# English Loanwords in Japanese: What Loanwords Mean vs How Loanwords are Used

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#### Abstract

Researching the lexical semantics of loanwords can reveal what changes have happened to the words as they move from one language to another. The data produced from such analyses can be beneficial to language learners who may encounter words in the target language which are already familiar in one (or more) of their known languages. In order to research the semantic change of English words which have been borrowed into Japanese, the traditional approach has been to rely on the intuition of the researcher or a small group of research participants. The development of large-scale corpora, and the tools necessary to query these corpora, allow this traditional approach to be replaced by empirical analysis of natural language data. This article reports on a comparison of data on the semantics of loanwords produced by introspection, with that produced by a corpus analysis. The results show that introspective data may be an ineffective and unreliable way of investigating semantic change.

# Introduction

When English words are taken into the Japanese language and become loanwords, 英 語外来語/eigogairaigo, they commonly 'do as the Romans do' and take on similar behavioural traits to other lexical items in the Japanese language. They are likely to be written in katakana script, modified phonologically, grammatically and morphologically, and their meanings may also undergo adaptation. The orthographical, phonological, morphological and grammatical modifications are largely predictable, but the semantic adaptations are typically word-specific. Investigating how English words may differ in their semantic associations when used in Japanese compared to English can be of particular importance in issues of language education. For Japanese-speaking learners of English (JSLOE) and English-speaking learners of Japanese (ESLOJ), the appearance of target-language words that are familiar in a previously learnt language may be facilitative to the learner, depending on the extent of formal and semantic similarities that can be established between the word pair (Ringborn, 2007a, 2007b).

The question then arises about how to best research the lexical semantics of English words in Japanese. There are two principal methodological approaches to gaining the data needed for such an analysis: (1) data gained through introspection, and (2) data gained through empirical analysis. The former is the most frequently adopted method in the literature concerning English loanwords in Japanese (Daulton, 2008, 2011; Dougill, 2008; Hyde, 2002; Irwin, 2011; Stanlaw, 2004), and primarily involves an intuition-derived statement of opinion as to the meaning(s) of loanwords. This article reports on some of the central weaknesses inherent in adopting such an approach, and puts forward an alternative method of research which utilises the large-scale power of corpus analysis techniques that focus on how the loanword is actually used in natural language.

# Background

Much of the literature concerning the lexical semantics of English words in Japanese relies on data produced by introspection (see Daulton, 2008; Irwin, 2011; Stanlaw, 2004 for typical examples), both from the researcher and, less commonly, through informant's introspection (e.g. the results of a survey given to a group of research participants). The problem with this introspective data is that it is difficult to judge its reliability; introspective data rarely comes with details of where, how, why, and when the data was produced. For this reason, the data may be nothing more than the subjective personal opinions of the researcher or participant group. Compounding the issue is the fact that introspective data is usually limited to the intuitions of a single individual, or possibly a group of people (such as a class of students), and these inevitably small-scale observations may do little to represent the larger-scale realities of the language in use.

Until recent years there has been no realistic alternative to investigating semantic change through the use of introspective data. It is only with the recent advancement in the construction of corpora, and the systems used to query them, that a different methodology has become a realistic option for the researcher. Especially in the case of the Japanese language, Japanese corpora have been slow to develop (Erjavec, Erjavec, & Kilgarriff, 2008). The only Japanese corpus that is in anyway comparable to the British National Corpus is the Balanced Corpus of Contemporary Written Japanese (BCCWJ), started in 2006 and completed in 2011, meaning this resource was not available to

Daulton (2008), Irwin (2011), or Stanlaw (2004) when they were conducting their research. For the following linguistic analyses, the jpTenTen11 corpus of 10 billion words of web-based Japanese was chosen because of its English-interface within the Sketch Engine corpus query system, its massive scale, and its hybridity in nature, being somewhere between a written and a spoken corpus.

### Methodology

In order to illustrate the problems inherent in an introspective view of how the meaning(s) of English words change when they become loanwords in Japanese, two case studies are conducted using loanwords listed in Irwin (2011). In an intricately detailed and informative study of loanwords in Japanese, Irwin briefly discusses semantic change to loanwords in the chapter about morphology, morphophonology and semantics. He states that "during the borrowing process, or thereafter, semantic shift may occur. The most common types of shift are narrowing and broadening" (2011, p. 154), and goes on to give several examples of each semantic shift variety. However, his data is seemingly produced only through his own intuitions about what loanwords mean in the Japanese language, and how these may have a shifted meaning when compared to their English originals. A question arises as to how much we can rely on this introspective data. In other words, is what Irwin says about how loanwords have been modified from their English counterparts true?

To answer this question, two examples are investigated from Irwin's instances of loanwords that have had their meaning *narrowed*: (1)  $\forall \exists - \exists \land /jy\bar{u}su/juice$  which is defined as narrowed in meaning to 'fruit juice', and (2)  $\exists \neg - \exists \land /b\bar{o}nasu/bonus$  which is defined as narrowed in meaning to 'extra wage payment' (2011, p. 154). The following analysis compares the data given by Irwin, gained through introspection, with that from the jpTenTen11 corpus analysis, focusing on actual language in use. The function used to investigate how loanwords are used in this corpus is the collocation analysis that lists out the top ranked collocates, based on a user-selectable range of association measures. The association measure used to rank the collocates is the LogDice coefficient, the recommended association score developed by the Sketch Engine team.

# Findings

### *Case Study One:* ジュース/jyūsu/juice

Irwin (2011, p. 154) states that ジュース /*jyūsu*, adapted from English juice, has been narrowed from the original and now only refers to 'fruit juice'. Before conducting the corpus analysis, a Google Image search for ジュース/*jyūsu* suggests that, unlike Irwin's introspective assumption, this loanword can also refer to vegetable juice, such as carrot juice. This finding is then supported with data drawn from the 10 billion word *jp*TenTen11 corpus which shows that the top 5 collocates of the loanword ジュース/ *jyūsu* (which has a corpus frequency of 18.8 per million) are: オレンジ/orenji/orange, ジュース/*jyūsu* /juice, トマト/*tomato*/tomato, 野菜/*yasai*/vegetable, and グレープフルー *ツ/gurēpufurūtsu*/grapefruit. If we remove the self-collocate of ジュース/*jyūsu*/juice, we find that half refer to fruit juice, and half to vegetable juice. This reveals that, contrary to Irwin's introspective assumptions, ジュース/*jyūsu*/juice has not been strictly narrowed to 'fruit juice'.

### Case Study Two: ボーナス /bōnasu/bonus

Irwin (2011, p. 154) states that ボーナス/bōnasu, from English bonus, has been semantically narrowed to mean only 'extra wage payment'. A Google Image search shows, however, that this loanword seems to also be used in reference to special sales offers and rewards in computer games, suggesting that it has not in fact been narrowed to only referring to extra wage payments. A collocation analysis with the jpTenTen11 corpus supports this by showing that the top five collocates are: トラック/torakku/track, ボーナス/bōnasu/bonus, 支給/shikkyū/wage, 払い/harai/payment, and 盤/ban/edition (disk). Again, if we remove the self-collocate, we are left with two collocates which refer to 'extra wage payment' but also two, including the top ranking collocate, which refer to bonus tracks/disks related to music. Furthermore, the association score of the top ranking collocate トラック/torakku/track (10.005 using the LogDice coefficient) is far above the others in the list (the second collocate in the list has a score of 8.989), showing that in this corpus by far the most frequent usage of ボーナス /bōnasu is in relation to music, not a wage payment.

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# **Discussion and Conclusion**

While these two analyses do not suggest that the loanwords are semantically identical to their English language counterparts, they do show that introspective judgements about what loanwords mean in a language may fail to reflect the realities of the actual usage of the words in natural language. In order to better make judgements about what semantic changes have happened to the loanwords, it would be informative and revealing to take a list of the collocates of the loanword and compare the semantic groupings of these collocates with a list of collocates for the English language counterpart of the loanword, generated from a related web corpus of the English language. A comparison of the respective common semantic groupings would better reveal how the loanword semantically compares to its English original, and in turn this corpus-informed data would be beneficial to Japanese-English language education.

The two case studies above demonstrate the power of a corpus linguistics approach to investigating lexical semantic change. Rather than relying on introspection about what words mean, which has been the traditional approach and is not only small-scale but may in fact turn out to be false, we can turn to large-scale empirical analyses of language in use to better inform semantic changes to words as they move from one language to another.

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