Direction of Translation from English to Japanese

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Translation of written texts from English to Japanese, which poses numerous challenges because of the contrasting word order of the two languages, may be facilitated by right-to-left processing of the original sentence. One drawback of this method is that students may become reliant on processing English in this manner and therefore be less inclined to read English in its natural order. A further disadvantage of processing English from right to left is that it encourages learners to process the text visually rather than phonologically. Their mental representation of the text may be in Japanese rather than English. A questionnaire was given to 115 Japanese university students to elicit their experiences of translation and their preferences for the direction of translation. Many of them believe right-to-left translation helps achieve a detailed and accurate understanding of the text but limits their acquisition of other essential English skills.

英語と日本語は、語順が余りにも違いすぎるために、翻訳する際には語順を逆転させて訳すことが容易な方法だと考えられている。しかし、この方法には欠点がある。それは、学生たちが英語のテキストの語順を逆転させることにばかり気を取られて、英語本来の語順に注意が向かなくなることである。そして、この語順を逆転させる翻訳法は、読んで理解する傾向を助長し、英語を耳から聴いて理解することを妨げてしまう。則ち、テキストが心の中では、英語ではなく日本語でイメージされるのである。115名の大学生を対象とした彼らの翻訳経験に関する調査結果から、我々は翻訳指導への示唆を得ることが出来る。大学生たちは、英語の本質的な言語技術の習得には限界があるにも関わらず、語順を逆転させて翻訳することが、テキストをより正しく、より詳細に理解することにつながると信じているのである。

RANSLATION IS a common requirement for students studying English in Japan. However, it poses particular difficulties because the two languages have contrasting word order. In 1873, Baba Tatsui, the first scholar to complete a textbook of Japanese as a Foreign Language, considered the linguistic difference between English and Japanese to be so great that it would be a huge imposition of time if all Japanese had to learn English (Heinrich, 2012). There are considerable linguistic differences between the two languages, but the one we are most concerned with in this paper is word order. "The order of [Japanese] words and clauses is frequently the reverse of English order" (Neustupny, 1987, p. 171). Although the subject comes at the beginning of the sentence in both languages, English needs a verb before the object, whereas Japanese requires the object to come first. English has prepositions, whereas Japanese has postpositions. Kuno (cited in Odlin, 1989) outlined how Japanese and English differ in terms of the direction in which relative clauses branch, Japanese branching left of the noun and English branching to the right. These differences in word order are



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the main source of the conundrum of how best to approach translation between the two languages.

Right-to-left translation is a term used to describe English-to-Japanese translations that begin at the end of the sentence and progress left towards the beginning of the sentence, in order to better approximate Japanese word order. On the other hand, left-to-right translation uses English word order, starting at the beginning of the sentence and moving towards the end. The right-to-left method is known in Japan as kaeriyomi (Kato, 2006). Another similar method is yakushiage, which means to process the end of the sentence before returning to the beginning (Akaida, 2009). Kato (2006) explained that it is common for translations from English to Japanese to start at the end of the sentence and proceed to the beginning because it is more efficient. Right-to-left translation does not mean that the entire sentence is simply processed from right to left. Rather, it means that each phrase within the sentence is translated from right to left. This paper is an analysis of the advantages and disadvantages of translating from right to left and the implications this has for students learning English.

Furthermore, we must not lose sight of the main goals of English language education. The Ministry of Education, Culture, Sports, Science and Technology (MEXT) has set the following targets: By the end of junior high school students should be able to comprehend spoken and written basic English, understand the speaker's and writer's intentions, as well as speak and write about their own views using basic English, and by the end of senior high they should be able to accurately understand and convey information and intentions in English (MEXT, 2011, p. 6). Translation should be used in a way that supports MEXT's objectives.

Advantages of Translating from Left to Right Preserving the Rhythm of English

An obvious advantage of translating from left to right is that the English is read in its natural order, thus preserving the intrinsic rhythm of the text. Beggs and Howarth (cited in de Guerrero, 1994) illustrated the process of thinking in a language, known as inner speech, as "a reconstruction of the prosody of language" (p. 98). Prosody is a linguistic term used to "describe the rhythmic and tonal aspects of speech: the 'music' of oral language" (Hudson, Lane, & Pullen, 2005, p. 704). In English, the rhythm of the words in a sentence helps convey meaning. Masuhara (2007) stressed the importance of prosody for children learning to read L2 English explaining, "Prosodic features mark old and new information. The children learn to differentiate implicit messages from the intonation, tone and pitch" (p. 19). It is the rhythm of a sentence that helps anchor the words in the reader's mind.

Reading in Chunks

Another advantage of translating from left to right is that readers absorb stretches of text at a time, rather than processing individual words. "A good reader takes in the sense of a whole chunk without pausing to consider the individual words" (Nuttall, 1996, p. 55), and translating from left to right suggests that this reading strategy is being implemented. Even though reading word by word is still common in Japan, as far back as 1922, Harold Palmer, who was asked by the Japanese government to promote the teaching of English, considered that "reading should be as fluent or natural as speaking or hearing, not the word for word puzzling out of meaning" (Masukawa, 1978, p. 246).

Advantages of Translating from Right to Left

Although it may seem counter-intuitive to process English from right to left, the fact that it is widely practised in Japan indicates there must be advantages to this approach. Among them is that translating from right to left helps achieve an accurate translation. Kato (2006) explained that reading by starting at the back of the sentence and progressing towards the beginning facilitates translation into Japanese. Japanese university professors interviewed by Nobetsu (2012) supported this finding, saying they felt they achieved a more natural Japanese text when they translated from right to left. Furthermore, they stated that right-to-left translation was necessary for sentences containing relative pronouns. The following example demonstrates the differing word orders:

The cheese that the rat ate was rotten. *Nezumi ga tabeta cheese wa kusatte ita* rat ate cheese rotten was (Kuno, cited in Odlin, 1989, p. 97)

As mentioned previously, English relative clauses branch to the right, so the information that modifies the noun *cheese* (i.e., *that the rat ate*) comes after the noun. In Japanese, however, the equivalent clauses branch to the left, meaning the information that modifies the noun (*Nezumi ga tabeta*) precedes the noun (*cheese*). Hence, right-to-left translation may be the easiest way to translate a relative clause into Japanese.

In particular, reading an English relative clause from right to left facilitates an accurate Japanese translation, because it better approximates the Japanese word order. Researchers studying machine translation at Kyoto University analysed computer translations of a travel conversation corpus and found "left-to-right decoding degrade[s] the quality of translation," concluding "the right-to-left

direction is suitable for languages [such as Japanese] which enforce stronger constraints at the end of a sentence" (Watanabe & Sumita, 2002, p. 4).

Disadvantages of Translating from Right to Left Interference with the Development of Inner Speech

The practice of reading from right to left, even if some learners believe it is necessary to obtain an accurate translation, may be counter productive. Inner speech is an essential process in second language acquisition. De Guerrero (1994) explained that "functionally, inner speech appears to be, first and foremost, the medium for the formation, expression, and development of verbal thought" (p. 85). She highlighted the prevalence of inner speech for L2 learners, as it was experienced by 84% of the participants in her study. Tomlinson and Avila (2007a) explained that for L1 speakers of English, it is first necessary to organize one's thinking in terms of inner speech before realizing this as outer speech, which is then used to communicate one's thoughts to others. Tomlinson and Avila (2007b) also argued that L2 speakers need to be given opportunities to practise their L2 inner speech before being required to speak publicly in English.

Translation and reading from right to left encourage L1 rather than L2 inner speech. If too much classroom and homework time is devoted to translating or reading from right to left, it is likely that the majority of the inner speech is occurring in the L1, arguably disrupting the development of L2 inner speech. De Guerrero (1994) found a correlation between proficiency and the experience of hearing English in the students' minds, either that of themselves, their interlocutor, or their professor. In the Japanese EFL context, proficiency, as promoted in the MEXT guidelines, would be more readily fostered by mentally processing English in its natural order, rather than processing it from right to left. Students cannot attain fluency by processing English from right to left in their inner speech.

Disruption of Phonological Awareness

In reference to L1 reading acquisition of English, Sousa (2005) indicated that the code used to store written expressions is phonological: "Phonological coding skills are crucial for using and developing the ability of working memory to store representations of written words" (p. 49). A word is sighted, then decoded according to its phonemes, after which the visual form of the word is processed and the corresponding concept is retrieved. Sousa explained this by highlighting the areas of the brain that are activated for each step of spelling, pronunciation, and meaning (pp. 56-57). Because the words are decoded phonologically, acquisition of the spoken form first is essential: "How well and how quickly a child learns to read even common words depends a great deal on how well that child has acquired and practiced spoken language" (p. 59). Bradley and Bryans (1983) identified a causal connection between phonological awareness and learning to read L1 English and in particular highlighted the role of rhyme and alliteration: "[L1] children who are backward in reading are strikingly insensitive to rhyme and alliteration" (p. 419). Devoting significant class time to translating from right to left means that development of phonological awareness and the awareness of rhyme and alliteration are bypassed. Fostering phonological awareness needs to be integrated into the process of learning to read English.

L1 reading is characterized by a rapid movement from spelling to sound. "It takes only twenty or thirty milliseconds of word viewing for our brain to automatically activate a word's spelling, [and] an additional forty milliseconds for its transformation into sound" (Dehaene, 2009, p. 29). Clearly, L2 learners of English would also benefit from being able to rapidly convert spelling into sound in order to progress to fluent reading, and this requires the text to be in its natural order.

Transforming spelling into sound stands in contrast to the way Japanese read their own language. Akamatsu (1998) highlighted the fact that Japanese kanji do not contain phonological informa-

tion, nor are the intra-word components of kanji phonologically analysed, as they are in English: "Japanese ESL learners are less efficient in amalgamating alphabetic symbols into speech units" (p. 20). Moreover Koda (cited in Akamatsu, 1998) argued that Japanese learners are "less sensitive to visually accessible phonological information than those with an alphabetic L1 background" (p. 20). Each kanji is an ideogram that signifies a unit of vocabulary such as a noun, adjective, or verb, and students must memorise the meaning and pronunciation of each one. It is possible that students transfer this habit of rote memorisation to their L2 learning of English, meaning that the decoding processes necessary for reading English may be different for these students who are accustomed to reading kanji.

Research Study

Nobetsu's (2012) interviews with Japanese university lecturers showed that many of them believe there are clear advantages of translating from right to left, but the actual prevalence of this right-to-left method of translation has never been investigated. We surveyed a group of university students to find out

- 1. their preference for direction of translation, and
- 2. the prevalence of right to left translation.

A questionnaire was given to 115 students from two faculties at a public university in western Japan and the response rate was 100%. All students were from English classes, comprising both compulsory and elective classes. Responses were completed in class. The questions asked specifically about their experience of translation and their preferences regarding the use of translation to learn English. They were also asked to write comments about the method of translation. The questionnaire was administered in Japanese and was designed to be completed within 15 minutes.

Results

Students were asked about how they were taught in middle school and in high school and if they had a preference regarding the direction of translation. Table 1 lists the (translated) questions and the students' responses.

Table 1. Questionnaire Results (N = 115)

Question	% of student responses
Q1: Did you translate English	Translate from right to left: 32%
into Japanese from right to left, or from left to right in middle school?	Translate from left to right: 68%
Q2: Did you translate English	Translate from right to left: 22%
into Japanese from right to left, or from left to right, in high school?	Translate from left to right: 78%
Q3. Do you prefer to translate English into Japanese from right to left, or from left to right?	Translate from right to left: 20%
	Translate from left to right: 80%
Q4: Do you rely on Japanese to comprehend written English?	Comprehend English with Japanese: 77%
	Comprehend English without Japanese: 23%
Q5: Do you need to translate when studying English?	Need a translation: 86%
	Do not need a translation: 14%

The survey showed that the students overwhelmingly relied on translation when they were studying English (Q5) and, interestingly, a majority of the students, 80%, said they currently preferred to

translate from left to right (Q3). This is in contrast to their professors who, as mentioned earlier, said they achieved a more natural translation if they translated from right to left. One third of the students, though, said that they translated from right to left when they were in middle school, but the number decreased when students were in high school.

Students were also asked to write comments about the direction of translation. Tables 2 and 3 contain a selection of translated responses.

Table 2. Student Comments About Right-to-Left Translation

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Advantages of translating from right to left	Disadvantages of translating from right to left
Ease of translation	Confusion
 It's a fast and simple way to assemble the sentence. Isn't this the easiest way to translate when you first learn English? I can think in Japanese. You can get a close approximation of Japanese grammar. 	 The important information is at the beginning of the sentence, so [translating from right to left] means that the important information is received too late. It's hard to locate the pronoun. It is harder to become familiar with English. It is unrelated to listening and speaking It has no connection with the improvement of listening and speaking.

Advantages of translating from right to left	Disadvantages of translating from right to left	Advantages of translating from left to right	Disadvantages of translating from left to right
Speed and accuracy	Position of subject	Processing English in English	Loss of accuracy
 I understand it accurately. I can produce high quality Japanese. I can translate quickly. When the important point comes at the end, you have to redo the translation. The subject and verb come at the end so it's hard to form a mental picture. Takes too long When you try to read quickly it takes longer than reading from left to right. 	 You can read English without translating it into Japanese. It's the same as the way English is spoken. 	The translation becomes approximate.You ignore the details of the structure.	
	form a mental picture. Takes too long When you try to read quickly it takes longer than reading	 You can understand the gist. Enjoyment It looks more enjoyable. 	 Difficulty of understanding It's different from Japanese, so it's hard.

Table 3. Student Comments about Left-to-Right Translation

Advantages of translating from left to right Speed and ease of translation	Disadvantages of translating from left to right Difficulty of translation
 You understand the subject and verb straight away. It's easy to read because the important parts come first. It's suited to reading quickly. 	 It's necessary to perform the task of returning it to Japanese word order. Sometimes you can no longer understand where to break it up (i.e., the sense groups)

Discussion

Students indicated that the advantages of translating from right to left (see Table 2) are principally the ease of translation, the similarity to Japanese, and speed and accuracy. The disadvantages they mentioned are confusion, the fact that it differs from native usage, the position of the subject, and the time it takes. Those who think that it is easier explained that this method better approximates Japanese word order, but their comments show that perceptions are divided according to whether translating from right to left is useful or confusing.

Students responded that the advantages of translating from left to right (see Table 3) included the speed and ease of translation, processing English in English, and enjoyment. The disadvantages of translating from left to right included the difficulty of translation, the loss of accuracy, and the difficulty of understanding the meaning. Evidently some students found left to right translation easy while others found it difficult. This suggests individual variation in the effectiveness of translating in this order, arguably related to students' proficiency.

One of the most serious problems of translating from right to left is that it promotes the acquisition of reading in isolation from other skills. Right to left translation may hinder acquisition of speaking, listening, and writing skills because these skills involve processing English in its natural order. MEXT policy is to promote the integrated teaching and testing of all four skills. However, high school teachers, in particular those teaching 3rd-year students, feel bound to continue their emphasis on translation because the entrance exams for prestigious universities such as Kyoto University contain complicated translation questions (N. Nakada, personal communication, June 23, 2014). MEXT recognises the quandary teachers face, stating

English entrance exams in universities do not always aim at English skills required by the global community including speaking ability. The entrance exams must be modified so as to involve not only listening and reading skills stipulated by the Courses of Study but also speaking and writing, with all the four skills tested at (*sic*) proper balance. (MEXT, 2011, p. 13)

Translating from right to left implies that students are reading from right to left and this may inhibit their L2 acquisition of English. Reading from right to left would involve translating each word into Japanese and holding it in the mind until the whole sentence has been translated. The result is that the Japanese equivalents rather than the original English words are being held in the mind. As mentioned earlier, students in our survey listed ease of translation, similarity to Japanese, and speed and accuracy as advantages of processing English sentences from right to left, suggesting that they do not process the text phonologically.

Even if, as some students emphasised, the meaning of a text can be processed more easily and accurately from right to left, it is still being mentally processed in Japanese, which may lead the students to have a false sense of achieving English proficiency simply because they have understood a difficult text. A sense of accomplishment from having produced a translation of a difficult text may cause students to overlook the necessity of phonological processing, which is essential for listening and speaking.

Conclusion

The teaching of a linguistically distant language is a demanding exercise. Traditionally, right-to-left translation was probably the most appropriate for students because they mainly encountered English in its written form. However, current opportunities to use English as a communication tool both in person and through electronic media have multiplied and the traditional practice of translation from right to left is unlikely to be beneficial for those who need to learn English for authentic communicative purposes.

Nevertheless, because of the contrasting word orders of English and Japanese, an accurate translation may be best achieved by right-to-left translation. It may be recommended for tasks that do not necessarily require phonological processing, such as translation of complex literary texts or complex grammatical structures such as relative clauses.

Even though the main aim of most high school students is to pass the university entrance exams, they also expect that the English they learnt at school will be useful after graduation. It is unlikely that right-to-left translation will become a practical lifelong skill, so currently the competing requirements of passing examinations and usefulness are in conflict. Overuse of translation when learning to read discourages the development of inner speech in English, resulting in a continuing dependence on L1 inner speech.

Left-to-right translation encourages students to think in English, hence aiding development of the other skills of listening, speaking, and writing, all of which can only follow left-to-right order. These skills are an essential part of the official MEXT aim of developing English proficiency. Perhaps it is time for universities to create examinations that test, and therefore encourage the teaching of,

communicative English skills that would both benefit students after graduation and aid cross-communication at the upcoming 2020 Tokyo Olympic Games.

Bio Data

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References

- Akaida, T. (2009). *Neitibu mitai ni yomu! Eigo. 'Kaidoku' toreeningu.* [Read English like a native: Reading comprehension training] Tokyo: Seibido.
- Akamatsu, N. (1998). L1 and L2 reading: The orthographic effects of Japanese on reading in English. *Language*, *Culture and Curriculum*, 11(1), 9-27.
- Bradley, L., & Bryans, P. (1983). Categories of sound and learning to read: A causal connection. *Nature*, *301*, 419-421.
- de Guerrero, M. C. M. (1994). Form and functions of inner speech in adult second language acquisition. In J. Lantolf & G. Appel (Eds.), *Vygotskian approaches to second language research* (pp. 83-115). Westport, CN: Ablex Publishing.
- Dehaene, S. (2009). *Reading in the brain: The new science of how we read*. New York: Penguin Books.

- Heinrich, P. (2012). *The making of monolingual Japan: Language ideology and Japanese modernity.* Bristol, UK: Multilingual Matters.
- Hudson, R. F., Lane, H. B., & Pullen, P. C. (2005). Reading fluency assessment and instruction: What, why, and how? *The Reading Teacher*, 58, 702-714.
- Kato, K. (2006). Daigaku ni okeru eigo riidingu: eigo no 'tadoku' koosu to 'yakudoku' koosu [English reading course in college: Translation method or extensive reading]. Bulletin of the Faculty of Literature Aichi Prefectural University, 55, 87-99.
- Masuhara, H. (2007). The role of proto-reading activities in the acquisition and development of effective reading skills. In B. Tomlinson (Ed.), *Language acquisition and development: Studies of learners of first and other languages* (pp. 340-363). London: Continuum Press.
- Masukawa, K. (1978). The oral method: A critical survey. In K. Koike, M. Matsuyama, Y. Igarashi, & K. Suzuki (Eds.), *The teaching of English in Japan* (pp. 242-255). Tokyo: Eichosha.
- MEXT (2011). Five proposals and specific measures for developing proficiency in English for international communication (provisional translation). Retrieved from http://www.mext.go.jp/component/english/__icsFiles/afieldfile/2012/07/09/1319707_1.pdf
- Neustupny, J. (1987). *Communicating with the Japanese*. Tokyo: The Japan Times.
- Nobetsu, C. (2012). *Learners' perspectives on the effectiveness of translation in the EFL classroom* (Unpublished thesis). Tokushima University: Tokushima, Japan.
- Nuttall, C. (1996). *Teaching reading skills in a foreign language*. Oxford: Macmillan.
- Odlin, T. (1989). Language transfer: Cross-linguistic influences in language learning. Cambridge: Cambridge University Press.
- Sousa. D. (2005). *How the brain learns to read*. Thousand Oaks, CA: Corwin Press.
- Tomlinson, B., & Avila, J. (2007a). Seeing and saying for yourself: The roles of audio-visual mental aids in language learning and use. In B. Tomlinson (Ed.), *Language acquisition and development: Studies of learners of first and other languages* (pp. 61-81). London: Continuum Press.

Tomlinson, B., & Avila, J. (2007b). Applications of the research into the roles of audio-visual mental aids for language teaching pedagogy. In B. Tomlinson (Ed.), *Language acquisition and development: Studies of learners of first and other languages* (pp. 82-89). London: Continuum Press.

Watanabe, T., & Sumita E. (2002). Bidirectional decoding for statistical machine translation. *Proceedings of the 19th International Conference on Computational Linguistics*, 1, 1-7. http://dx.doi.org/10.3115/1072228.1072278