Razi University

Technology Assisted Language Education

ISSN: 2981-1465

Homepage: https://tale.razi.ac.ir

Sex differences in utilitarian versus deontological judgments in the second language

Elyas Barabadi[1], Mohsen Rahmani Tabar[2], Fatemeh Chasetareh[3], James R. Booth[4], Sahar Tabatabaee Farani[5], Mousa Mahmoudzehi[6]

[1]Coresponding author, Department of Foreign Languages, University of Bojnord, Bojnord, Iran. Elyas.ba1364@gmail.com

[2]School of Psychology, Speech and Hearing, University of Canterbury, Christchurch, New Zealand Mohsen.rahmanitabar@pg.canterbury.ac.nz

[3]Department of Foreign Languages, University of Bojnord, Bojnord, Iran. fatemeh.chasetareh95@gmail.com

[4]Department of Psychology and Human Development, Vanderbilt University, Nashville, TN, USA. james.booth@vanderbilt.edu

[5]Department of English Language and Literature, Khayyam University, Iran. s.tabatabaee@khayyam.ac.ir

[6]Department of Historical Linguistics, Velayat University, Iranshahr, Iran. m.mahmoudzehi@velayat.ac.ir

Article Info

Article type:
Research Article

Article history:
Received February 18, 2026
Received in revised form March 24, 2026
Accepted March 30, 2026

Published online March 31, 2026

Keywords:
Utilitarian; deontological; foreign language effect; religiosity; emotional distancing
.

Abstract

Past research has indicated that when people use their second language vs. their first language, they are more likely to pay more attention to the consequences/outcomes of their decisions, known as foreign language effect. In the current study, we examined how linguistic context (first vs. second language) and gender influence moral decision-making across six realistic trilemma scenarios, while also considering religiosity and decision time. 710 Iranian Persian-English bilinguals (both university students and high school students) across the country completed scenarios in either Persian or English, choosing among three options: utilitarian direct harm, utilitarian indirect harm, and deontological inaction. Analyses using linear mixed-effects models revealed that participants responding in English showed more utilitarian judgments overall, but this foreign language effect was not robust once scenario-level variability was taken into account, underscoring its context-dependent nature. Gender differences emerged as consistent and robust, with males favouring utilitarian choices and females endorsing more deontological responses. By contrast, religiosity and decision time showed no significant effects. These findings highlight that the foreign language effect is not a uniform shift toward utilitarianism but a context-sensitive process shaped by both individual and scenario-level factors.

Cite this article: Barabadi, E., Rahmani Tabar, M., Chasetareh, F., Booth, J., Tabatabaee, S., & Mahmoudzehi, M. (2026). Sex Differences in Utilitarian versus Deontological Judgments in the Second Language. *Technology Assisted Language Education*, *4*(1), 111-134. doi: 10.22126/tale.2026.13641.1173

Publisher: Razi University.

DOI: http//doi.org/10.22126/tale.2026.13207.1154

Volume 4. Issue 1. 2026. Pages 111 to 134.

Introduction

People all over the world are constantly confronted with moral conflicts between consequences and norms. In fact, a key aspect of human social competence is determined by their ability to make moral decisions (Brouwer, 2019). While both deontologists and utilitarians assess the moral status of actions, they do so using different criteria. In moral philosophy, Utilitarianism, a form of consequentialism, refers to a type of decision-making aimed at maximizing the overall well-being, and judging actions by their outcomes. In contrast, deontology theories, regardless of the consequences, judge whether actions conform to moral principles and rules such as honesty, fairness, or respect for persons (Alexander & Moore, 2024; Jaquet & Cova, 2021).

Notably, moral decision-making, the process of evaluating and choosing between different ethical options, is influenced by a variety of individual and contextual factors. Language is one such factor that has received increasing attention in recent years. Several studies have demonstrated that people's moral judgments can vary depending on whether they process dilemmas in their native or foreign language (Costa et al., 2014; Geipel et al., 2015; Hayakawa et al., 2017). This phenomenon, often referred to as the Foreign Language Effect (FLE), suggests that using a second language may reduce emotional resonance and, in turn, influence both utilitarian and deontological moral judgments. When moral dilemmas are presented in a foreign language, individuals are more willing to make utilitarian choices, perhaps because using a foreign language can blunt emotional reactions, and increase the psychological distance (Corey et al., 2017). Another plausible explanation may be that social and cultural norms and values (e.g., religious values and norms) are less activated, and less accessible in a second language (Geipel et al., 2016; Winskel & Bhatt, 2020). Thus, people might favor utilitarian judgment over deontological judgments when using a foreign language because their religious values and norms that give impetus for the endorsement of deontological choices are not readily available (e.g., McPhetres et al., 2018; Piazza & Landy, 2013; Piazza & Sousa, 2014; Royzman & Baron, 2002). In line with this argument, Barabadi et al. (2021) found that the effect of a foreign language on moral decision-making was moderated by participants' degree of religiosity, with more religious people favoring deontological judgments irrespective of the languages used (first or second language). A more recent study using the CNI model by Barabadi et al. (2023), however, found that within both L1 and L2, less religious participants were more likely to endorse norms. Nonetheless, the extant literature on religiosity and moral judgment suggests that religious people may prefer deontological over utilitarian choices (see Barak-Corren & Bazerman, 2017; Cipolletti et al., 2015).

Gender is another factor that affects moral judgment. For example, Gilligan's theory of morality argues that men are more rational, and can make decisions with a third-person and context-detached view, while women are more emotional and their decision-making process is influenced by affection and a first-person point of view (Gilligan, 1982). However, the results of a meta-analysis study (Jaffee & Hyde, 2000) indicated that male and female differences regarding moral judgments were marginal or non-significant. Further research examining

gender differences from the perspective of dual-processing theory indicated that although there are no differences between males and females from a cognitive point of view when making utilitarian judgments, females are more likely to favor deontological judgments because of their affective reactions to harming others (Friesdorf et al., 2015). Finally, the use of artificial scenarios like the trolley dilemma, or the use of more realistic scenarios related to familiar life contexts can shape moral judgments by triggering different cognitive and emotional processes (Winskel & Bhatt, 2020). This distinction aligns with the hot and cold cognition framework (Metcalfe & Mischel, 1999), where realistic scenarios (e.g. footbridge dilemma) can result in engaging hot cognition in which moral decision-making is emotion-driven and highly influenced by affective states that can block reasoning and perception. Artificial scenarios (e.g. trolley dilemma), however, result in cold cognition, which is often emotion-free and accompanied by logical thinking and problem-solving abilities. Hence, this study used a set of realistic moral scenarios with varied content to examine the effect of linguistic context (first vs. second language), gender, and religiosity on moral decision-making.

This study examines the role of linguistic context (first or second language), gender, religiosity, and reaction time on moral judgments using six realistic scenarios in which participants have to choose one of the three moral choices, namely A: Utilitarian (Direct Harm), B: Utilitarian (Indirect Harm), and C: inaction Deontological (Royzman & Baron, 2002), using software designed to measure the time spent on reading scenarios. Therefore, both indirect and direct harm choices are classified as Utilitarian when they involve sacrificing one to save many, while inaction is classified as Deontological. Nonetheless, it should be noted that the second Utilitarian option that requires indirect harm reflects a Deontological bias stemming from lower emotional aversion. According to Royzman and Baron (2002), this sensitivity to mode of harm which arises from Deontological intuitions does not make this indirect harm as a Deontological decision. That said, this paper is an attempt to provide answers to the following research questions:

Are more Utilitarian decisions made in the second compared to the first language, i.e., is there a Foreign Language Effect (FLE)?

Do male participants make more Utilitarian decisions than female participants?

Is higher religiosity associated with more Deontological decisions?

Does response time moderate the FLE?

Literature review

Moral Foreign Language Effect

The extant literature on moral Foreign Language Effect (FLE) suggests that people are more willing to endorse what seems to be utilitarian moral choices when dilemmas are presented in their second language compared to their first language (Cipolletti et al., 2015; Geipel et al., 2015). While some studies did not replicate the FLE (e.g., Brouwer, 2019; Ĉavar & Tytus,

2018), recent work suggests that FLE is context-dependent, unfolding primarily in emotionally salient, personal dilemmas, or when the dilemmas are presented in an aural modality that is more likely to increase emotional engagement (Brouwer, 2021). This lends support to the emotional attenuation hypothesis (Hayakawa et al., 2017) by highlighting the importance of dilemma type in shaping moral judgments across languages.

This strand of research suggests that since a second language is not acquired in naturalistic contexts, second-language words are not accompanied by the necessary affective and emotional intensity (Dewaele, 2004), leading to a more emotionally distant judgment (Ivaz et al., 2016). For instance, Costa et al. (2014), who used the classic footbridge dilemma, found that 44% of participants were willing to sacrifice the innocent bystander to save five people when the dilemma was presented in their second language, whereas only 18% agreed to do so when the dilemma was presented in their first language. Similarly, Corey et al.'s (2017) study confirmed the robustness of moral FLE across nine experiments in which participants were required to choose either yes or no responses to moral dilemmas (mainly footbridge and switch dilemmas), with a 'yes' response reflecting Utilitarian and a 'no' response reflecting Deontological judgments. The results of their study attributed moral FLE to an increase in psychological distance and a reduction in emotional response, both of which seem to reduce action aversion. Action aversion refers to the emotional reluctance to cause direct harm through action, even when such action would lead to better outcomes than inaction (Baron & Ritov, 2004). The reduced action aversion associated with a foreign language blunts sensitivity to the negative consequences and simultaneously increases sensitivity to the positive consequences of action (e.g., saving five people), leading individuals to "make the trade-off of one life for five" (Corey et al., 2017, p. 16). Barabadi et al.'s (2021) study also found that those who used English as their second language endorsed more Utilitarian choices (e.g., push) than those who used Persian as their first language.

On the other hand, some researchers failed to replicate a robust Foreign Language Effect when they used more innovative research techniques. For instance, Hayakawa et al. (2017) used the Process Dissociation (PD) technique in which the outcomes of moral decisions were manipulated by using both congruent and incongruent dilemmas: in the latter dilemma, the benefits of harm are greater than the costs (e.g., killing one person to save five), whereas in the former dilemma, sacrificing one person just saves five people from mild injuries. The results of their study indicated that in all six experiments, participants preferred Deontological judgments over Utilitarian judgments when the dilemmas were presented in their first language, confirming the hypothesis that the use of a second language only blunts Deontological responding. That is, the use of a second language does not prompt Utilitarian responding because reading moral dilemmas in a second language is cognitively demanding, hence attenuating comprehension needed to make Utilitarian judgments that require meticulous analysis of costs and benefits. This possibility is further corroborated by the fact that second language users who are more proficient obtained higher U scores (Utilitarian scores) because the dilemmas were less cognitively demanding for them. Likewise, the results of CNI-based

studies do not consistently confirm FLE. As a mathematical modelling approach, CNI does not conflate Utilitarian judgments with action and does not conflate Deontological judgments with inaction, as is the case with traditional moral dilemmas (Korner et al., 2020). Drawing on this new mathematical model, Muda et al. (2018) found that the use of a second language does not lead to more Utilitarian choices nor more Deontological choices; instead, second language users appear to be less concerned about morality. Nadarevic et al. (2021) also did not find a reliable Foreign Language Effect on the C-parameter (e.g. sensitivity to consequences), N-parameter (e.g. sensitivity to norms), and I-parameter (e.g. their general preference for action or inaction) among German (L1)-English (L2) participants. While not denying the possible existence of FLE altogether, they concluded that this effect would be very fragile and context-specific. However, Hennig and Hütter's (2021) multinomial modelling using the three parameters indicated a small but statistically significant FLE, but this effect was not caused by reduced emotional reactivity; rather, it was better explained by general shifts in response tendencies like action bias.

Given the complex nature of the Foreign Language Effect which is the product of several interdependent factors and mechanisms (see Barabadi et al., 2023), it is not clear whether the use of a foreign language improves decision-making by making people less emotional and less susceptible to cultural stereotypes suggested by Hadjichristidis et al. (2016), or whether foreign language use hinders decision-making by depleting cognitive resources stemming from L2 disfluency compared to L1, as suggested by brain drain model (see Volk et al., 2014). Across three experiments, Białek et al. (2021), for example, found that bilinguals did not perform well in syllogistic reasoning when using their second language, showing that bilinguals are not protected from cognitive biases that usually arise from emotionally-charged content. In light of this, since the use of a foreign language might weaken both system 1 and system 2 type thinking as conceptualized within the Dual-Process theory (Greene et al., 2001), its end effect on moral judgments depends on the type of tasks and scenarios second language users are provided (Brouwer, 2021; Hadjichristidis et al., 2016). Tasks and scenarios that require abstract reasoning and careful attention might put second language users at a disadvantage by hindering decision-making, while tasks and scenarios that involve heavy cultural and religious tendencies shaped by socialization in the first language might put second language users in a better position, since they tend to avoid such stereotypes associated with their first language. Aligning with Nadarevic et al. (2021), who highlighted the context-specific and fragile nature of the Foreign Language Effect (FLE), including the modality of presentation and the personal or impersonal content of moral scenarios (Brouwer, 2021), this study aims to examine whether the FLE emerges across a set of realistic moral scenarios, and whether gender and religiosity moderate the extent of this effect.

Religiosity and Moral Judgments

In moral psychology, religious belief is positively related to Deontological reasoning about morality (Baron, 2020; McPhetres et al., 2018). Religious people tend to hold the belief that the

origin of morality lies with some sort of God or gods who define what is morally right and wrong. This external source of morality in the form of God-given rules promotes more Deontological judgments, whereas non-theists might show a preference for Utilitarian decisions because they believe that it is possible for human beings to reason about morality (Shariff et al., 2014). A similar argument was put forward by Piazza and Sousa (2014), who asserted that religious people tend to evaluate the morality of a behavior with reference to certain rules that have their roots in sacred texts rather than with reference to its costs and benefits. For example, in Islam, only God has the authority to give and take life, and hence, it is deemed impermissible and even punishable for people to sacrifice one to save more lives or to perform euthanasia since such actions involve interference with the authority of God. On the other hand, euthanasia or any other moral judgments with good intentions, such as alleviating unbearable suffering, are allowed in Hinduism (Avci, 2019). The belief in this powerful and responsible God also inspires religious individuals from Christianity and Judaism, two other monotheistic religions, to favor Deontological judgments over Utilitarian judgments (Barak-Corren & Bazerman, 2017).

An interesting feature of Barak-Corren and Bazerman's (2017) study is that they differentiated between two principles of Deontology, namely indirect harm and inaction. The inaction principle posits that harm inflicted by action is worse than harm inflicted by omission. The indirectness principle, on the other hand, only forbids actions that use a human being as a means to an end. In other words, incidental harms which are caused as side effects are permitted. To test this conceptual differentiation between inaction and indirectness principle, Barak-Corren and Bazerman (2017) used the trolley dilemma with three options: 1. Do nothing, in which case the participants take no action and as a result, five people who are on the way of the train will be killed; 2. Flip a switch to change the direction of the train so that one person is killed while three people are saved; and (3) the Push option, in which one has to push a bystander off a bridge to stop the train that is going to kill five people. The results of their study indicated that religiosity was negatively related to Utilitarian choice (push) but equally related to indirectness and inaction principles, suggesting that both Deontological principles are preferred choices among more religious individuals. However, those who endorsed the inaction principles were more likely to justify their decision by saying, "It's not up to me to play God" and "the outcome is up to God".

Following this trilemma scenario, Barabadi et al. (2021) also found that more religious Muslim individuals in their study preferred both indirectness and inaction choices to direct options (e.g., push). Similarly, the results of a large-scale study conducted by Banerjee et al. (2010), who recruited diverse participants from Christianity, Judaism, Islam, Buddhism, and Hinduism, indicated that males and non-religious individuals and those who were not politically engaged were more likely to endorse the Utilitarian decision of harming one person to save more lives. However, the results of this study should not be generalized to people from different religious traditions because there were few Muslims, Buddhists and Hindus in this study. Nonetheless, the authors argue that the inclination towards Deontological decisions among

religious individuals suggests that they view scriptures as the basis for moral decision-making. The inclusion of religiosity along with the linguistic context in this study can be justified in light of associative memory (Kahneman, 2011), which is language-dependent. As a result of this dependency, the use of a foreign language might activate certain cultural and mental constructs, such as stereotypes and religious beliefs less forcefully since these constructs were stored in the long-term memory together with the linguistic context (e.g. usually the first language) in which they unfolded (Hadjichristidis et al., 2016). To our knowledge, previous studies did not examine the religiosity effect on moral judgment across different linguistic contexts using Barak-Corren and Bazerman's (2017) differentiation between two principles of Deontology, namely indirect harm and inaction.

Gender Differences in Moral Judgments

The controversial role of gender in decision-making has attracted the attention of many researchers in the domain of moral judgment (see Capraro & Sippel, 2017), with some studies confirming the idea that women tend to favor Deontological ethics more than men (Björklund, 2003) because their moral reasoning is rooted in an ethic of care framework (Gilligan, 1982), whereas men have been reported to favor Utilitarian decisions (Fumagalli et al., 2010) because of their justice-oriented morality (Kohlberg, 1969). Still, many researchers did not find a statistically significant difference in moral judgments between men and women (i.e. Jaffee & Hyde, 2000). The gender-associated differences in moral reasoning are traced back to Kohlberg's (1969) theory of moral reasoning focusing on justice and fairness, and also Gilligan's (1982) account of moral reasoning, focusing on caring ethics, prohibiting harming others. Inspired by these theoretical viewpoints, Björklund (2003) argued that men and women have different criteria for assessing moral situations, deriving mainly from their distinct profiles of socialization. Cordellieri et al. (2020) also found that women in their study did not like to violate a moral rule even if that violation could save more lives, while men were willing to accept this kind of violation if it resulted in saving more lives. These gender-related differences in morality have been attributed to some biological, experiential, and cultural factors (Gibbs, 2021).

Proposed gender-related differences associated with care and justice morality have been challenged (Jaffee & Hyde, 2000). In one cross-cultural study using the CNI model, Qian et al. (2023) found that although women showed more sensitivity to moral norms from different cultures, men did not show higher sensitivity to Utilitarian tendencies. Given the complex and controversial nature of gender effect on moral reasoning, some researchers have called for a more context-dependent view of morality, suggesting that researchers move beyond the simple dichotomy of the role of gender by considering the moderating and mediating individual and contextual factors that might tell us under what circumstances females or males might embrace an ethic of care favoring Deontology or an ethic of justice favoring a Utilitarian response (Capraro & Sippel, 2017). For example, the notion of self-other relationship, the content of moral dilemmas, the use of personal and impersonal moral scenarios, the social distance

between the decision maker and the victims, and other factors can provide more insight into the nature of moral reasoning instead of focusing exclusively on gender. Given this complexity, in this study, we tested the role of gender in moral reasoning along with linguistic context (first vs. second language), religiosity, and response time using a set of realistic scenarios in which a distinction is made between direct harm, indirect harm, and inaction options.

Method

Design

A Multivariate Analysis of Covariance (MANCOVA), with an effect size of partial $\eta 2 = 0.15$ (based on the average effect size reported by Geipel et al., 2015; Muda et al., 2018) were used for the current study.

Participants

The power analysis using GPower (Faul et al., 2007) indicated that we required at least 100 participants. This size was required to obtain 80% power for Multivariate Analysis of Covariance (MANCOVA), with an effect size of partial $\eta 2 = 0.15$ (based on the average effect size reported by Geipel et al., 2015; Muda et al., 2018), when the alpha is set at .05. To participate in the study, all individuals were required to be at least 18 years old, the legal age, and to provide verbal consent prior to their involvement. To measure their understanding, we asked participants to rate their overall comprehension of the dilemmas on a scale of 1 to 10 and excluded those participants who scored lower than 5. The final sample that reported no difficulty reading the scenarios in English included 710 bilinguals. Since the scenarios required at least an intermediate level of English proficiency for full comprehension, these participants were considered to have an intermediate proficiency level. Despite our efforts to recruit an even sample for the study, the final sample is representative of a higher female population since the invitations were sent to the participants online and the nature of the data collection was voluntary participation. They consisted of 189 male participants (26.6%) with a mean age of 26.5 years and 521 female participants (73.4%) with a mean age of 26.8. On average, the participants had experienced 17 years of education since the beginning of their elementary school. The first language of all the participants was Persian, and English was their second language (see Table 1). At the time of responding to scenarios, the participants were randomly assigned either to the English or Persian groups.

Volume 4. Issue 1. 2026. Pages 111 to 134.

Table 1.

Participants' Demographic Information

Variables	Category	N	%
Language	Persian (L1)	324	45.6
	English (L2)	386	54.4
Gender	Male	189	26.6
	Female	521	73.4
Education Level	High school	73	10.3
	Undergraduate	372	52.4
	MA	187	26.3
	PhD	78	11.0
Major	Language & Linguistics	386	54.4
	Other Social Sciences	221	31.1
	Psychology	36	5.1
	Empirical Sciences	36	5.1
	Medical Sciences	31	4.4
Age	Range: 18-55 years	M = 26.7	SD = 6.8

Instrumentation

Moral Trilemmas

Following Royzman and Baron (2002) and Barak-Corren and Bazerman (2017), we made a distinction between three moral options, namely direct Utilitarian, indirect Utilitarian, and Deontological inaction principles. In order to generalize the findings of previous studies beyond the trolley dilemma, we created five realistic scenarios (Gold et al., 2014) by drawing on materials from Baron and Goodwin (2021), Gawronski and Beer (2017), McPhetres et al (2018), and Royzman and Baron (2002). We also generated one scenario about the COVID-19 pandemic (see Appendix A). All in all, we presented six scenarios in which there were three choices whose morality was rated on a scale from 1 to 7.

Religiosity

Religiosity was assessed by using five items taken from Koenig and Büssing (2010). The short questionnaire which is called the Duke University Religion Index (DUREL), was originally developed to examine the link between health outcomes and religion. The scale specifically measured three major dimensions of religiosity, namely organizational religious activity (ORA), non-organizational religious activity (NORA), and intrinsic religiosity (IR). The item

responses of the ORA subscale were elicited using a 6-point Likert scale with 1 = "*never*" and 6 = "*more than once a week*." Similarly, the NORA subscale was assessed on a 6-point Likert scale ranging from 1 = "*rarely or never*" to 6 = "*more than once a day*". The IR dimension was assessed on a 5-point Likert scale ranging from 1 = "*definitely not true*" to 5 = "*definitely true of me*". The overall questionnaire has acceptable test-retest reliability with an intra-class correlation of .91, has high internal consistency as indicated by Cronbach's alphas ranging from 0.78 to 0.91, and is positively associated with other measures of religiosity (e.g., suggesting the acceptable level of convergent validity: r's = 0.71–0.86. Further, numerous studies including one examining the Persian translation of this questionnaire have confirmed the factor structure of DUREL (Hafizi et al., 2013). The DUREL has been applied in more than 100 published studies all over the world and can be found in ten languages.

Data Collection Procedure

We used six trilemma scenarios in which the participants were asked to select one of the following options: direct, indirect, or inaction. The order of the dilemmas was randomized for each participant. Since we recorded the response time for each scenario, we designed a computerized program in which the response time of each participant on each dilemma before reaching a decision was measured. On the first page of the program, the participants were provided with a short explanation about the scenarios, the purpose of the study, and the anonymity of the data. Then, an item was presented to the participants asking whether they were willing to take part in this study. Only if they consented, they could continue the process and were asked about the demographic information including age, gender, self-perceived proficiency, and academic degree. When clicking the Next button, they were asked to complete the religiosity questionnaire and after that, they were presented with the first scenario and the three options. As soon as they made a choice, the next scenario was presented until all six scenarios were completed.

Data were analyzed using linear mixed-effects models (LMMs) implemented in R (version 4.3.1; R Core Team, 2023) with the lme4 (Bates et al., 2015) and lmerTest (Kuznetsova et al., 2017) packages. This approach was chosen to account for the hierarchical structure of the data, with multiple observations nested within participants and across moral scenarios. The final model predicted moral judgment scores (on a 1–7 scale) from language (Persian vs. English), gender (Male vs. Female), religiosity, and decision time, including the interaction between language and religiosity. To test whether the language effect varied across dilemmas, a random slope for Language was included at the scenario level. Additionally, random intercepts were included for ParticipantID to account for repeated measures within individuals.

All continuous predictors (Treligiosity, DecisionTime) were mean-centered prior to analysis. The model was fit using restricted maximum likelihood (REML), and *t*-tests were based on Satterthwaite's approximation for degrees of freedom, which provides more accurate *p*-values for small to moderate sample sizes. Estimates were considered statistically significant at $p < .05$. Post-hoc inspection of random effects was conducted to assess variability in the

language effect across the six moral scenarios. Descriptive statistics and model diagnostics were used to confirm data quality and model assumptions.

Findings

Descriptive statistics for 710 participants across the six moral scenarios are presented in Table 2. Across dilemmas, responses on the 7-point scale showed that Utilitarian indirect harm (M = 3.68, SD = 2.10) was consistently rated higher than Utilitarian direct harm (M = 3.22, SD = 1.96) and Deontological inaction (M = 2.15, SD = 1.74), suggesting greater acceptance of indirect forms of harm compared to direct sacrificial choices, alongside a reluctance to endorse inaction when moral rules would be violated. Although means varied by scenario, this general ranking of indirect > direct > deontological remained stable, pointing to a robust tendency in moral preferences. Response times also varied widely (M = 64.80, SD = 64.90, range = 1–300), indicating that some contexts prompted substantially more reflection than others. Religiosity scores ranged from 5 to 30, with a mean of 17.20 (SD = 5.56), reflecting moderate variability across participants. Overall, these descriptive results show clear differences in the relative endorsement of moral responses and substantial variation in decision speed, providing a solid basis for subsequent inferential analyses.

Table 2.

Descriptive Statistics of all the Variables

Variable	N	M	SD	Min	Max
Direct Utilitarian	710	3.22	1.96	1	7
Indirect Utilitarian	710	3.68	2.10	1	7
Deontological	710	2.15	1.74	1	7
Religiosity	710	17.20	5.56	5	30
Decision Time (sec)	710	64.80	64.90	1	300

A linear mixed-effects model was used to examine the effects of language (English vs. Persian), gender (female vs. male), religiosity, and decision time on three categories of moral decision-making: direct Utilitarian, indirect Utilitarian, and deontological inaction. Random intercepts for ParticipantID and Scenario were included to account for repeated observations within participants and dilemmas. Responses were reverse-scored so that higher values indicated greater Utilitarian (permissive) responding across all judgment types.

Table 3.

Fixed Effects from Linear Mixed-Effects Model Predicting Utilitarian Responding Across Judgment Types

Term	Estimate	SE	df	t	p
Intercept	3.23	0.243	86.6	13.27	< .001
Indirect Util vs. Direct Util	0.81	0.229	10628.2	3.54	< .001

Deontological vs. Direct Util	-1.482	0.239	10629.3	-6.2	< .001
Language (English)	0.521	0.262	2186.2	1.99	< .05
Religiosity	-0.007	0.011	2333.5	-0.7	0.483
Gender (Female)	-0.366	0.088	2153.9	-4.14	< .001
Decision Time	0	0	4516.8	0.06	0.954
Indirect Util × Language	-0.29	0.281	10627	-1.03	0.303
Deontological × Language	-0.299	0.294	10627.1	-1.02	0.309
Indirect Util × Religiosity	-0.01	0.011	10627.2	-0.91	0.363
Deontological × Religiosity	0.021	0.012	10627.1	1.74	< .10
Language × Religiosity	-0.01	0.014	2195.8	-0.68	0.499
Indirect Util × Gender	0.072	0.095	10627	0.76	0.448
Deontological × Gender	0.28	0.099	10627	2.83	< .01
Indirect Util × Lang × Religiosity	0.013	0.015	10627.2	0.86	0.389
Deontological × Lang × Religiosity	0.018	0.016	10627.3	1.12	0.264

The results revealed a consistent main effect of language across all six scenarios together, with participants responding in English giving more Utilitarian judgments than those responding in Persian (b = 0.52, SE = 0.26, t(2186) = 1.99, p = .046). This effect was similar across all three types of judgments (direct Utilitarian, indirect Utilitarian, and inaction deontological), as the interaction tests were non-significant (all ps > .25). Moreover, the effect did not depend on participants' level of religiosity, indicating that religious commitment did not moderate the influence of language on moral decision-making (p = .499). A significant main effect of gender was also found, with females giving lower Utilitarian (more deontological) judgments than males (b = –0.37, SE = 0.09, t(2154) = –4.14, p < .001). This effect was most evident in deontological responses, where females showed stronger deontological inclinations (b = 0.28, SE = 0.10, t = 2.83, p = .005). Neither religiosity (p = .483) nor decision time (p = .954) had a significant effect on moral judgments, and the lack of a Language × Religiosity interaction suggests that the foreign language effect operates independently of religious beliefs in this sample. Overall, the findings supported both the foreign language effect and gender differences in moral reasoning, with English speakers and males showing more Utilitarian tendencies across moral contexts. These effects were not moderated by religiosity or decision time and were consistent across personal, impersonal, and rule-based evaluations.

Volume 4. Issue 1. 2026. Pages 111 to 134.

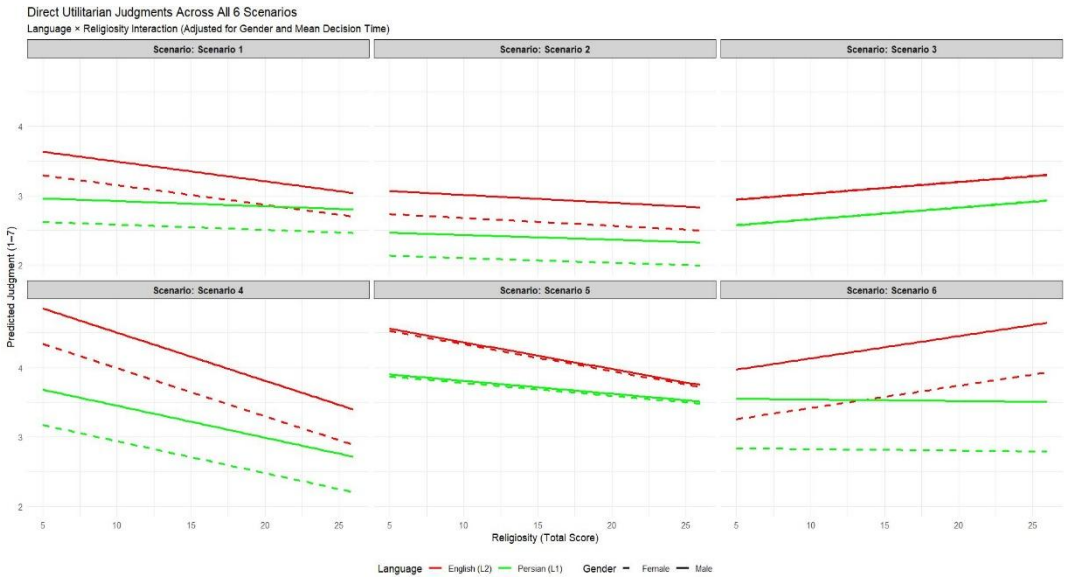

Figure 1

Direct Utilitarian Judgements across Six Scenarios

Moreover, since the content, emotional salience, and nature of decision context in each scenario were not the same, it was necessary to consider this potential scenario-based sensitivity in our analysis. Therefore, we used a more conservative linear mixed-effects model with random slopes for Language by Scenario and random intercepts for Participant to examine the effects of language, gender, and religiosity on moral judgment. This conservative model allows the foreign language effect to vary across scnerios, thus giving a more rigorous test of whether foreign language effect remains robust across different scanerios (Barr, 2013). Given the importance of this hetrogenaity at the scenario level, the results of this random-slope model are presented here, and prioritized for theoretical interpretation.

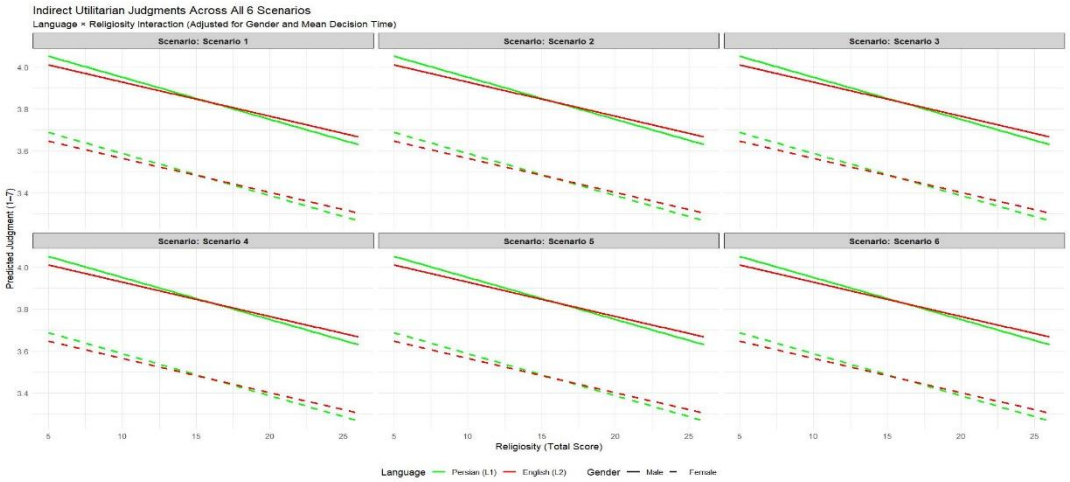

Figure 2

Indirect Utilitarian Judgements across Six Scenarios

In this model, the effect of language was no longer significant (b = 0.29, SE = 0.23, t(63.8) = 1.26, p = .212), nor was the Language × Religiosity interaction (p = .932), suggesting that the foreign language effect was not robust across dilemmas. However, a reliable gender effect remained, with females providing more deontological judgments than males (b = –0.25, SE = 0.07, t(719.2) = –3.74, p < .001). Importantly, the random effects structure revealed significant variability in the language effect across scenarios (variance = 0.075, SD = 0.274), highlighting that the influence of language depended on the specific moral dilemma. This scenario-level variability underscores the importance of considering item-level differences in moral psychology research.

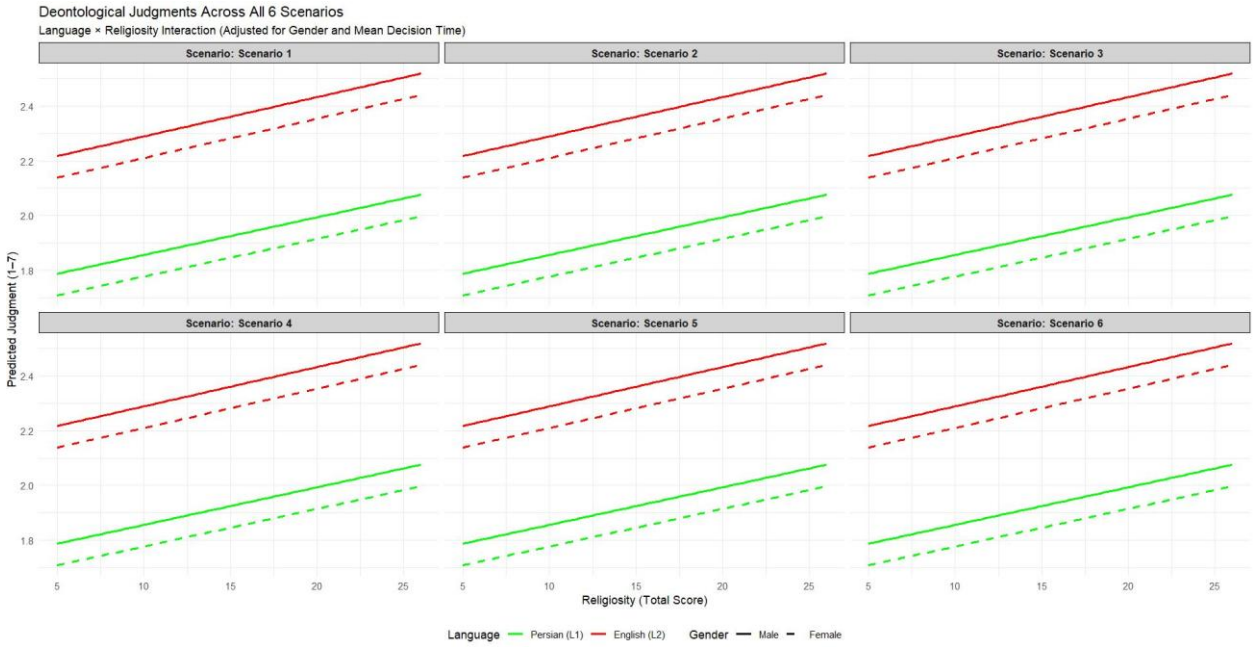

Figure 3

Deontological (Inaction) Judgements across Six Scenarios

Discussion

The present study investigated how linguistic context (first vs. second language), gender (male vs. female), religiosity, and response time influence moral judgments across six realistic trilemma scenarios. Unlike some prior studies that employed abstract and unrealistic dilemmas, such as the trolley problem (Foot, 2002; Thomson, 1985) or general personal dilemmas like the Asian disease scenario (e.g., Keysar et al., 2012), this study used realistic vignettes centered on topics such as COVID-19, ecological conservation, medical dilemma, etc., to ensure greater realism and participant engagement (Carron et al., 2022; Brouwer, 2019; Ekici et al., 2021). Each moral scenario was followed by three response options: direct harm, indirect harm, and inaction-based choices, with participants rating them on a seven-point Likert scale. A total of 710 participants, whose first and second languages were Persian and English, respectively, completed the scenarios, responded to a religiosity scale, and had their response times recorded.

The Foreign Language Effect: Not Uniform, but Contextually Variable

The mixed-effects model in the current study revealed a significant language effect across all six scenarios for direct Utilitarian, indirect Utilitarian, and inaction deontological judgments. Consistent with previous research on the Foreign Language Effect (FLE) across diverse countries and language pairs (Cipolletti et al., 2015; Costa et al., 2014; Geipel et al., 2015; Keysar et al., 2012), participants responding in English made more Utilitarian judgments than those responding in Persian particularly in emotionally salient dilemmas. This has been attributed to emotional distancing or blunting and the higher cognitive load associated with L2 use, which may reduce deontological intuitions and increase willingness to endorse harm for the greater good (Hayakawa et al., 2017; Hayakawa & Keysar, 2017). According to dual-process theory, L2 use may shift decision-making from fast, intuitive, emotion-driven System 1 processes toward slower, more reflective, rule-based System 2 reasoning (Evans & Stanovich, 2013; Greene et al., 2001).

However, the random-slopes analysis revealed substantial scenario-level variability. Mixed-effects models for individual scenarios showed no consistent increase in Utilitarianism across each dilemma, and the FLE was not significant. Although descriptive trends indicated slightly higher Utilitarian and deontological ratings in English, there was no significant main effect of language or interaction with religiosity. This scenario-specific variability suggests that the FLE is not a uniform bias but a flexible, content-sensitive process that may be amplified in high-conflict or medical triage dilemmas and absent or even reversed in others (Privitera et al., 2023; Cipolletti et al., 2015). These findings align with previous studies which argue that L2 use promotes reflective, controlled processing rather than emotional suppression (e.g., Keysar et al., 2012; Ortigosa-Beltrán et al., 2023).

A growing body of replication failures and boundary-condition studies further indicates that the FLE is smaller, less reliable, and highly context-dependent (Białek et al., 2020; Del Maschio et al., 2025; Henning & Hütter, 2021; Privitera, 2024; Yavuz et al., 2024). Such studies highlight that language context alone does not reliably shape moral choices; instead, outcomes depend on scenario features as well as individual and cultural factors such as cognitive style, risk-taking, bilingual experience, and L2 proficiency. Even when effects trended in the expected direction, foreign language use did not consistently produce more Utilitarian responses, particularly in realistic or less emotionally charged dilemmas. The findings of these recent studies along with the results of random-slope model in our study suggest that when testing the foreign language effect on moral judgement, we need to take into consideration the scenario-level variability to avoid overestimation of generalizability, and hence to acknowledge the context-sensitive nature of moral decision making (Brouwer, 2021; Privitera, 2024).

Finally, our study extends this literature by evaluating the moral polarization hypothesis. We found no evidence for increased endorsement of both Utilitarian and deontological extremes in L2. Although descriptive patterns suggested a trend toward higher deontological judgments in the foreign language, this effect was not statistically significant. These findings reinforce the

view that language may influence moral reasoning in subtle, context-dependent ways, rather than producing consistent or extreme shifts. Such nuances may be particularly relevant in high-stakes domains, such as medical or legal decision-making, where even small shifts in moral judgment could have meaningful consequences.

Gender Effects: A Robust and Consistent Finding

The effect of gender emerged as a strong and significant predictor of moral judgment. Females provided more deontological judgments than males which is consistent across judgment types and scenarios. This aligns with decades of research showing that women are more likely to emphasize care, empathy, and relational ethics, while men lean toward justice, rules, and cost-benefit analysis (Baez et al., 2017; Capraro & Sippel, 2017; Friesdorf et al., 2015; Gibbs, 2021; Gilligan, 1982; Haidt & Joseph, 2004). They highlighted the higher tendencies of males in comparison to females to endorse action-based options (direct Utilitarian) to maximize the greater good for everyone, rather than avoiding the moral violation. Our results reinforce the robustness of gender differences in moral psychology, even in multilingual and cross-cultural contexts.

Religiosity and Decision Time: No Significant Effects

Contrary to expectations, religiosity showed no significant main effect on moral judgment, nor did it moderate the language effect. This challenges the notion that religious individuals are uniformly more deontological (Baron et al., 2015; Piazza & Landy, 2013). However, the results showed that religiosity was associated with higher inaction in some scenarios (e.g., ecological dilemmas) but surprisingly higher Utilitarianism in others (e.g., organizational decisions), suggesting that religious values can align with consequentialist reasoning under certain conditions. This indicates that religious values do not uniformly promote rule-based ethics; rather, their influence appears to depend on the moral domain and perceived responsibility. The non-significant effect of religiosity in the current study does not seem to align with the Barabadi et al.'s (2021) findings, where religiosity moderated the language effect for native speakers of Persian, and L2 English group. However, it should be noted that in Barabadi et al.'s (2021) study, religiosity did not have any significant moderating effect for L2 Arabic group despite the fact that Arabic is the language of holy Quran. Taken together, the results of the current study, and the inconsistent findings of of Barabadi et al. (2021) in the Iranian context suggest that the relationship between religiosity and moral judgement is complex with potential variation across different moral dilemnmas.

Prior research has found that religious people might engage less in analytical thought compared to less religious individuals and consequently accept that they do not have the capacity to engage in actions that decide life or death (Gervais & Norenzayan, 2012; McPhetres et al., 2018; Pennycook et al., 2012). In moral dilemmas, such individuals are often less concerned with the consequences of their action or inaction and instead adhere to their belief of not committing an immoral deed (Baron et al., 2015; Piazza & Landy, 2013). However, as

indicated by Privitera et al. (2023), the moral Foreign Language Effect is dilemma-specific, varying depending on whether the dilemmas are personal or impersonal, self-beneficial or other-beneficial, and artificial or authentic. Therefore, the link between religiosity and moral judgment might be dependent on the nature of the dilemma, or the potential distinct moral assumptions of each religion (Avci, 2019). For example, the deontological inclination among religious group in the previous studies may have derived mainly from the Christian-majority participants (Piazza & Sousa, 2014). However, the complex nature of the relationship between religiosity, language, and scenario-specific content in the current study suggest that religiosity may align with utilitarian judgement, deontological judgement, or even inaction under certain conditions. Future research could explore religious identity, doctrinal salience, or moral foundations (Graham et al., 2009; Zohrabi, 2023) to better capture this complexity.

Similarly, we found no significant effect of decision time between responding to the dilemmas in English and Persian, which contrasts with the dual-process framework that predicts deliberation should increase Utilitarian responses (Greene et al., 2001). This is consistent with previous studies that also found no reliable effect of response time on whether deliberation leads to more Utilitarian choices (Alós-Ferrer et al., 2016; Gürçay & Baron, 2016; Rosas et al., 2019; Tinghög et al., 2016). Several explanations may account for this result. Response time (RT) is not always predictive of moral choice, as individuals with extreme selfish or altruistic orientations may decide quickly, while undecided participants hesitate, producing wide variability in RTs (Rosas et al., 2019). RT may also reflect differences between dilemmas themselves and participants' level of engagement; given that many participants were already highly involved across all scenarios, additional time may have had little impact. Another possibility is that the lack of an RT effect reflects task complexity or ceiling effects in reflective processing, where participants are already reasoning at their maximum capacity (Alós-Ferrer et al., 2016). Finally, the CNI model suggests that extended deliberation does not necessarily increase Utilitarianism but instead amplifies individuals' pre-existing moral inclinations (Gawronski et al., 2017). Consistent with this, Hashimoto et al. (2022) found that in Japanese students, deliberation sometimes led to decreased Utilitarian choices depending on the dilemma, highlighting the complex, context-dependent nature of reflective moral reasoning.

Conclusion

The primary purpose of this study was to examine the effect of linguistic context and gender on moral judgment, in which three choices, namely direct harm, indirect harm, and inaction, were presented to participants using a set of six realistic scenarios while taking into account the role of religiosity and response time. This study provides a nuanced, statistically rigorous examination of the foreign language effect on moral judgment. While prior research has framed L2 use as a catalyst for Utilitarian reasoning, our results, based on a large sample, realistic dilemmas, and a robust mixed-effects model, offered a more complex picture. While Utilitarianism was higher among participants responding in English compared to Persian, and a significant foreign language effect emerged when all six scenarios were considered together,

this effect disappeared once scenario-level variability was taken into account, suggesting that the effect is smaller, less consistent, and more context-sensitive than previously believed. The significant variation in the language effect across scenarios suggests that dilemma context plays a crucial role in shaping moral judgments, with some situations amplifying L2 effects while others diminishing them. We conclude that blunted emotion is not a straightforward consequence of L2 use; rather, using a foreign language may facilitate more reflective, deliberate, and analytical processing, leading to cognitive deepening rather than emotional distancing. This allows individuals to engage more fully with moral trade-offs, potentially increasing both Utilitarian and deontological reasoning depending on the scenario. It is important to study the FLE as a tool for moral judgment and decision-making. This context-dependent flexibility challenges the idea of L2 as a "cold" or "rational" medium. Instead, our data suggest that L2 can act as a cognitive tool, enabling deeper moral engagement. This has practical relevance for multilingual decision-making in domains such as medicine, law, and international policy. In addition, we found that gender is a far stronger predictor, with females consistently endorsing more deontological responses. Further, response time and religiosity were not related to moral decision-making.

Our findings have implications for multilingual decision-making in high-stakes domains such as medicine, law, and international policy. Language choice can subtly shape moral outcomes, not by pushing decisions toward a single answer but by influencing the depth and direction of deliberation, meaning that linguistic context should be considered an important factor in ethical decision-making. In sum, this study shows that the FLE is not simply a boost in Utilitarianism but a context-sensitive amplification of moral reasoning.

Several limitations should be noted. One notable limitation concerns the participant distribution. Specifically, our sample had an uneven gender distribution, with a higher number of female participants. This imbalance may have acted as a hinderance to detect gender-moderated effects of religiosity or language. For instance, the non-significant effect of religiosity in our study may be due to the small variability in moral decision making patterns observed within a predominantly female sample, who tend to make moral decisions based on an ethics of care and deontological intuitions (see Friesdorf et al., 2015; Gibbs, 2021). We recommend that future studies focus on recruiting a more balanced sample to better understand gender differences in moral decision-making and judgment. This could be achieved through quota sampling, targeting the underrepresented gender in the dataset. Secondly, we did not use an objective measure of our participants' reading comprehension proficiency to control for its possible moderating role, which may have affected their ability to fully engage with the dilemmas, which may moderate the FLE (Białek et al., 2019; Kirova et al., 2023). Third, our scenarios were hypothetical; future research should examine real-world moral behavior in multilingual contexts. Finally, applying the CNI model (Gawronski et al., 2017) and neurocognitive methods (e.g., fMRI, eye-tracking; Greene et al., 2004) could help disentangle the cognitive and emotional components of moral judgment in L1 vs. L2. In sum, this study refines our understanding of the foreign language effect, moving beyond simplistic "rational

vs. emotional" dichotomies toward a more context-sensitive, process-oriented view of moral reasoning in multilingual minds.

Bio-data

First Author: collected data, designed, conducted the procedure, and wrote the first draft.
Second Author: read, made necessary revisions, and approved the final manuscript.
Funding: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.
Declaration of Competing Interest: The authors declare that they have no competing interests.

References

Alexander, L., & Moore, M. (2024). *Deontological Ethics*. Stanford Encyclopedia of Philosophy. https://plato.stanford.edu/entries/ethics-deontological/

Alós-Ferrer, C., Garagnani, M., & Hügelschäfer, S. (2016). Cognitive reflection, decision biases, and response times. *Frontiers in Psychology*, *7*. https://doi.org/10.3389/fpsyg.2016.01402

Avci, E. (2019). A Comparative Analysis on the Perspective of Sunni Theology and Hindu Tradition Regarding Euthanasia: The Impact of Belief in Resurrection and Reincarnation. *Journal of Religion and Health*, *58*(5), 1770–1791. http://www.jstor.org/stable/45216947

Baez, S., Flichtentrei, D., Prats, M., Mastandueno, R., García, A. M., Cetkovich, M., & Ibáñez, A. (2017). Men, women. . .who cares? A population-based study on sex differences and gender roles in empathy and moral cognition. *PLoS ONE*, *12*(6), e0179336. https://doi.org/10.1371/journal.pone.0179336

Banerjee, K., Huebner, B., & Hauser, M. (2010). Intuitive Moral Judgments are Robust across Variation in Gender, Education, Politics and Religion: A Large-Scale Web-Based Study. *Journal of Cognition and Culture*, *10*(3–4), 253–281. https://doi.org/10.1163/156853710x531186

Barabadi, E., Tabar, M. R., & Booth, J. R. (2021). The relation of language context and religiosity to trilemma judgments. *Journal of Cross-Cultural Psychology*, *52*(6), 583–602. https://doi.org/10.1177/00220221211033987

Barabadi, E., Tabar, M. R., & Booth, J. R. (2023). The effects of foreign language and religiosity on moral decisions: Manipulating norms and consequences. *Journal of Cognition and Culture*, *23*(3–4), 310–337. https://doi.org/10.1163/15685373-12340165

Barak-Corren, N., & Bazerman, M. H. (2017). Is saving lives your task or God's? Religiosity, belief in god, and moral judgment. *Judgment and Decision Making*, *12*(3), 280–296. https://doi.org/10.1017/s193029750000588x

Baron, J. (2020). Religion, cognitive style, and rational thinking. *Current Opinion in Behavioral Sciences*, *34*, 64–68. https://doi.org/10.1016/j.cobeha.2019.12.015

Baron, J., & Goodwin, G. P. (2020). Consequences, norms, and inaction: A critical analysis. *Judgment and Decision Making*, *15*(3), 421–442. https://doi.org/10.1017/s193029750000721x

Baron, J., & Ritov, I. (2004). Omission bias, individual differences, and normality. *Organizational Behavior and Human Decision Processes*, *94*(2), 74–85. https://doi.org/10.1016/j.obhdp.2004.03.003

Baron, J., Scott, S., Fincher, K., & Metz, S. E. (2015). Why does the Cognitive Reflection Test (sometimes) predict utilitarian moral judgment (and other things)? *Journal of Applied Research in Memory and Cognition*, *4*(3), 265–284. https://doi.org/10.1016/j.jarmac.2014.09.003

Barr, D. J. (2013). Random effects structure for testing interactions in linear mixed-effects models. *Frontiers in psychology*, *4*, 328.

Bates, D., Mächler, M., Bolker, B., & Walker, S. (2015). Fitting Linear Mixed-Effects models usinglme4. *Journal of Statistical Software*, *67*(1). https://doi.org/10.18637/jss.v067.i01

Białek, M., & De Neys, W. (2017). Dual processes and moral conflict: Evidence for deontological reasoners' intuitive utilitarian sensitivity. *Judgment and Decision Making*, *12*(2), 148–167. https://doi.org/10.1017/s1930297500005696

Białek, M., Muda, R., Stewart, K., Niszczota, P., & Pieńkosz, D. (2020). Thinking in a foreign language distorts allocation of cognitive effort: Evidence from reasoning. *Cognition*, *205*, 104420. https://doi.org/10.1016/j.cognition.2020.104420

Białek, M., Paruzel-Czachura, M., & Gawronski, B. (2019). Foreign language effects on moral dilemma judgments: An analysis using the CNI model. *Journal of Experimental Social Psychology*, *85*, 103855. https://doi.org/10.1016/j.jesp.2019.103855

Björklund, F. (2003). Differences in the justification of choices in moral dilemmas: Effects of gender, time pressure and dilemma seriousness. *Scandinavian Journal of Psychology*, *44*(5), 459–466. https://doi.org/10.1046/j.1467-9450.2003.00367.x

Brouwer, S. (2019). The auditory foreign-language effect of moral decision making in highly proficient bilinguals. *Journal of Multilingual and Multicultural Development*, *40*(10), 865–878. https://doi.org/10.1080/01434632.2019.1585863

Brouwer, S. (2021). The interplay between emotion and modality in the Foreign-Language effect on moral decision making. *Bilingualism Language and Cognition*, *24*(2), 223–230. https://doi.org/10.1017/s136672892000022x

Capraro, V., & Sippel, J. (2017). Gender differences in moral judgment and the evaluation of gender-specified moral agents. *Cognitive Processing*, *18*(4), 399–405. https://doi.org/10.1007/s10339-017-0822-9

Carron, R., Blanc, N., & Brigaud, E. (2022). Contextualizing sacrificial dilemmas within Covid-19 for the study of moral judgment. *PLoS ONE*, *17*(8), e0273521. https://doi.org/10.1371/journal.pone.0273521

Čavar, F., & Tytus, A. E. (2017). Moral judgement and foreign language effect: when the foreign language becomes the second language. *Journal of Multilingual and Multicultural Development*, *39*(1), 17–28. https://doi.org/10.1080/01434632.2017.1304397

Cipolletti, H., McFarlane, S., & Weissglass, C. (2015). The moral Foreign-Language effect. *Philosophical Psychology*, *29*(1), 23–40. https://doi.org/10.1080/09515089.2014.993063

Cordellieri, P., Boccia, M., Piccardi, L., Kormakova, D., Stoica, L. V., Ferlazzo, F., Guariglia, C., & Giannini, A. M. (2020). Gender differences in solving moral dilemmas: emotional engagement, care and utilitarian orientation. *Psychological Studies*, *65*(4), 360–369. https://doi.org/10.1007/s12646-020-00573-9

Corey, J. D., Hayakawa, S., Foucart, A., Aparici, M., Botella, J., Costa, A., & Keysar, B. (2017). Our moral choices are foreign to us. *Journal of Experimental Psychology Learning Memory and Cognition*, *43*(7), 1109–1128. https://doi.org/10.1037/xlm0000356

Costa, A., Foucart, A., Hayakawa, S., Aparici, M., Apesteguia, J., Heafner, J., & Keysar, B. (2014). Your morals depend on language. *PLoS ONE*, *9*(4), e94842. https://doi.org/10.1371/journal.pone.0094842

Del Maschio, N., Bellini, C., Abutalebi, J., & Sulpizio, S. (2025). Boundaries of the foreign language effect under conditions of uncertainty. *Bilingualism Language and Cognition*, 1–11. https://doi.org/10.1017/s1366728925100400

Dewaele, J. (2004). The emotional force of swearwords and taboo words in the speech of multilinguals. *Journal of Multilingual and Multicultural Development*, *25*(2–3), 204–222. https://doi.org/10.1080/01434630408666529

Ekici, H., Yücel, E., & Cesur, S. (2021). Deciding between moral priorities and COVID-19 avoiding behaviors: A moral foundations vignette study. *Current Psychology*, *42*(7), 5922–5938. https://doi.org/10.1007/s12144-021-01941-y

Evans, J. S. B. T., & Over, D. E. (1996). Rationality and reasoning. In *Psychology Press eBooks* (1st ed.). Psychology Press. https://doi.org/10.4324/9780203027677

Faul, F., Erdfelder, E., Lang, A., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*(2), 175–191. https://doi.org/10.3758/bf03193146

Foot, P. (2002). The problem of abortion and the doctrine of the double effect. In *Oxford University Press eBooks* (pp. 19–32). https://doi.org/10.1093/0199252866.003.0002

Friesdorf, R., Conway, P., & Gawronski, B. (2015). Gender differences in responses to moral dilemmas. *Personality and Social Psychology Bulletin*, *41*(5), 696–713. https://doi.org/10.1177/0146167215575731

Fumagalli, M., Ferrucci, R., Mameli, F., Marceglia, S., Mrakic-Sposta, S., Zago, S., Lucchiari, C., Consonni, D., Nordio, F., Pravettoni, G., Cappa, S., & Priori, A. (2010). Gender-related differences in moral judgments. *Cognitive Processing*, *11*(3), 219–226. https://doi.org/10.1007/s10339-009-0335-2

Gawronski, B., Armstrong, J., Conway, P., Friesdorf, R., & Hütter, M. (2017). Consequences, norms, and generalized inaction in moral dilemmas: The CNI model of moral decision-making. *Journal of Personality and Social Psychology*, *113*(3), 343–376. https://doi.org/10.1037/pspa0000086

Gawronski, B., & Beer, J. S. (2016). What makes moral dilemma judgments "utilitarian" or "deontological"? *Social Neuroscience*, 1–7. https://doi.org/10.1080/17470919.2016.1248787

Geipel, J., Hadjichristidis, C., & Surian, L. (2015). How foreign language shapes moral judgment. *Journal of Experimental Social Psychology*, *59*, 8–17. https://doi.org/10.1016/j.jesp.2015.02.001

Geipel, J., Hadjichristidis, C., & Surian, L. (2016). Foreign language affects the contribution of intentions and outcomes to moral judgment. *Cognition*, *154*, 34–39. https://doi.org/10.1016/j.cognition.2016.05.010

Gervais, W. M., & Norenzayan, A. (2012). Analytic thinking promotes religious disbelief. *Science*, *336*(6080), 493–496. https://doi.org/10.1126/science.1215647

Gibbs, J. C. (2021). Gender differences in moral judgment and behavior. *Oxford Research Encyclopedia of Psychology*. https://doi.org/10.1093/acrefore/9780190236557.013.527

Gilligan, C. (1982). *In a different voice: Psychological theory and women's development*. Cambridge, MA: Harvard University Press. https://www.hup.harvard.edu/books/9780674970960

Gold, N., Pulford, B. D., & Colman, A. M. (2014). The outlandish, the realistic, and the real: contextual manipulation and agent role effects in trolley problems. *Frontiers in Psychology*, *5*. https://doi.org/10.3389/fpsyg.2014.00035

Graham, J., Haidt, J., & Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology*, *96*(5), 1029–1046. https://doi.org/10.1037/a0015141

Greene, J. D., Nystrom, L. E., Engell, A. D., Darley, J. M., & Cohen, J. D. (2004). The neural bases of cognitive conflict and control in moral judgment. *Neuron*, *44*(2), 389–400. https://doi.org/10.1016/j.neuron.2004.09.027

Greene, J. D., Sommerville, R. B., Nystrom, L. E., Darley, J. M., & Cohen, J. D. (2001). An FMRI investigation of emotional engagement in moral judgment. *Science*, *293*(5537), 2105–2108. https://doi.org/10.1126/science.1062872

Gürçay, B., & Baron, J. (2016). Challenges for the sequential two-system model of moral judgement. *Thinking & Reasoning*, *23*(1), 49–80. https://doi.org/10.1080/13546783.2016.1216011

Hadjichristidis, C., Geipel, J., & Surian, L. (2016). How foreign language affects decisions: Rethinking the brain-drain model. *Journal of International Business Studies*, *48*(5), 645–651. https://doi.org/10.1057/s41267-016-0040-1

Hafizi, S., Memari, A. H., Pakrah, M., Mohebi, F., Saghazadeh, A., & Koenig, H. G. (2013). The Duke University Religion Index (DUREL): Validation and reliability of the Farsi version. *Psychological Reports*, *112*(1), 151–159. https://doi.org/10.2466/08.07.17.pr0.112.1.151-159

Haidt, J., & Joseph, C. (2004). Intuitive ethics: how innately prepared intuitions generate culturally variable virtues. *Daedalus*, *133*(4), 55–66. https://doi.org/10.1162/0011526042365555

Hashimoto, H., Maeda, K., & Matsumura, K. (2022). Fickle judgments in moral dilemmas: time pressure and utilitarian judgments in an interdependent culture. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.795732

Hayakawa, S., & Keysar, B. (2017). Using a foreign language reduces mental imagery. *Cognition*, *173*, 8–15. https://doi.org/10.1016/j.cognition.2017.12.010

Hayakawa, S., Tannenbaum, D., Costa, A., Corey, J. D., & Keysar, B. (2017). Thinking more or feeling less? Explaining the Foreign-Language effect on Moral judgment. *Psychological Science*, *28*(10), 1387–1397. https://doi.org/10.1177/0956797617720944

Hennig, M., & Hütter, M. (2021). Consequences, norms, or willingness to interfere: A ProCNI model analysis of the foreign language effect in moral dilemma judgment. *Journal of Experimental Social Psychology*, *95*, 104148. https://doi.org/10.1016/j.jesp.2021.104148

Ivaz, L., Costa, A., & Duñabeitia, J. A. (2016). The emotional impact of being myself: Emotions and foreign-language processing. *Journal of Experimental Psychology Learning Memory and Cognition*, *42*(3), 489–496. https://doi.org/10.1037/xlm0000179

Jaffee, S., & Hyde, J. S. (2000). Gender differences in moral orientation: A meta-analysis. *Psychological Bulletin*, *126*(5), 703–726. https://doi.org/10.1037/0033-2909.126.5.703

Jaquet, F., & Cova, F. (2021). RETRACTED: Beyond moral dilemmas: The role of reasoning in five categories of utilitarian judgment. *Cognition*, *209*, 104572. https://doi.org/10.1016/j.cognition.2020.104572

Kahneman, D. (2011). *Thinking, fast and slow*. New York :Farrar, Straus and Giroux.

Keysar, B., Hayakawa, S. L., & An, S. G. (2012). The Foreign-Language effect. *Psychological Science*, *23*(6), 661–668. https://doi.org/10.1177/0956797611432178

Kirova, A., Tang, Y., & Conway, P. (2023). Are people really less moral in their foreign language? Proficiency and comprehension matter for the moral foreign language effect in Russian speakers. *PLoS ONE*, *18*(7), e0287789. https://doi.org/10.1371/journal.pone.0287789

Koenig, H. G., & Büssing, A. (2010). The Duke University Religion Index (DUREL): a Five-Item measure for use in epidemological studies. *Religions*, *1*(1), 78–85. https://doi.org/10.3390/rel1010078

Kohlberg, L. (1969). Stage and sequence: The cognitive-developmental approach to socialization. In D. A. Goslin (Ed.), *Handbook of socialization theory and research* (pp. 347–480). Chicago: Rand McNally.

Körner, A., Deutsch, R., & Gawronski, B. (2020). Using the CNI model to investigate individual differences in moral dilemma judgments. *Personality and Social Psychology Bulletin*, *46*(9), 1392–1407. https://doi.org/10.1177/0146167220907203

Kuznetsova, A., Brockhoff, P. B., & Christensen, R. H. B. (2017). LMERTest Package: Tests in Linear Mixed Effects models. *Journal of Statistical Software*, *82*(13). https://doi.org/10.18637/jss.v082.i13

McPhetres, J., Conway, P., Hughes, J. S., & Zuckerman, M. (2018). Reflecting on God's will: Reflective processing contributes to religious peoples' deontological dilemma responses. *Journal of Experimental Social Psychology*, *79*, 301–314. https://doi.org/10.1016/j.jesp.2018.08.013

Metcalfe, J., & Mischel, W. (1999). A hot/cool-system analysis of delay of gratification: Dynamics of willpower. *Psychological Review*, *106*(1), 3–19. https://doi.org/10.1037/0033-295x.106.1.3

Muda, R., Niszczota, P., Białek, M., & Conway, P. (2018). Reading dilemmas in a foreign language reduces both deontological and utilitarian response tendencies. *Journal of Experimental Psychology Learning Memory and Cognition*, *44*(2), 321–326. https://doi.org/10.1037/xlm0000447

Nadarevic, L., Klein, L. C., & Dierolf, J. (2021). Does foreign language alter moral judgments? Inconsistent results from two pre-registered studies with the CNI model. *Open Psychology*, *3*(1), 66–86. https://doi.org/10.1515/psych-2020-0112

Ortigosa-Beltrán, I., Jaén, I., & García-Palacios, A. (2023). Processing negative autobiographical memories in a foreign language. *Frontiers in Psychology*, *14*. https://doi.org/10.3389/fpsyg.2023.1133915

Pennycook, G., Cheyne, J. A., Seli, P., Koehler, D. J., & Fugelsang, J. A. (2012). Analytic cognitive style predicts religious and paranormal belief. *Cognition*, *123*(3), 335–346. https://doi.org/10.1016/j.cognition.2012.03.003

Piazza, J., & Landy, J. F. (2013). "Lean not on your own understanding": Belief that morality is founded on divine authority and non-utilitarian moral judgments. *Judgment and Decision Making*, *8*(6), 639–661. https://doi.org/10.1017/s1930297500004691

Piazza, J., & Sousa, P. (2014). Religiosity, political orientation, and consequentialist moral thinking. *Social Psychological and Personality Science*, *5*(3), 334–342. https://doi.org/10.1177/1948550613492826

Privitera, A. J. (2024). Influence of cognitive control on the moral foreign language effect. *International Journal of Bilingualism*. https://doi.org/10.1177/13670069241292498

Privitera, A. J., Li, S., Zhou, Y., & Wang, M. (2023). Modulatory role of foreign language experience on the Moral Foreign Language Effect. *Bilingualism Language and Cognition*, *26*(5), 1038–1050. https://doi.org/10.1017/s1366728923000275

Qian, Y., Takimoto, Y., Wang, L., & Yasumura, A. (2023). Exploring cultural and gender differences in moral judgment: A cross-cultural study based on the CNI model. *Current Psychology*, *43*(6), 5243–5253. https://doi.org/10.1007/s12144-023-04662-6

R Core Team. (2023). R: A Language and Environment for Statistical Computing. R Foundation for Statistical Computing, Vienna. https://www.r-project.org/

Rosas, A., Bermúdez, J. P., & Aguilar-Pardo, D. (2019). Decision conflict drives reaction times and utilitarian responses in sacrificial dilemmas. *Judgment and Decision Making*, *14*(5), 555–564. https://doi.org/10.1017/s193029750000485x

Royzman, E. B., & Baron, J. (2002). The preference for indirect harm. *Social Justice Research*, *15*(2), 165–184. https://doi.org/10.1023/a:1019923923537

Shariff, A. F., Piazza, J., & Kramer, S. R. (2014). Morality and the religious mind: why theists and nontheists differ. *Trends in Cognitive Sciences*, *18*(9), 439–441. https://doi.org/10.1016/j.tics.2014.05.003

Thomson, J. J. (1985). The trolley problem. *The Yale Law Journal*, *94*(6), 1395. https://doi.org/10.2307/796133

Tinghög, G., Andersson, D., Bonn, C., Johannesson, M., Kirchler, M., Koppel, L., & Västfjäll, D. (2016). Intuition and Moral Decision-Making – the effect of time pressure and cognitive load on moral judgment and altruistic behavior. *PLoS ONE*, *11*(10), e0164012. https://doi.org/10.1371/journal.pone.0164012

Volk, S., Köhler, T., & Pudelko, M. (2014). Brain drain: The cognitive neuroscience of foreign language processing in multinational corporations. *Journal of International Business Studies*, *45*(7), 862–885. https://doi.org/10.1057/jibs.2014.26

Winskel, H., & Bhatt, D. (2020). The role of culture and language in moral decision-making. *Culture and Brain*, *8*(2), 207–225. https://doi.org/10.1007/s40167-019-00085-y

Yavuz, M., Küntay, A. C., & Brouwer, S. (2023). The effect of foreign language and psychological distance on moral judgment in Turkish–English bilinguals. *Bilingualism Language and Cognition*, *27*(3), 447–459. https://doi.org/10.1017/s1366728923000706.

Zohrabi, M. (2023). A pragmatic view on education: Navigating AI, technology, curriculum, and identity in the 21st century. *International Journal of Practical and Pedagogical Issues in English Education (IJPIE)*, 1(3), 72-90. https://doi.org/10.22034/ijpie.2023.233191