countability judgments. Moreover, Japanese learners' criteria for countability judgments have not been integrated into a larger picture. Therefore, the present study reviewed previous research and summarised the following criteria:

(1) Japanese learners (especially during early stages of language acquisition) tend to regard English noun countability as fixed; they then make countability judgments based on their 'fixed notion' of English countability.
(2) Japanese learners tend to regard concrete or visualisable entities as countable and abstract entities as uncountable.
(3) Japanese learners tend to regard something that can be generalised (i.e. something non-specific, something abstract) as uncountable. Therefore, they may use the zero article before a typical count noun when it refers to something abstract or general. This indicates the need to teach the use of the zero article and plural forms to refer to something (concrete) in general. Due to their inability to judge countability correctly for abstract and mass nouns, Japanese learners tend to use the zero article for these
nouns irrespective of whether the referent is definite.

(4) As Japanese learners become more proficient, they realise that some nouns can be both countable and uncountable depending on the context. Even so, the criteria, such as whether the referent is 'indivisible' (neither 'bounded' nor 'individuated'), are difficult to apply to abstract nouns. The application of these criteria (including 'universal grinder') is mainly restricted to food.

In addition to these criteria, Japanese learners (especially during the early stages of language acquisition) may depend on memorised chunks, knowledge of collocational patterns and a stored list of countable/uncountable nouns. Furthermore, for abstract nouns, it is almost impossible to devise a simple rule to account for the countable/uncountable distinctions. Therefore, the best, most practical way to judge the countability of abstract nouns would be to learn the countability (preference) of each abstract noun, together with its contextual meaning on an item-by-item basis.

Note

1. It may be possible to argue that students have difficulty in the count/uncount distinction in the case of abstract nouns because they have to learn the countability of abstract nouns on an item-by-item basis.

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