Selective attention to contextual information in Japan

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Recent studies have demonstrated that people in Western cultures tend to attend primarily to an object, whereas people in Eastern cultures tend to attend to the entire field, which consists of both the object and its context. Two of the tasks that have been used in this literature are of interest because the cognitive operations involved in these tasks appear to be largely automatic and relatively detached from semantic world knowledge (which is demonstrably different across cultures).

To begin with, the relative attentional attunement to context for Easterners has been shown with a vocal Stroop task. Specifically, Ishii, Reyes, and Kitayama (2003) showed that in comprehension of emotional utterance Americans more spontaneously attended to verbal content than to paralinguistic cues (i.e., vocal tone), whereas Japanese and Filipinos more spontaneously attended to paralinguistic cues than to verbal content. Moreover, a conceptually consistent pattern of findings has been obtained in a completely non-social domain. Kitayama, Duffy, Kawamura, and Larsen (2003) found that Americans were more accurate than Japanese when they had to judge the absolute extent of a line stimulus while ignoring its surrounding frame. In contrast, Japanese were more accurate than Americans when they had to judge the relative extent of the same line by comparing it with the height of the surrounding frame. The present study examined whether the attentional attunement to context, demonstrated for Japanese in these two tasks, could be replicated with new groups of Japanese in a much larger age range. Moreover, we wanted to see if there is any correlation in performance between the two tasks.

Method

One hundred and twenty-eight Japanese who aged 18 – 78 years participated in the study. First of all, participants were asked to engage in a vocal tone Stroop task developed by Ishii et al. (2003). They were exposed to an emotional word (either pleasant or unpleasant in verbal content) that was spoken in either a pleasant or an unpleasant vocal tone, and were to judge the pleasantness of either the word content or the vocal tone while ignoring the other channel. Response time to each utterance was measured. Next, the participants engaged in the framed line test (FLT, see Figure 1) by Kitayama et al. (2003). They were presented with a square frame of varying size, within which is printed a vertical line of varying length. They are then shown another square frame and asked to draw a line that is identical to the first line in terms of either absolute length (absolute task) or proportion to the height of the pertinent squares (relative task). The lines drawn by the participants were measured.

Results and Discussion

In line with the previous evidence, interference by vocal tone ($\underline{M}$ = 105 ms) was significantly bigger than one by the word content ($\underline{M}$ = 73 ms) in the Stroop task, $\underline{p} < .03$. In the FLT, the mean error score in the relative task ($\underline{M}$ = 4.16 mm) was significantly smaller than one in the absolute task ($\underline{M}$ = 7.66 mm), $\underline{p} < .0001$. These effects were not qualified by age. In addition, the amount of interference in the verbal meaning judgment and the mean error score in the absolute task was significantly correlated ($\underline{r}$ = .25), suggesting that the both tasks draw on a common psychological capacity of selectively attending to contextual information. Implications for culture-and-cognition research will be discussed.

References

Ishii, K., Reyes, J. A., & Kitayama, S. (2003). Spontaneous attention to word context versus emotional tone: Differences among three cultures. *Psychological Science*, *14*, 39-46.

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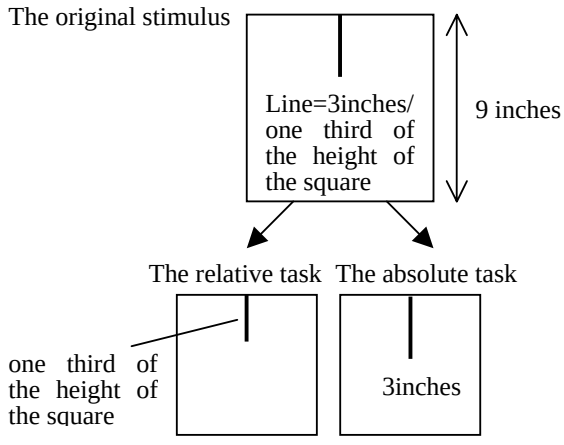

Figure 1: FLT.