

THE INFLUENCE OF MENTAL IMAGERY ON SECOND LANGUAGE MORAL DILEMMAS

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Prior studies found that reading moral dilemmas in a second language (L2) increases utilitarian choices (i.e., sacrificing a few to save many) compared to one's first language (L1). It is argued that mental imagery is less vivid in L2 reading, which decreases immersion and emotional reactions, resulting in an increase in utilitarian choice in moral dilemma tasks. [1]

The current study assessed the influence of mental imagery on moral dilemmas by employing a pretest-posttest design with Japanese (L1) participants who are English (L2) learners. Fifty-four participants were assigned to the experimental group and fifty-eight were assigned to the control group. The experimental group read two English moral dilemmas and answered whether the moral dilemma was acceptable (utilitarian) or not acceptable (deontological) and rated the utilitarian action acceptability on a 6-point Likert scale. Before the posttest, they were exposed to a mental-imagery instruction, where participants were instructed to imagine the scenario while reading. After each decision task, they responded to the Japanese Narrative Transportation Questionnaire (J-NTQ). The control group had the same procedure but without the mental imagery instructions.

The NTQ scores indicated an overall increase in imagery vividness in the posttest of the experimental group; however, there was no such increase in the control group. This result confirms that the imagery manipulation worked as we intended.

The results of the moral decisions showed a marginally significant decrease in the shift of utilitarian choices from pretest to posttest in the experimental group, $\chi^2(1, n = 54) = 3.24, p = 0.07$ (Figure 1). However, there were no significant changes in the utilitarian choice in the control group, $\chi^2(1, n = 58) = 0.18, n.s.$ (Figure 2).

For the change in acceptability rating, the control group showed that those who felt the utilitarian decision to be more acceptable in the posttest also considered the posttest moral dilemma more immersive, $F(1, 56) = 4.75, p < .05, R^2 = 0.16$. This correlation was not observed in the imagery instruction group, $F(1, 52) = 0.11, n.s.$

Figure 1
 Circle Graph of Pretest and Posttest Moral Decisions in the Imagery Condition Group

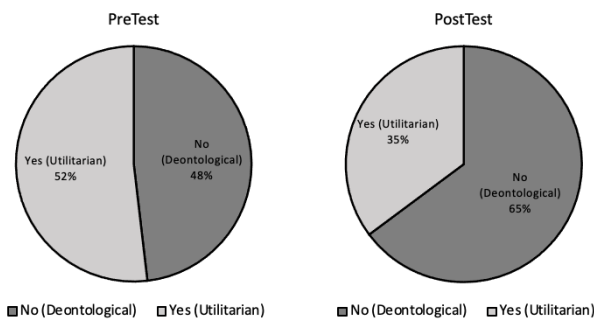
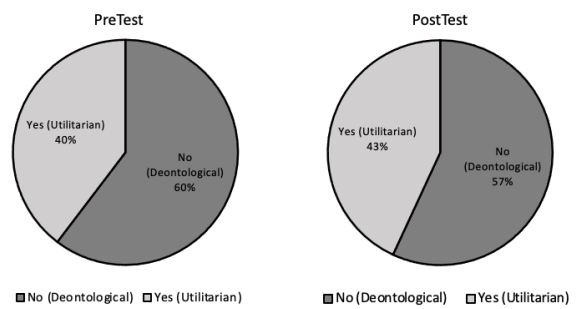


Figure 2
 Circle Graph of Pretest and Posttest Moral Decisions in the Control Group



Our results suggest that prompting mental imagery while reading moral dilemmas in L2 leads to a moderate increase in deontological decision-making. Furthermore, the correlations between the changes in imagery vividness and the acceptability of utilitarian judgment, though expected, appear to suggest that more vivid imagery would lead one more toward deontological inclinations, hence dampening the utilitarian trend.

Reference

[1] Hayakawa, S., & Keysar, B. (2018). Using a foreign language reduces mental imagery. *Cognition*, 173(7), 8-15.