

**UNDERSTANDING HUMOUR FROM ANOTHER CULTURE:
COMPREHENSION OF PARENTAL BRAIN TWISTERS
BY JAPANESE UNIVERSITY STUDENTS
LEARNING ENGLISH AS A
SECOND LANGUAGE**

Katsuo TAMAOKA and Toshiaki TAKAHASHI

Matsuyama University and Yamaguchi University, Japan

To establish the relationship between a facilitative contextual factor and reading ability, the present study investigated the comprehension of humorous “parental brain twisters” in cross-cultural ESL situations as related to English proficiency. Japanese ESL students were able to translate the sentences of parental brain twisters from English to Japanese, but this does not mean they actually understood their contexts. While there was no significant difference in translating English among the three ESL student groups, which were divided by their English proficiency, a significant difference was found in the students’ understanding of their humorous contexts. Since all lexical items in the sentences were equally well understood by all three groups, students with better English proficiency were more sensitive to context. This result further suggests that a higher level of English proficiency includes understanding of social and cultural context, as well as a knowledge of English.

Humour is typically grounded in a cultural and social context. Therefore, an understanding of humour often requires more than a knowledge of the language in which the humour is written. In learning/teaching situations of English as a second language (ESL), it is frequently observed that although students can intellectually comprehend the meaning of humorous sentences, they cannot actually sense why they are funny. This difficulty in humour comprehension could be caused by a lack of prior knowledge concerning its social and cultural context.

Some evidence shows the great difficulty involved in understanding humour which comes from culturally and socially unfamiliar contexts. For example, the following American ethnic joke (Knott, 1983) regarding the “typical” Mexican immigrant demands an in-depth knowledge of a negative stereotype which is based in American culture. “Why do Mexicans drive low-riders? So they can cruise and pick lettuce at the same time.” Because low-riders are perceived as machismo cars, a typical owner would be a young, single, probably working class male with little education. The word “cruise” means drive, but it also refers to a well-known pastime of young North American men who spend their weekend evenings driving about city streets in search of female company. The stereotype of the joke is that of a hard-living, macho young man out cruising for a girl. Because he is a Mexican and

* Requests for reprints should be sent to Katsuo Tamaoka, College of Business Administration, Matsuyama University, 4-2 Bunkyo-cho, Matsuyama 790, Japan.

therefore automatically assumed to be a lettuce-picker, he naturally chooses a low-rider so that he can cruise and work at the same time. By supplying only a few cues—Mexicans, low-riders, lettuce—the joke evokes images with which the listener must already be familiar and which originate in specific American ideas concerning Latino immigrants.

Another example of an ethnic joke (Knott, 1983) is more difficult for Japanese ESL students to comprehend. “Did you hear about the Italian engineer who invented a car so energy-efficient it didn’t need any gas at all? It’s called the Ronzoni Downhill.” To understand this joke, the students must be familiar with Italian names and the way in which an English-speaker could skew their pronunciation. The name of the car, “Ronzoni”, has a double meaning: a would-be Italian surname and “runs only”. Although most Japanese ESL students have no problem in comprehending all the words in the sentences, jokes like these cannot be semantically understood by listeners who have little familiarity with the social and cultural context which produced them.

A similar situation is also observed in some humorous advertisements (Link, 1992). An airline company paired a familiar expression, “Stop by the House anytime.” with a picture of the White House, to advertise frequent flights between New York and Washington, D. C. With the commonly-used friendly idiomatic expression of welcome, the house should be understood as both a home and the White House in Washington. In another advertisement (Link, 1992), the Miller beer company used a semiotic headline: “Think 1st this 4th.” The message cautions readers not to drink too much during the approaching patriotic holiday. However, most Japanese readers were puzzled by the meaning of this numeric expression, not knowing that “4th” stood for the fourth of July, America’s Independence Day. As such, the understanding of an unwritten social, cultural and historical context is often required to comprehend the humorous word-play in many advertisements.

Since Japanese ESL students can easily understand all the words used in the above-mentioned jokes and advertisements, bottom-up processing (or data driven processing) failed to account for the mechanism of understanding them. Thus, the prior knowledge of a social and cultural context plays an important role in the processing of jokes and advertisements: both bottom-up and top-down (or concept driven) processing should interact to produce the understanding of socially- and culturally-dependent sentences. This is particularly true when bottom-up processing fails to reach the meaning of a written text in the case of culturally-dependent humorous sentences. Then, top-down processing will take a major compensatory role in the comprehension of context from the semantic perspective.

Parental brain twisters (Groening, 1990) used by English-speaking parents when disciplining their children (e.g., “If all your friends jumped off the cliff, would you jump too?”) were employed in the present study because they are closely related to North American cultural and social attitudes. Since most Japanese-speaking parents do not discipline their children in this manner, Japanese ESL students, who had little experience of these expressions while growing up, had great difficulty in

comprehending why they are funny. Nevertheless, due to the easy lexical expressions used in the sentences, it was assumed that Japanese ESL students could easily translate them into Japanese. However, it was also assumed that they would encounter difficulty in understanding the humour due to a lack of comparable experiences in their own childhoods.

Thus, to establish the relationship between a facilitative contextual factor and reading ability, the present study investigated humour comprehension of parental brain twisters with subjects in cross-cultural situations of ESL as related to English proficiency.

METHODS

Subjects:

Thirty-nine undergraduate students from Matsuyama University in Japan were selected according to their scores on an English comprehension test. The students were divided into three groups of high ($M=32.38$), medium ($M=28.38$) and low ($M=22.54$) English proficiency for an equal proportion of 13 students in each group.

Stimulus Items:

From a book by Groening (1990), 12 cartoons of parental brain twisters were used as stimulus items (see details in Table 1). The cartoons featured short sentences such as "Do as I say, not as I do", which were uttered by the parent. Each scene depicted a child's face responding to the words of its parent with a variety of expressions such as puzzlement, crying or wonderment. In the study, image and text were not separated so that subjects could use the facial expressions of the children as cues to the meaning of the text.

Procedure:

Each scene of the parental twisters was presented to 39 selected Japanese university students who had studied ESL at the university. They were asked (1) to translate the short sentences in the 12 scenes of parental brain twisters and (2) to explain why these sentences were funny. Translation and comprehension of humour for each scene were separately scored based on a 2 point-scale: '0' was a wrong answer, '1' was an acceptable answer and '2' was a perfect answer.

RESULTS

The result of a 2 (understanding level) \times 3 (English proficiency level) ANOVA indicated that the difference between understanding levels of translation ($M=28.00$) and humorous context ($M=19.18$) was highly significant [$F(1, 36)=355.85$, $p<.001$]. This result suggests that the students were able to translate the sentences of parental brain twisters from English to Japanese, but it does not mean they really understood their contexts. Therefore, a surface level of English understanding may not be enough to comprehend the attached cultural and social context.

The English proficiency level was also significant [$F(2, 36)=6.96$, $p<.01$]. This suggests that the level of English ability affects the understanding of parental brain twisters. Furthermore, the scores for translation and the understanding of humorous context were considered separately (see details of the means in Fig. 1). Among the three ESL student groups, there was no significant difference in translating English sentences of parental brain twisters into Japanese, but a significant difference was found in the students' understanding of their contexts [$F(2, 36)=26.96$, $P<.01$].

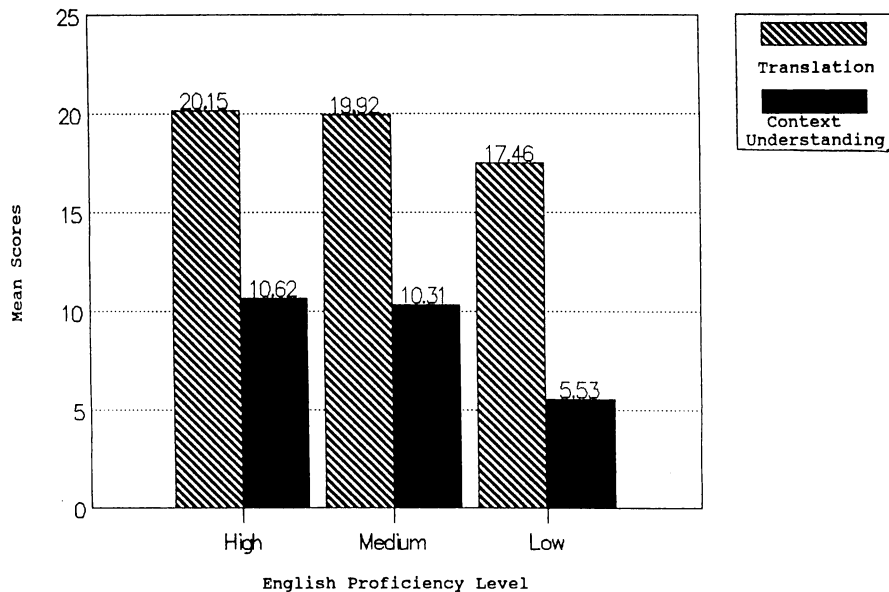


Fig. 1. Means of scores in translation and context understanding as a function of English proficiency.

Multiple comparisons showed that a difference was found only between the groups with low English proficiency ($M=5.53$) and those with high/medium English proficiency ($M=10.62$ for high and $M=10.31$ for medium).

Further analysis was conducted per item for discrepancies between translation and contextual understanding. The percentages of complete correct answers (2 points) in each item are shown in Table 1 and graphically drawn in Fig. 2. A larger discrepancy (larger than 50%) was found in items #2, #5 and #11. All these items involve the image of being spanked by a parent or of being hurt in some way. For example, in the case of item #2 "Someday you'll thank me for this.", "this" refers to a spanking by a parent. In much the same way, item #5, "This hurts me more than it hurts you" also includes "this" as a spanking by a parent. In Japanese child-rearing, corporal punishment, such as spanking or some form of hitting, is not the norm and Japanese children are likely to be free in their behaviour and manners, so that it could be hard to imagine "this" as a spanking. Item #11, "If that's the worst pain you'll ever feel, you should be thankful." does not imply a spanking, but it does indicate that the child has been hurt by something. In this sentence, the parent shows no sympathy for the child, although the child expects it. The irony lies in this unexpected attitude from a parent. In Japanese society, parents seldom resort to this type of irony. Thus, it could be much harder to imagine these scenes for those Japanese ESL students who have had little experience with this type of parental behaviour.

A smaller discrepancy (smaller than 30%) was found only in item #7, "If all your friends jumped off the cliff, would you jump too?" The significance of this parental

brain twister is expressed directly and can be easily inferred from the written text: there is no need to use a semantic top-down approach to comprehend it. Item #9, "If you keep sucking your thumb, it'll fall off." Which showed just over 30% of discrepancy,

Table 1. Percentage of Complete Correct Answers for Translation and Context Understanding of Parental Brain Twisters

Item #	Parental Brain Twisters	Percentage Correct		
		Trans.	Cont.	Discrepancy
1	Do as I say, not as I do.	84.6%	53.8%	30.8%
2	Someday you'll thank me for this.	87.2	30.8	56.4
3	I'm only doing this because I love you.	84.6	35.9	48.7
4	I hope you have a kid just like yourself.	87.2	38.5	48.7
5	This hurts me more than it hurts you.	84.6	17.9	66.7
6	Are you sure you're telling the truth? Think hard.	69.2	20.5	48.7
7	If all your friends jumped off the cliff, would you jump too?	76.9	43.6	33.3
8	If you keep sucking your thumb, it'll fall off.	48.7	30.8	17.9
9	Does it make you happy to know you're sending me to an early grave?	48.7	12.8	35.9
10	If you keep making faces, someday it'll freeze that way.	51.3	15.4	35.9
11	If that's the worst pain you'll ever feel, you should be thankful.	76.9	17.9	59.0
12	Why are you crying? Stop crying or I'll give you something to cry about.	56.4	25.6	30.8

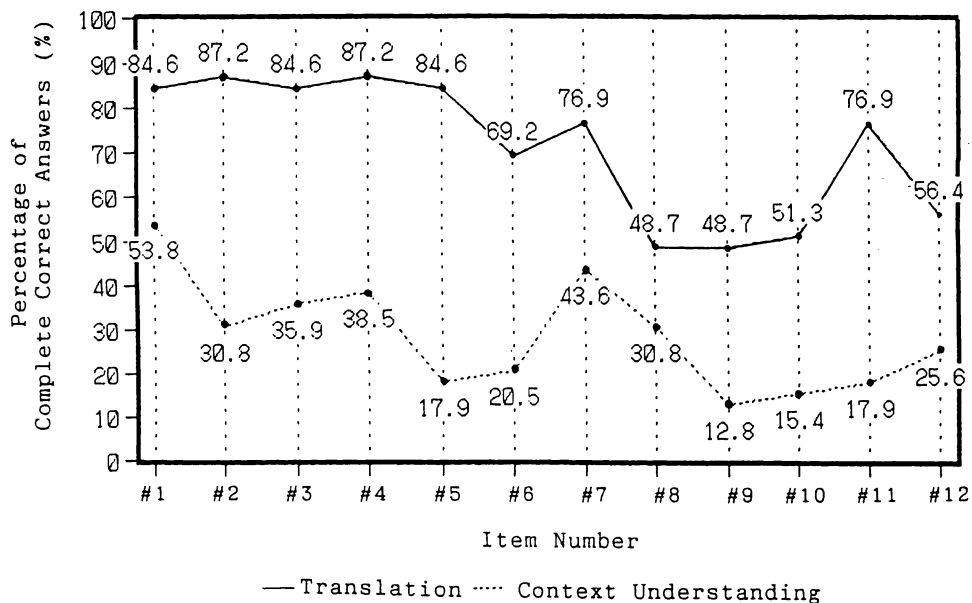


Fig. 2. Percentage of complete correct answers in translation and context understanding of English humour sentences.

is also comprehensible from its written text. It seems that if a sentence containing the parental brain twister is transparent enough to allow readers to imagine its situation, Japanese ESL students can get its contextual message, but if it is not as easy to imagine, students tend to have more difficulty in understanding its humorous meaning. Since there was a significant difference in contextual understanding among the three student groups, as graphically indicated in Fig. 1, this tendency is more obvious among students with low English proficiency.

DISCUSSION

The present study indicated that a simple translation from English to Japanese in parental brain twisters was performed equally well by three English proficiency groups of Japanese ESL students. However, the students with low English efficiency could not handle the contextual comprehension of humorous sentences as well as the high and middle groups of English proficiency. Since all lexical items in the sentences were equally well understood (or translated) by all three groups, the results indicated that students with better (middle and high) English proficiency were more sensitive to context. This result further suggests that a higher level of English proficiency includes an understanding of social and cultural contexts, in addition to the knowledge of English. This idea is further supported by the large discrepancy between each item's scores for translation and contextual understanding which indicated difficulties for Japanese ESL students of low English proficiency in comprehending contexts from socially and culturally different settings.

Clipperton and Leong (1985) conducted a study of different forms of humour: pictorial humour (cartoons) and verbal humour (riddles and jokes). The study revealed that both grade and reading skills are influential factors in comprehending humour. A similar study involving reading proficiency (Leong & Carrier, 1986) was repeated using lexical, surface and deep ambiguities. The poor readers experienced difficulties with sentential ambiguity, especially deep structural ambiguity in sentences such as "The mayor asked the police to stop drinking." This example could be interpreted as "The major asked the police to forbid (someone's) drinking." or as "The major asked the police themselves to quit drinking." Because this somewhat humorous and deep structural ambiguity is described by simple words, a deeper level of language awareness should be involved in comprehending sentences, but this seems to be deficient among poor readers. Consequently, the present study, which found that Japanese ESL students of low English proficiency had difficulty with contextual understanding of humorous sentences rather than with surface level lexical understanding, supports this previous finding from the perspective of a cross-cultural situation.

In relation to an individual knowledge base, some psychologists (Chi, Hutchinson & Ribon, 1989; Scribner, 1986; West & Stanovich, 1991) emphasize that prior structured knowledge plays an important role in determining processing efficiency. Using the Author Recognition Test and Magazine Recognition Test, in

which subjects received a list of popular authors/magazines and were asked to mark those which they recognized, Stanovich & Cunningham, (1992) demonstrated that differential exposures to print have significant correlations with measures of vocabulary, cultural knowledge, spelling ability and verbal fluency (see Stanovich & Cunningham, 1992; Stanovich & West, 1989; West, Stanovich & Mitchell, 1993, items in the checklists).

Assuming that print exposure reflects a unique individual structured knowledge, it suggests that top-down processing using the domain knowledge facilitates reading comprehension interactively with bottom-up processing of the lexical items in a sentence. Employing this framework of the interactive compensatory model of reading proposed by Stanovich (1980; 1981), the present study also indicated that if the bottom-up processing of lexical items fails to access the context of the parental brain twisters, the top-down processing from the use of domain knowledge compensates for the difficulties of the bottom-up processing in comprehending the context of humorous sentences.

On the other hand, some previous studies (e.g., Simpson, Lorsback & Whitehouse, 1983; West & Stanovich, 1987) indicated that less skilled readers are more likely to rely on context than skilled readers. However, due to the lack of domain knowledge, less skilled readers may try to synthesize information only through the lexical items presented in a sentence. Less skilled readers cannot utilize the top-down processing as well as skilled readers. This may be one of the reasons that rapid word recoding training for poor readers was not markedly successful in the improvement of reading comprehension (Fleisher, Jenkins & Pany, 1979; Spring, Blunden & Gatheral, 1981), which thus cannot be a good predictor of English understanding for Japanese ESL students (Tamaoka & Takahashi, 1992), although rapid recoding is necessary for reading comprehension (Tamaoka, Leong & Hatta, 1991 & 1992 for Japanese-speaking children, and Haines & Leong, 1983, Leong, 1987 for English-speaking children).

If so, although teaching English in Japanese high schools and universities mostly emphasizes the grammar-translation method (see Berns, 1990 for a comparative study of an English teaching method in Japan, India and West Germany), a domain knowledge of English-speaking social and cultural context should be included in the English teaching materials for Japanese ESL students in order to interactively compensate reading comprehension with the bottom-up processing of written items. The present study suggests that Japanese ESL students of low English proficiency cannot efficiently utilize a culture and social knowledge base for context comprehension. Consequently, the contextual approach to English teaching should receive more emphasis for teaching ESL students, especially those with low English proficiency.

REFERENCES

- Berns, M. 1990. *Context of competence: Social and cultural considerations in communicative language teaching*. New

York: Plenum Press.

- Chi, M. T. H., Hutchinson, J. E., & Robin, A. F. 1989. How inferences about novel domain-related concepts can be constrained by structured knowledge. *Merrill-Parlmer Quarterly*, 35, 27-62.
- Clipperton, R. C., & Leong, C. K. 1985. *Language awareness and humour comprehension in skilled and less skilled readers*. Saskatchewan School Trustees Association (S.S.T.A.) Research Center Report. Regina, Saskatchewan, Canada: S.S.T.A.
- Fleisher, L. S., Jenkins, J. R., & Pany, D. 1979. Effects on poor readers' comprehension of training in rapid decoding. *Reading Research Quarterly*, 15, 30-48.
- Groening, M. 1990. *The big book of hell*. New York: Pantheon Books.
- Hains, L. P., & Leong, C. K. 1983. Coding processes in skilled and less skilled readers. *Annals of Dyslexia*, 33, 67-89.
- Knott, B. 1983. *Totally tasteless*. New York: Ballantine Books.
- Leong, C. K. 1987. *Children with special reading disabilities*. Amsterdam: Swets & Zeitlinger.
- Leong, C. K., & Carrier, J. C. 1986. Readers' comprehension of ambiguous sentences. *Scientia Paedagogica Experimentalis*, 23, 218-233.
- Link, L. J. 1992. *Rhetorical devices in print advertising: Analyzing the secrets of headlines from 50 print advertisements*. Tokyo: Kenkyusha.
- Scribner, S. 1986. Thinking in action: Some characteristics of practical thought. In R. J. Sternberg & R. K. Wagner (Eds.), *Practical intelligence* (pp. 13-30). Cambridge: Cambridge University Press.
- Simpson, G. B., Lorsback, T. C., & Whitehouse, D. 1983. Encoding and contextual components of word recognition in good and poor readers. *Journal of Experimental Child Psychology*, 35, 161-171.
- Spring, C., Blunden, D., & Gatheral, M. 1981. Effect on reading comprehension of training to automaticity in word-reading. *Perceptual and Motor Skills*, 53, 779-786.
- Stanovich, K. E. 1980. Toward an interactive-compensatory model of individual differences in the development of reading fluency. *Reading Research Quarterly*, 16, 32-71.
- Stanovich, K. E. 1981. Attentional and automatic context effects in reading. In A. M. Lesgold & C. A. Perfetti (Eds.), *Interactive processes in reading* (pp. 241-267). Hillsdale, NJ: Erlbaum.
- Stanovich, K. E., & Cunningham, A. E. 1992. Studying the consequences of literacy within a literate society: The cognitive correlates of print exposure. *Memory & Cognition*, 20, 51-68.
- Stanovich, K. E., & West, R. F. 1989. Exposure to print and orthographic processing. *Reading Research Quarterly*, 21, 360-407.
- Tamaoka, K., & Takahashi, T. 1992. Can efficiency of English word decoding be a good predictor of English ability for Japanese students? *ARELE*, 3, 43-52.
- Tamaoka, K., Leong, C. K., & Hatta, T. 1991. Processing numerals in Arabic, Kanji, Hiragana and Katakana by skilled and less skilled Japanese readers in grades 4-6. *Psychologia*, 34, 200-206.
- Tamaoka, K., Leong, C. K., & Hatta, T. 1992. Effects of vocal interference on identifying Kanji, Hiragana and Katakana words by skilled and less skilled Japanese readers in grades 4-6. *Psychologia*, 35, 33-41.
- West, R. F., & Stanovich, K. E. 1978. Automatic contextual facilitation in readers of three ages. *Child Development*, 49, 717-727.
- West, R. F., & Stanovich, K. E. 1991. The incidental acquisition of information from reading. *Psychological Science*, 2, 325-330.
- West, R. F., Stanovich, K. E., & Mitchell, H. R. 1993. Reading in the real world and its correlates. *Reading Research Quarterly*, 28, 35-50.

(Manuscript received April 8, 1994)