

The Effect of Foreign Language on Moral Decision Making

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Abstract

Would you sacrifice one person to save a group of five people? This kind of moral dilemma juxtaposes deontological ethics against consequentialism. It presents the problem of balancing doing what is right against the common good. Such morality forms the foundation of our identity as citizens. However, does this morality change when the problem is posed in a different language? This has been the focus of recent research into the effects of the Foreign Language Effect on moral judgement (MFLE). This experiment examined whether and how the MFLE affects moral judgement of non-native speakers of English. The findings suggest that foreign language does influence moral decision making. Moreover, there was evidence supporting the hypothesis that a problem presented in a foreign language attenuates cognitive functioning toward the deliberation of consequences rather than blunting the emotional and moral reactions to right and wrong. Such findings have a wider social implication, particularly in an increasingly globalized world where individuals often engage in decision-making involving communication in a foreign language.

Keywords: foreign language effect, psychology, decision making

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Introduction

Would you sacrifice one person to save the lives of five other people? Most people would answer “yes” citing that “the needs of the many outweigh the needs of the few”. Hopefully you will never have to come across a situation where you have to make this kind of choice. However, as a thought experiment, such scenarios offer a glimpse at the tension between individuals’ deontological values—what people hold to be intrinsically right and wrong—and utilitarian choices—actions which promote the greater good. By doing so we can better understand what constitutes “morality”.

Morality is an intrinsic part of our individuality. It guides us in our daily interactions and informs our outlook of the world around us. Yet, how intractable is morality? Though moral choices depend on various contextual factors, it would seem natural to believe that, as long as individuals understand the situation, moral decisions would remain constant regardless of the language being used. However, recent research has demonstrated that foreign language significantly affects moral decision making outcomes. To better understand this, an exploratory study was conducting with Japanese university students studying English.

First and second-year students attending a Japanese university were asked to participate. Based primarily on accessibility (scheduling) and course of study (English language track), a sample size ($n=85$, 95%, CI=-10/10) was determined (43 female, 42male; Mage=18.5, age range=18-19 years). The English level of the participants was determined to be pre-intermediate (CEFR B1, range A1-B2) determined by examining their TOEIC scores (Mscore= 442.6, range 375-575).

Following previous research (Costa, et al., 2014; Geipel, Hadjichristidis, & Surian, 2015), students were presented with versions of the classic trolley dilemma and a modified dilemma in their native language(L1), Japanese and a foreign language (L2), English. One group was assigned to the control group, native language (L1) condition ($n=42$, 21 female, 21 male, Mscore= 441.4), while the remainder were assigned to the foreign language (L2) condition ($n=43$, 21 female, 21 male, Mscore= 442.9). Participants were presented with moral dilemmas (see Appendix A), each with a choice involving the death of an individual in order to save five. The dilemmas were translated and back-translated by native language speakers to ensure consistency. The presentation of dilemmas were counterbalanced, delivered entirely in Japanese (L1) or English (L2). Participants had to choose to do the action and select YES (i.e., but would save five other people. pulling a switch, diverting course) or select NO and do nothing. Participants were also asked to sketch the problem to demonstrate their understanding. Non responses, unintelligible responses or responses with no sketch were removed from the final analysis.

Native language (L1) condition. This group was presented with the trolley problem in their native language and reported similar results (see figure 1) to previous findings (Geipel, Hadjichristidis, & Surian, 2015) . 59% of participants chose to sacrifice the life of one person to save the lives of five others (utilitarian processing, UP) while 41% decided that it was better to do nothing (deontological processing, DP) and let the trolley follow its course ($\alpha=0.89$). Costa et al. (2014) suggested that people struggled with compromising their deontological belief that it is “morally wrong” to take a life (p. 2).

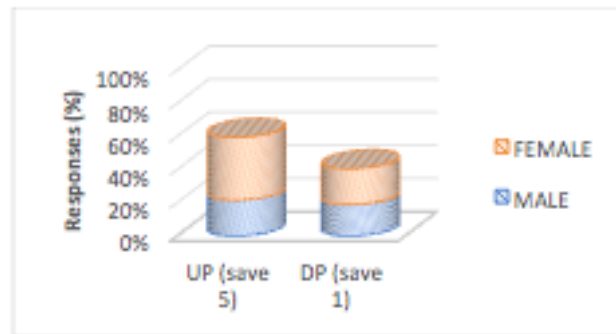


Figure 1 Trolley Dilemma (L1 Condition)

Foreign language (L2) condition. This group was presented with the trolley problem in English, their foreign language (L2). There was a 17 percentile point increase when presented with the same dilemma in a foreign language (L2). 76% of students chose the more utilitarian option of sacrificing one person to save five others, while only 24% chose to do nothing ($\alpha=0.89$, see figure 2). This 17% increase is in-line with other studies. For example, Costa et al. (2014) reported 13 to 26 percentage point increases in utilitarian choices between mother tongue (L1) and foreign (L2) language (p. 3).

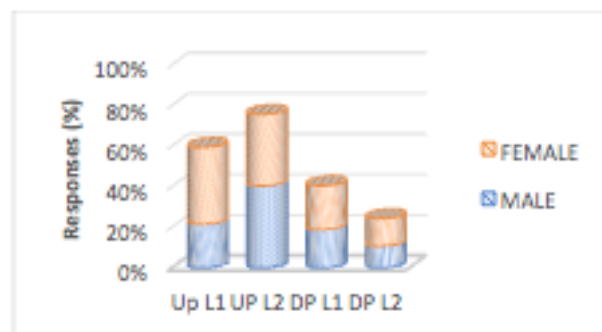


Figure 2 Trolley dilemma (L1 v. L2)

The foreign language condition group was also given an additional moral dilemma to verify that there were no biases associated with the group. The dilemma was a variation of the trolley dilemma and presented in Japanese (L1). Not surprisingly, the group reported similarly to the native language condition, with 62% reporting that they would sacrifice one person to save five others (figure 3).

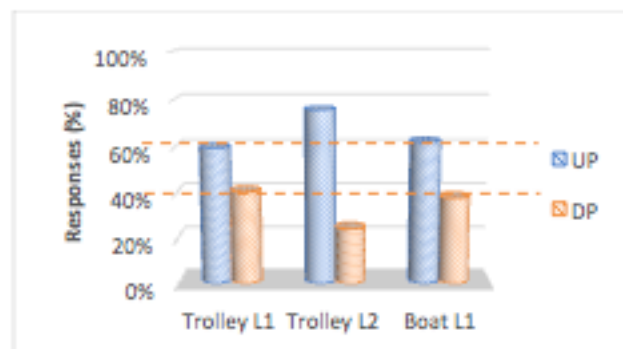


Figure 3 Trolley-Boat Dilemma

Conclusion

This preliminary investigation showed that indeed there was a significant difference ($p=0.022$) between moral decisions when the dilemmas were presented in learners' L1 and L2. Between group analysis showed that the decisions between the control and test group in L1 were quite similar ($p=0.003$). This lends support to the MFLE hypothesis that foreign language affects how individuals process decisions.

It is generally believed that moral judgement is driven by two forces or systems of moral decision making: an automatic almost immediate and intuitive system and a more effortful, slower and evaluative system (Costa, et al., 2014; Dwyer, 2009; Hayakawa, Tannenbaum, Costa, Corey, & Keysar, 2017; Keysar, Hayakawa, & Gyu An, 2012). Deontological choices, such as “do not harm people” are driven primarily by System 1 processes while utilitarian or consequential choices, the idea of “the greater good”, are supported by System 2 processes.

One theory, blunted deontology, suggests that the emotional (System 1) connections and heuristics are dampened when using a foreign language (Geipel, Hadjichristidis, & Surian, 2015; Hayakawa, Tannenbaum, Costa, Corey, & Keysar, 2017; Toivo, 2017; Costa, et al., 2014). This idea that a foreign language has less emotional resonance has been widely studied and supported. Memories are encoded within a linguistic context and is dilated when filtered through a second language (Geipel, Hadjichristidis, & Surian, 2016).

Another theory, heightened utilitarianism, suggests that using a foreign language forces the individual to think in a more deliberative way. There is the notion that the extra cognitive load that results from process a foreign language limits available cognitive resources, resulting in slower, more deliberate and analytic choices (Costa, et al., 2014) (Geipel, Hadjichristidis, & Surian, 2015) (Keysar, Hayakawa, & Gyu An, 2012). There is also the idea of heightened systematicity, which suggests that using a foreign language primes the brain to think systematically (Geipel, Hadjichristidis, & Surian, 2015; Keysar, Hayakawa, & Gyu An, 2012).

Observations and follow-up interviews with randomly selected participants tended to point toward the fact that the decision making process was affected more by either heightened utilitarianism or heightened systematicity, rather than a blunted deontology. In informal follow up interviews with participants, there was general agreement that dilemmas presented in either L1 or L2 were equally difficult in terms of emotion. In addition, during the activity, it was observed that participants tended to take longer when responding in a foreign language (L2) than when using their mother tongue (L1). There was also a general tendency for participants to consult either the instructor or peers when using L2. Participants asked such questions as “Do I know these people?” or “Can I save both?” in L2 but not in L1. In fact, when using L1, participants tended to come to a decision and compare their decisions with those of their peers, where participants wanted more information and sought advice from peers before coming to decision when using L2

Understanding the exact processes involved is the next logical step to understanding and leveraging the foreign language effect. What do individuals notice or focus on between L1 and L2? What regions in the brain are activated? To what degree does

the foreign language effect impact more “real life” problems? These are questions that I hope future research attempts to answer.

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Appendix

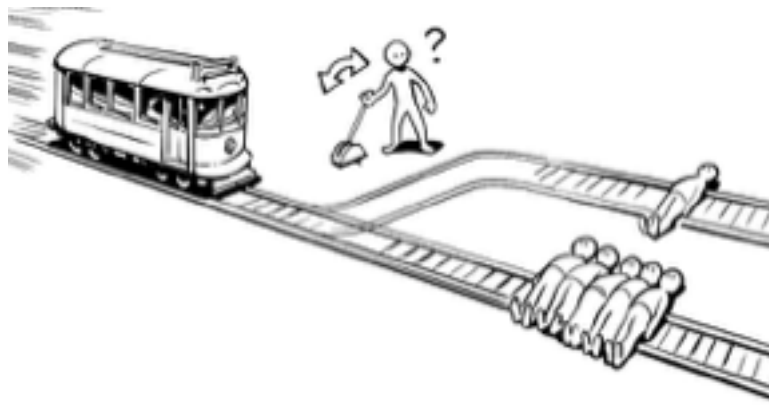
Dilemmas Presented (English version)

Classic Trolley Dilemma

There is a runaway trolley barreling down the railway tracks. Ahead, on the tracks, there are five people tied up and unable to move. The trolley is headed straight for them. You are standing some distance off in the train yard, next to a lever. If you pull this lever, the trolley will switch to a different set of tracks. However, you notice that there is one person on the side track. You have two options:

Do nothing and allow the trolley to kill the five people on the main track.

Pull the lever, diverting the trolley onto the side track where it will kill one person.



Modified Boat Dilemma

A boat carrying flammable material is out of control. It is heading toward a larger boat with five people on board. You have enough time to change the course of the boat away from the five people. However, the change in course means the dangerous boat will crash into a boat yard where there is one person working. You have two options:

Do nothing and let the dangerous boat hit the large boat with five people (The material will definitely explode and the five people will die).

Divert the boat into the boat yard (The material will definitely explode and the person working there will die).