Comparison of Consciousness by Language Choice
A pilot study by association method

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“The Limits of My Language Mean the Limits of My World”
Ludwig Wittgenstein

1. Introduction
When we think, we naturally think by means of language. The language we employ is, in most cases, our mother tongue. However, our linguistic associations, even our world view, may be different when we are asked to think in a second language. Lévi-Strauss (1966: 2) points out that “the delimitation of concepts is different in every language”, an echo of the rather bombastic, and oft-cited quotation from Wittgenstein (1922: 119) above. This also reflects the view of Sapir (1933: 27) that differences in vocabulary make it impossible in one language to express ideas that one can easily express in another. This is, to a large extent, the “hard” interpretation of linguistic relativity posited by Whorf (1956). This view has since been modified by many social linguists, such as Chaika (1989: 263), who proposes that “it is easier to express some ideas in one language rather than another.” This weaker version of the Whorf hypothesis, that language does not determine thought, but that there are “cultural differences in the semantic associations evoked by seemingly common concepts” (Kramsch, 1998: 13), is regarded as the more orthodox view these days.

This study sets out to study differences in associations by comparing responses in an association test by Japanese University students, responding to cue words in Japanese, and on a different day, their English equivalents.

2. Background
Over the past decade, Kamizono has carried out several efforts to shed light on explicit differences and similarities in a thinking sphere, as evoked by a concept in different cultures. This thinking sphere, expressed by words, logically and grammatically ordered into sentences, can be seen as a field of knowledge, thinking and feelings, which contribute to word usage and lexical definition. Examination of this lexico-semantic area might reveal how the mind deals with not only first, but also second languages.

To access the basic field of language, we can use an association method as a means of clarifying the structure of a thinking field around a given concept. The
linguistic associations can gather many connections in the form of words within a thinking sphere, which are not yet ordered as sentences. By the association method we can see concretely the linguistic as well as cultural differences and similarities about a concept.

The concept <ijime (bullying)> for example is different in Germany, Malaysia and Japan. In Germany <Qual (bullying)> means mainly pain (42.3% of respondents), torture (32.7%) and injury (21.2%). But in Malaysia <bullying> is bad (19.3% of respondents) and what children (10.8%) and gangsters (10.8%) do. In Japan <ijime> is combined with school (39.4% of respondents) and suicide (23.2%) (Kamizono, 2003a: 16-19 & 23-24). This is followed by sad (15.2%) and bad (15.2%) as the third most frequent responses. These differences in recall from a seemingly common concept in each cultural area reveal that word construction and image are different in each cultural area.

Moreover the construction of a concept can change as time goes by in one culture according to the experiences of a nation. In Japan the construction of the concept ijime changed in the second half of the 1980s, after the second peak of bullying-related suicides in schools (Kamizono, 2003a: 20-25). This shift in the thinking sphere suggests us that the boundaries of language and society can also change as the basic field of language shifts.

The concept <school> seems to have, in contrast with ijime, a rather common structure throughout the world. German students recall from the concept <School> teachers (71.7%), studying (37.7%), pupil (34.0%), children (24.5%) blackboard (22.6%), lecture (22.6%) and free time (22.6%) (Kamizono, 2003b: 21). Malaysian students recall from <School> teachers (81.9%), students (41.0%), books (38.6%), chairs (28.9%), friends (28.9%), tables (25.3%) and studying (20.5%) (Kamizono, 2003b: 22). Similarly, Japanese students respond to <School> with teachers (49.5% of respondents), studying (47.5%), friends (44.4%), happy (31.3%), and pupil (23.2%) (Kamizono, 2003b: 18). These responses, accounting for over 20 percent of respondents, are of high frequency. School is a place to study with teachers in the company of fellow pupils. This definition of school is common in Germany, Malaysia and Japan.

In the case of death consciousness in Germany, China and Japan by association method, there are differences of characteristics of word construction evoked by the word death. In Germany the number of response words concerning ‘ceremony’ and ‘explanation’ about death is significantly greater in comparison with the other two cultural areas. Response words in China in the category ‘affair’ and ‘others’ are significantly more frequent. In Japanese response words ‘feelings’, ‘affair’ and ‘cause’ of death are significantly more (Kamizono, 2009:10). Japanese people tend to react by emotional words to death. The construction of the thinking field about death seems to depend on culture, as suggested in the quotation from
Kramsch (1998) cited in the introduction to this paper.

These similarities and differences in the thinking field raised by a concept, lead us back to the following question: does learning a second language mean obtaining the same thinking sphere as a native speaker of the second language or does the thinking sphere remain equal to that of one’s mother tongue. If the latter is true, the second language is used to shift the meanings of the mother tongue into the second language. However in this case, a native speaker of that second language could potentially misunderstand the words as belonging to another thinking sphere. Nevertheless, the authors believe that the purpose of English education in Japan should be communication and cultural awareness, and not the inculation of students into a different way of thinking, achieving what Canagarajah (1999: 2) describes as “to reconstitute [English] in more inclusive, ethical and democratic terms”.

The comparative research by Kamizono so far has always been carried out between different cultural areas. This research makes a comparison in a same cultural area between second language and mother tongue at the level of the thinking sphere. The purpose of this pilot study is to shed some light on what it means to learn a second language in terms of the thinking sphere.

For this purpose we used Japanese students in the English course and Japanese students in the General Education course. The respondents to the English association questionnaire were mostly third-year students in the Faculty of Education at Nagasaki University. All students responding in English were taking a course which was a required component for obtaining their English teacher’s license. Therefore, the level of English competence of the respondents is relatively high. Those responding in Japanese were drawn from many different areas of specialisation.

3. Methodology

During the first week of the first semester (April 2009), 36 English major students and 153 General Education majors carried out association tests to ten cue words, with a 50-second response time to each word. As the number of English major students was insufficient, a further 25 carried out the test in April 2010, and about 20 more will be tested in November 2010. In this way, the results of the first 80 English majors and the results of the first 80 General Education majors can be analysed for the purpose of a future, and more complete study. Respondents could write as many responses as they wished within the allocated time. The responses to cue words were then calculated and displayed statistically in Excel. An association map (using a method developed at Nagasaki University by Itoyama, Fujiki and Kamizono) for each cue word was produced displaying the results of the class as a whole. Common responses (i.e. those by which many students
responded), come near to the centre of the association map. The words at the edge of circle indicate a response by only one person. The results, and the association maps they produced, were then compared.

4. Results

Though a total of ten cue words were administered on both occasions, this pilot paper will deal with a small subset (two in English, two in Japanese) of cues and associations, and serves largely as a means of testing the applicability of the methodology and gauging the potential of this approach to applied linguistics. The full data set will form part of a future study.

4.1 Japan /

Respondents in the group of English majors were invited to write down all of the words that came to mind from the cue word <Japan>. The map below (Fig. 1), shows their responses, with the most frequent at the centre.

In the General Education group students gave their responses to the word <日本>. Figure 2 shows their results. The most common response is basically the same. 42% of the English majors and 53% of the General Education gave "island" or its equivalent "島" or "島国", reflecting a strong consciousness of Japan's state as an island nation. Though this is the most common response in both groups, the difference in percentage is significant, suggesting a reduced tendency to view Japan as an isolated country when thinking in English. More interestingly, among

![Figure 1: Association map by the cue word <Japan> by English course students](image-url)
the respondents in the Japanese test “日の丸” was the second most common response, accounting for 32%. This response (for example “flag” or “rising sun”) did not occur at all in the English test. Two respondents, however, did give both “white” and “red”, and were perhaps thinking of the colours of the flag when writing their associations. The second most common response among the English group was “Japanese”, accounting for 36% of responses. It is slightly difficult to compare directly here, however, as Japanese can refer to both the language and the people. 26% of the Japanese group gave either “日本語” (16.3%) or “日本人” (9.8%).

Slightly puzzlingly, a further 8.5% responded with “Japan” in either romaji or katakana. 30.6% of the English group responded with “sushi”, compared with just 9.8% of the Japanese group, perhaps reflecting something of what they imagine as an outsider’s view of a typically Japanese food (the most common food-related responses to <日本> were “和食” and “米”).

4.2 Foreigner / 外国人

One of the most interesting aspects resulting from this cue was that only 6.8% of total responses to the cue <foreigner> referred to physical attributes, such as “black people”, “blue eyes” and “tall” (see figure 3). There was a much greater emphasis on the international nature of non-Japanese, such as “language”, “culture” and “overseas”, and in the activities they might typically carry out in Japan, such as sightseeing. In contrast, while response words such as “異文化” and “英語” were very common, 25.5% of responses to <外国人> focused on physical
5. Conclusions and Further Study

It is clear, even from this small subset, that language does play an important part in our thought processes. Responses made in English showed a less ethnocentric and more objective and international attitude. There was a tendency to view Japan as though from the outside, and to see it as part of the world community, rather than as an isolated nation. Furthermore, there was less recourse to stereotypes when responding in English, especially as regards their concept of foreigners. While there is not enough evidence here to suggest a move into the thinking sphere of native English speakers, there is, at least to some extent, evidence of Chaika (1989) and others’ view that language choice does play a part in the expression of ideas.

Clearly, this is merely a pilot study to test the methodology, and produce some preliminary results. Further study is required, involving the lexical categorization of responses. For example, it would appear that there were far more adjectival responses to the word <外国人> than to the word <foreigner>. The Japanese data set for this study is quite large, whereas the English set is much smaller, reflecting the difficulty of obtaining data from respondents of a sufficiently high language level. More English language data needs to be collected in order to create more
evenly balanced sets. At that stage, this pilot study can be expanded, and researched in greater detail.

Figure 4: Association map by the cue word <外国人> by general education course

Bibliography

Kamizono, K. 2009. “Death consciousness in Germany, China and Japan be association method”, Bulletin of Faculty of Education Nagasaki University: Educational Science No.73, pp.1-16
Kamizono, K. 2005a. “Variation of associated words from a stimulus word <die> by time span”, Bulletin of Faculty of Education Nagasaki University: Educational Science No.69, pp.1-10, Japanese
Kamizono, K. 2003a. “Comparative Research of Consciousness about Bully in Germany, Malaysia and Japan - Survey of Students in Osnabrück, Penang and Nagasaki by Association Test - “, Bulletin of Faculty of Education Nagasaki University: Educational Science No.64, pp 13-27, Japanese