University of Brasília

Institute of Psychology

Graduate Program in Social, Work and Organizational Psychology

The Dilemma of Measuring Moral Judgments:

From Imported Trolleys to Emic Dilemmas

Cleno Couto de Mendonça Neto

Brasília

2026

University of Brasília

Institute of Psychology

Graduate Program in Social, Work and Organizational Psychology

The Dilemma of Measuring Moral Judgments: From Imported Trolleys to Emic Dilemmas

Cleno Couto de Mendonça Neto

Doctoral Dissertation presented to the Graduate Program of Social, Work and Organizational Psychology as a partial requirement for the degree of Doctor in Social, Work and Organizational Psychology.

Supervisor: Prof. Dr. Ronaldo Pilati

Brasília

2026

Doctoral Dissertation presented and evaluated by the examination board in May 29, 2026.

Chair

Dr. Ronaldo Pilati

University of Brasilia

Members

Prof. Dr. João Gabriel Modesto

State University of Goiás

Prof. Dr. Paulo Sérgio Boggio

Mackenzie Presbyterian University

Prof. Dr. Tiago Jessé de Souza Lima

University of Brasilia

Alternate Members

Prof. Dr. Waldir M. Sampaio

Pontifical Catholic University – RJ

Prof. Dr. Jacob Arie Laros

University of Brasilia

Acknowledgments

Eu iniciei a graduação em Psicologia sem um objetivo além de grande curiosidade e logo no início me descobri apaixonado pela Psicologia Social e pela pesquisa. A defesa dessa tese representa um passo adiante na construção de uma carreira que é a consolidação dessas paixões e nada disso seria possível sem a influência de algumas pessoas.

Agradeço a todos os meus orientadores, que foram imprescindíveis nessa trajetória: Ana Flávia Madureira, Amalia Raquel Perez-Nebra e João Gabriel Modesto. Entre eles, agradeço especialmente a Ronaldo Pilati, com quem tenho trabalhado nos últimos seis anos. Foram anos de excelente orientação, mentoria, apoio e muito aprendizado. Uma relação que moldou não apenas esta tese, mas minha forma de pensar e fazer ciência. Espero que tenhamos mais oportunidades de troca além dessa etapa.

Agradeço também aos meus colegas do Grupo de Estudos e Pesquisas em Psicologia Social (GEPS), com quem sempre aprendo coisas das mais diversas e que tornam o processo do doutorado muito mais leve e divertido. Nominalmente, agradeço a Andressa Pontes, Daniel Zacarias, Isabela Caro, Lorena Rodrigues, Natália Tomé e Regis Kakinohana. Agradeço ainda o apoio de Regis no desenvolvimento e análise do Estudo 1 desta tese e das assistentes de pesquisa que auxiliaram na adaptação dos cenários de dilemas morais para o contexto brasileiro (Alicia Soares de Souza Prado, Maria Joana de Sousa Oliveira Telles, Maria Luísa da Costa Silva, Natália Iturri Ângulo e Sofia Rodrigues de Santana). Por fim, agradeço aos demais docentes, técnicos e colegas do Programa de Pós-Graduação em Psicologia Social, do Trabalho e das Organizações (PPG-PSTO) e do Instituto Nacional de Ciência e Tecnologia em Neurociência Afetiva e Social (INCT-SANI).

Durante esse curso, tive incríveis oportunidades na vida acadêmica e na docência, o que enriqueceu minha formação de maneiras que extrapolam esta tese. Agradeço especialmente àqueles com quem tive a oportunidade de trabalhar nesses diversos contextos,

muitos dos quais se tornaram amigos. Especialmente nos últimos dois anos tenho muitíssimo a agradecer a Laura Andrade, minha dupla de todos os dias, que me apoia e me ensina a ser um professor e um pesquisador melhor todos os dias.

Agradeço ao PPG-PSTO, à Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), ao Instituto de Pesquisa Econômica Aplicada (IPEA) e ao INCT-SANI, pelo financiamento e pelos recursos sem os quais este projeto não teria sido concluído. Agradeço aos membros da banca que aceitaram receber e avaliar esse trabalho, o cuidado e a atenção de vocês durante esse processo com certeza serão fundamentais.

Por fim, e não menos importante, agradeço à minha família, meu namorado e aos meus amigos pelo acompanhamento durante todo esse processo e pelo apoio que, tenho certeza, seguirá no futuro. Eu não seria quem sou sem vocês.

List of Tables

Table 1 Mean and Standard Deviations for Difficulty, Plausibility, and Realism in Study 2 29

Table 2 Parameter Estimates and 95% Confidence Intervals for the Sociodemographic Variables in Study 2 30

Table 3 Pre-Registered Hypothesis for Study 3 38

Table 4 Variations of the Environmental Disaster Dilemma 40

Table 5 Mean and Standard Deviations for Difficulty, Plausibility, and Realism in Study 3 43

Table 6 Parameter Estimates and 95% Confidence Intervals for the Sociodemographic Variables in Study 3 44

Table 7 Sociodemographic Information for Study 4 51

Table 8 Summary Statistics and t Tests for Difficulty, Plausibility, and Realism in Study 4 55

Table 9 Model Parameters for Perceptions in Dilemma Difficulty, Realism, and Plausibility in Study 4 56

Table 12 Fit Statistics for the CNI Models in Study 4 57

Table 13 Parameter Estimates and 95% Confidence Intervals for Each Grouping Variable in Study 4 58

List of Figures

Figure 1 Multinomial Processing Tree for the CNI Model of Moral Decision Making 16

Summary

Abstract **10**

Resumo **11**

Study 1. Understanding How Moral Judgments Vary Across Cultures: Moderator Effects of Cultural Values, Social Axioms, and Tightness **19**

Study 2. The Adapted CNI Model of Moral Decision Making in Brazil **20**

Method 24

Participants 24

Measures 25

Procedures 25

Results 28

Discussion 31

Study 3. Proposition and Validation of the Brazilian-Based Dilemmas for the CNI Model **36**

Method 38

Participants 38

Measures 39

Procedures 40

Results 42

Discussion 46

Study 4. A Cultural Comparison of Emic and Etic Factual Dilemmas **50**

Method 51

Participants....51

Measures....52

Procedures....52

Results....54

Discussion....58

General Discussion....63

References....68

Appendix A. The 12 Factual Dilemmas from Gawronski et al. (2017) and Körner et al. (2020)....83

Appendix B. The 6 GK Factual Dilemmas....91

Appendix C. Secondary Analysis for Körner and Deutsch's (2023) Data....100

Appendix D. News and Events Used for the Construction of New Dilemmas....102

Appendix E. The 6 Constructed Brazilian Factual Dilemmas....105

Appendix F. Analysis of Suggested Countries for a Dilemma Construction Study...113

Abstract

The present dissertation investigates whether the method used to assess moral judgments influences how individuals respond to moral dilemmas and whether such methodological choices interact with culture. Traditional dilemma studies have moved away from social issues and dived deeper into prototypical and unrealistic dilemmas, which may systematically distort the very moral judgments they intend to measure, a consequence that is particularly pernicious in cross-cultural contexts. This dissertation uses the CNI Model of Moral Decision-Making: a mathematical model that disentangles confounding elements in traditional paradigms by measuring sensitivity to consequences (C), moral norms (N), and general preference for inaction (I). Study 1 conducted a meta-analysis on classic dilemmas, showing that culture-level variables moderate how people respond to moral dilemmas across the globe. Study 2 adapted six CNI factual dilemmas to Brazilian Portuguese and provided a preliminary test of the model against sociodemographic variables. Study 3 introduced the emic perspective into the CNI Model with six new scenarios comprising Brazilian real-life events. The scenarios were fitted to the CNI Model, revealing distinct CNI parameter profiles. Study 4 assessed how participants from Brazil and the United States perceive the different sets of moral dilemmas and how they are assessed within the CNI. Taken together, the findings indicate that methodological choices in moral dilemma research are not culturally neutral and that incorporating locally grounded scenarios meaningfully changes how moral judgment is expressed and measured.

Keywords: cross-cultural psychology, moral dilemmas, CNI Model of Moral Decision Making, measuring bias, moral realism.

Resumo

A presente tese investiga se o método para avaliar julgamentos morais influencia a forma como os indivíduos respondem a dilemas morais e se tais escolhas metodológicas interagem com a cultura. Estudos tradicionais sobre dilemas afastaram-se de questões sociais e aprofundaram-se em dilemas prototípicos e irrealistas, o que pode distorcer sistematicamente os próprios julgamentos morais que pretendem medir, uma consequência particularmente perniciosa em contextos transculturais. Esta tese utiliza o Modelo CNI de Tomada de Decisão Moral: um modelo matemático que busca reduzir elementos de confusão em paradigmas tradicionais, medindo a sensibilidade às consequências (C), normas morais (N) e preferência geral pela inação (I). O Estudo 1 realizou uma meta-análise sobre dilemas clássicos, mostrando que variáveis de nível cultural moderam a forma como as pessoas respondem a dilemas morais no mundo. O Estudo 2 adaptou seis dilemas factuais do CNI para o Brasil e realizou um teste preliminar do modelo em relação a variáveis sociodemográficas. O Estudo 3 introduziu a perspectiva êmica no Modelo CNI com seis novos cenários que compreendem situações da vida real brasileira. Os cenários foram ajustados ao Modelo CNI e revelaram perfis distintos do CNI. O Estudo 4 avalia como participantes do Brasil e dos Estados Unidos percebem e avaliam os diferentes conjuntos de dilemas morais no CNI. Em conjunto, os resultados indicam que as escolhas metodológicas na pesquisa de dilemas morais não são culturalmente neutras e que a incorporação de cenários baseados localmente altera significativamente a forma como o julgamento moral é expresso e medido.

Palavras-chave: psicologia transcultural, dilemas morais, Modelo CNI de Tomada de Decisão Moral, vieses de mensuração, realismo moral.

In 2020, a man convicted of the abduction and rape of a young girl in South Korea was released after serving his sentence. Yet, the news of his release created an intense popular reaction of protests, cries for the death penalty, and several threats of physical assault, which led to four YouTubers being criminally charged (Bahk, 2020; Kim, 2020). Cases like this are, unfortunately, not uncommon, and raise moral questions: is it acceptable to beat up or kill a person who raped a child? Or else, is it acceptable to release a convicted child rapist back into society?

Questions about morality are central to societies and help guide individual, group, and social behavior through religion, public policies, norms, and culture itself (Forgas et al., 2016). Thus, it is not surprising that psychologists' have shown a prevailing interest in morality or how complex this field has become, given that understanding how people make moral judgments, what processes underlie it, and if those processes are universal or culturally influenced, may shape how we view, understand, and intervene in our history and lives. The present dissertation addresses these questions by investigating whether the method used to assess moral judgments influences how individuals respond to moral dilemmas and whether such methodological choices interact with culture.

Part of this answer involves disentangling what we understand by moral judgments, since a lot of information is conflated under this term (Sinnott-Armstrong, 2018). Dahl (2018, p. 20) proposes that the study of morality "investigates how people relate to moral issues by applying, endorsing, enforcing, defending, coordinating, and giving priority to moral principles." The most relevant of these moral principles come directly from philosophy: the deontological principle, which holds that an action is moral when it conforms to established moral norms or duties, irrespective of its outcomes; and the utilitarianism principle which holds that an action is moral when its outcomes maximize overall well-being and happiness

for those affected, even if a moral norm must be violated (Bartels et al., 2015; Gawronski et al., 2016, 2017).

Going back to the South Korean case, a deontological perspective would suggest that despite the man's action, killing him would be immoral, but from a utilitarian perspective killing him could be moral if it prevented the suffering of others (assuming he would reoffend). Although more realistic, this case resembles the trolley dilemma (and its variations), which weighs whether it is acceptable for a bystander to push a switch and redirect an out-of-control trolley from killing five, but killing one person instead (Foot, 1967; Thomson, 1976).

The "trolley problem" became a relevant way to understand and discuss morality after Thomson's (1976) proposition, but Philippa Foot's original version of this scenario was not the now-familiar bystander-and-switch trolley formulation. In her paper, Foot first asks us to compare two cases: one involving a magistrate who can save five innocent people held by a mob, but only by framing and executing another innocent person. The trolley appeared only as a secondary illustration of these broader principles, a thought experiment embedded within a philosophical argument about abortion, euthanasia, and the moral limits of consequentialist reasoning (Foot, 1967).

The transition of this philosophical thought experiment to psychological research came much later and represented a significant shift in purpose. Among the reasons why the trolley dilemmas were widely adopted, is that: (i) they provide a simple way to look at how people make moral judgments and how those judgments vary across dilemma characteristics (Greene et al., 2001, 2009) and culture (Awad et al., 2020; Bago et al., 2022; Klein et al., 2018); (ii) they are sacrificial, that is, the dilemmas manipulated the norm of not killing another person, which can be considered one of the most relevant moral norms across cultures (Burkart et al., 2018; Curry et al., 2019; Krebs, 2011).

However, within this appropriation studies have furthered from social issues and dove deeper into prototypical, amusing, and unrealistic dilemmas, which may systematically distort the very moral judgments they intend to measure (Bauman et al., 2014; Gawronski et al., 2017; Kahane, 2015). The consequence of this derailing is pernicious, as it may also systematically distort the measurement of moral judgments (Gawronski et al., 2017) and have cross-cultural implications.

These cultural implications constitute the second part of this research agenda. In trolley dilemmas, people across countries more readily endorse sacrificing one to save five in impersonal compared to personal situations (Awad et al., 2020; Bago et al., 2022; Greene et al., 2001, 2009). Yet when a more contextually grounded moral scenario is considered, such as the South Korean rapist example, the picture diverges substantially. Historical and contemporary data document that lynching or threatening to lynch criminal suspects (be they violent or sexual) are common in Latin America (Nussio & Clayton, 2025) and Africa (Pfeifer, 2017a). In contrast, in the United States, Europe, and the Middle East, lynching more commonly targets ethnic and racial minority groups rather than criminal suspects (Jefferson, 2026; Pfeifer, 2017a, 2017b), and systematic data on lynchings directed at criminal suspects in these regions are largely absent from the literature.

This points to a broader limitation of cross-cultural moral psychology: its near-exclusive reliance on the etic perspective, a universalizing approach that attempts to uncover cross-cultural similarities and differences (Berry, 1989; Brislin, 1976). Beyond their well-documented low methodological and psychological realism (Bauman et al., 2014; Bostyn et al., 2018), trolley-like dilemmas are imported wholesale into different cultural settings without adaptation–functioning as imposed etics (Berry, 1989) rather than as culturally grounded stimuli (Brislin, 1976; Galperin et al., 2022).

Therefore, the literature of the moral dilemmas framework still fails to answer the "WEIRD" problem (Western, Educated, Industrialized, Rich, and Democratic countries; Henrich et al., 2010; Muthukrishna et al., 2020) and the underrepresentation of the world's population–specially from outside the Global North (mostly West European or North American)–in psychology publications (Thalmayer et al., 2021). This reinstates the urge for some incorporation of both the etic and emic (local) aspects of culture into psychology and moral judgment.

According to Berry (1989), the emic perspective attempts to incorporate a particular cultural context while emphasizing what is unique to people from one culture. To do that, it is expected that the viewpoint and research progress is made within this cultural domain and by the people who are inserted in it (Brislin, 1976; Galperin et al., 2022). Incorporating both approaches can help to uncover culturally sensitive phenomena and provide cross-cultural comparisons.

This can be accomplished by exploring the emic resources of different cultural contexts and comparing them to extract relevant etic factors (Berry, 1989; Brislin, 1976). Galperin et al. (2022) formalized this logic into an emic-etic-emic research cycle, arguing that cross-cultural research, particularly in underrepresented contexts, benefits from: beginning with locally grounded, emic inquiry; proceeding to etic comparison across cultures; and returning to emic analysis to contextualize the findings. This iterative cycle stresses that the dominant etic approach alone is insufficient, as it risks importing constructs that do not adequately capture local phenomena, and that each subsequent phase of the cycle should be informed by the results of the previous one (Galperin et al., 2022).

Although the present dissertation does not strictly follow the emic-etic-emic sequence proposed by Galperin et al. (2022), beginning instead with an etic examination before progressing to emic construction, the underlying logic of iterative integration between local

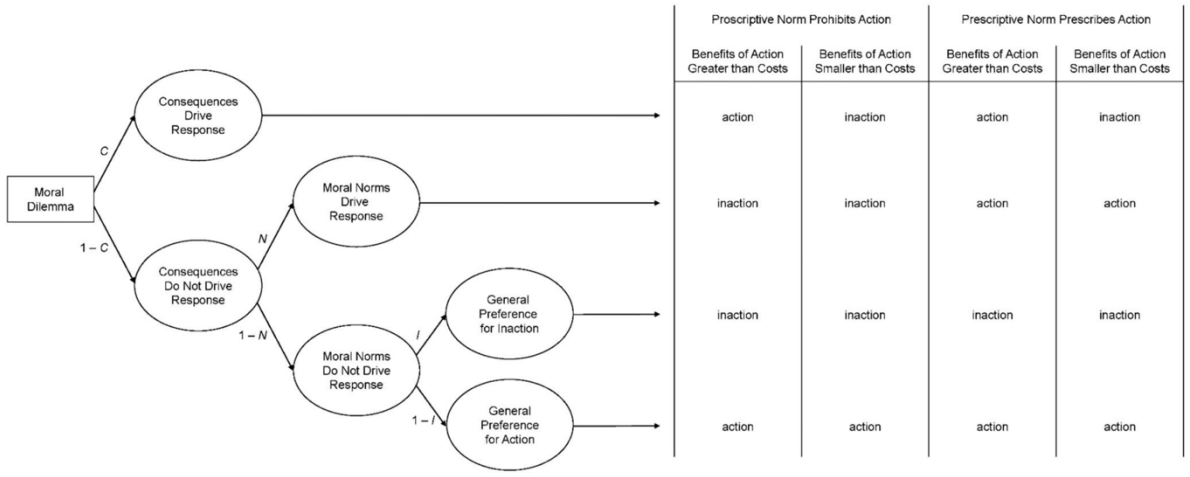
and universal perspectives guided the design of this work. In this way, moral dilemma experiments are in a privileged position, as they can be incorporated into the same framing structure and scenarios that take into account local and real-life perspectives, while maintaining the possibility of cross-cultural comparisons. However, we must first let go of trolley-like scenarios.

A proposed alternative is based on Gawronski et al.'s (2016, 2017) CNI Model of Moral Decision Making. A mathematical model that disentangles the confounding elements presented in traditional moral dilemma paradigms by measuring three distinct parameters: sensitivity to consequences (C), sensitivity to moral norms (N), and general preference for inaction (I). Measuring each CNI parameter is only possible through experimental manipulation of moral dilemma scenarios. In the CNI, each dilemma has four variations (scenarios), considering whether the consequences of the action are greater or smaller than the costs, and the underlying norm prescribes or prohibits the action (Gawronski et al., 2016, 2017; Gawronski & Beer, 2016; Gawronski & Ng, 2025).

As a consequence of manipulating these variables and in response to problems with traditional dilemmas (Bauman et al., 2014; Kahane, 2015), new scenarios were constructed by considering real-life situations that do not have self-relevant outcomes or interfere with the action of a third person (Gawronski et al., 2017; Körner et al., 2020). The multinomial tree of moral decision-making is presented in Figure 1.

Figure 1

Multinomial Processing Tree for the CNI Model of Moral Decision Making



Note. From "Consequences, Norms, and Generalized Inaction in Moral Dilemmas: The CNI Model of Moral Decision-Making", by B. Gawronki, J. Armstrong, P. Conway, R. Friesdorf, and M. Hütter, 2017, *Journal of Personality and Social Psychology*, *113*(3), p. 347 (http://dx.doi.org/10.1037/pspa0000086). Copyright 2017 by the American Psychological Association.

The CNI Model has proven to be a good framework for understanding how people make moral judgments (e.g., Gawronski & Ng, 2025; Li et al., 2020; Nadarevic et al., 2021; Qian, Takimoto, & Yasumura, 2024; Zhang et al., 2018), and has also come with criticism and limitations (see Baron & Goodwin, 2020; Feng & Liu, 2022; Skovgaard-Olsen & Klauer, 2023). Most of its limitations relate to measurement issues (Baron & Goodwin, 2020; but see Gawronski et al., 2020) or assumptions made by the CNI Model (Skovgaard-Olsen & Klauer, 2023). However, the greatest limitation of the CNI Model may be that attempts to use it have relied solely on adapting the six (or twelve, Körner et al., 2020) factual moral dilemmas (Gawronski et al., 2017), thus focusing on the universal aspects of moral judgment and ignoring the possible effects of local aspects.

Therefore, this dissertation aims to incorporate emic concerns into moral dilemma experiments and cross-culturally test their etic aspects. To achieve this, we start with an etic perspective by examining existing data on the classic trolley dilemmas in Study 1 (published in Couto et al., 2025) and conducting a meta-analysis to better understand variability and how cultural variables may influence differences in moral judgment across the globe. As we show,

several culture-level variables moderate how people respond to variations in moral dilemmas, yet much additional variability may be lost to limitations of the trolley dilemma.

In sequence, we explored the etic perspective of the factual CNI dilemmas in Study 2 by adapting six scenarios from Gawronski et al. (2017) and Körner et al. (2020) to Brazilian Portuguese. We also provide a preliminary test of the CNI Model of Moral Decision-Making in this culture and test it against a relevant set of sociodemographic variables.

In Study 3, we report our attempt to introduce the emic perspective by constructing six new scenarios of moral dilemmas that comprise real-life events that have provoked debates on the correct course of action in Brazil. After constructing the scenarios, we also expect the Brazilian Dilemmas to yield a similar pattern of parameter estimates to those observed in Study 2. We pre-registered this analysis, thereby providing a more rigorous assessment of the effectiveness of the CNI Model in the Brazilian context.

Finally, Study 4 aims to assess how participants from Brazil and the United States of America (US) perceive different sets of moral dilemmas (i.e., the Gawronski and Körner [further referred as GK] CNI dilemmas, and the Brazilian CNI dilemmas) as typical, plausible, or absurd (Körner & Deutsch, 2023), and how the CNI parameters differ between those countries[1].

[1] We also attempted to construct a set of moral dilemmas for a third country but were unable due to time and availability of collaborators limitations.

Study 1. Understanding How Moral Judgments Vary Across Cultures: Moderator Effects of Cultural Values, Social Axioms, and Tightness[2]

This study was published by the Cross-Cultural Research in 2025 and is available through its DOI: 10.1177/10693971251325292. This study is copyrighted by SAGE Publications and is not available in Open Access; therefore, it will be submitted as a separate file only for the examination board assessment.

[2] Regis K. Kakinohana contributed to the development of this study by reviewing the proposal and hypotheses and analyzing the data.

Study 2. The Adapted CNI Model of Moral Decision Making in Brazil

Understanding how people make moral decisions in everyday life can be crucial for planning and intervening in situations of natural disasters, pandemics, moral panic, and others (Azevedo et al., 2023; Bavel et al., 2020; Goode & Ben-Yehuda, 1994). While researchers have attempted to discover the psychological and neurological processes that underlie moral judgments, studies have furthered from real-life issues and dove deeper into prototypical, amusing, and unrealistic dilemmas (Bauman et al., 2014; Gawronski et al., 2017; Kahane, 2015).

Study 1 provided evidence of universal tendencies and some cultural variability in moral judgment, even within a prototypical framework (Couto et al., 2025). In this study, we aimed to assess how well a more realistic model of moral judgment fits the Brazilian context. Thus, we adapted real-life scenarios from the CNI Model of Moral Decision-Making (Gawronski et al., 2017; Körner et al., 2020) and provided a preliminary test of this model's ability to measure and distinguish between consequence, norms, and general preference for inaction in the Brazilian context of moral decision-making.

Within the framework of the CNI Model, Gawronski et al. (2017) and Körner et al. (2020) provided a set of 12 distinct moral dilemmas with four variations, two variations in norms and two variations in consequences, comprising a battery of 48 scenarios (which can be found in Appendix A). Each dilemma was inspired by real-world cases that generated moral debates about the appropriate course of action (Gawronski et al., 2017) and avoided situations of self-relevant outcomes and interference with intentional actions of a third person (Körner et al., 2020). The dilemmas also maintained a sacrificial characteristic, which means that only life or death situations were considered in the scenarios.

Although some of these dilemmas may easily be adapted to new cultural contexts, this is not true for all of them. Most of the Gawronski and Korner (referred to as GK; Gawronski

et al., 2017; Körner et al., 2020) dilemmas may also seem to be too unrealistic or improbable within a different culture, which defeats the purpose of factual dilemmas. The Bishop dilemma, for example, proposes a situation in which the participant is a church official during the Nazi occupation of the Netherlands and has to decide between killing a Jewish family or letting the Nazis kill a dozen of Dutch people, as presented below in the proscriptive norms and benefits of the action greater than the costs version:

> You are a church official during the Nazi occupation of the Netherlands. You have an official agreement with the occupying forces that protects anyone under your care. You publicly spoke on behalf of a Jewish family, annoying the Nazis. To demonstrate their power, the Nazis demand that you kill the members of the Jewish family. Otherwise, they will execute dozens of Dutch people they have incarcerated for political reasons. Is it acceptable in this case to kill the Jewish family? (see Appendix A for all variations)

Although participants may "put themselves in the shoes" of a church official during the Nazi occupation of the Netherlands, this situation is extremely far from the reality of the Brazilian population in the 2020 decade. Such gap suggest that the factual situations embedded in moral dilemmas may undermine their validity when applied outside their original context.

Nonetheless, in several studies, within and outside of the US, participants answered all of these dilemmas, and their aggregated data were analyzed to assess group and individual differences in moral judgment. The CNI Model of Moral Decision Making has shown the ability to discern the probability in which people's moral decision making are guided by the consequences of their actions, the moral norms and a general preference for inaction (Gawronski et al., 2017).

Using a multinomial processing tree (Figure 1), the three parameters are estimated based on a response pattern to the scenarios: the *C* parameter represents when participants chose (or endorsed) action when the benefits of the action where greater than the costs and chose (or endorsed) inaction when the benefits of the action where smaller than the costs, thus a higher score on *C* represents a more utilitarian position; the *N* parameter represents when participants chose (or endorsed) inaction in a proscriptive norm scenario and chose (or endorsed) action in a prescriptive norm scenario, thus a higher score on *N* may represent a more deontological position; finally, the *I* parameter reflects the participants' general preference for inaction (or action) regardless of the norms and the effects of the action, thus a score greater than .50 is indicative of a general preference towards inaction, while a score smaller than .50 is indicative of a general preference towards action (Gawronski & Ng, 2025). In this manner, the *I* parameter may also be conceptualized as a deontological position for its conformity to the "do no harm" norm (Baron & Goodwin, 2020; Gawronski & Ng, 2025).

This model has also been tested in comparison to several variables (Gawronski & Ng, 2025), such as gender, cognitive resources, framing effects, subclinical psychopathy (Gawronski et al., 2017), empathic concern, need for cognition, behavioral inhibition/activation (Körner et al., 2020), foreign language effects (Barabadi et al., 2023; Białek et al., 2019), personality traits (Kroneisen & Heck, 2020; Luke & Gawronski, 2022), political ideology (Luke & Gawronski, 2021), uncertainty (Ng et al., 2023), and chronic stress (Zhang et al., 2018). It also provides evidence of cross-cultural and gender differences in prefrontal cortex activity (Qian, Takimoto, & Yasumura, 2024) and cross-cultural applicability in Western countries (e.g., Gawronski et al., 2017; Körner et al., 2020; Körner & Deutsch, 2023; Nadarevic et al., 2021), China (Li et al., 2020; Qian, Takimoto, & Yasumura, 2024), and Japan (Qian, Takimoto, & Yasumura, 2024).

Following previous studies and other relevant discussions within the literature on moral psychology, we sought to test the CNI Model in Brazil considering several variables. For example, gender differences in moral judgment have been tested within both traditional, trolley-alike (Arutyunova et al., 2016), and CNI approaches (Gawronski et al., 2017); in the latter, a meta-analysis found that women had a stronger sensitivity to norms and a general preference for inaction than men (Gawronski & Ng, 2025). Considering the effects found for gender and that Hester and Gray (2020) argued for the incorporation of identity, such as gender and race, into moral psychology, we also aimed to test whether there were any differences in moral judgment by race.

Another potentially relevant factor is social class, as it is a structuring part of everyday life, and it may be relevant to how people make moral decisions (Kraus & Keltner, 2013). Religiosity levels and religious affiliation may also be impactful in understanding how moral judgments are made, because these factors affect how and which cultural norms and values are internalized (Herzog & Beadle, 2018; Liyanapathirana & Akroyd, 2023). Additionally, higher religiosity has been associated with a weaker preference for utilitarian judgments in the traditional framework (McPhetres et al., 2018) and a weaker sensitivity to consequences within the CNI Model (Körner et al., 2020), although the second effect was only marginally significant in a meta-analysis (Gawronski & Ng, 2025).

Social media usage appears to directly affect how moral judgments are made in diverse contexts. Specifically, the increased use of social media seems to affect the perception of social consensus and inhibit ethical decision making (Chauhan et al., 2022), while reducing moral sensitivity (Ge, 2020). Lu et al. (2022) also found that internet addicted Chinese participants showed a weaker sensitivity to norms within the CNI Model. Finally, political ideology has been proven to affect moral judgments as political beliefs may shape individuals' rationalizations of what is right or wrong (Hatemi et al., 2019). Within the CNI

Model, it has been found that conservative political ideology is associated with a weaker sensibility to consequences, despite not being associated with sensitivity to norms or a general preference for inaction (Gawronski & Ng, 2025; Luke & Gawronski, 2021).

Therefore, in this study we adapted six of the factual moral dilemmas to the Brazilian context and tested these more realistic dilemmas in an improved measurement model for moral judgments–i.e., the CNI Model of Moral Decision-Making (Gawronski et al., 2017). We also tested this model against the sociodemographic variables presented. Specifically, we expected that the statistical convergence of the CNI Model and the identifiability of its parameters would provide evidence of the adequacy of the GK Dilemmas, while the comparison of the observed parameter estimates in the baseline and sociodemographic models with those reported in literature would provide convergent support.

Method

Participants

Brazilian adults from various regions were recruited via social media and Besample to participate in a study of how they make moral judgments. Participants in the Besample sample received a compensation of USD .83 (approximately BRL 4.00) to complete the survey. A total of 763 people participated in the survey from August to September 2023, and 294 people completed all measures. Of these, 52 failed to answer one or more of our attention checks and were excluded from our analysis. Thus, our final sample was of 242 people; aged from 18 to 66 (M = 32; SD = 11.1); which 170 identified as women (57.82%), 70 identified as men, and two identified themselves as non-binary; in terms of race, most of our sample identified as white (n = 121; 41.16%), brown or mixed-race (“pardo” in Brazilian Portuguese; n = 85; 35.12%), and black (n = 31; 12.81%). Finally, most of our participants were from São Paulo (21.90%), Federal District (19.42%), Rio de Janeiro (9.92%), and Minas Gerais (8.68%).

Measures

GK Factual Moral Dilemmas for Brazilian Portuguese. Following Gawronski et al. (2017), participants were asked to indicate whether it was acceptable to perform the described action (yes or no question) in each scenario. Twenty-four scenarios were presented, comprising of six distinct dilemma situations with four variations each: in terms of their norms, whether they are prohibitive or prescriptive of action, and of their consequences, if the benefits of the action outweigh their costs considering overall well-being.

Scenario Engagement Rating (Körner & Deutsch, 2023). After each scenario, participants rated its difficulty, realism, and plausibility on a slider scale ranging from 0 to 100. Difficulty was measured with a single item: "How difficult was it to make the decision in the dilemma above?" Realism was measured with two items: "The scenario is realistic" and "The scenario is similar to decisions people have to make in real life." Plausibility was also measured with two items: "It is likely that the action described will have the consequences reported" and "Given the description of the scenario, there are no other options for achieving a more favorable outcome." Realism and plausibility scores were calculated from the mean of their respective items.

Sociodemographic Variables. Participants answered sociodemographic questions, such as country of residence, age, race, gender, sexual orientation identification, family monthly income, time spent on social media, religiosity and religion, and political ideology (social and economic).

Procedures

Dilemma Adaptation. Considering the set of 12 factual dilemmas available in Appendix A, we and a group of research assistants attempted to identify at least six different dilemmas that could be considered more realistic in a Brazilian sample. The six selected dilemmas were: Assisted Suicide, Construction Site, Dialysis, Mother, Peanuts, and Torture.

The other six dilemmas were not selected because of their implausibility, distance from the country's reality, or connection to strongly politically influenced viewpoints.

We then followed the guidelines for psychological measures adaptation by (i) translating each scenario to Brazilian Portuguese, (ii) synthesizing these translations, (iii) assessing content validity through the Content Validity Coefficient (CVC), which we considered a cut-off above .80, and (iv) back-translating them (Alexandre & Coluci, 2011; Borsa et al., 2012; International Test Commission, 2018). Each dilemma and its four versions were translated into Brazilian Portuguese by two different researchers, which were then compared and synthesized in an attempt to make them more conceptually and semantically equivalent to their original versions, as well as easily comprehensible to the target population (Borsa et al., 2012; International Test Commission, 2018).

Provided with the synthesized version, we asked five specialists in experimental psychology and morality to assess each of the 24 scenarios by how clear and easy their language was to comprehend (mean CVC_C = .95), how pertinent they were to the Brazilian context (mean CVC_P = .96), and how theoretically relevant they were (mean CVC_R = .95). A panel of specialists provided feedback on each scenario. The answers were aggregated into a total CVC of .95. Nevertheless, we considered each commentary made by the panel and improved our version of the scenarios.

We later asked five people from the general public to answer our scenarios, but this collection process was deeply impacted by the respondents' inability to distance themselves from the situations reported in the scenarios (as provided by their comments), and the CVC could not be conducted. Still, we made changes to two versions of the Assisted Suicide and Dialysis dilemmas and minor changes in all versions of the Peanuts dilemma to improve clarity and comprehension. This was considered the final version of the scenarios in Brazilian Portuguese, which was back-translated to English by a fluent speaker.

In comparison, the original and back-translated scenarios presented only small differences, most relating to the addition or change of information to improve readability or avoid confounding factors in the manipulation (e.g., in the Dialysis scenario we changed the versions where it read “two other patients” to “six other patients” so that the number of patients does not interfere with the results). The Brazilian Portuguese version of the dilemmas and their back-translated version is presented in Appendix B and the CVC data is available in the Open Science Framework (OSF; https://osf.io/tpq2k/?view_only=702ead80b4e449baaa4714ba58c051bf).

Data Collection. Our survey was made available to participants through Unipark’s EFS Survey. Before accessing the study, participants had to read and agree with a consent form; only after providing consent were participants directed to the 24 scenarios of the GK Factual Moral Dilemmas for Brazilian Portuguese (see Appendix B), which were presented in a fixed random order (following Gawronski et al., 2017). Participants were allowed to skip up to six scenarios (Skovgaard-Olsen & Klauer, 2023). After each scenario, participants were asked to fill the Scenario Engagement Rating (Körner & Deutsch, 2023).

After six scenarios were presented, participants saw a screen with instructions to take a break and answer an attention check item. Three attention checks were used in this study. The first two items asked participants to answer 0 (*totally disagree*) or 100 (*totally agree*) on a slider, and the last item asked them if they honestly believed that their answers should be used in our analysis. Finally, participants answered the sociodemographic questions and had their “results” presented considering the traditional approach (i.e., a tendency to being more deontological versus being more utilitarian) at the end of the survey.

Data Analysis. All analyses were conducted using R (version 4.5.0; R Core Team, 2025) and the *tidyverse* package (version 2.0.0; Wickham et al., 2019). We aggregated the data by calculating the sum of the action and inaction responses for each type of dilemma

variation, with aggregate scores ranging from 0 to 6 using the *rstatix* package (version 0.7.2; Kassambara, 2023).

We also used multinomial processing tree models with the MPTinR package (version 1.14.1; Singmann & Kellen, 2013) to assess the goodness-of-fit and to calculate the CNI parameters and their 95% confidence intervals. Baseline models were constructed to assess the general fit to the CNI model, considering that the C and N parameters should be significantly different from 0 to indicate sensitivity to the manipulation of consequences and norms, and the I parameter should be significantly different from .5 to indicate a general tendency for inaction (or action). Comparison models were constructed to test the differences in the key sociodemographic variables in our sample.

To conduct our comparison models, we first categorized the sociodemographic variables into binary categories. Race was recategorized between white vs. non-white people; social class was divided between people with family monthly income below R$4,848.00 (D and E class) vs. family monthly income above R$4,848.00 and up to R$22,240.00 (B and C class), considering the minimum wage at the time of data collection (Associação Brasileira de Empresas de Pesquisa, n.d.). Religion was divided between Christians vs. non-Christians (which includes agnostics and atheists due to sample limitations); and for the religiosity level, social media usage, and political ideology variables we used the mean plus or minus one standard deviation ($M \pm SD$) to indicate high vs. low levels of those. Data and syntax files are available in OSF: https://osf.io/tpq2k/?view_only=702ead80b4e449baaa4714ba58c051bf.

Results

Participants skipped responding to the dilemmas on 169 occasions. The variation in dilemmas that were skipped the most involved the presentation of a prescriptive norm, with the benefits of the action being smaller than the costs (n = 72). One hundred and sixty-three participants did not skip any dilemma (67.36% of our sample). Content-wise, the most

skipped were the Dialysis (n = 104) dilemma; which was considered the most difficult one (see Table 1). Also, an exploratory analysis showed that participants found these dilemmas, in average, more plausible (t [1451] = 22.93, p < .001) and realistic (t [1451] = 19.23, p < .001) but less difficult (t [1451] = -14.16, p < .001) than the scale midpoint (50.00).

Table 1

Mean and Standard Deviations for Difficulty, Plausibility, and Realism in Study 2

Dilemma	***Difficulty***		***Plausibility***		***Realism***	
	M	***SD***	***M***	***SD***	***M***	***SD***
Assisted Suicide	43.40	25.09	65.68	17.63	70.28	20.72
Construction Site	34.07	26.63	56.62	21.16	52.69	26.60
Dialysis	54.54	24.85	64.69	19.12	68.03	24.05
Mother	38.64	28.15	63.15	19.61	63.71	23.69
Peanuts	33.70	26.54	58.29	20.86	53.75	26.41
Torture	35.89	23.50	62.67	18.06	67.07	22.00

Our baseline model was a good fit for the data (G^2 [1] = 1.88, p = .170). Participants were sensitive to manipulation in consequences (C = .24, 95% CI [.22, .27]; ΔG^2 [1] = 412.98, p < .001) and norms (N = .54, 95% CI [.51, .57]; ΔG^2 [1] = 1043.48, p < .001); both diverging significantly from 0. We also found that participants showed a higher preference for inaction in presented dilemmas (I = .58, 95% CI [.55, .61]; ΔG^2 [1] = 24.85, p < .001).

We then proceeded with our comparative models by considering sociodemographic variables. The model fit our data well when separated by gender, G^2 (2) = 1.80, p = .407. We found no significant differences in the C parameter (ΔG^2 [1] = .45, p = .504), but found significant differences in the N (ΔG^2 [1] = 4.94, p = .026) and I (ΔG^2 [1] = 4.94, p = .026) parameter. This suggests that women are more sensitive to norms and show a higher generalized preference for inaction than men (see Table 2).

When separating the data by race, we found that the model was a good fit, G^2 [2] = 2.00, p .369, yet we found no difference in the sensitivity to norms (ΔG^2 [1] = 3.04, p = .081), consequences (ΔG^2 [1] = 1.67, p = .196), or in the general preference for inaction (ΔG^2 [1] = .04, p = .838) between white and non-white people. In the social class model (G^2 [2] = 1.97, p

= .37), we found a significant difference only in sensitivity to consequences (ΔG^2 [1] = 6.17, p = .013) but not in sensitivity to norms (ΔG^2 [1] = 2.53, p = .112) or in the general preference for inaction (ΔG^2 [1] = .01, p = .913). In terms of sensitivity to consequences, we found that people in social classes B and C were more prone to changes in consequences than people in classes D and E (see Table 2).

Table 2

Parameter Estimates and 95% Confidence Intervals for the Sociodemographic Variables in Study 2

	C Parameter		N Parameter		I Parameter	
Variables	**Est.**	**95% CI**	**Est.**	**95% CI**	**Est.**	**95% CI**
Gender						
Men	.229	[.186, .273]	.490	[.434, .547]	.530	[.476, .584]
Women	.247	[.220, .274]	.566	[.530, .602]	.606	[.566, .646]
Race						
Not White	.228	[.195, .261]	.512	[.469, .555]	.578	[.535, .620]
White	.258	[.226, .290]	.566	[.524, .609]	.584	[.537, .632]
Social Class						
B & C	.277	[.242, .311]	.568	[.521, .615]	.578	[.526, .631]
D & E	.218	[.188, .249]	.518	[.479, .558]	.582	[.542, .622]
Religion						
Christianism	.222	[.193, .251]	.566	[.529, .604]	.600	[.558, .642]
Other	.274	[.238, .311]	.495	[.444, .545]	.554	[.505, .603]
Religiosity						
High	.160	[.107, .213]	.602	[.537, .668]	.647	[.568, .726]
Low	.326	[.282, .371]	.451	[.386, .517]	.534	[.476, .593]
Social Media Use						
High	.234	[.175, .293]	.463	[.385, .540]	.608	[.536, .679]
Low	. 274	[.200, .347]	.587	[.487, .686]	.631	[.513, .749]
Economic PI						
Conservative	.160	[.099, .220]	.533	[.458, .608]	.539	[.463, .615]
Liberal	.264	[.208, .321]	.433	[.356, .510]	.524	[.458, .590]
Social PI						
Conservative	.202	[.153, .251]	.550	[.487, .613]	.561	[.494, .628]
Liberal	.325	[.276, .375]	.521	[.450, .592]	.580	[.507, .653]

Note. C = Consequences. N = Norms. I = General preference for inaction. Est. = Parameter Estimates. PI = Political Ideology. Parameter estimates are measured as probabilities from 0 to 1.

Regarding religion (G^2 [2] = 2.41, p = .300) and religiosity (G^2 [2] = 3.21, p = .201), the model fit our data well. We found significant differences in both religion and religiosity in sensitivity to norms (ΔG^2 [1] = 5.06, p = .024 and ΔG^2 [1] = 10.07, p = .002, respectively) and consequences (ΔG^2 [1] = 4.74, p = .029 and ΔG^2 [1] = 22.07, p < .001, respectively); however, we found a significant difference in the general preference for inaction only for

religiosity (ΔG^2 [1] = 5.05, p = .024; religion: ΔG^2 [1] = 1.96, p = .16). These differences indicate that Christians and people with high religiosity were more sensitive to norms and less sensitive to consequences (Table 2). Additionally, people with high religiosity had a higher general preference for inaction than those with low religiosity (Table 2).

Our model also fit the data well considering social media use (G^2 [2] = 2.59, p = .273); however there were no significant differences in the sensitivity to norms (ΔG^2 [1] = 3.58, p = .058), consequences (ΔG^2 [1] = .68, p = .41), or in the general preference for inaction (ΔG^2 [1] = .11, p = .740; see Table 2). Finally, the model for political ideology fit our data well for economic (G^2 [2] = 3.62, p = .164) and social factors (G^2 [2] = 2.82, p = .244). We found a significant difference only in sensitivity to consequences (economic: ΔG^2 [1] = 6.08, p = .014; social: ΔG^2 [1] = 12.01, p < .001), with people from more liberal ideologies being more sensitive to consequences than those from more conservative ideologies (Table 2), but not to norms (economic: ΔG^2 [1] = 3.36, p = .067; social: ΔG^2 [1] = .37, p = .544) or in the general preference for inaction (economic: ΔG^2 [1] = .08, p = .775; social: ΔG^2 [1] = .14, p = .704).

Discussion

We aimed to assess how a more realistic model of moral judgment fits the Brazilian context by adapting real-life scenarios from the CNI Model of Moral Decision-Making and providing a preliminary test of this model's ability to measure and distinguish between consequence, norms, and general preference for inaction in the Brazilian context of moral decision-making. We also tested the CNI Model for the known and relevant grouping variables.

Considering the adaptation process, we believe that real-life dilemmas were not only easily adapted to the Brazilian context, but they also led participants to emotionally engage with the scenarios–to the point that some of the judges were unable to evaluate them without

drawing on their own judgments–a pattern consistent with the high realism and plausibility ratings observed for these dilemmas (Körner & Deutsch, 2023). As shown in Table 1, the dilemmas vary in how they are perceived in terms of realism, plausibility, and difficulty, a variation that becomes a central point of our analysis in Study 4.

These dilemmas also provided a valid measure to the application of the CNI Model of Moral Decision Making, while distinguish between participants' sensitivity to norms, consequences (both significantly different than 0), and general preference for inaction (significantly different than .5) (Gawronski et al., 2017). Therefore, this model offers the possibility of avoiding the confounding of norms and general preference for inaction (Crone & Laham, 2017; Gawronski & Beer, 2016) as well as treating norms and consequence sensitivity as opposing extremes (Foot, 1967; Gawronski et al., 2017).

Specifically, we found that, in general, participants were more sensitive to manipulations in norms (N = .54) than consequences (C = .24) and that they had a general preference for inaction over action (I = .58), although this preference was small. Although Gawronski et al.'s (2017) studies found a similar pattern, the difference in norms and consequences sensitivity was smaller than in the current study ($N\text{-}C_{Gawronski}$ = .02) and they did not find a general preference for inaction. Which already suggests a difference in how Brazilians answer to these dilemmas.

As for our sociodemographic variables, we found the same patterns of response for gender as Gawronski et al. (2017), with women showing more sensitivity to norms and a higher preference for inaction than men, but no significant difference between women and men for sensitivity to consequences. These findings suggest that women tend to be more affected by social norms when making moral judgments, although they may opt to not act. This is consistent with the traditional approach of a more deontological principle for women (Arutyunova et al., 2016; Friesdorf et al., 2015). However, one relevant difference in the

conceptualization of gender in this study is that we considered participants' gender identification instead of biological sex; yet, we did not have enough transgender participants in our sample to make statistical inferences.

We found no significant difference in race between white and non-white people. Although race is highly relevant in everyday moral judgments (Hester & Gray, 2020), the main reason for the lack of differences in the present study is the absence of racially relevant indicators in the presented dilemmas. However, in studies that examined racial identity and bias, differences were found (Hester & Gray, 2020; Lima et al., 2019).

The third sociodemographic variable we analyzed was social class, which was a relevant variable in understanding participants' differences in sensitivity to consequences. Participants from higher social classes or with greater acquisitive power, were more influenced by the consequences of the dilemmas than participants from lower classes, or with lower acquisitive power. Even though this variable was not tested within the CNI Model in previous studies (Gawronski & Ng, 2025), these results are in consonance with the literature suggesting that social class can be considered a contextual factor that affects logical and sociomoral judgment, but that this is a more direct consequence of education, occupation, and family background (Gibson, 1990). Some research has also pointed out that low socioeconomic status can lead to diminished moral agency, which should appear in the general preference for inaction (Blacksher, 2002).

Considering religiosity levels and affiliation, we found that Christians and people with high religiosity were more sensitive to norms and less sensitive to consequences. These results were expected considering that religion is central to various groups and societies in defining cultural norms and values (Harris, 2011; Herzog & Beadle, 2018; Liyanapathirana & Akroyd, 2023), and they converge with findings from the traditional dilemmas (McPhetres et al., 2018) and the CNI Model (Körner et al., 2020). We also found that religious people had a

greater preference for inaction than those who were not religious, despite previous research within the CNI Model not finding a similar pattern (Körner et al., 2020), which once again brings forth the traditional deontological paradigm.

Contrary to what was anticipated, the use of social media had no effect on the participants' moral judgment. Finally, we found that economic and cultural political ideologies affect participants' sensitivity to consequences but not their sensitivity to norms or general preferences for inaction. This result is similar to the findings of Luke and Gawronski (2021), who found that conservatives are less sensitive to consequences than liberals.

This study also deviated from other studies using the CNI model in that participants were able to skip some scenarios, following the interesting arguments posed by Skovgaard-Olsen and Klauer (2023) regarding the possibility of participants choosing to avoid answering scenarios that they find ambiguous or overly artificial. Yet, we did not estimate the CNIS model proposed by the authors and instead treated the skipped responses as missing data. Still, we found a similar pattern to that reported by the authors, in that participants skipped especially scenarios where a proscriptive norm prohibits action and the benefits of action are greater than the costs, or where a prescriptive norm prescribes action and the benefits of action are smaller than the costs. More interestingly, the overall findings were similar to those of previous CNI studies, which contradicts the interpretation by Gawronski and Ng (2025) that adding the "skip" option would likely undermine sensitivity to consequences and moral norms due to missing data from action/inaction choices in scenarios that involve conflicting pressures toward outcome maximization and norm adherence.

Despite these findings, this study could be improved in several ways. The first is the use of only adapted dilemmas, which are based on moral situations from different countries and cultures that may not be as relevant as they should, despite our efforts to select the most relevant ones. The second considers our comparison variables; despite our findings, some of

the differences may be a consequence of the common variance between the predicted variables. However, the use of a correlational approach in the CNI Model demands the use of more dilemmas (Körner et al., 2020), which may affect participants' response rates, reliability, and exhaustion, or the use of Bayesian approaches for data analysis (Chen et al., 2024; Kroneisen & Heck, 2020; Skovgaard-Olsen & Klauer, 2023), which do not fully resolve the problem of reduced variance in the dataset. A final issue is the categorization of sociodemographic variables, which may hide relevant differences between racial groups and religious affiliations. These broad groupings also risk essentialist interpretations, implying that observed differences reflect inherent properties of these groups rather than socially constructed boundaries adopted here for statistical purposes.

Nonetheless, our study adapted a set of factual dilemmas to the Brazilian context, and provided a preliminary test of the CNI Model of Moral Decision Making. We found that this model is indeed capable of distinguishing between norm- and consequence-based behaviors and general preferences for inaction (versus action) in a different cultural context and presents a better possibility of understanding moral judgments than the traditional approach.

Study 3. Proposition and Validation of the Brazilian-Based Dilemmas for the CNI Model

Despite our findings in Study 2 indicating the fit of the CNI Model and the set of GK Dilemmas adapted to the Brazilian context, Thalmayer et al. (2021) emphasize the importance of incorporating both etic (i.e., cross-cultural and imported) and emic (i.e., local) approaches in psychological research. The previous study was our attempt to impose etic elements, while this study aims to incorporate emic ones by designing new and locally based real-life dilemmas for the CNI Model (Berry, 1989).

To our knowledge, the use of factual dilemmas (i.e., dilemmas based on real life events; Körner et al., 2020) in non-English speaking countries has been limited (Cecchetto et al., 2017; Christensen & Gomila, 2012; Sojoudi et al., 2022), and in the CNI Model are practically nonexistent (but see Li et al., 2020 for China; and Nadarevic et al., 2021 for Germany). However, these efforts have been limited to the adaptation of the GK scenarios, and no test for differences in the use of locally based and contextualized scenarios has been conducted.

While proposing several new historical dilemmas, Körner and Deutsch (2023) asked participants from Germany and the United States to evaluate traditional and new dilemmas for realism, plausibility, and absurdity. Regarding the differences between the sets of dilemmas, they found that historical dilemmas were indeed perceived as more realistic, plausible, and less absurd than traditional ones, even if this effect was smaller for the United States sample. However, they did not compare how participants' perceptions varied in these variables between countries.

By accessing Körner and Deustch's (2023) public data in the OSF, we found relevant differences in arousal, absurdity, difficulty, plausibility, and typicality of each dilemma for each country (see Appendix C for more details on this secondary data analysis). This difference makes us believe that the emic perspective is extremely relevant to fully unravel

the effects of moral judgments in cross-cultural settings. Therefore, in this study, we aimed to construct six new sets of moral dilemmas in the Brazilian context and assess whether they would yield parameter patterns consistent with the findings of Study 2.

To construct new factual dilemmas, Gawronski et al. (2017) suggest a search for real-world cases that generate moral debates about the appropriate course of action. Körner et al. (2020) also proposed that situations involving self-relevant outcomes and interference with intentional actions of a third person should be avoided. It is worth noting that all CNI dilemmas maintain a sacrificial characteristic, where only the norms of not killing another or saving another are manipulated (Gawronski & Ng, 2025). Despite moral judgments referring to norms wider than those, for future comparisons between the GK factual dilemmas and the new ones, we ought to follow this sacrificial framework.

Beyond that, no other recommendations were found in the specific literature on the CNI Model for dilemma construction at the time of the construction process[3]. Therefore, we looked for more detailed instructions on dilemmas construction in Körner and Deutsch (2023), who proposed various historical and factual dilemmas, despite their work being within the traditional framework that places deontology and utilitarianism as opposites. Their dilemmas are based on historical events, presenting detailed information that enhances authenticity and credibility, and a variety of situations, which adds complexity and depth to each scenario. We also considered adding multiple perspectives to the events described in the scenarios, attempting to ensure that participants would engage critically and empathetically with them, that is, giving them an identity (Hester & Gray, 2020). Finally, ethical considerations were considered to avoid trivializing sensitive events and topics.

[3] The construction of the Brazilian Dilemmas happened mostly through 2024. However, a recent publication by Gawronski and Ng (2025) provides a more detailed description of their dilemma creation process.

After constructing the set of six new scenarios, we tested their ability to fit the CNI Model of Moral Decision-Making well and to yield parameter patterns consistent with our findings from Study 2. Therefore, we expected that the model would be capable of significantly measuring sensitivity to consequences ($C > 0$) and norms ($N > 0$), and a general preference for inaction ($I > .5$) or action ($I < .5$), as well as distinguishing between the other grouping variables presented in Table 3 and our pre-registration in OSF (https://doi.org/10.17605/OSF.IO/FJGRS).

Table 3

Pre-Registered Hypothesis for Study 3

Variable	C Parameter	N Parameter	I Parameter
Gender	No significant gender difference in sensitivity to consequences.	Women will show stronger sensitivity to norms than men.	Women will show a stronger general preference for inaction than men.
Race	No significant race difference in sensitivity to consequences.	No significant race difference in sensitivity to norms.	No significant race difference in the general preference for inaction or action.
Social Class	People in higher social classes will show stronger sensitivity to consequences than people in lower social classes.	No significant social class difference in sensitivity to norms.	No significant social class difference in the general preference for inaction or action.
Religiosity	More religious people will show weaker sensitivity to consequences than less religious people.	More religious people will show stronger sensitivity to norms than less religious people.	More religious people will show a stronger general preference for inaction than less religious people.
Religion	Christians will show weaker sensitivity to consequences than non-Christians.	Christians will show stronger sensitivity to norms than non-Christians.	No significant difference in religion in general preference for inaction or action.
Social Media Use	No significant difference in social media use in sensitivity to consequences.	No significant difference in social media use in sensitivity to norms.	No significant difference in social media use in general preference for inaction or action.
Economic Political Ideology	Liberals will show greater sensitivity to consequences than conservatives.	No significant difference in economic political ideology in sensitivity to norms.	No significant difference in economic political ideology in general preference for inaction or action.
Cultural Political Ideology	Liberals will show greater sensitivity to consequences than conservatives.	No significant difference in cultural political ideology in sensitivity to norms.	No significant difference in cultural political ideology in general preference for inaction or action.

Method

Participants

We collected data from 360 participants in April 2025 through Besample (n = 340; 94,40%) and social media. Participants from Besample received a payout of USD .72 (approximately BRL 4.04 at the time) to complete the survey. Of these, 48 failed to answer one or more of our attention checks, five typed invalid ages, and three were not Brazilian or did not live in Brazil. These participants were excluded from the analysis, and our final sample consisted of 304 people, aged 18 to 68 (M = 34.7; SD = 10.1), of whom 192 identified as women (63.16%), 110 as men (36.18%), and one as non-binary. In terms of race, most of our sample identified as White (n = 143; 47%), Brown or Mixed-race ("pardo" in Brazilian Portuguese; n = 125; 41.10%), and Black (n = 25; 8.22%). Considering the distribution within Brazil, most of our participants were from São Paulo (25.30%), Minas Gerais (14.10%), Rio de Janeiro (10.20%), Paraná (6.25%), and Bahia (5.25%).

Measures

Brazilian Factual Moral Dilemmas. For the present study we constructed six new factual dilemmas considering real-life events occurred in the last ten years in Brazil, each dilemma had four variations–norms (prohibitive vs. prescriptive of action) and consequences (benefits of the action greater vs. smaller than the cost)–comprising of 24 different scenarios. Participants answered each scenario by indicating whether they would perform the described actions (yes or no).

Scenario Engagement Rating (Körner & Deutsch, 2023). After each scenario, participants rated its difficulty, realism, and plausibility on a slider scale ranging from 0 to 100. Difficulty was measured with a single item: "How difficult was it to make the decision in the dilemma above?" Realism was measured with two items: "The scenario is realistic" and "The scenario is similar to decisions people have to make in real life." Plausibility was also measured with two items: "It is likely that the action described will have the consequences reported" and "Given the description of the scenario, there are no other options

for achieving a more favorable outcome." Realism and plausibility scores were calculated from the mean of their respective items.

Sociodemographic Variables. Participants answered sociodemographic questions, such as country of residence, age, race, gender, sexual orientation identification, family monthly income, time spent on social media, religiosity and religion, and political ideology (social and economic).

Procedures

Dilemma Construction. To construct the dilemmas, we first searched the Internet and asked various generative artificial intelligences (i.e., Google's Gemini, Microsoft's Copilot, ChatGPT, and Perplexity Pro Search) for morally relevant situations that could serve as the basis for our scenarios. The following requests were presented to each generative AI:

> Please list the main Brazilian news stories in the last ten years that have involved or generated ethical and moral discussions, involved life and death situations, and provoked moral debates about the most appropriate courses of action.

From this search, a comprehensive list of news and events was provided. We selected and constructed 10 scenarios from this pool and validated them with a research group in social psychology and morality, which helped us improve the base scenarios and filter the options with the best characteristics. Each news, event, and proposed base scenario is detailed in Appendix D.

The six best rated scenarios were adjusted for the norms and consequences manipulations. An example of the four versions of the Environmental Disaster dilemma is presented in Table 4, and all versions of the six dilemmas are available in Appendix E.

Table 4

Variations of the Environmental Disaster Dilemma

Proscriptive Norm	Prescriptive Norm

Benefits Greater than Costs	You work in mineral extraction at a mining company near a town. One day, during your work, you notice that the sensors indicate ground movement, which could cause several areas of the town to collapse, resulting in the death of many people. The sensors automatically send a warning to the authorities after two minutes. You can mark the case as a false alarm and stop the system from warning the authorities. If the sensors are incorrect and the ground does not sink, a report will lead to the closure of the mine, which will damage the jobs and lives of many people, and many may never recover.	You work in mineral extraction at a mining company near a town. One day, during the course of your work, you notice that the sensors indicate that the ground is moving, which could cause several areas of the town to collapse, resulting in the death of many people. However, if you are wrong and the ground does not sink, a complaint would lead to the mine being closed down, which would damage the jobs and lives of several people, but the town and the people would eventually recover and be better prepared in the event of an accident. In this case, would you inform the authorities about the risk?
Benefits Smaller than Costs	You work in mineral extraction at a mining company near a town. One day during your work, you notice that the sensors indicate ground movement, which could cause several areas of the town to collapse, resulting in the death of a few people. The sensors automatically send a warning to the authorities after two minutes. You can mark the case as a false alarm and stop the system from warning the authorities. If the sensors are incorrect and the ground does not sink, a report will lead to the mine being closed, which will damage the jobs and lives of several people, and many may never recover. In this case, would you stop the system from warning the authorities about the risk?	You work in mineral extraction at a mining company near a town. One day, during the course of your work, you notice that the sensors indicate that the ground is moving, which could cause several areas of the town to collapse, resulting in the death of a few people. However, if you are wrong and the ground does not sink, a complaint will lead to the closure of the mine, which will damage the jobs and lives of several people, and many people may never recover. In this case, would you inform the authorities about the risk?

Data Collection. Participants accessed the survey through Unipark's EFS Survey, where they had to agree to a consent form to continue the study. After their consent, participants were presented to the 24 scenarios of the Brazilian Factual Moral Dilemmas, which were presented in a fixed random order (Gawronski et al., 2017). Participants were allowed to skip up to six scenarios (Skovgaard-Olsen & Klauer, 2023). After each scenario, participants were asked to fill out the Scenario Engagement Rating (Körner & Deutsch, 2023).

After six scenarios were presented, participants saw a screen with instructions to take a break and answer an attention check item. Three attention checks were used in this study. The first two items asked participants to answer 0 (*totally disagree*) or 100 (*totally agree*) on a slider, and the last item asked them if they honestly believed that their answers should be used in our analysis. Finally, participants answered the sociodemographic questions and had

their “results” presented, considering the traditional approach (i.e., a tendency to being more deontological versus being more utilitarian) at the end of the survey.

Data Analysis. All analyses were conducted following the same script as in Study 2, with few adaptations; thus, we used R (version 4.5.0; R Core Team, 2025), the *tidyverse* package (version 2.0.0; Wickham et al., 2019), the *rstatix* package (version 0.7.2; Kassambara, 2023), and the MPTinR package (version 1.14.1; Singmann & Kellen, 2013).

Following Study 2, we constructed baseline models to assess the general fit of the CNI model and comparison models to test the differences in key sociodemographic variables. The only difference in the categorization of our sociodemographic variables was social class, in which we still followed the divisions proposed by ABEP (n.d.), but now updated to reflect changes in the Brazilian minimum wage in 2025. Thus, people with a monthly family income below R$6,072.00 was categorized at D and E class and people with monthly family income above R$6,072.00 and up to R$30,360.00 were categorized at the B and C classes. Data and syntax files are available in OSF: https://osf.io/spgu7/?view_only=0b036d74b5f442f989a6d7426a625998.

Results

Participants skipped 292 scenarios in total, and only 12 participants skipped none (3.95% of the sample). The most-skipped dilemmas involved the presentation of a proscriptive norm, with the benefits of the action greater than the costs (n = 98), followed closely by the presentation of a prescriptive norm with benefits of the action greater than the costs (n = 97). Content-wise, the most skipped were the Last Resort (n = 89), Stem Cells (n = 86), and Misappropriation of Medicines (n = 73) dilemmas, which were considered the most difficult and the least realistic ones (see Table 5). Also, an exploratory analysis showed that participants found these dilemmas, in average, more plausible (t [1823] = 34.74, p < .001)

and realistic (t [1823] = 40.00, $p < .001$) but less difficult (t [1823] = -2.89, $p = .004$) than the scale midpoint (50.00).

Table 5

Mean and Standard Deviations for Difficulty, Plausibility, and Realism in Study 3

Dilemma	***Difficulty***		***Plausibility***		***Realism***	
	M	***SD***	***M***	***SD***	***M***	***SD***
Stem Cells	55.22	27.62	61.46	20.14	57.27	24.14
Environmental Disaster	44.31	27.99	66.52	18.48	73.20	20.25
Misappropriation of Medicines	51.71	28.09	66.32	18.52	72.82	21.36
Police Lethality	45.60	27.31	67.57	17.75	76.53	19.44
Public Lynching	41.00	26.34	67.96	18.61	77.17	19.24
Last Resort	51.04	24.78	63.46	20.35	67.88	22.30

The CNI model fit our data well (G^2 [1] = .86, $p = .355$), and the participants were sensitive to manipulations in both norms ($N = .08$, 95% CI [.05, .11]; ΔG^2 [1] = 99.86, $p < .001$) and consequences ($C = .12$, 95% CI [.10, .14]; ΔG^2 [1] = 35.38, $p < .001$). However, they did not show any general preference for action or inaction ($I = .49$, 95% CI [.48, .51]; ΔG^2 [1] = 1.00, $p = .317$). Despite the small effect sizes for sensitivity to norms and consequences, our hypothesis concerning the baseline model was corroborated, except for the expected general preference for inaction.

Considering the sociodemographic variables, we constructed several models to assess our hypothesis. The model separated by gender (men vs. women) fit our data well, G^2 (2) = 1.37, $p = .505$. As expected, we found no significant difference in gender for sensitivity to consequences (ΔG^2 [1] = .06, $p = .814$), while women were more sensitive to norms (ΔG^2 [1] = 6.78, $p = .009$; see Table 6), and there was a significant difference in gender for general preference for inaction (ΔG^2 [1] = 11.48, $p < .001$). The I score suggests that men have a higher generalized preference for action, whereas women might not show a relevant difference in preferences for (in)action (see Table 6).

Table 6

Parameter Estimates and 95% Confidence Intervals for the Sociodemographic Variables in Study 3

	C Parameter		N Parameter		I Parameter	
Variables	**Est.**	**95% CI**	**Est.**	**95% CI**	**Est.**	**95% CI**
Gender						
Men	.122	[.084, .161]	.036	[-.008, .080]	.461	[.438, .484]
Women	.116	[.087, .146]	.109	[.076, .142]	.512	[.493, .531]
Race						
Not White	.114	[.082, .146]	.084	[.047, .120]	.478	[.458, .497]
White	.125	[.092, .159]	.077	[.039, .116]	.510	[.489, .531]
Social Class						
B & C	.103	[.066, .139]	.108	[.067, .149]	.472	[.450, .495]
D & E	.127	[.094, .160]	.039	[.001, .078]	.502	[.482, .522]
Religion						
Christianism	.103	[.075, .130]	.110	[.080, .141]	.480	[.463, .497]
Other	.141	[.082, .200]	.105	[.036, .174]	.543	[.504, .582]
Religiosity						
High	.087	[.033, .141]	.162	[.102, .222]	.458	[.422, .493]
Low	.147	[.097, .198]	.000	[-.059, .059]	.498	[.469, .528]
Social Media Use						
High	.095	[.040, .150]	.000	[-.061, .061]	.381	[.349, .413]
Low	.154	[.085, .222]	.164	[.082, .245]	.565	[.517, .614]
Economic PI						
Conservative	.103	[.050, .156]	.133	[.074, .192]	.498	[.464, .532]
Liberal	.097	[.042, .152]	.089	[.029, .150]	.433	[.400, .467]
Social PI						
Conservative	.113	[.061, .165]	.157	[.098, .216]	.533	[.498, .568]
Liberal	.132	[.080, .184]	.012	[-.048, .072]	.472	[.442, .503]

The CNI model for race, separated by white vs. non-white, also fit our model well, G^2 [2] = 1.20, p = .548. As hypothesized, we found no significant difference for sensitivity to consequences (ΔG^2 [1] = .23, p = .634) or norms (ΔG^2 [1] = .05, p = .820), but we found that non-white people have a slight preference for action than white people (ΔG^2 [1] = 4.74, p = .030; see Table 6). In the social class model (G^2 [2] = 1.18, p = .555), we found an opposite pattern to our registered hypothesis in sensitivity to consequences (not significant; ΔG^2 [1] = .93, p = .333) and norms (ΔG^2 [1] = 5.81, p = .016), with people from classes B and C being slightly more sensitive to norms than those from classes D and E (Table 6); but as our hypothesis we found no difference in general preferences for inaction in social class (ΔG^2 [1] = 3.75, p = .053).

The religion (G^2 [2] = 1.02, p = .599) and religiosity (G^2 [2] = .21, p = .899) models also fit our data well. Participants showed no significant differences in sensitivity to the consequences in religion (ΔG^2 [1] = 1.32, p = .250) and religiosity models (ΔG^2 [1] = 2.50, p = .114), which refuted our initial hypothesis. Participants showed no significant differences in sensitivity to norms by religion affiliation (ΔG^2 [1] = .02, p = .890) against our initial hypothesis, but people with high religiosity were more sensitive to norms (ΔG^2 [1] = 15.52, p < .001; Table 6), corroborating our hypothesis. Finally, contrary to our hypothesis, non-Christians had a general preference for inaction (ΔG^2 [1] = 1.32, p = .250; Table 6), and there was no significant difference in the general preference for inaction in the religiosity model (ΔG^2 [1] = 3.02, p = .082).

The model for social media usage fit our data well (G^2 [2] = 1.31, p = .519), and we found no significant differences in sensitivity to consequences (ΔG^2 [1] = 1.72, p = .190), as hypothesized. However, we found that people with lower social media usage were more sensitive to norms (ΔG^2 [1] = 11.53, p = .001; Table 6), and people with higher social media usage presented a general preference for action (ΔG^2 [1] = 38.91, p < .001; Table 6).

Finally, for economic (G^2 [2] = .61, p = .739) and social political ideology (G^2 [2] = 1.52, p = .467), the data fit our models well. Contrary to our hypothesis, we found no significant differences in sensitivity to consequences for economic (ΔG^2 [1] = .02, p = .885) and social political ideology (ΔG^2 [1] = .25, p = .615), and found that people from more liberal ideologies had a general preference for action (economic: ΔG^2 [1] = 7.04, p = .008; social: ΔG^2 [1] = 6.64, p = .010; Table 6). We also found inconsistent results between economic and social political ideology for sensitivity to norms, with no significant differences in economic political ideology (ΔG^2 [1] = 1.02, p = .313), as hypothesized, and people with conservative social political ideologies being more sensitive to norms (ΔG^2 [1] = 11.47, p = .001; Table 6).

Discussion

In this study, we aimed to construct six new sets of moral dilemmas for the Brazilian context and test them against the CNI Model of Moral Decision Making. The constructed Brazilian Dilemmas provided a valid measure to distinguish between participants' sensitivity to norms and consequences, and for their general preference for inaction or action. Once again, we conducted an exploratory analysis of the perceived difficulty, plausibility, and realism of the current dilemmas relative to the scale midpoint (50.00). These results showed a similar pattern of participant engagement on the Brazilian Dilemmas as found in Study 2, further corroborating the validity of the new set of dilemmas.

It is important to note a relevant distinction between the Brazilian Dilemmas and the GK Dilemmas tested in Study 2. Specifically, whereas the GK Dilemmas from Study 2 asked participants to evaluate whether the described situation was acceptable (moral judgment), the Brazilian Dilemmas asked them whether they would act on the described situation (moral decision). This textually minor change could have major implications for a replication argument, since participants seem to be less sensitive to norms and have a greater preference for inaction when presented with a moral decision than with a moral judgment dilemma (Gawronski & Ng, 2025).

Additionally, to maintain cohesion with Study 2, we kept the possibility of participants skipping scenarios and treated the skipped responses as missing data. The most frequently skipped scenario variation was the one with a proscriptive norm and benefits outweighing costs (Gawronski & Ng, 2025; Skovgaard-Olsen & Klauer, 2023). However, the second most skipped scenario variation was the one with a prescriptive norm and benefits of the action greater than the costs, which theoretically does not involve a conflict between outcome maximization and norm adherence–a finding that contradicts Gawronski and Ng's (2025) arguments. Thus, we believe that a better argument for the higher rate of skipped

responses in these scenarios refers to their overall perceived difficulty, which is to be expected within more realistic and proximal scenarios (Körner & Deutsch, 2023).

Concerning the CNI Model, we found that, in general, participants were more sensitive to manipulations in consequences (C = .12) than norms (N = .08), but they did not show any general preference for inaction or action (I = .49). As for the sociodemographic models, gender was the only variable where the results for all CNI parameters converged with those in Study 2. However, we also found converging results for race and social media use in sensitivity to consequences; for race, religiosity, and economic political ideology in sensitivity to norms; and for social class in a general preference for inaction.

Of special interest is the finding that women were more sensitive to norms and had a general preference for inaction than men, and that people with higher religiosity were more sensitive to norms, since they converge with findings from other countries (Gawronski et al., 2017; Gawronski & Ng, 2025; Körner et al., 2020) and methods (Arutyunova et al., 2016; Friesdorf et al., 2015; McPhetres et al., 2018).

Taken together, the corroborated hypothesis and convergent findings suggest a systematic and stable pattern in how Brazilians judge and act on moral dilemmas, one that persists despite variations in sample and dilemma types. This consistency provides a better understanding of how Brazilians make moral judgments or decisions. Moreover, it reinforces the need to consider different cultures and countries beyond WEIRD and Global North populations when studying morality (Henrich et al., 2010; Muthukrishna et al., 2020; Thalmayer et al., 2021). In this regard, Brazil provides a particularly valuable context, since several lines of evidence suggest that Brazilian moral cognition differs systematically from that of the Global North (e.g., Awad et al., 2018; Boggio et al., 2025; Haidt et al., 1993; Marques et al., 2020; Pérez-Nebra et al., 2024).

As for the refuted hypothesis, there is a possibility that these differences represent sample characteristics or that they may be related to changes made in the dilemmas. Concerning the latter, the general preference towards action in non-White participants may be related to more racially relevant issues in the Brazilian Dilemmas (Hester & Gray, 2020), as in the Police Lethality dilemmas, than in the GK Dilemmas. This may also be the case of the differences found for the political ideology models.

Additionally, the differences found in general preferences for inaction for the majority of models may be related to the change from moral judgments to moral decisions (Gawronski & Ng, 2025). That said, when accounting for the parameter estimates in Table 6, the general pattern contradicts Gawronski and Ng's (2025) argument of the increased aversion to action. In the moral decision condition of the Brazilian Dilemmas, participants showed an increased preference for action.

Overall, data from the Brazilian factual dilemmas was able to fit the CNI model well, but the scores for the three parameters had lower sizes than those found in original studies, meta-analyses (Gawronski & Ng, 2025), and in Study 2. This may point to some limitations on the generalizability of the CNI factual dilemmas to new and emic contextual dilemmas (Baron & Goodwin, 2020; replied in Gawronski et al., 2020) or to possible issues with the constructed scenarios.

To better understand which of these possibilities, if any, better explain our findings we propose that future studies should attempt to assess the CNI model in different countries by constructing factual and local-based (emic) dilemmas to their culture. We also suggest that these studies should consider countries with relevant cultural distinctions than those from the Global North, which may be assessed by considering variables such as the ones used in Study 1–e.g., cultural values orientations (Schwartz, 2007) and tightness (Gelfand et al., 2011)–, the cultural and psychological distance (Muthukrishna et al., 2020), and more closely related the

moral foundations theory (Iurino & Saucier, 2020; Klein et al., 2018)[4]. Finally, an analytical option to test these possibilities would be to conduct a new data collection of the Brazilian Dilemmas with a moral judgment condition; or to assess the performance of each dilemma type and scenario through the application of an item response theory framework to the CNI model (Chen et al., 2024).

Although we tested several hypotheses in this study, much of our analysis are still exploratory, in that we are only beginning to understand how the CNI model works in a significantly different culture and with new local-based dilemmas. Within this study we were able to create, test, and validate a new set of factual moral dilemmas that presents different characteristics and outcomes than the adapted (and etic-imposed) GK Dilemmas.

[4] Initially, we aimed to test this suggestion with other dilemma construction study. For that, we announced a search for collaborators in countries such as Poland and Malaysia (see the full list of countries in Appendix F), but none of the contacted teams were able to help with the dilemma construction.

Study 4. A Cultural Comparison of Emic and Etic Factual Dilemmas

At this last study, we take the final step at unveiling the moral dilemma of measuring morality; thus, we aim to understand if there is indeed a need for incorporating local-based (emic) factual dilemmas into the CNI model. For this, we tested the GK and the Brazilian Dilemmas in both US and Brazil within the CNI model, but we also based ourselves on Körner and Deutsch's (2023) work on how factual dilemmas change deontology and utilitarian estimates.

Despite their focus on the construction of historical and real-life dilemmas (beyond the CNI model), Körner and Deutsch (2023) assessed how their participants judged their dilemmas in comparison with traditional, trolley-alike dilemmas. The authors considered how realistic, absurd, plausible, engaging, arousing, and difficult each set of scenarios were when comparing traditional and factual dilemmas.

One of the greatest criticisms of traditional dilemmas is their perceived absurdity, which, in turn, affects their perceived realism and plausibility (Bauman et al., 2014; Everett et al., 2016; Gawronski & Beer, 2016; Gold et al., 2014; Kahane, 2015; Kahane & Shackel, 2010). Thus, moral dilemmas that consider real-life and more common events are expected to be perceived as less absurd, more realistic, and more plausible (Körner & Deutsch, 2023).

In addition, as proposed by the authors, the improvement in realism should also generate more engagement from participants with factual dilemmas (Cho et al., 2014; Körner & Deutsch, 2023). It makes participants more emotionally involved (aroused) in answering the dilemmas (Conway & Gawronski, 2013; Duke & Bègue, 2015) and they perceive these dilemmas as more difficult (Christensen et al., 2014). In turn, difficulty and arousal should require participants to reason better and deliberate before making their decisions (Körner & Deutsch, 2023).

Overall, Körner and Deutsch's (2023) proposal is that, taken together, these variables provide an engagement profile of the moral dilemmas, especially considering realism and plausibility. While difficulty seems to be more related to how demanding it is for a participant to answer to a dilemma; a dilemma with low realism and plausibility seem to have a causal influence on moral judgments by driving choices towards norm-conformity (Bauman et al., 2014; Kneer & Hannikainen, 2022; Körner et al., 2019; Körner & Deutsch, 2023).

Method

Participants

We collected data from 328 participants in February 2026. Of these, three participants did not complete the survey, three were flagged as duplicated data by Qualtrics, and five were not Brazilian or US citizens. These participants were excluded from the analysis, and our sample consisted of 316 participants (see Table 7 for the sociodemographic description)[5]. Brazilian participants were recruited through Besample (n = 165) and received a payout of USD 2.75 (approximately BRL 14.29 at the time); US Participants were recruited through Positly (n = 151) and received a payout of USD 8.46.

Table 7

Sociodemographic Information for Study 4

Variables	Brazil (n = 165)	US (n = 151)
Age	34.89 (8.92)	38.99 (11.94)
Race		
White	84 (50.9%)	133 (88.1%)
Black	15 (9.1%)	10 (6.6%)
Brown or Mixed	59 (35.8%)	3 (2.0%)
Other	7 (4.2%)	7 (4.6%)
Gender [a]		
Men	51 (30.91%)	88 (58.3%)
Women	110 (66.67%)	63 (41.7%)
Religiosity [b]	60.93 (28.14)	63.39 (25.79)
Social Political Ideology [c]	52.04 (33.50)	55.69 (31.18)
Economic Political Ideology [c]	54.98 (31.20)	50.40 (29.14)

Note. Age, religiosity, and political ideology were numeric variables and information is presented as Mean (SD). Race and gender were categorical variables and information is presented as frequencies (percentage). [a]

[5] We also collected data for family monthly income, but it was disregarded since its distribution and variability suggests that participants may have misunderstood the item.

Participants were asked how they identified themselves. [b] Ranging from 0 (not religious at all) to 100 (very religious). [c] Ranging from 0 (extremely conservative) to 100 (extremely liberal).

Measures

GK Factual Moral Dilemmas for Brazilian Portuguese. The 24 scenarios adapted from Gawronski et al. (2017) and Körner et al. (2020) in Study 2, comprising of six distinct dilemma situations with four variations each: in terms of their norms, whether they are prohibitive or prescriptive of action, and of their consequences, if the benefits of the action outweigh their costs considering overall well-being. In this study participants were asked whether they would perform the described actions (yes or no).

Brazilian Factual Moral Dilemmas. The 24 scenarios constructed for Study 3, comprising of six distinct dilemma situations based on real-life events in Brazil. Participants were asked whether they would perform the described actions (yes or no). Since these dilemmas were originally written in Brazilian Portuguese, we used a translated version with US Participants.

Scenario Engagement Rating (Körner & Deutsch, 2023). After each scenario, participants rated its difficulty, realism, and plausibility on a slider scale ranging from 0 to 100. Difficulty was measured with a single item: “How difficult was it to make the decision in the dilemma above?” Realism was measured with two items: “The scenario is realistic” and “The scenario is similar to decisions people have to make in real life.” Plausibility was also measured with two items: “It is likely that the action described will have the consequences reported” and “Given the description of the scenario, there are no other options for achieving a more favorable outcome.” Realism and plausibility scores were calculated from the mean of their respective items.

Procedures

Data Collection. The survey was distributed through Qualtrics, where Brazilian Portuguese and US English versions were available. In average, Brazilian participants took 58.91 minutes (*SD* = 72.43) and US Participants took 60.59 minutes (*SD* = 22.66) to complete the survey. Before accessing the measures, participants had to read and agree with a consent form; participants who did not agree with the consent form were redirected to the end of survey page.

After providing consent, participants were presented with the 48 scenarios of moral dilemmas. These scenarios were divided into the six GK Dilemmas (Appendix B) and the six Brazilian Portuguese Dilemmas (Appendix E). The order of presentation of each group was randomized and the order of presentation of each scenario followed a fixed random order, as proposed by Gawronski et al. (2017). After each scenario, participants also answered to the Scenario Engagement Rating items. Participants were allowed to skip up to six scenarios (Skovgaard-Olsen & Klauer, 2023). Finally, participants answered sociodemographic questions, such as country of residence, age, race, gender, sexual orientation identification, family monthly income, religiosity and religion, and political ideology.

Data Analysis. Analyses were conducted using the R Statistical language (version 4.5.2; R Core Team, 2025), using the packages *tidyverse* (version 2.0.0; Wickham et al., 2019), *rstatix* (version 0.7.3; Kassambara, 2023), *lme4* (version 1.1.38; Bates et al., 2015), and *MPTinR* (version 1.14.1; Singmann & Kellen, 2013).

We conducted three multilevel models to assess if there were differences in a 2 (within-subjects; dilemma type: GK vs. Brazilian Dilemmas) by 2 (between-subjects; country: US vs. Brazil) design for perceived difficulty, realism, and plausibility. All models were fitted with a fixed interaction effect of dilemma type and country and a random intercept at the participant level ($outcome \sim dilema * country + (1 \mid id)$).

To assess the CNI parameters, we first attempted to conduct a hierarchical multinomial processing tree (MPT) model with the previous 2 x 2 design (following guidelines by Heck et al., 2018; Kuhlmann et al., 2019). However, this model failed to converge adequately, as Gelman-Rubin statistics exceeded the recommended threshold of $\hat{R} < 1.05$ for several parameters, and parameter estimates remained unstable across Markov Chain Monte Carlo chains. Given these convergence issues, we therefore estimated aggregated CNI parameters separately by group, rather than within a single hierarchical model. For consistency, we then followed the frequentist approach used in previous studies. Four models were fitted and compared to test for differences in dilemma type and country on the CNI parameters.

All data and syntax files are available in OSF: https://osf.io/9kewg/overview?view_only=a446e4ed75c543e9948bb7157084de5e.

Results

Participants skipped 602 scenarios in total; 143 participants did not skip any scenario (45.25% of the sample) and 42 participants skipped six scenarios (i.e., the maximum number; 13.29% of the sample). The most skipped scenario type were the ones with a prescriptive norm and the benefits of the action smaller than the costs (n = 178); while the less skipped scenario type were the ones with a prescriptive norm and the benefits of the action greater than the costs (n = 124). Content-wise, the most skipped were the Dialysis (n = 116), Last Resort (n = 95), and Stem Cells (n = 69) dilemmas; thus, the Brazilian Dilemmas were skipped the most (n = 322) when compared, in average, to the GK Dilemmas (n = 280).

The number of skipped scenarios may be related to their perceived difficulty, realism, and plausibility. Table 8 presents summary statistics and corrected t-tests for each dilemma.

Table 8

Summary Statistics and t Tests for Difficulty, Plausibility, and Realism in Study 4

Dilemma	Difficulty			Realism			Plausibility		
	US	BR	*t* (*df*)	US	BR	*t* (*df*)	US	BR	*t* (*df*)
GK Dilemmas									
Assisted Suicide	48.87 (29.64)	58.47 (31.10)	2.81 (313.5)**	69.08 (19.09)	73.74 (22.87)	1.97 (311.4)*	63.74 (13.28)	72.80 (21.32)	4.58 (278.0)***
Construction Site	44.46 (32.01)	52.21 (33.73)	2.10 (313.6)*	46.74 (28.70)	66.61 (27.65)	6.26 (309.1)***	58.26 (15.00)	69.45 (23.96)	5.02 (278.6)***
Dialysis	57.16 (25.67)	69.75 (26.28)	4.31 (312.7)***	59.35 (26.18)	72.74 (24.06)	4.72 (304.9)***	64.64 (17.02)	74.39 (21.29)	4.52 (308.5)***
Mother	45.14 (29.55)	51.63 (34.39)	1.80 (312.8)	61.99 (22.97)	69.82 (25.88)	2.85 (313.7)**	62.59 (14.67)	72.78 (22.01)	4.88 (287.7)***
Peanuts	47.09 (31.64)	49.65 (32.96)	.70 (313.3)	49.97 (27.21)	68.20 (25.83)	6.10 (307.9)***	58.44 (15.68)	70.96 (22.66)	5.75 (292.9)***
Torture	44.85 (30.28)	48.51 (33.73)	1.02 (313.9)	57.16 (25.55)	72.23 (24.25)	5.37 (307.9)***	55.10 (17.43)	72.64 (22.10)	7.87 (307.4)***
Brazilian Dilemmas									
Environmental Disaster	47.58 (33.55)	56.08 (30.41)	2.35 (303.5)*	65.25 (24.13)	75.37 (23.08)	3.80 (308.5)***	61.99 (16.25)	73.77 (20.76)	5.64 (306.8)***
Last Resort	55.59 (29.19)	59.30 (29.25)	1.13 (311.6)	66.87 (22.87)	74.55 (23.71)	2.93 (313.1)**	59.64 (16.58)	73.15 (21.65)	6.26 (304.8)***
Misappropriation of Medicines	53.92 (32.04)	61.95 (29.54)	2.31 (305.2)*	61.79 (25.08)	75.83 (22.69)	5.20 (303.3)***	63.01 (15.84)	72.86 (20.21)	4.85 (306.9)***
Police Lethality	46.20 (33.11)	55.38 (30.79)	2.55 (306.1)*	61.30 (26.23)	77.72 (23.12)	5.88 (300.3)***	55.62 (18.10)	73.81 (20.64)	8.35 (313.4)***
Public Lynching	51.56 (30.11)	48.52 (32.11)	- .87 (313.8)	63.25 (25.31)	78.00 (22.11)	5.49 (299.2)***	59.05 (15.11)	73.91 (20.37)	7.40 (301.4)***
Stem Cells	54.80 (31.79)	62.69 (30.42)	2.25 (308.5)*	48.68 (26.65)	69.12 (25.41)	6.97 (308.3)***	60.08 (16.70)	71.75 (21.09)	5.48 (307.8)***
Grouped Analysis									
GK Dilemmas	47.93 (26.66)	55.04 (27.71)	2.32 (313.2)*	57.38 (22.4)	70.56 (24.07)	5.04 (313.9)***	60.46 (13.26)	72.17 (21.01)	5.98 (279.8)***
Brazilian Dilemmas	51.61 (28.19)	57.32 (26.24)	1.86 (306.1)	61.19 (22.5)	75.1 (21.96)	5.55 (310.0)***	59.90 (14.19)	73.21 (19.73)	6.93 (297.7)***

Note. Each cell presents the mean and standard deviation of the group. *p*-values are provided with Holm correction.
* $p < .05$. ** $p < .01$. *** $p < .001$.

When analyzing our multilevel models for how participants from each country perceived the different dilemma types, we found that the difficulty (R^2c = .86), realism (R^2c = .88), and plausibility (R^2c = .89) models substantially explained the data variance; although most of its explanation power comes from individual differences between participants (random effects; see marginal R^2 at Table 9). We also found no significant interaction between participants' country and dilemma type on any outcome variable, meaning that US and Brazilian participants did not differ in how the two sets of dilemmas affected their ratings of difficulty, realism, and plausibility.

Table 9

Model Parameters for Perceptions in Dilemma Difficulty, Realism, and Plausibility in Study 4

Effect	***b***	**95% CI**	***β***	**95% CI**	***t* (626)**	***p***
			Difficulty			
Fixed Effects						
Intercept	47.93	[43.58, 52.27]	-.19	[-.35, -.03]	21.65	< .001
Dilemma Type	3.68	[1.40, 5.96]	.13	[.05, .22]	3.17	.002
Country	7.11	[1.09, 13.13]	.26	[.04, .48]	2.32	.021
Dilemma Type * Country	-1.40	[-4.56, 1.76]	-.05	[-.17, .06]	-.87	.384
Random Effects						
Participants	25.26					
Residual	1.09					
Conditional R^2	.86					
Marginal R^2	.02					
			Realism			
Fixed Effects						
Intercept	57.38	[53.74, 61.02]	-.38	[-.53, -.22]	30.98	< .001
Dilemma Type	3.81	[1.92, 5.69]	.16	[.08, .24]	3.97	< .001
Country	13.17	[8.14, 18.21]	.55	[.34, .77]	5.14	< .001
Dilemma Type * Country	.73	[-1.87, 3.34]	.03	[-.08, .14]	.55	.580
Random Effects						
Participants	21.18					
Residual	8.33					
Conditional R^2	.88					
Marginal R^2	.09					
			Plausibility			
Fixed Effects						
Intercept	60.46	[57.66, 63.26]	-.34	[-.49, -.19]	42.40	< .001
Dilemma Type	-.56	[-1.97, .84]	-.03	[-.11, .05]	-.79	.433
Country	11.71	[7.83, 15.58]	.63	[.42, .84]	5.93	< .001
Dilemma Type * Country	1.60	[-.34, 3.55]	.09	[-.02, .19]	1.62	.106
Random Effects						
Participants	16.38					
Residual	6.23					
Conditional R^2	.89					
Marginal R^2	.11					

Note. The reference category for Dilemma Type is *GK* and for Country is *US*.

Participants perceived the Brazilian Dilemmas as more difficult (β = .13, 95% CI [.05, .22]) and realistic (β = .16, 95% CI [.08, .24]) than the GK Dilemmas, but equally as plausible (β = -.03, 95% CI [-.11, .05]) as them. Overall, Brazilian participants also rated both types of dilemmas as more difficult (β = .26, 95% CI [.04, .48]), realistic (β = .55, 95% CI [.34, .77]), and plausible (β = .63, 95% CI [.42, .84]) than US Participants.

Concerning the CNI model, the Brazilian Dilemmas and Brazilian Participants models fit our data well but the GK Dilemmas and US Participants models presented poorer fit (Table 10). We then proceeded to test for differences in how participants from US vs. Brazil respond to the different type of dilemmas (GK vs. Brazilian). Parameter estimates for the CNI within each group is presented in Table 11.

Table 10

Fit Statistics for the CNI Models in Study 4

Model	G^2	*df*	*p*
GK Dilemmas	6.38	2	.041
Brazilian Dilemmas	1.35	2	.510
US Participants	6.75	2	.034
BR Participants	0.97	2	.614

In the GK Dilemmas model, we found that there were systematic differences between US and BR Participants estimates in the CNI parameters, with US Participants presenting greater sensitivity to consequences (ΔG^2 [1] = 63.33, $p < .001$) and norms (ΔG^2 [1] = 116.20, $p < .001$), and a general preference for inaction (ΔG^2 [1] = 24.82, $p < .001$). We also found differences between the US and BR Participants estimates for the Brazilian Dilemmas models, with US Participants presenting greater sensitivity to norms (ΔG^2 [1] = 103.57, $p < .001$) and a general preference for inaction than BR Participants (ΔG^2 [1] = 92.98, $p < .001$), however we found no significant difference for sensitivity to consequences (ΔG^2 [1] = 1.07, $p = .302$).

Table 11

Parameter Estimates and 95% Confidence Intervals for Each Grouping Variable in Study 4

	C Parameter		N Parameter		I Parameter	
Variables	**US**	**BR**	**US**	**BR**	**US**	**BR**
GK	.297	.130	.616	.321	.637	.498
Dilemmas	[.269, .326]	[.1, .16]	[.578, .655]	[.285, .356]	[.589, .684]	[.472, .523]
Brazilian	.120	.096	.272	.008	.592	.442
Dilemmas	[.088, .152]	[.065, .128]	[.235, .308]	[-.027, .043]	[.567, .617]	[.424, .46]

Note. Each cell represents the point estimate and the 95% confidence interval for the parameter.

When comparing the US Participants' CNI estimates for dilemma types (US Participants model), we found that these participants were more sensitive to consequences (ΔG^2 [1] = 67.51, $p < .001$) and norms (ΔG^2 [1] = 152.27, $p < .001$) in the GK Dilemmas than in the Brazilian Dilemmas, but they showed no difference in their general preference for action or inaction (ΔG^2 [1] = 2.61, $p = .106$) between the dilemmas group. Finally, comparing the Brazilian participants CNI estimates for dilemma types (BR Participants model), we found that these participants were more sensitive to norms in the GK Dilemmas (ΔG^2 [1] = 150.43, $p < .001$) and had a general preference for action in the Brazilian Dilemmas (ΔG^2 [1] = 12.32, $p < .001$), but they showed no difference in their sensitivity to consequences between the dilemmas group (ΔG^2 [1] = 2.25, $p = .133$).

Discussion

We aimed to understand if there is a need for incorporating local-based (emic) factual dilemmas into the CNI model; for that, we tested a full set of 12 dilemmas (and 48 scenarios) in US and Brazil. For cohesion with previous studies, it remained possible for participants to skip scenarios (Skovgaard-Olsen & Klauer, 2023), which were treated as missing values, and we changed the GK moral dilemmas to a moral decision framing–i.e., whether participants would act on the described situation, or not (Gawronski et al., 2017; Gawronski & Ng, 2025).

Following Study 2, the most skipped scenario was the one with prescriptive norms and benefits of the action smaller than the costs. This is consistent with the findings of

Skovgaard-Olsen and Klauer (2023), and with Gawronski and Ng's (2025) suggestion that this may be related to participants avoiding the more conflicting scenarios. Although the most skipped scenarios were, once more, the ones participants found to be more difficult.

On average, participants found the Brazilian Dilemmas to be more difficult and realistic; additionally, Brazilian participants also found all dilemmas to be more difficult, realistic, and plausible than did US Participants. However, there was no significant difference in how each country assessed their own dilemmas; these results suggest that, overall, the Brazilian Dilemmas are more engaging than the GK Dilemmas (Körner & Deutsch, 2023), as indicated by their improved realism and greater difficulty.

The lack of an interaction effect between participants' country and dilemma type is intriguing: this suggests that, from the participants' perspective, the etic and emic dilemmas were perceived as equivalent. This would imply a universality in the factual moral dilemmas (Awad et al., 2020; Couto et al., 2025) and that the adaptation of dilemmas to different contexts (an imposed etic approach) would suffice towards understanding moral judgments, at least at the level of subjective perception.

Even though participants did not rate etic and emic dilemmas differently in terms of difficulty, realism, or plausibility, the CNI model reveals that the type of moral processing they engage in does vary by dilemma type and participant nationality. Considering the models' overall fit, it seems that including Brazilian participants in the GK Dilemmas model and including US Participants in the Brazilian Dilemmas model may introduce noise that the CNI model struggles to accommodate–a pattern not observed in the Brazilian Participants or Brazilian Dilemmas models.

Examining the dilemma-type comparisons (GK Dilemmas and Brazilian Dilemmas models), we found that US Participants showed significantly greater sensitivity to norms and a general preference for inaction across both dilemma types, but exhibited greater sensitivity

to consequences in the GK Dilemmas. Turning to the within-country comparisons (US Participants and Brazilian Participants models), US Participants showed greater sensitivity to both norms and consequences in the GK Dilemmas, but no difference in their general preference for inaction across dilemma types; Brazilian participants showed greater sensitivity to norms in the GK Dilemmas and a general preference for action in the Brazilian Dilemmas, but no difference in sensitivity to consequences across dilemma types.

This suggests that the increased realism of the Brazilian Dilemmas affected Brazilian participants' norm-conformity, reducing their sensitivity to the norm manipulation (Kneer & Hannikainen, 2022; Körner et al., 2019; Körner & Deutsch, 2023). Furthermore, Brazilian participants' heightened preference for action regardless of norms and consequences in the Brazilian Dilemmas points to an interesting pattern in how Brazilians make moral judgments, one that distinguishes them from participants in other cultural contexts (e.g., Qian, Takimoto, Wang, et al., 2024).

Notably, as in Study 3, the Brazilian Dilemmas yielded significantly smaller C and N parameter estimates–and I parameter values closer to .50–than the GK Dilemmas, for both samples. Although we cannot determine why this is the case in the present study, this pattern, taken together with the perceived realism results, reinforces our hypothesis that the GK Dilemmas may inflate these parameters due to reduced ecological validity (Cho et al., 2014; Kneer & Hannikainen, 2022).

A key difference between the two dilemma sets that may partly account for this pattern concerns the role of social identity and roles (Hester & Gray, 2020), particularly the status positions assigned to participants in the GK set. Of the 12 dilemmas proposed by Gawronski et al. (2017) and Körner et al. (2020), eight involve participants assuming a high-status role (e.g., director, president, surgeon, special police; see Appendix A), whereas in the Brazilian Dilemmas, only the Police Lethality dilemma places the participant in a high-status

position (i.e., police officer)–a role that is arguably more socioculturally familiar than those featured in the GK Dilemmas.

This asymmetry in high-status role assignment may constitute a confound with meaningful theoretical implications. When a participant is presented with a moral dilemma, this dilemma is interpreted through his own identitarian lenses (e.g., politics, religion, personality, and prejudices), which the literature shows to directly affect morality (Earp et al., 2021; Haidt, 2013; Harris, 2011; Hester & Gray, 2020; Kahane, 2015; Luke & Gawronski, 2021). Social roles related to power structures are no different. They have been shown to increase sensitivity to norms within the CNI model (Gawronski & Brannon, 2020; Gawronski & Ng, 2025), and have complex and paradoxical effects on overall moral judgment (Fleischmann et al., 2019), which could lead to this overestimation of consequences and norms.

Considering that, we suggest that future studies should test our findings against other culturally diverse countries; moral psychology still needs to improve on its emic attempts and be less WEIRD (Henrich et al., 2010). Additionally, we suggest that future studies analyse comparative data such as this within a disaggregated framework (such as Bayesian or IRT analysis). Most importantly, future studies should try to adapt the dilemmas in US and the Global North to be less explicit about social roles and power. Although this might impact how adjusted these dilemmas are to the CNI model.

Cultural adaptation is not neutral (Berry, 1989; Brislin, 1976; Galperin et al., 2022): it shifts which of the CNI parameters are active and how strongly they are activated. Methodologically, this study demonstrated that perceptual equivalence in the difficulty, realism, and plausibility of imported and local dilemmas does not guarantee processual equivalence. The CNI model revealed meaningful differences in how consequence

sensitivity, norm sensitivity, and action/inaction tendencies were expressed across dilemma types and national samples.

This dissociation suggests that subjective ratings alone are insufficient validators of cross-cultural stimulus comparability, and that model-based approaches offer a more sensitive lens for detecting culturally-situated differences in moral cognition. Substantively, the results raise serious concerns about the construct validity of the factual moral dilemmas when applied outside their cultural context of origin, as well as about the overall assessment of moral judgments.

General Discussion

Throughout these four studies, this dissertation aimed to understand how measuring morality within the moral dilemmas' framework may shape our comprehension of moral judgments and decisions. Specifically, we aimed to take a step further than current models, such as the CNI, in making these dilemmas not only factual but also culturally grounded.

To achieve this, in Study 1, we examined the imposed etic aspects already present in the literature by conducting a meta-analysis of classic trolley-like dilemmas (Bago et al., 2022; Klein et al., 2018). This meta-analysis identified relevant cultural variables, such as the Cultural Value Orientation of Mastery (Schwartz, 2007, 2011) and Tightness (Deckert & Schomaker, 2022; Gelfand et al., 2011), which could help us understand some of the factors driving cross-country variability. However, the most relevant contribution may be the low heterogeneity found in the data, which suggests that trolley dilemmas may undermine the variability within moral judgments across countries.

In an attempt to move past the theoretical and methodological issues associated with the trolley dilemmas (Bauman et al., 2014; Bostyn et al., 2018; Gawronski et al., 2017; Gawronski & Beer, 2016; Gawronski & Ng, 2025; Kahane, 2015; Kahane & Shackel, 2010), Study 2 proposed testing the etic aspect of the CNI Model of Moral Decision Making (Gawronski et al., 2017) by adapting its moral dilemmas and testing it in Brazil.

This model was of special interest since it proposed the use of more realistic, plausible and factual moral dilemmas. Study 2 findings showed that this model and the set of GK moral dilemmas were able to adequately measure how Brazilians make moral judgments, as well as disentangling estimations of sensitivity to consequences and norms, and general preferences for inaction or action. This study also reproduced some of the findings from previous studies within the CNI model in other countries, specially concerning

sociodemographic variables, such as gender, religiosity and political ideology (Gawronski et al., 2017; Gawronski & Ng, 2025; Körner et al., 2020; Luke & Gawronski, 2021).

Although we inverted the order of Galperin et al.'s (2022) emic-etic-emic research cycle, after confirming the functioning of the CNI model in Brazil, Study 3 aimed to construct and test a new set of locally based (emic) factual dilemmas for Brazil. We also hypothesized that if these new dilemmas worked within the CNI model, they should yield parameter patterns consistent with the findings of Study 2. The findings in this study were interesting, since we found that the Brazilian Dilemmas did fit the CNI model, but most of Study 2's findings were not reproduced, and the parameter estimates in this study were also lower than the ones with the GK Dilemmas. Nonetheless, Study 3 provided empirical data to support, or at least suggest, the need for more research on locally situated dilemmas to improve the ecological validity of moral judgment research.

To conclude our investigation, Study 4 aimed to compare how each set of dilemma types (GK vs. Brazilian) performed within an emic setting (the countries they were constructed for) and an etic setting (the countries they were adapted for). This study yielded the most theoretically provocative findings.

Perceived realism and plausibility did not differ as a function of cultural match; that is, participants evaluated dilemmas designed for their own culture similarly to those designed for another, contrary to what was expected following Körner and Deutsch (2023). Yet, the Brazilian Dilemmas were judged as more realistic and difficult by all participants.

Still, the CNI analysis provided us with a more nuanced picture. Once more, the parameter estimates in the Brazilian Dilemmas were smaller than those in the GK Dilemmas; but not only that, Brazilians showed a greater preference for action in both dilemma types than US Participants. Also, the Brazilian Dilemmas generated fewer norm-conforming answers, especially among Brazilian participants.

Altogether, these results point to a systematic difference between the type of dilemma and the participant's country–a somewhat similar pattern to the one found by Qian, Takimoto, Wang, et al. (2024). Moreover, a potential issue in the GK Dilemmas set surfaced: the possibility of overestimation of the CNI parameters by the introduction of highly characterized power-related social roles within these dilemmas. Several lines of research already point to the effects of power (Fleischmann et al., 2019; Gawronski & Brannon, 2020; Gawronski & Ng, 2025) and social identity (Earp et al., 2021; Haidt, 2013; Harris, 2011; Hester & Gray, 2020; Kahane, 2015; Luke & Gawronski, 2021) in moral issues; thus, we argue that it is important for future research to test how the identity-relevant social roles assigned within moral dilemmas affect moral judgment parameters.

As we believe to have taken a step further in the complicated mission of improving the measurement and understanding of moral judgments in real-life events, there are several possibilities of improvements and paths not taken. The first limitation refers to the aggregated calculation of the CNI scores throughout this dissertation: despite this being the most common analytical procedure for the CNI model (proposed by Gawronski et al., 2017), information concerning individual dilemma performance may present different and relevant issues on both the GK and the Brazilian Dilemmas, which should be tested through methods like the application of the item-response theory to the CNI model (Chen et al., 2024).

Also, due to time and material limitations, we could not conduct truly cross-cultural research on the effects of emic and etic dilemmas applied to the CNI model and based our findings only on the comparison between US and Brazil. Therefore, we encourage future research to apply the same dilemma-construction process to new, culturally distinct countries and to test both the emic and etic perspectives.

The present findings carry implications that extend beyond the study of moral psychology. Most directly, they speak to any applied context in which moral dilemma

paradigms are used as assessment or training tools–including medical ethics education, organizational decision-making programs, and public policy deliberation frameworks. If the dilemmas underpinning these tools were developed within a single cultural context, the present results suggest that the resulting assessments may systematically underrepresent the morality of participants from other cultural backgrounds; not because those participants reason differently in principle, but because the stimuli themselves constrain the expression of cultural variability.

More broadly, this dissertation contributes to a growing recognition that measurement tools carry embedded cultural assumptions that are rarely made explicit (Berry, 2013; Henrich et al., 2010; Thalmayer et al., 2021). It also underscores the value of investing in the development of locally situated stimuli prior to cross-cultural deployment. The construction of emic moral dilemmas, as demonstrated here, need not preclude cross-cultural comparison; rather, it enriches it by making the etic-emic tension itself an object of empirical inquiry rather than an unexamined assumption (Berry, 2013; Galperin et al., 2022).

This dissertation proposes a simple but consequential argument: how we measure moral judgment shapes what we find, and what we find shapes what we think morality is. This is not trivial. When the dilemmas used to study moral judgment are drawn from a single cultural context, the patterns they capture will inevitably reflect that context. What appears to be a universal moral tendency may, in part, be an artifact of the dilemma that elicited it. The risk, then, is the quiet consolidation of one culture's moral landscape as the default (Harris, 2011).

Rather than treating the dilemmas as neutral psychological instruments, this dissertation subjected them to cultural scrutiny, revealing that the tools of moral psychology are not epistemically transparent. They carry assumptions about what constitutes a realistic situation (Körner & Deutsch, 2023), a meaningful norm violation (Gawronski et al., 2017;

Gawronski & Ng, 2025), and a plausible social role (Earp et al., 2021; Hester & Gray, 2020). These assumptions are cultural and the people (or researchers) who create the instruments are inserted in those cultures. Recognizing this does not undermine the value of moral dilemma research, but it reframes its goal. Understanding moral judgment is not simply measuring how people respond to dilemmas, but ensuring that the dilemmas themselves are worthy of the responses they demand: a plural moral world.

References

Alexandre, N. M. C., & Coluci, M. Z. O. (2011). Validade de conteúdo nos processos de construção e adaptação de instrumentos de medidas. *Ciência & Saúde Coletiva*, *16*(7), 3061–3068. https://doi.org/10.1590/S1413-81232011000800006

Arutyunova, K. R., Alexandrov, Y. I., & Hauser, M. D. (2016). Sociocultural Influences on Moral Judgments: East–West, Male–Female, and Young–Old. *Frontiers in Psychology*, *7*. https://doi.org/10.3389/fpsyg.2016.01334

Associação Brasileira de Empresas de Pesquisa. (n.d.). *Critério Brasil*. Abep. Retrieved April 20, 2026, from https://abep.org/criterio-brasil/

Awad, E., Dsouza, S., Kim, R., Schulz, J., Henrich, J., Shariff, A., Bonnefon, J.-F., & Rahwan, I. (2018). The Moral Machine experiment. *Nature*, *563*(7729), 59–64. https://doi.org/10.1038/s41586-018-0637-6

Awad, E., Dsouza, S., Shariff, A., Rahwan, I., & Bonnefon, J.-F. (2020). Universals and variations in moral decisions made in 42 countries by 70,000 participants. *Proceedings of the National Academy of Sciences*, *117*(5), 2332–2337. https://doi.org/10.1073/pnas.1911517117

Azevedo, F., Pavlović, T., Rêgo, G. G., Ay, F. C., Gjoneska, B., Etienne, T. W., Ross, R. M., Schönegger, P., Riaño-Moreno, J. C., Cichocka, A., Capraro, V., Cian, L., Longoni, C., Chan, H. F., Van Bavel, J. J., Sjåstad, H., Nezlek, J. B., Alfano, M., Gelfand, M. J., … Sampaio, W. M. (2023). Social and moral psychology of COVID-19 across 69 countries. *Scientific Data*, *10*(1), Article 1. https://doi.org/10.1038/s41597-023-02080-8

Bago, B., Kovacs, M., Protzko, J., Nagy, T., Kekecs, Z., Palfi, B., Adamkovic, M., Adamus, S., Albalooshi, S., Albayrak-Aydemir, N., Alfian, I. N., Alper, S., Alvarez-Solas, S., Alves, S. G., Amaya, S., Andresen, P. K., Anjum, G., Ansari, D., Arriaga, P., … Aczel,

B. (2022). Situational factors shape moral judgements in the trolley dilemma in Eastern, Southern and Western countries in a culturally diverse sample. *Nature Human Behaviour*, *6*(6), Article 6. https://doi.org/10.1038/s41562-022-01319-5

Bahk, E. (2020, December 8). *Authorities grappling with release of child rapist*. The Korea Times. https://www.koreatimes.co.kr/southkorea/law-crime/20201208/authorities-grappling-with-release-of-child-rapist

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

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

Bartels, D. M., Bauman, C. W., Cushman, F. A., Pizarro, D. A., & McGraw, A. P. (2015). Moral Judgment and Decision Making. In G. Keren & G. Wu (Eds.), *The Wiley Blackwell Handbook of Judgment and Decision Making* (pp. 478–515). John Wiley & Sons, Ltd. https://doi.org/10.1002/9781118468333.ch17

Bates, D., Mächler, M., Bolker, B., & Walker, S. (2015). Fitting Linear Mixed-Effects Models Using lme4. *Journal of Statistical Software*, *67*(1). https://doi.org/10.18637/jss.v067.i01

Bauman, C. W., McGraw, A. P., Bartels, D. M., & Warren, C. (2014). Revisiting External Validity: Concerns about Trolley Problems and Other Sacrificial Dilemmas in Moral Psychology. *Social and Personality Psychology Compass*, *8*(9), 536–554. https://doi.org/10.1111/spc3.12131

Bavel, J. J. V., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., Crockett, M. J., Crum, A. J., Douglas, K. M., Druckman, J. N., Drury, J., Dube, O., Ellemers, N., Finkel, E. J., Fowler, J. H., Gelfand, M., Han, S., Haslam, S. A., Jetten, J., … Willer, R. (2020). Using social and behavioural science to support COVID-19 pandemic response. *Nature Human Behaviour*, *4*(5), Article 5. https://doi.org/10.1038/s41562-020-0884-z

Berry, J. W. (1989). Imposed Etics—Emics—Derived Etics: The Operationalization of a Compelling Idea. *International Journal of Psychology*, *24*(6), 721–735. https://doi.org/10.1080/00207598908247841

Berry, J. W. (2013). Achieving a global psychology. *Canadian Psychology / Psychologie Canadienne*, *54*(1), 55–61. https://doi.org/10.1037/a0031246

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

Blacksher, E. (2002). On Being Poor and Feeling Poor: Low Socioeconomic Status and the Moral Self. *Theoretical Medicine and Bioethics*, *23*(6), 455–470. https://doi.org/10.1023/A:1021381616824

Boggio, P. S., Rêgo, G. G., Everett, J. A. C., Vieira, G. B., Graves, R., & Sinnott-Armstrong, W. (2025). Who did it? Moral wrongness for us and them in the UK, US, and Brazil. *Philosophical Psychology*, *38*(4), 1660–1680. https://doi.org/10.1080/09515089.2023.2278637

Borsa, J. C., Damásio, B. F., & Bandeira, D. R. (2012). Adaptação e validação de instrumentos psicológicos entre culturas: Algumas considerações. *Paidéia (Ribeirão Preto)*, *22*(53), 423–432. https://doi.org/10.1590/S0103-863X2012000300014

Bostyn, D. H., Sevenhant, S., & Roets, A. (2018). Of Mice, Men, and Trolleys: Hypothetical Judgment Versus Real-Life Behavior in Trolley-Style Moral Dilemmas. *Psychological Science*, *29*(7), 1084–1093. https://doi.org/10.1177/0956797617752640

Brislin, R. W. (1976). Comparative research methodology: Cross-cultural studies. *International Journal of Psychology*, *11*(3), 215–229. https://doi.org/10.1080/00207597608247359

Burkart, J. M., Brügger, R. K., & van Schaik, C. P. (2018). Evolutionary Origins of Morality: Insights From Non-human Primates. *Frontiers in Sociology*, *3*. https://www.frontiersin.org/articles/10.3389/fsoc.2018.00017

Cecchetto, C., Rumiati, R. I., & Parma, V. (2017). Promoting cross-culture research on moral decision-making with standardized, culturally-equivalent dilemmas: The 4CONFiDe set. *Journal of Health and Social Sciences*, (2). https://doi.org/10.19204/2017/prmt5

Chauhan, R. S., Connelly, S., Howe, D. C., Soderberg, A. T., & Crisostomo, M. (2022). The danger of "fake news": How using social media for information dissemination can inhibit the ethical decision making process. *Ethics & Behavior*, *32*(4), 287–306. https://doi.org/10.1080/10508422.2021.1890598

Chen, Y., Lugu, B., Ma, W., & Han, H. (2024). Scoring Individual Moral Inclination for the CNI Test. *Stats*, *7*(3), 894–905. https://doi.org/10.3390/stats7030054

Cho, H., Shen, L., & Wilson, K. (2014). Perceived Realism: Dimensions and Roles in Narrative Persuasion. *Communication Research*, *41*(6), 828–851. https://doi.org/10.1177/0093650212450585

Christensen, J. F., Flexas, A., Calabrese, M., Gut, N. K., & Gomila, A. (2014). Moral judgment reloaded: A moral dilemma validation study. *Frontiers in Psychology*, *5*. https://doi.org/10.3389/fpsyg.2014.00607

Christensen, J. F., & Gomila, A. (2012). Moral dilemmas in cognitive neuroscience of moral decision-making: A principled review. *Neuroscience & Biobehavioral Reviews*, *36*(4), 1249–1264. https://doi.org/10.1016/j.neubiorev.2012.02.008

Conway, P., & Gawronski, B. (2013). Deontological and utilitarian inclinations in moral decision making: A process dissociation approach. *Journal of Personality and Social Psychology*, *104*(2), 216–235. https://doi.org/10.1037/a0031021

Couto, C., Pilati, R., & Kakinohana, R. K. (2025). Understanding How Moral Judgments Vary Across Cultures: Moderator Effects of Cultural Values, Social Axioms, and Tightness. *Cross-Cultural Research*, 10693971251325292. https://doi.org/10.1177/10693971251325292

Crone, D. L., & Laham, S. M. (2017). Utilitarian preferences or action preferences? De-confounding action and moral code in sacrificial dilemmas. *Personality and Individual Differences*, *104*, 476–481. https://doi.org/10.1016/j.paid.2016.09.022

Curry, O. S., Jones Chesters, M., & Van Lissa, C. J. (2019). Mapping morality with a compass: Testing the theory of 'morality-as-cooperation' with a new questionnaire. *Journal of Research in Personality*, *78*, 106–124. https://doi.org/10.1016/j.jrp.2018.10.008

Dahl, M. K. A. (2018). Moral Judgment: Reflective, Interactive, Spontaneous, Challenging, and Always Evolving. In K. Gray & J. Graham (Eds.), *Atlas of moral psychology* (pp. 20–30). The Guilford Press.

Deckert, C., & Schomaker, R. M. (2022). Cultural tightness–looseness and national innovativeness: Impacts of tolerance and diversity of opinion. *Journal of Innovation and Entrepreneurship*, *11*(1), 29. https://doi.org/10.1186/s13731-022-00219-2

Duke, A. A., & Bègue, L. (2015). The drunk utilitarian: Blood alcohol concentration predicts utilitarian responses in moral dilemmas. *Cognition*, *134*, 121–127. https://doi.org/10.1016/j.cognition.2014.09.006

Earp, B. D., McLoughlin, K. L., Monrad, J. T., Clark, M. S., & Crockett, M. J. (2021). How social relationships shape moral wrongness judgments. *Nature Communications*, *12*(1), 5776. https://doi.org/10.1038/s41467-021-26067-4

Everett, J. A. C., Pizarro, D. A., & Crockett, M. J. (2016). Inference of Trustworthiness from Intuitive Moral Judgments. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2726330

Feng, C., & Liu, C. (2022). Resolving the Limitations of the CNI Model in Moral Decision Making Using the CAN Algorithm: A Methodological Contrast. *Behavioral Sciences*, *12*(7), 233. https://doi.org/10.3390/bs12070233

Fleischmann, A., Lammers, J., Conway, P., & Galinsky, A. D. (2019). Paradoxical Effects of Power on Moral Thinking: Why Power Both Increases and Decreases Deontological and Utilitarian Moral Decisions. *Social Psychological and Personality Science*, *10*(1), 110–120. https://doi.org/10.1177/1948550617744022

Foot, P. (1967). The Problem of Abortion and the Doctrine of the Double Effect. *Oxford Review*, *5*, 5–15.

Forgas, J. P., Jussim, L., & Van Lange, P. A. M. (2016). In Search of Homo Moralis. In J. P. Forgas, L. Jussim, & P. A. M. Van Lange (Eds.), *The Social Psychology of Morality* (1st ed., pp. 1–18). Routledge. https://doi.org/10.4324/9781315644189-1

Friesdorf, R., Conway, P., & Gawronski, B. (2015). Gender Differences in Responses to Moral Dilemmas: A Process Dissociation Analysis. *Personality and Social Psychology Bulletin*, *41*(5), 696–713. https://doi.org/10.1177/0146167215575731

Galperin, B. L., Punnett, B. J., Ford, D., & Lituchy, T. R. (2022). An emic-etic-emic research cycle for understanding context in under-researched countries. *International Journal of Cross Cultural Management*, *22*(1), 7–35. https://doi.org/10.1177/14705958221075534

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

Gawronski, B., & Brannon, S. M. (2020). Power and moral dilemma judgments: Distinct effects of memory recall versus social roles. *Journal of Experimental Social Psychology*, *86*, 103908. https://doi.org/10.1016/j.jesp.2019.103908

Gawronski, B., Conway, P., Armstrong, J. B., Friesdorf, R., & Hütter, M. (2016). Understanding Responses to Moral Dilemmas. In J. P. Forgas, L. Jussim, & P. A. M. Van Lange (Eds.), *The Social Psychology of Morality* (1st ed., pp. 91–110). Routledge. https://doi.org/10.4324/9781315644189-6

Gawronski, B., Conway, P., Hütter, M., Luke, D. M., Armstrong, J., & Friesdorf, R. (2020). On the validity of the CNI model of moral decision-making: Reply to Baron and Goodwin (2020). *Judgment and Decision Making*, *15*(6), 1054–1072. https://doi.org/10.1017/S1930297500008251

Gawronski, B., & Ng, N. L. (2025). Beyond Trolleyology: The CNI Model of Moral-Dilemma Responses. *Personality and Social Psychology Review*, *29*(1), 32–80. https://doi.org/10.1177/10888683241234114

Ge, X. (2020). Social media reduce users' moral sensitivity: Online shaming as a possible consequence. *Aggressive Behavior*, *46*(5), 359–369. https://doi.org/10.1002/ab.21904

Gelfand, M. J., Raver, J. L., Nishii, L., Leslie, L. M., Lun, J., Lim, B. C., Duan, L., Almaliach, A., Ang, S., Arnadottir, J., Aycan, Z., Boehnke, K., Boski, P., Cabecinhas, R., Chan, D., Chhokar, J., D'Amato, A., Ferrer, M., Fischlmayr, I. C., … Yamaguchi, S. (2011). Differences Between Tight and Loose Cultures: A 33-Nation Study. *Science*, *332*(6033), 1100–1104. https://doi.org/10.1126/science.1197754

Gibson, D. R. (1990). Relationship of socioeconomic status to logical and sociomoral judgment of middle-aged men. *Psychology and Aging*, *5*(4), 510–513. https://doi.org/10.1037/0882-7974.5.4.510

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

Goode, E., & Ben-Yehuda, N. (1994). Moral Panics: Culture, Politics, and Social Construction. *Annual Review of Sociology*, *20*(1), 149–171. https://doi.org/10.1146/annurev.so.20.080194.001053

Greene, J. D., Cushman, F. A., Stewart, L. E., Lowenberg, K., Nystrom, L. E., & Cohen, J. D. (2009). Pushing moral buttons: The interaction between personal force and intention in moral judgment. *Cognition*, *111*(3), 364–371. https://doi.org/10.1016/j.cognition.2009.02.001

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

Haidt, J. (Ed.). (2013). *The righteous mind: Why good people are divided by politics and religion*. Vintage Books.

Haidt, J., Koller, S. H., & Dias, M. G. (1993). Affect, culture, and morality, or is it wrong to eat your dog? *Journal of Personality and Social Psychology*, *65*(4), 613–628. https://doi.org/10.1037/0022-3514.65.4.613

Harris, S. (2011). *The moral landscape: How science can determine human values*. Free Press.

Hatemi, P. K., Crabtree, C., & Smith, K. B. (2019). Ideology Justifies Morality: Political Beliefs Predict Moral Foundations. *American Journal of Political Science*, *63*(4), 788–806. https://doi.org/10.1111/ajps.12448

Heck, D. W., Arnold, N. R., & Arnold, D. (2018). TreeBUGS: An R package for hierarchical multinomial-processing-tree modeling. *Behavior Research Methods*, *50*(1), 264–284. https://doi.org/10.3758/s13428-017-0869-7

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *The Behavioral and Brain Sciences*, *33*(2–3), 61–83; discussion 83-135. https://doi.org/10.1017/S0140525X0999152X

Herzog, P., & Beadle, D. (2018). Emerging Adult Religiosity and Spirituality: Linking Beliefs, Values, and Ethical Decision-Making. *Religions*, *9*(3), 84. https://doi.org/10.3390/rel9030084

Hester, N., & Gray, K. (2020). The Moral Psychology of Raceless, Genderless Strangers. *Perspectives on Psychological Science*, *15*(2), 216–230. https://doi.org/10.1177/1745691619885840

International Test Commission. (2018). ITC Guidelines for Translating and Adapting Tests (Second Edition). *International Journal of Testing*, *18*(2), 101–134. https://doi.org/10.1080/15305058.2017.1398166

Iurino, K., & Saucier, G. (2020). Testing Measurement Invariance of the Moral Foundations Questionnaire Across 27 Countries. *Assessment*, *27*(2), 365–372. https://doi.org/10.1177/1073191118817916

Jefferson, J. C. (2026). *A Crimson Record: Seven state modern-day lynching (MDL) report 2000-2025*. JULIAN. https://www.julianfreedom.org/

Kahane, G. (2015). Sidetracked by trolleys: Why sacrificial moral dilemmas tell us little (or nothing) about utilitarian judgment. *Social Neuroscience*, *10*(5), 551–560. https://doi.org/10.1080/17470919.2015.1023400

Kahane, G., & Shackel, N. (2010). Methodological Issues in the Neuroscience of Moral Judgement. *Mind & Language*, *25*(5), 561–582. https://doi.org/10.1111/j.1468-0017.2010.01401.x

Kassambara, A. (2023). *rstatix: Pipe-Friendly Framework for Basic Statistical Tests* (Version 0.7.2) [R package]. https://CRAN.R-project.org/package=rstatix

Kim, V. (2020, December 18). *A notorious child rapist was released from prison. Hordes of YouTube vigilantes awaited*. Los Angeles Times. Yahoo News. https://www.yahoo.com/news/notorious-child-rapist-released-prison-150519238.html

Klein, R. A., Vianello, M., Hasselman, F., Adams, B. G., Adams, R. B., Alper, S., Aveyard, M., Axt, J. R., Babalola, M. T., Bahník, Š., Batra, R., Berkics, M., Bernstein, M. J., Berry, D. R., Bialobrzeska, O., Binan, E. D., Bocian, K., Brandt, M. J., Busching, R., … Nosek, B. A. (2018). Many Labs 2: Investigating Variation in Replicability Across Samples and Settings. *Advances in Methods and Practices in Psychological Science*, *1*(4), 443–490. https://doi.org/10.1177/2515245918810225

Kneer, M., & Hannikainen, I. R. (2022). Trolleys, triage and Covid-19: The role of psychological realism in sacrificial dilemmas. *Cognition and Emotion*, *36*(1), 137–153. https://doi.org/10.1080/02699931.2021.1964940

Körner, A., & Deutsch, R. (2023). Deontology and Utilitarianism in Real Life: A Set of Moral Dilemmas Based on Historic Events. *Personality and Social Psychology Bulletin*, *49*(10), 1511–1528. https://doi.org/10.1177/01461672221103058

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

Körner, A., Joffe, S., & Deutsch, R. (2019). When skeptical, stick with the norm: Low dilemma plausibility increases deontological moral judgments. *Journal of Experimental Social Psychology*, *84*, 103834. https://doi.org/10.1016/j.jesp.2019.103834

Kraus, M. W., & Keltner, D. (2013). Social class rank, essentialism, and punitive judgment. *Journal of Personality and Social Psychology*, *105*(2), 247–261. https://doi.org/10.1037/a0032895

Krebs, D. L. (2011). The Evolution of Moral Norms. In *The Origins of Morality: An Evolutionary Account* (p. 0). Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199778232.003.0032

Kroneisen, M., & Heck, D. W. (2020). Interindividual Differences in the Sensitivity for Consequences, Moral Norms, and Preferences for Inaction: Relating Basic Personality Traits to the CNI Model. *Personality and Social Psychology Bulletin*, *46*(7), 1013–1026. https://doi.org/10.1177/0146167219893994

Kuhlmann, B. G., Erdfelder, E., & Moshagen, M. (2019). Testing Interactions in Multinomial Processing Tree Models. *Frontiers in Psychology*, *10*, 2364. https://doi.org/10.3389/fpsyg.2019.02364

Li, S., Ding, D., Wu, Z., Yi, L., Lai, J., & Dang, L. (2020). Do High Psychopaths Care More about Moral Consequences than Low Psychopaths in Chinese Culture? An

Exploration Using the CNI Model. *Healthcare*, *8*(4), 505. https://doi.org/10.3390/healthcare8040505

Lima, T. J. S. de, Pereira, C. R., Torres, A. R. R., Souza, L. E. C. de, & Albuquerque, I. M. (2019). Black people are convicted more for being black than for being poor: The role of social norms and cultural prejudice on biased racial judgments. *PLOS ONE*, *14*(9), e0222874. https://doi.org/10.1371/journal.pone.0222874

Liyanapathirana, N., & Akroyd, C. (2023). Religiosity and accountants' ethical decision-making in a religious country with a high level of corruption. *Pacific Accounting Review*, *35*(2), 181–198. https://doi.org/10.1108/PAR-08-2021-0132

Lu, J., Xie, J., Chen, J., Zeng, Y., Jiang, Z., Wang, Y., & Zheng, H. (2022). More utilitarian judgment in Internet addiction? An exploration using process dissociation and the CNI model. *Brain and Behavior*, *12*(3), e2510. https://doi.org/10.1002/brb3.2510

Luke, D. M., & Gawronski, B. (2021). Political Ideology and Moral Dilemma Judgments: An Analysis Using the CNI Model. *Personality and Social Psychology Bulletin*, *47*(10), 1520–1531. https://doi.org/10.1177/0146167220987990

Luke, D. M., & Gawronski, B. (2022). Big Five Personality Traits and Moral-Dilemma Judgments: Two Preregistered Studies using the CNI Model. *Journal of Research in Personality*, *101*, 104297. https://doi.org/10.1016/j.jrp.2022.104297

Marques, L. M., Clifford, S., Iyengar, V., Bonato, G. V., Cabral, P. M., Santos, R. B. dos, Cabeza, R., Sinnott-Armstrong, W., & Boggio, P. S. (2020). Translation and validation of the Moral Foundations Vignettes (MFVs) for the Portuguese language in a Brazilian sample. *Judgment and Decision Making*, *15*(1), 149–158. https://doi.org/10.1017/S1930297500006963

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

Muthukrishna, M., Bell, A. V., Henrich, J., Curtin, C. M., Gedranovich, A., McInerney, J., & Thue, B. (2020). Beyond Western, Educated, Industrial, Rich, and Democratic (WEIRD) Psychology: Measuring and Mapping Scales of Cultural and Psychological Distance. *Psychological Science*, *31*(6), 678–701. https://doi.org/10.1177/0956797620916782

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

Ng, N. L., Luke, D. M., & Gawronski, B. (2023). Moral judgment under uncertainty: A CNI model analysis. *European Journal of Social Psychology*, *53*(6), 1055–1077. https://doi.org/10.1002/ejsp.2952

Nussio, E., & Clayton, G. (2025). Introducing the Lynching in Latin America (LYLA) dataset. *Journal of Peace Research*, *62*(2), 479–496. https://doi.org/10.1177/00223433231220275

Pérez-Nebra, A. R., Fischer, R., Torres, C. V., & Boehnke, K. (2024). Adaptation of a cultural measure in brazil – developing a short version of the individualism–collectivism vertical–horizontal scale. *Psychological Test Adaptation and Development*, *5*(1), 12–25. https://doi.org/10.1027/2698-1866/a000068

Pfeifer, M. J. (Ed.). (2017a). *Global Lynching and Collective Violence: Volume 1: Asia, Africa, and the Middle East* (1st ed.). University of Illinois Press. https://doi.org/10.5406/illinois/9780252040801.001.0001

Pfeifer, M. J. (Ed.). (2017b). *Global Lynching and Collective Violence: Volume 2: The Americas and Europe* (1st ed.). University of Illinois Press. https://doi.org/10.5622/illinois/9780252041389.001.0001

Qian, Y., Takimoto, Y., Wang, L., & Yasumura, A. (2024). 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

Qian, Y., Takimoto, Y., & Yasumura, A. (2024). Cross-cultural differences in prefrontal cortex activity in moral judgment: A functional near-infrared spectroscopy (fNIRS) study based on the CNI model. *Behavioural Brain Research*, *465*, 114891. https://doi.org/10.1016/j.bbr.2024.114891

R Core Team. (2025). *R: A language environment for statistical computing* (Version 4.5.2) [R]. R Foundation for Statistical Computing. https://www.R-project.org/

Schwartz, S. H. (2007). A Theory of Cultural Value Orientations: Explication and Applications. In Y. Esmer & T. Pettersson, *Measuring and Mapping Cultures: 25 Years of Comparative Value Surveys* (pp. 33–78). BRILL. https://doi.org/10.1163/ej.9789004158207.i-193

Schwartz, S. H. (2011). Values: Cultural and Individual. In F. J. R. van de Vijver, A. Chasiotis, & S. M. Breugelmans (Eds.), *Fundamental questions in cross-cultural psychology* (pp. 463–493). Cambridge University Press.

Singmann, H., & Kellen, D. (2013). MPTinR: Analysis of multinomial processing tree models in R. *Behavior Research Methods*, *45*(2), 560–575. https://doi.org/10.3758/s13428-012-0259-0

Sinnott-Armstrong, W. (2018). Asking the Right Questions in Moral Psychology. In K. Gray & J. Graham (Eds.), *Atlas of moral psychology* (pp. 565–572). The Guilford Press.

Skovgaard-Olsen, N., & Klauer, K. C. (2023). Invariance Violations and the CNI Model of Moral Judgments. *Personality and Social Psychology Bulletin*, 01461672231164888. https://doi.org/10.1177/01461672231164888

Sojoudi, S., Jahanitabesh, A., Hatami, J., & Christensen, J. F. (2022). *Forty-eight classical moral dilemmas in Persian language: A validation and cultural adaptation study* [Preprint]. PsyArXiv. https://doi.org/10.31234/osf.io/8m69y

Thalmayer, A. G., Toscanelli, C., & Arnett, J. J. (2021). The neglected 95% revisited: Is American psychology becoming less American? *American Psychologist*, *76*(1), 116–129. https://doi.org/10.1037/amp0000622

Thomson, J. J. (1976). Killing, Letting Die, and the Trolley Problem. *The Monist*, *59*(2), 204–217.

Wickham, H., Averick, M., Bryan, J., Chang, W., McGowan, L., François, R., Grolemund, G., Hayes, A., Henry, L., Hester, J., Kuhn, M., Pedersen, T., Miller, E., Bache, S., Müller, K., Ooms, J., Robinson, D., Seidel, D., Spinu, V., … Yutani, H. (2019). Welcome to the Tidyverse. *Journal of Open Source Software*, *4*(43), 1686. https://doi.org/10.21105/joss.01686

Zhang, L., Kong, M., Li, Z., Zhao, X., & Gao, L. (2018). Chronic Stress and Moral Decision-Making: An Exploration With the CNI Model. *Frontiers in Psychology*, *9*, 1702. https://doi.org/10.3389/fpsyg.2018.01702

Appendix A. The 12 Factual Dilemmas from Gawronski et al. (2017) and Körner et al. (2020)

The dilemmas presented here are presented in four different versions and their original forms as retrieved from the sources. Table A1 presents the initial set of the six dilemmas proposed by Gawronski et al. (2017).

Table A1

Gawronski et al.'s (2017) Moral Dilemmas and Their Variations

Dilemma	Proscriptive Norm Prohibits Action		Prescriptive Norm Prescribes Action	
	Benefits of Action Greater than Costs	Benefits of Action Smaller than Costs	Benefits of Action Greater than Costs	Benefits of Action Smaller than Costs
Immune deficiency	You are the director of a hospital in a developing country. A foreign student who is volunteering in the country got infected with a rare virus. The virus is highly contagious and deadly to seniors and children. The only medication that can effectively stop the virus from spreading has severe side- effects. Although the virus will not kill her, the student suffers from a chronic immune deficiency that will make her die from these side- effects. Is it acceptable in this case to give the student the medication?	You are the director of a hospital in a developing country. A foreign student who is volunteering in the country got infected with a rare virus. The virus is highly contagious and can cause severe stomach cramps. The only medication that can effectively stop the virus from spreading has severe side- effects. Although the virus will not kill her, the student suffers from a chronic immune deficiency that will make her die from these side- effects. Is it acceptable in this case to give the student the medication?	You are the director of a hospital in a developing country. A foreign student who is volunteering in the country got infected with a rare virus. The virus is highly contagious and can cause severe stomach cramps. The student suffers from a chronic immune deficiency that will make her die from the virus if she is not returned to her home country for special treatment. However, taking her out of quarantine involves a considerable risk that the virus will spread. Is it acceptable in this case to take the student out of quarantine to return her to her home country for treatment?	You are the director of a hospital in a developing country. A foreign student who is volunteering in the country got infected with a rare virus. The virus is highly contagious and deadly to seniors and children. The student suffers from a chronic immune deficiency that will make her die from the virus if she is not returned to her home country for special treatment. However, taking her out of quarantine involves a considerable risk that the virus will spread. Is it acceptable in this case to take the student out of quarantine to return her to her home country for treatment?
Assisted suicide	You are a doctor and are treating a seriously ill, suffering patient. Even the strongest drugs do not relieve him from his pain anymore. He feels terrible agony and you know that his condition will never	You are a doctor and are treating a seriously ill, suffering patient. Even the strongest drugs do not relieve him from his pain anymore. He feels terrible agony, but you know that he will get better again	You are a doctor and are treating a seriously ill, suffering patient. Even the strongest drugs do not relieve him from his pain anymore. He feels terrible agony, but you know that he will get better again	You are a doctor and are treating a seriously ill, suffering patient. Even the strongest drugs do not relieve him from his pain anymore.

	improve. For days, he has been waiting for his death. Since he no longer wants to endure his pain, he repeatedly asks you to end his life. You could give him a drug causing his death, which will release him from his pain. Is it acceptable in this case to provide your patient with this drug?	soon. For days, he has been waiting to see improvements. Since he no longer wants to endure his pain, he repeatedly asks you to end his life. You could give him a drug causing his death, which will release him from his pain. Is it acceptable in this case to provide your patient with this drug?	soon. For days, he has been waiting to see improvements. Since he no longer wants to endure his pain, he repeatedly asks you to end his life. Suddenly, he has a severe heart attack. You could give him a drug to save him from dying. Is it acceptable in this case to provide your patient with this drug?	He feels terrible agony and you know that his condition will never improve. For days, he has been waiting for his death. Since he no longer wants to endure his pain, he repeatedly asks you to end his life. Suddenly, he has a severe heart attack. You could give him a drug to save him from dying. Is it acceptable in this case to provide your patient with this drug?
Abduction	You are the president of your country. A guerilla group operating in a conflict zone has abducted a journalist from your country and threatens to behead him if your government does not pay a ransom of one million dollars. The group will use the ransom money to buy weapons for their guerilla war, which will cause the deaths of many people. Congress has approved payment of the ransom, but you have the power to veto the payment. Is it acceptable in this case to veto the ransom payment?	You are the president of your country. A guerilla group operating in a conflict zone has abducted a journalist from your country and threatens to behead him if your government does not pay a ransom of one million dollars. The group will use the ransom money to buy food for their families, who live in an area that has been plagued by several droughts. Congress has approved payment of the ransom, but you have the power to veto the payment. Is it acceptable in this case to veto the ransom payment?	You are the president of your country. A guerilla group operating in a conflict zone has abducted a journalist from your country and threatens to behead him if your government does not pay a ransom of one million dollars. The group will use the ransom money to buy food for their families, who live in an area that has been plagued by several droughts. As the president, you have the power to approve payment of the ransom.	You are the president of your country. A guerilla group operating in a conflict zone has abducted a journalist from your country and threatens to behead him if your government does not pay a ransom of one million dollars. The group will use the ransom money to buy weapons for their guerilla war, which will cause the deaths of many people. As the president, you have the power to approve payment of the ransom.
Transplant	You are a surgeon in a small hospital. One day, your hospital receives five badly hurt patients from a car accident. The patients all need organ transplants or they will die. You have no spare organs, but there is a patient who has been in a coma for several weeks and it seems unlikely that he will wake up again. You could terminate his life support and take his organs for the	You are a surgeon in a small hospital. One day, your hospital receives five badly hurt patients from a car accident. These patients all need organ transplants or they will have serious health problems for the rest of their lives. You have no spare organs, but there is a patient who has been in a coma for several weeks and it seems unlikely that he will wake up again. You could terminate his life support and	You are a surgeon in a small hospital. One day, your hospital receives five badly hurt patients from a car accident. These patients all need organ transplants or they will have serious health problems for the rest of their lives. You have no spare organs, but there is a patient who has been in a coma for several weeks and it seems unlikely that he will wake up again. One	You are a surgeon in a small hospital. One day, your hospital receives five badly hurt patients from a car accident. The patients all need organ transplants or they will die. You have no spare organs, but there is a patient who has been in a coma for several weeks and it seems unlikely that he will wake up again. One of your co- workers plans to terminate his life support and take his organs for the five

	five accident victims, so that their lives will be saved. Is it acceptable in this case to terminate the patient's life support to take his organs?	take his organs for the five accident victims, so that they won't suffer from health problems. Is it acceptable in this case to terminate the patient's life support to take his organs?	of your co-workers plans to terminate his life support and take his organs for the five accident victims, so that they won't suffer from health problems. You could stop your co-worker by informing the director of the hospital. Is it acceptable in this case to stop your co- worker from terminating the patient's life support to take his organs?	accident victims, so that their lives will be saved. You could stop your co-worker by informing the director of the hospital. Is it acceptable in this case to stop your co- worker from terminating the patient's life support to take his organs?
Torture	You are a member of a special police department who is trained to obtain information in particularly difficult cases. You are dealing with a case involving a male adult who is accused of having abducted several children. You don't know where he is hiding the children, and he refuses to tell you where they are. The children will likely die from dehydration if they are not found within the next 24 hours. You have tried every legal interrogation technique, but none of them were successful. To get information on where the children are, you consider the use of illegal techniques that are deemed torture. Is it acceptable in this case to use illegal interrogation techniques?	You are a member of a special police department who is trained to obtain information in particularly difficult cases. You are dealing with a case involving a male adult who is accused of having stolen several paintings. You don't know where he is hiding the paintings, and he refuses to tell you where they are. The paintings will likely be shipped to a different country if they are not found within the next 24 hours. You have tried every legal interrogation technique, but none of them were successful. To get information on where the paintings are, you consider the use of illegal techniques that are deemed torture. Is it acceptable in this case to use illegal interrogation techniques?	You are a member of a special police department who is trained to obtain information in particularly difficult cases. You are dealing with a case involving a male adult who is accused of having stolen several paintings. You don't know where he is hiding the paintings, and he refuses to tell you where they are. The paintings will likely be shipped to a different country if they are not found within the next 24 hours. You have tried every legal interrogation technique, but none of them were successful. To get information on where the paintings are, your partner starts using illegal techniques that are deemed torture, and you consider stopping him by reporting him to your supervisor. Is it acceptable in this case to stop your partner from using illegal interrogation techniques?	You are a member of a special police department who is trained to obtain information in particularly difficult cases. You are dealing with a case involving a male adult who is accused of having abducted several children. You don't know where he is hiding the children, and he refuses to tell you where they are. The children will likely die from dehydration if they are not found within the next 24 hours. You have tried every legal interrogation technique, but none of them were successful. To get information on where the children are, your partner starts using illegal techniques that are deemed torture, and you consider stopping him by reporting him to your supervisor. Is it acceptable in this case to stop your partner from using illegal interrogation techniques?
Vaccine	You are a doctor in an area that suffers from an outbreak of a highly contagious disease. Preliminary tests have shown the success of a new vaccine that is not approved by	You are a doctor in an area that suffers from an outbreak of a highly contagious disease. Preliminary tests have shown the success of a new vaccine that is not approved by	You are a doctor in an area that suffers from an outbreak of a highly contagious disease. Preliminary tests have shown the success of a new vaccine that is not approved by	You are a doctor in an area that suffers from an outbreak of a highly contagious disease. Preliminary tests have shown the success of a new vaccine that is not approved by

	the health department of your country, because of its severe side-effects. The side- effects of the vaccine will likely cause the death of dozens of people who are not infected, but the vaccine will save hundreds of lives by preventing spread of the virus. Is it acceptable in this case to use the vaccine?	the health department of your country, because of its severe side-effects. The side- effects of the vaccine will likely cause the death of dozens of people who are not infected, but the vaccine will save about the same number of lives by preventing spread of the virus. Is it acceptable in this case to use the vaccine?	the health department of your country, because of its severe side-effects. The side- effects of the vaccine will likely cause the death of dozens of people who are not infected, but the vaccine will save about the same number of lives by preventing spread of the virus. One of your colleagues plans to use the vaccine, but you could stop him by reporting his plans to the health department. Is it acceptable in this case to report your colleague to the health department?	the health department of your country, because of its severe side-effects. The side- effects of the vaccine will likely cause the death of dozens of people who are not infected, but the vaccine will save hundreds of lives by preventing spread of the virus. One of your colleagues plans to use the vaccine, but you could stop him by reporting his plans to the health department. Is it acceptable in this case to report your colleague to the health department?

Note. From "Consequences, Norms, and Generalized Inaction in Moral Dilemmas: The CNI Model of Moral Decision-Making", by B. Gawronki, J. Armstrong, P. Conway, R. Friesdorf, and M. Hütter, 2017, *Journal of Personality and Social Psychology*, *113*(3), p. 347 (). Copyright 2017 by the American Psychological Association.

Table A2 presents a complementary set of six dilemmas developed by Körner et al. (2020) to allow for the measurement of individual characteristics.

Table A2

Körner et al.'s (2020) Moral Dilemmas and Their Variations

Dilemma	**Proscriptive Norm Prohibits Action**		**Prescriptive Norm Prescribes Action**	
	Benefits of Action Greater than Costs	**Benefits of Action Smaller than Costs**	**Benefits of Action Greater than Costs**	**Benefits of Action Smaller than Costs**
Dialysis	You are the director of a dialysis clinic for patients with severe kidney problems. You are dealing with the case of a female patient with a kidney dysfunction who got food poisoning from a meal at a local restaurant. To	You are the director of a dialysis clinic for patients with severe kidney problems. You are dealing with the case of a female patient with a kidney dysfunction who got food poisoning from a meal at a local restaurant. To	You are the director of a dialysis clinic for patients with severe kidney problems. You are dealing with the case of a female patient with a kidney dysfunction who got food poisoning from a meal at a local restaurant. To	You are the director of a dialysis clinic for patients with severe kidney problems. You are dealing with the case of a female patient with a kidney dysfunction who got food poisoning from a meal at a local restaurant. To

	remove the toxins from her blood, she requires an uninterrupted 24-hour dialysis session instead of the typical 4-hour session required by your other patients. If the woman does not complete the 24-hour treatment, the toxins in her blood will cause irreversible damage to her organs from which she will die. The woman has received treatment for 30 minutes, but you have six other patients who need their regular 4-hours treatments and you have only one dialysis machine available right now. If these patients do not receive their regular treatments within 24 hours, they would suffer from similar life-threatening damages to their inner organs. Is it acceptable in this case to stop the female patient's 24-hour dialysis session?	remove the toxins from her blood, she requires an uninterrupted 24-hour dialysis session instead of the typical 4-hour session required by your other patients. If the woman does not complete the 24-hour treatment, the toxins in her blood will cause irreversible damage to her organs from which she will die. The woman has received treatment for 30 minutes, but you have two other patients who need their regular4-hours treatments and you have only one dialysis machine available right now. If these patients do not receive their regular treatments within 24 hours, they may experience serious nausea for the next two days. Is it acceptable in this case to stop the female patient's 24-hour dialysis session?	remove the toxins from her blood, she requires an uninterrupted 24-hour dialysis session instead of the typical 4-hour session required by your other patients. If the woman does not complete the 24-hour treatment, the toxins in her blood will cause irreversible damage to her organs from which she will die. You have two other patients who need their regular 4-hours treatments and you have only one dialysis machine available right now. If these patients do not receive their regular treatments within 24 hours, they may experience serious nausea for the next two days. Is it acceptable in this case to start a 24-hour dialysis session for the female patient?	remove the toxins from her blood, she requires an uninterrupted 24-hour dialysis session instead of the typical 4-hour session required by your other patients. If the woman does not complete the 24-hour treatment, the toxins in her blood will cause irreversible damage to her organs from which she will die. You have six other patients who need their regular 4-hours treatments and you have only one dialysis machine available right now. If these patients do not receive their regular treatments within 24 hours, they would suffer from similar life-threatening damages to their inner organs. Is it acceptable in this case to start a 24-hour dialysis session for the female patient?
Construction site	You are a construction worker on the construction site for a new high-rise of a wealthy and powerful investor. The man is known to increase his wealth by dubious practices. Specifically, he is hiring people to set buildings on fire, so that he can evict tenants and convert the buildings into luxury properties. In several cases, tenants were seriously injured or killed, but prosecutors have been unable to convict him. While you and the man are on top of the building, you see an opportunity to shove him off the building. The building is high	You are a construction worker on the construction site for a new high-rise of a wealthy and powerful investor. The man is known to increase his wealth by dubious practices. Specifically, he is bribing officials, so that he can evict tenants and convert the buildings into luxury properties. In several cases, tenants were unable to find comparable alternatives, but prosecutors have been unable to convict him. While you and the man are on top of the building, you see an opportunity to shove him off the building. The building is high	You are a construction worker on the construction site for a new high-rise of a wealthy and powerful investor. The man is known to increase his wealth by dubious practices. Specifically, he is bribing officials, so that he can evict tenants and convert the buildings into luxury properties. In several cases, tenants were unable to find comparable alternatives, but prosecutors have been unable to convict him. While you and the man are on top of the building, he slips and will fall from the building unless you grab him and pull him	You are a construction worker on the construction site for a new high-rise of a wealthy and powerful investor. The man is known to increase his wealth by dubious practices. Specifically, he is hiring people to set buildings on fire, so that he can evict tenants and convert the buildings into luxury properties. In several cases, tenants were seriously injured or killed, but prosecutors have been unable to convict him. While you and the man are on top of the building, he slips and will fall from the building unless you grab him and pull him

	enough for the man to die, which would prevent him from causing more harm to innocent tenants. No one is around to see what is happening and his death would look like an accident. Is it acceptable in this case to shove the man off the roof?	enough for the man to die, which would prevent him from causing more harm to innocent tenants. No one is around to see what is happening and his death would look like an accident. Is it acceptable in this case to shove the man off the roof?	up. The building is high enough for the man to die, which would prevent him from causing more harm to innocent tenants. No one is around to see what is happening and his death would look like an accident. Is it acceptable in this case to grab the man and save him?	up. The building is high enough for the man to die, which would prevent him from causing more harm to innocent tenants. No one is around to see what is happening and his death would look like an accident. Is it acceptable in this case to grab the man and save him?
Peanuts	You are head chef of a restaurant in a South American country governed by a controversial president. Since he came to power, he has been trying to suppress any opposition. Many people who dared to speak up against him suddenly “disappeared” and later their dead bodies were found in mass graves. The president is visiting the restaurant in which you work. You know he is highly allergic to peanuts, and you could include a small amount of peanut oil in his dish. Although the amount would be too small to be noticeable, it would be enough to kill him and provide a chance for a new political era in your country. Is it acceptable in this case to add peanut oil to the dish?	You are head chef of a restaurant in a South American country governed by a controversial president. Since he came to power, he has been trying to suppress any opposition. Many people who dared to speak up against him have lost their jobs and now have to work for lower wages. The president is visiting the restaurant in which you work. You know he is highly allergic to peanuts, and you could include a small amount of peanut oil in his dish. Although the amount would be too small to be noticeable, it would be enough to kill him and provide a chance for a new political era in your country. Is it acceptable in this case to add peanut oil to the dish?	You are head chef of a restaurant in a South American country governed by a controversial president. Since he came to power, he has been trying to suppress any opposition. Many people who dared to speak up against him have lost their jobs and now have to work for lower wages. The president is visiting the restaurant in which you work. You know he is highly allergic to peanuts, and you notice that a waiter accidentally mixed up his peanut-free dish with one that contains a small amount of peanut oil. Although the amount is too small to be noticeable, it would be enough to kill him and provide a chance for a new political era in your country. Is it acceptable in this case to prevent the waiter from serving the peanut dish?	You are head chef of a restaurant in a South American country governed by a controversial president. Since he came to power, he has been trying to suppress any opposition. Many people who dared to speak up against him suddenly “disappeared” and later their dead bodies were found in mass graves. The president is visiting the restaurant in which you work. You know he is highly allergic to peanuts, and you notice that a waiter accidentally mixed up his peanut-free dish with one that contains a small amount of peanut oil. Although the amount is too small to be noticeable, it would be enough to kill him and provide a chance for a new political era in your country. Is it acceptable in this case to prevent the waiter from serving the peanut dish?
Rawanda	You are project leader of a development aid team in a foreign country when ethnic tensions start to escalate. The members of the ethnic majority persecute the members of the ethnic minority. One of your minority employees	You are project leader of a development aid team in a foreign country when ethnic tensions start to escalate. The members of the ethnic majority persecute the members of the ethnic minority. One of your minority employees	You are project leader of a development aid team in a foreign country when ethnic tensions start to escalate. The members of the ethnic majority persecute the members of the ethnic minority. One of your minority employees	You are project leader of a development aid team in a foreign country when ethnic tensions start to escalate. The members of the ethnic majority persecute the members of the ethnic minority. One of your minority employees

	arrives at the center of your team after witnessing a colleague being killed by an armed group of majority members. Shortly afterwards, the armed group gathers in front of your center. They threaten to stop an approaching bus and kill all passengers belonging to the ethnic minority if you do not hand over the employee. If you hand over your employee, he will be shot and killed by the armed group. Is it acceptable in this case to hand over your employee to the armed group?	arrives at the center of your team after witnessing a colleague being killed by an armed group of majority members. Shortly afterwards, the armed group gathers in front of your center. They threaten to set one of your team's cars on fire that is parked in front of your center if you do not hand over the employee. If you hand over your employee, he will be shot and killed by the armed group. Is it acceptable in this case to hand over your employee to the armed group?	arrives at the center of your team after witnessing a colleague being killed by an armed group of majority members. Shortly afterwards, the armed group gathers in front of your center. They threaten to set one of your team's cars on fire that is parked in front of your center if you do not hand over the employee. If you hand over your employee, he will be shot and killed by the armed group. You know of a secret tunnel at your center that would allow your employee to flee without being harmed. Is it acceptable in this case to let your employee flee through the tunnel?	arrives at the center of your team after witnessing a colleague being killed by an armed group of majority members. Shortly afterwards, the armed group gathers in front of your center. They threaten to stop an approaching bus and kill all passengers belonging to the ethnic minority if you do not hand over the employee. If you hand over your employee, he will be shot and killed by the armed group. You know of a secret tunnel at your center that would allow your employee to flee without being harmed. Is it acceptable in this case to let your employee flee through the tunnel?
Mother	Your mother had an accident 5 years ago, a painful and emotionally draining experience for your family. Since then, she is in a persistent vegetative state. There is no chance of recovery, because large parts of her brain are permanently damaged. As a result, she experiences severe chronic pain while being unable to communicate. However, despite the state your mother is in, she might live for 20 or 30 more years. Your mother receives multiple drugs from an automatic medication dispenser. An overdose would cause heart failure from which your mother would die, and nobody would notice that she did not die of natural causes.	Your mother had an accident 5 years ago, a painful and emotionally draining experience for your family. Since then, she is partially paralyzed. There is no chance of recovery, because there has been permanent tissue damage. As a result, she will need a wheelchair for the rest of her life. However, your mother has adjusted very well to the state she is in, and she might live for 20 or 30 more years. Your mother receives multiple drugs from an automatic medication dispenser. An overdose would cause heart failure from which your mother would die, and nobody would notice that she did not die of natural causes.	Your mother had an accident 5 years ago, a painful and emotionally draining experience for your family. Since then, she is partially paralyzed. There is no chance of recovery, because there has been permanent tissue damage. As a result, she will need a wheelchair for the rest of her life. However, your mother has adjusted very well to the state she is in, and she might live for 20 or 30 more years. Your mother receives multiple drugs from an automatic medication dispenser. You notice that the dispenser is malfunctioning and has already given her a larger dose than your mother should be given. An overdose would cause heart failure from which your mother would die.	Your mother had an accident 5 years ago, a painful and emotionally draining experience for your family. Since then, she is in a persistent vegetative state. There is no chance of recovery, because large parts of her brain are permanently damaged. As a result, she experiences severe chronic pain while being unable to communicate. However, despite the state your mother is in, she might live for 20 or 30 more years. Your mother receives multiple drugs from an automatic medication dispenser. You notice that the dispenser is malfunctioning and has already given her a larger dose than your mother should be given. An overdose would cause heart failure from which your mother would die.

	Is it acceptable in this case to set the medication dispenser to give your mother an overdose?	Is it acceptable in this case to set the medication dispenser to give your mother an overdose?	Is it acceptable in this case to stop the medication dispenser from giving your mother an overdose?	Is it acceptable in this case to stop the medication dispenser from giving your mother an overdose?
Bishop	You are a church official during the Nazi occupation of the Netherlands. You have an official agreement with the occupying forces that protects anyone under your care. You publicly spoke on behalf of a Jewish family, annoying the Nazis. To demonstrate their power, the Nazis demand that you kill the members of the Jewish family. Otherwise, they will execute dozens of Dutch people they have incarcerated for political reasons. Is it acceptable in this case to kill the Jewish family?	You are a church official during the Nazi occupation of the Netherlands. You have an official agreement with the occupying forces that protects anyone under your care. You publicly spoke on behalf of a Jewish family, annoying the Nazis. To demonstrate their power, the Nazis demand that you kill the members of the Jewish family. Otherwise, they will expel the family, who would have to leave the country within 24 hours. Is it acceptable in this case to kill the Jewish family?	You are a church official during the Nazi occupation of the Netherlands. You have an official agreement with the occupying forces that protects anyone under your care. The Nazis have started to deport all Jewish citizens of your town to concentration camps. A Jewish family asks you to protect them in your church from deportation. From past experiences, you know that the Nazis would respond to your protection of the Jewish family by expelling the family, who would have to leave the country within 24 hours. Is it acceptable in this case to protect the Jewish family?	You are a church official during the Nazi occupation of the Netherlands. You have an official agreement with the occupying forces that protects anyone under your care. The Nazis have started to deport all Jewish citizens of your town to concentration camps. A Jewish family asks you to protect them in your church from deportation. From past experiences, you know that the Nazis would respond to your protection of the Jewish family by executing dozens of Dutch people they have incarcerated for political reasons. Is it acceptable in this case to protect the Jewish family?

Note. From Measures and Materials: Using the CNI Model to Investigate Individual Differences in Moral Dilemma Judgments, by A. Körner, R. Deutsch, and B. Gawronski, 2020, Open Science Framework (https://osf.io/uyhvn). In the public domain.

Appendix B. The 6 GK Factual Dilemmas

Table B1 presents the six GK factual dilemmas and their four versions, both in Brazilian Portuguese and back-translated into English. The selected dilemmas were: Assisted Suicide, Construction Site, Dialysis, Mother, Peanuts, and Torture.

Table B1

Brazilian Portuguese and Back-Translated Versions of the GK Factual Dilemmas

Dilemma	Manipulation Scenario	Brazilian Portuguese Version	English Version
Assisted Suicide	Proscriptive Norm Prohibits Action: Benefits of Action Greater than Costs	Você é um médico que está tratando um paciente gravemente doente que está sofrendo. Ele está em terrível agonia e mesmo os medicamentos mais fortes não aliviam a dor dele. Ele está esperando a morte faz tempo, ele não aguenta mais a dor e pede repetidamente que você acabe com a vida dele. Você sabe que a condição dele nunca vai melhorar. Você poderia dar um medicamento que causaria a morte dele, o que acabaria com sua dor. Nesse caso é aceitável fornecer ao seu paciente esse medicamento?	You are a doctor treating a seriously ill patient who is suffering. He is in terrible agony and even the strongest medicines don't relieve his pain. He's been waiting to die for a long time, he can't stand the pain any longer and he repeatedly asks you to end his life. You know that his condition will never improve. You could give him a drug that would cause his death, which would end his pain. In this case, is it acceptable to give your patient this medicine?
	Proscriptive Norm Prohibits Action: Benefits of Action Smaller than Costs	Você é um médico que está tratando um paciente gravemente doente que está sofrendo. Ele está em terrível agonia e mesmo os medicamentos mais fortes não aliviam a dor dele. Faz dias que ele está esperando por melhoras, ele não aguenta mais a dor e pede repetidamente que você acabe com a vida dele. Entretanto, você sabe que ele irá melhorar logo. Você poderia dar um medicamento que causaria a morte dele, o que acabaria com sua dor. Nesse caso é aceitável fornecer ao seu paciente esse medicamento?	You are a doctor treating a seriously ill patient who is suffering. He is in terrible agony and even the strongest medicines don't relieve his pain. He's been waiting for days to get better, he can't stand the pain any longer and he repeatedly asks you to end his life. However, you know that he will get better soon. You could give him a drug that would cause his death, which would end his pain. In this case, is it acceptable to give your patient this medicine?
	Prescriptive Norm Prescribes Action: Benefits of Action Greater than Costs	Você é um médico que está tratando um paciente gravemente doente que está sofrendo. Ele está em terrível agonia e mesmo os medicamentos mais fortes não aliviam a dor dele. Faz dias que ele está esperando por melhoras, ele não aguenta mais a dor e pede repetidamente que você acabe com a vida dele.	You are a doctor treating a seriously ill patient who is suffering. He is in terrible agony and even the strongest medicines don't relieve his pain. He's been waiting for days to get better, he can't stand the pain any longer and he repeatedly asks you to end his life. However, you know that he will get better soon. Suddenly,

		Entretanto, você sabe que ele irá melhorar logo. De repente, ele tem um ataque cardíaco severo. Você poderia dar um medicamento que salvará a vida dele, mas não irá livrá-lo do seu sofrimento. Nesse caso é aceitável fornecer ao seu paciente esse medicamento?	he has a severe heart attack. You could give him a drug that will save his life, but it won't relieve him of his suffering. In this case, is it acceptable to give your patient this medicine?
	Prescriptive Norm Prescribes Action: Benefits of Action Smaller than Costs	Você é um médico que está tratando um paciente gravemente doente que está sofrendo. Ele está em terrível agonia e mesmo os medicamentos mais fortes não aliviam a dor dele. Ele está esperando a morte faz tempo, ele não aguenta mais a dor e pede repetidamente que você acabe com a vida dele. Você sabe que a condição dele nunca vai melhorar. De repente, ele tem um ataque cardíaco severo. Você poderia dar um medicamento que salvará a vida dele, mas não irá livrá-lo do seu sofrimento. Nesse caso é aceitável fornecer ao seu paciente esse medicamento?	You are a doctor treating a seriously ill patient who is suffering. He is in terrible agony and even the strongest medicines don't relieve his pain. He's been waiting to die for a long time, he can't stand the pain any longer and he repeatedly asks you to end his life. You know his condition will never improve. Suddenly, he has a severe heart attack. You could give him a drug that will save his life, but it won't relieve him of his suffering. In this case, is it acceptable to give your patient this medicine?
Torture	Proscriptive Norm Prohibits Action: Benefits of Action Greater than Costs	Você é um policial treinado para obter informações em casos difíceis. Você está lidando com um caso em que um homem adulto é acusado de sequestrar várias crianças. Você não sabe onde ele está escondendo as crianças e ele se recusa a dizer onde elas estão. As crianças, provavelmente, vão morrer de desidratação se não forem encontradas nas próximas 24 horas. Você tentou todas as técnicas legais de interrogatório, mas nenhuma delas obteve sucesso. Para obter a informação de onde estão as crianças, você considera usar técnicas ilegais que são consideradas tortura. Nesse caso, é aceitável usar técnicas ilegais de interrogação?	You are a police officer trained to obtain information in difficult cases. You're dealing with a case in which an adult man is accused of kidnapping several children. You don't know where he's hiding the children and he refuses to tell you where they are. The children will probably die of dehydration if they are not found within the next 24 hours. You've tried all the legal interrogation techniques, but none of them have been successful. To get the information about where the children are, you consider using illegal techniques that are considered torture. In this case, is it acceptable to use illegal interrogation techniques?
	Proscriptive Norm Prohibits Action: Benefits of Action Smaller than Costs	Você é um policial treinado para obter informações em casos difíceis. Você está lidando com um caso em que um homem adulto é acusado de ter roubado várias pinturas inestimáveis. Você não sabe onde ele está escondendo as pinturas e ele se recusa a dizer onde elas estão. As pinturas, provavelmente, vão ser enviadas para outro país se não forem encontradas nas próximas 24 horas. Você tentou todas as técnicas legais de interrogatório, mas nenhuma delas obteve sucesso. Para obter a informação de onde estão as pinturas, você considera usar técnicas ilegais que são consideradas tortura. Nesse caso, é aceitável usar técnicas ilegais de interrogação?	You are a police officer trained to obtain information in difficult cases. You are dealing with a case in which an adult man is accused of having stolen several priceless paintings. You don't know where he's hiding the paintings and he refuses to tell you where they are. The paintings will probably be sent to another country if they are not found within the next 24 hours. You've tried all the legal interrogation techniques, but none of them have been successful. To get the information about where the paintings are, you consider using illegal techniques that are considered torture. In this case, is it acceptable to use illegal interrogation techniques?

	Prescriptive Norm Prescribes Action: Benefits of Action Greater than Costs	Você é um policial treinado para obter informações em casos difíceis. Você está lidando com um caso em que um homem adulto é acusado de ter roubado várias pinturas inestimáveis. Você não sabe onde ele está escondendo as pinturas e ele se recusa a dizer onde elas estão. As pinturas, provavelmente, vão ser enviadas para outro país se não forem encontradas nas próximas 24 horas. Você tentou todas as técnicas legais de interrogatório, mas nenhuma delas obteve sucesso. Para obter a informação de onde estão as pinturas, seu parceiro começa a usar técnicas ilegais que são consideradas tortura. Nesse caso, é aceitável impedir seu parceiro de utilizar técnicas ilegais de interrogação?	You are a police officer trained to obtain information in difficult cases. You are dealing with a case in which an adult man is accused of having stolen several priceless paintings. You don't know where he's hiding the paintings and he refuses to tell you where they are. The paintings will probably be sent to another country if they are not found within the next 24 hours. You've tried all the legal interrogation techniques, but none of them have been successful. To get the information about where the paintings are, your partner starts using illegal techniques that are considered torture. In this case, is it acceptable to stop your partner from using illegal interrogation techniques?
	Prescriptive Norm Prescribes Action: Benefits of Action Smaller than Costs	Você é um policial treinado para obter informações em casos difíceis. Você está lidando com um caso em que um homem adulto é acusado de sequestrar várias crianças. Você não sabe onde ele está escondendo as crianças e ele se recusa a dizer onde elas estão. As crianças, provavelmente, vão morrer de desidratação se não forem encontradas nas próximas 24 horas. Você tentou todas as técnicas legais de interrogatório, mas nenhuma delas obteve sucesso. Para obter a informação de onde estão as crianças, seu parceiro começa a usar técnicas ilegais que são consideradas tortura. Nesse caso, é aceitável impedir seu parceiro de utilizar técnicas ilegais de interrogação?	You are a police officer trained to obtain information in difficult cases. You are dealing with a case in which an adult man is accused of kidnapping several children. You don't know where he is hiding the children and he refuses to tell you where they are. The children will probably die of dehydration if they are not found within the next 24 hours. You've tried all the legal interrogation techniques, but none of them have been successful. To get the information about where the children are, your partner starts using illegal techniques that are considered torture. In this case, is it acceptable to stop your partner from using illegal interrogation techniques?
Dialysis	Proscriptive Norm Prohibits Action: Benefits of Action Greater than Costs	Você é o diretor de uma clínica de diálise para pacientes com problemas renais graves. Você está lidando com o caso de uma paciente com disfunção renal que contraiu uma intoxicação alimentar de uma refeição em um restaurante local. Para remover as toxinas de seu sangue, ela precisa de uma sessão de diálise por 24 horas ininterruptas ao invés da típica sessão de 4 horas necessárias para outros pacientes. Se a mulher não completar o tratamento de 24 horas, as toxinas em seu sangue irão causar danos irreversíveis aos seus órgãos, que resultarão em sua morte. Essa mulher está recebendo o tratamento há 30 minutos, mas você tem outros seis pacientes que precisam de seu tratamento regular de 4 horas e há apenas uma máquina de diálise disponível no momento. Se esses pacientes não receberem seus tratamentos regulares em 24 horas, isso causará	You are the director of a dialysis clinic for patients with severe kidney problems. You are dealing with the case of a patient with kidney dysfunction who has contracted food poisoning from a meal at a local restaurant. To remove the toxins from her blood, she needs a 24-hour dialysis session instead of the typical 4-hour session required for other patients. If the woman doesn't complete the 24-hour treatment, the toxins in her blood will cause irreversible damage to her organs, which will result in her death. This woman has been receiving treatment for 30 minutes, but you have six other patients who need their regular 4-hour treatment and there is only one dialysis machine available at the moment. If these patients don't receive their regular treatments within 24 hours, it will cause similar damage to their organs, putting their lives at risk.

	danos semelhantes aos seus órgãos, colocando suas vidas em risco. Nesse caso, é aceitável parar a sessão de diálise de 24 horas da paciente?	In this case, is it acceptable to stop the patient's 24-hour dialysis session?
Proscriptive Norm Prohibits Action: Benefits of Action Smaller than Costs	Você é o diretor de uma clínica de diálise para pacientes com problemas renais graves. Você está lidando com o caso de uma paciente com disfunção renal que contraiu uma intoxicação alimentar de uma refeição em um restaurante local. Para remover as toxinas de seu sangue, ela precisa de uma sessão de diálise por 24 horas ininterruptas ao invés da típica sessão de 4 horas necessárias para outros pacientes. Se a mulher não completar o tratamento de 24 horas, as toxinas em seu sangue irão causar danos irreversíveis aos seus órgãos, que resultarão em sua morte. Essa mulher está recebendo o tratamento há 30 minutos, mas você tem outros seis pacientes que precisam de seu tratamento regular de 4 horas e há apenas uma máquina de diálise disponível no momento. Se esses pacientes não receberem seus tratamentos regulares em 24 horas, eles poderão sentir uma náusea severa durante os próximos dois dias. Nesse caso, é aceitável parar a sessão de diálise de 24 horas da paciente?	You are the director of a dialysis clinic for patients with severe kidney problems. You are dealing with the case of a patient with kidney dysfunction who has contracted food poisoning from a meal at a local restaurant. To remove the toxins from her blood, she needs a 24-hour dialysis session instead of the typical 4-hour session required for other patients. If the woman doesn't complete the 24-hour treatment, the toxins in her blood will cause irreversible damage to her organs, which will result in her death. This woman has been receiving treatment for 30 minutes, but you have six other patients who need their regular 4-hour treatment and there is only one dialysis machine available at the moment. If these patients don't receive their regular treatments within 24 hours, they may experience severe nausea for the next two days. In this case, is it acceptable to stop the patient's 24-hour dialysis session?
Prescriptive Norm Prescribes Action: Benefits of Action Greater than Costs	Você é o diretor de uma clínica de diálise para pacientes com problemas renais graves. Você está lidando com o caso de uma paciente com disfunção renal que contraiu uma intoxicação alimentar de uma refeição em um restaurante local. Para remover as toxinas de seu sangue, ela precisa de uma sessão de diálise por 24 horas ininterruptas ao invés da típica sessão de 4 horas necessárias para outros pacientes. Se a mulher não completar o tratamento de 24 horas, as toxinas em seu sangue irão causar danos irreversíveis aos seus órgãos, que resultarão em sua morte. Você tem outros seis pacientes que precisam de seu tratamento regular de 4 horas e há apenas uma máquina de diálise disponível no momento. Se esses pacientes não receberem seus tratamentos regulares em 24 horas, eles poderão sentir uma náusea severa durante os próximos dois dias. Nesse caso, é aceitável iniciar a sessão de diálise de 24 horas da paciente?	You are the director of a dialysis clinic for patients with severe kidney problems. You are dealing with the case of a patient with kidney dysfunction who has contracted food poisoning from a meal at a local restaurant. To remove the toxins from her blood, she needs a 24-hour dialysis session instead of the typical 4-hour session required for other patients. If the woman doesn't complete the 24-hour treatment, the toxins in her blood will cause irreversible damage to her organs, which will result in her death. You have six other patients who need their regular 4-hour treatment and there is only one dialysis machine available at the moment. If these patients don't receive their regular treatments within 24 hours, they may experience severe nausea for the next two days. In this case, is it acceptable to start the patient's 24-hour dialysis session?
Prescriptive Norm Prescribes Action:	Você é o diretor de uma clínica de diálise para pacientes com problemas renais graves. Você está lidando com o caso de uma	You are the director of a dialysis clinic for patients with severe kidney problems. You are dealing with the case of a patient with

	Benefits of Action Smaller than Costs	paciente com disfunção renal que contraiu uma intoxicação alimentar de uma refeição em um restaurante local. Para remover as toxinas de seu sangue, ela precisa de uma sessão de diálise por 24 horas ininterruptas ao invés da típica sessão de 4 horas necessárias para outros pacientes. Se a mulher não completar o tratamento de 24 horas, as toxinas em seu sangue irão causar danos irreversíveis aos seus órgãos, que resultarão em sua morte. Você tem outros seis pacientes que precisam de seu tratamento regular de 4 horas e há apenas uma máquina de diálise disponível no momento. Se esses pacientes não receberem seus tratamentos regulares em 24 horas, isso causará danos semelhantes aos seus órgãos, colocando suas vidas em risco. Nesse caso, é aceitável iniciar a sessão de diálise de 24 horas da paciente?	kidney dysfunction who has contracted food poisoning from a meal at a local restaurant. To remove the toxins from her blood, she needs a 24-hour dialysis session instead of the typical 4-hour session required for other patients. If the woman doesn't complete the 24-hour treatment, the toxins in her blood will cause irreversible damage to her organs, which will result in her death. You have six other patients who need their regular 4-hour treatment and there is only one dialysis machine available at the moment. If these patients don't receive their regular treatments within 24 hours, it will cause similar damage to their organs, putting their lives at risk. In this case, is it acceptable to start the patient's 24-hour dialysis session?
Construction Site	Proscriptive Norm Prohibits Action: Benefits of Action Greater than Costs	Você trabalha na construção de um novo edifício para um investidor rico e poderoso. Esse homem é conhecido por aumentar sua riqueza por meio de práticas duvidosas. Mais especificamente, ele contrata pessoas para colocar fogo em edifícios para que ele possa despejar inquilinos e transformar os prédios em propriedades de luxo. Em vários casos, os inquilinos foram gravemente feridos ou mortos, mas a justiça não conseguiu condená-lo. Enquanto você e o homem estão no topo do prédio, você vê uma oportunidade de empurra-lo do prédio. O edifício é alto o suficiente para que ele morra, o que o impediria de causar mais danos a inquilinos inocentes. Não há ninguém por perto para ver o que está acontecendo e sua morte pareceria um acidente, além disso não haveria risco de perder seu emprego. Nesse caso, é aceitável empurrar o homem do topo do prédio?	You are working on the construction of a new building for a rich and powerful investor. This man is known for increasing his wealth through dubious practices. More specifically, he hires people to set fire to buildings so that he can evict tenants and turn the buildings into luxury properties. In several cases, tenants have been seriously injured or killed, but the courts have failed to convict him. While you and the man are at the top of the building, you see an opportunity to push him off the building. The building is high enough for him to die, which would prevent him from causing any more damage to innocent tenants. There's no one around to see what's happening and his death would look like an accident, plus there would be no risk of losing your job. In this case, is it acceptable to push the man off the top of the building?
	Proscriptive Norm Prohibits Action: Benefits of Action Smaller than Costs	Você trabalha na construção de um novo edifício para um investidor rico e poderoso. Esse homem é conhecido por aumentar sua riqueza por meio de práticas duvidosas. Mais especificamente, ele suborna autoridades para que ele possa despejar inquilinos e transformar os prédios em propriedades de luxo. Em vários casos, os inquilinos não conseguiram encontrar opções parecidas para locação, mas a justiça não conseguiu condená-lo. Enquanto você e o homem estão no topo do prédio, você vê uma oportunidade de empurra-lo do prédio. O edifício é	You are working on the construction of a new building for a rich and powerful investor. This man is known for increasing his wealth through dubious practices. More specifically, he bribes authorities so that he can evict tenants and turn buildings into luxury properties. In several cases, tenants have been unable to find similar rental options, but the courts have failed to convict him. While you and the man are at the top of the building, you see an opportunity to push him off the building. The building is high enough for him to die, which would prevent him from

		alto o suficiente para que ele morra, o que o impediria de causar mais danos a inquilinos inocentes. Não há ninguém por perto para ver o que está acontecendo e sua morte pareceria um acidente, além disso não haveria risco de perder seu emprego. Nesse caso, é aceitável empurrar o homem do topo do prédio?	causing any more damage to innocent tenants. There's no one around to see what's happening and his death would look like an accident, plus there would be no risk of losing your job. In this case, is it acceptable to push the man off the top of the building?
	Prescriptive Norm Prescribes Action: Benefits of Action Greater than Costs	Você trabalha na construção de um novo edifício para um investidor rico e poderoso. Esse homem é conhecido por aumentar sua riqueza por meio de práticas duvidosas. Mais especificamente, ele suborna autoridades para que ele possa despejar inquilinos e transformar os prédios em propriedades de luxo. Em vários casos, os inquilinos não conseguiram encontrar opções parecidas para locação, mas a justiça não conseguiu condená-lo. Enquanto você e o homem estão no topo do prédio, ele escorrega a ponto de ficar pendurado para fora do prédio podendo cair, a menos que você o puxe para cima. O edifício é alto o suficiente para que ele morra, o que o impediria de causar mais danos a inquilinos inocentes. Não há ninguém por perto para ver o que está acontecendo e sua morte pareceria um acidente, além disso não haveria risco de perder seu emprego. Nesse caso, é aceitável puxá-lo de volta e salvá-lo?	You are working on the construction of a new building for a rich and powerful investor. This man is known for increasing his wealth through dubious practices. More specifically, he bribes authorities so that he can evict tenants and turn buildings into luxury properties. In several cases, tenants have been unable to find similar rental options, but the courts have failed to convict him. While you and the man are at the top of the building, he slips to the point where he hangs out of the building and could fall unless you pull him up. The building is high enough for him to die, which would prevent him from causing any more damage to innocent tenants. There is no one around to see what is happening and his death would look like an accident, plus there would be no risk of losing his job. In that case, is it acceptable to pull him back and save him?
	Prescriptive Norm Prescribes Action: Benefits of Action Smaller than Costs	Você trabalha na construção de um novo edifício para um investidor rico e poderoso. Esse homem é conhecido por aumentar sua riqueza por meio de práticas duvidosas. Mais especificamente, ele contrata pessoas para colocar fogo em edifícios para que ele possa despejar inquilinos e transformar os prédios em propriedades de luxo. Em vários casos, os inquilinos foram gravemente feridos ou mortos, mas a justiça não conseguiu condená-lo. Enquanto você e o homem estão no topo do prédio, ele escorrega a ponto de ficar pendurado para fora do prédio podendo cair, a menos que você o puxe para cima. O edifício é alto o suficiente para que ele morra, o que o impediria de causar mais danos a inquilinos inocentes. Não há ninguém por perto para ver o que está acontecendo e sua morte pareceria um acidente, além disso não haveria risco de perder seu emprego. Nesse caso, é aceitável puxá-lo de volta e salvá-lo?	You are working on the construction of a new building for a rich and powerful investor. This man is known for increasing his wealth through dubious practices. More specifically, he hires people to set fire to buildings so that he can evict tenants and turn the buildings into luxury properties. In several cases, tenants have been seriously injured or killed, but the courts have failed to convict him. While you and the man are at the top of the building, he slips to the point where he hangs off the building and could fall unless you pull him up. The building is high enough for him to die, which would prevent him from causing any more damage to innocent tenants. There is no one around to see what is happening and his death would look like an accident, plus there would be no risk of losing his job. In that case, is it acceptable to pull him back and save him?
Peanuts	Proscriptive Norm Prohibits Action:	Você é o chefe de um restaurante em um país governado por um presidente polêmico. Desde que assumiu o poder, ele vem tentando suprimir qualquer forma de oposição. Muitas pessoas	You are the head of a restaurant in a country ruled by a controversial president. Ever since he took office, he has been trying to suppress any form of opposition. Many people who

	Benefits of Action Greater than Costs	que ousaram falar contra ele "desapareceram" inesperadamente e depois seus corpos foram encontrados em valas coletivas. O presidente está visitando o restaurante no qual você trabalha. Você sabe que ele é altamente alérgico a amendoim e você poderia incluir uma pequena quantidade de óleo de amendoim no prato dele. Apesar de ser uma quantidade pequena demais para ser perceptível, seria o suficiente para matá-lo e proporcionar uma chance de uma nova era política no seu país e ninguém descobriria que você fez isso. Nesse caso, é aceitável adicionar óleo de amendoim no prato dele?	dared to speak out against him “disappeared” unexpectedly and their bodies were later found in mass graves. The president is visiting the restaurant where you work. You know that he is highly allergic to peanuts and you could include a small amount of peanut oil on his plate. Although it’s too small an amount to be noticeable, it would be enough to kill him and provide a chance for a new political era in your country and no one would find out you did it. In that case, is it acceptable to add peanut oil to his plate?
	Proscriptive Norm Prohibits Action: Benefits of Action Smaller than Costs	Você é o chefe de um restaurante em um país governado por um presidente polêmico. Desde que assumiu o poder, ele vem tentando suprimir qualquer forma de oposição. Muitas pessoas que ousaram falar contra ele perderam seus empregos e agora têm que trabalhar por salários mais baixos. O presidente está visitando o restaurante no qual você trabalha. Você sabe que ele é altamente alérgico a amendoim e você poderia incluir uma pequena quantidade de óleo de amendoim no prato dele. Apesar de ser uma quantidade pequena demais para ser perceptível, seria o suficiente para matá-lo e proporcionar uma chance de uma nova era política no seu país e ninguém descobriria que você fez isso. Nesse caso, é aceitável adicionar óleo de amendoim no prato dele?	You are the head of a restaurant in a country ruled by a controversial president. Ever since he took office, he has been trying to suppress any form of opposition. Many people who have dared to speak out against him have lost their jobs and now have to work for lower wages. The president is visiting the restaurant where you work. You know that he is highly allergic to peanuts and you could include a small amount of peanut oil on his plate. Although it’s too small an amount to be noticeable, it would be enough to kill him and provide a chance for a new political era in your country and no one would find out you did it. In that case, is it acceptable to add peanut oil to his plate?
	Prescriptive Norm Prescribes Action: Benefits of Action Greater than Costs	Você é o chefe de um restaurante em um país governado por um presidente polêmico. Desde que assumiu o poder, ele vem tentando suprimir qualquer forma de oposição. Muitas pessoas que ousaram falar contra ele perderam seus empregos e agora têm que trabalhar por salários mais baixos. O presidente está visitando o restaurante no qual você trabalha. Você sabe que ele é altamente alérgico a amendoim e você nota que um garçom acidentalmente confundiu o prato dele, que não continha amendoim, com um prato que contém uma pequena quantidade de óleo de amendoim. Apesar de ser uma quantidade pequena demais para ser perceptível, seria o suficiente para matá-lo e proporcionar uma chance de uma nova era política no seu país e ninguém descobriria que o garçom fez isso.	You are the head of a restaurant in a country ruled by a controversial president. Ever since he took office, he has been trying to suppress any form of opposition. Many people who have dared to speak out against him have lost their jobs and now have to work for lower wages. The president is visiting the restaurant where you work. You know that he is highly allergic to peanuts and you notice that a waiter has accidentally mistaken his dish, which contained no peanuts, for a dish containing a small amount of peanut oil. Although it’s too small an amount to be noticeable, it would be enough to kill you and provide a chance for a new political era in your country and no one would find out that the waiter did it. In that case, is it acceptable to stop the waiter from serving the dish with peanut oil?

		Nesse caso, é aceitável impedir o garçom de servir o prato com óleo de amendoim?	
	Prescriptive Norm Prescribes Action: Benefits of Action Smaller than Costs	Você é o chefe de um restaurante em um país governado por um presidente polêmico. Desde que assumiu o poder, ele vem tentando suprimir qualquer forma de oposição. Muitas pessoas que ousaram falar contra ele "desapareceram" inesperadamente e depois seus corpos foram encontrados em valas coletivas. O presidente está visitando o restaurante no qual você trabalha. Você sabe que ele é altamente alérgico a amendoim e você nota que um garçom acidentalmente confundiu o prato dele, que não continha amendoim, com um prato que contém uma pequena quantidade de óleo de amendoim. Apesar de ser uma quantidade pequena demais para ser perceptível, seria o suficiente para matá-lo e proporcionar uma chance de uma nova era política no seu país e ninguém descobriria que o garçom fez isso. Nesse caso, é aceitável impedir o garçom de servir o prato com óleo de amendoim?	You are the head of a restaurant in a country ruled by a controversial president. Ever since he took office, he has been trying to suppress any form of opposition. Many people who dared to speak out against him “disappeared” unexpectedly and their bodies were later found in mass graves. The president is visiting the restaurant where you work. You know that he is highly allergic to peanuts and you notice that a waiter has accidentally mistaken his dish, which contained no peanuts, for a dish containing a small amount of peanut oil. Although it’s too small an amount to be noticeable, it would be enough to kill you and provide a chance for a new political era in your country and no one would find out that the waiter did it. In this case, is it acceptable to stop the waiter from serving the dish with peanut oil?
Mother	Proscriptive Norm Prohibits Action: Benefits of Action Greater than Costs	Sua mãe sofreu um acidente há 5 anos, o que foi uma experiência dolorosa e emocionalmente desgastante para a sua família. Desde então, ela está em um estado vegetativo persistente. Não há nenhuma chance de recuperação, porque grandes partes do cérebro dela estão permanentemente danificadas. Como consequência disso, ela sente dor crônica severa, além de ser incapaz de se comunicar. No entanto, apesar do estado que sua mãe está, ela pode viver por mais 20 ou 30 anos. Sua mãe recebe diversos medicamentos automaticamente por meio de uma máquina. Uma overdose causaria uma parada cardíaca, o que levaria à morte da sua mãe, e ninguém notaria que ela não morreu de causas naturais. Nesse caso, é aceitável ajustar a máquina para causar uma overdose na sua mãe?	Your mother suffered an accident five years ago, which was a painful and emotionally draining experience for your family. Since then, she has been in a persistent vegetative state. There is no chance of recovery because large parts of her brain are permanently damaged. As a consequence, she experiences severe chronic pain and is unable to communicate. However, despite her mother’s condition, she could live for another 20 or 30 years. Her mother receives various medications automatically via a machine. An overdose would cause cardiac arrest, which would lead to your mother’s death, and no one would notice that she didn’t die of natural causes. In this case, is it acceptable to adjust the machine to cause your mother to overdose?
	Proscriptive Norm Prohibits Action: Benefits of Action Smaller than Costs	Sua mãe sofreu um acidente há 5 anos, o que foi uma experiência dolorosa e emocionalmente desgastante para a sua família. Desde então, ela está parcialmente paralisada. Não há nenhuma chance de recuperação, porque houve dano permanente. Como consequência disso, ela vai precisar de cadeira de rodas pelo resto da vida. No entanto, sua mãe se adaptou muito bem ao estado em que ela se encontra e pode viver por mais 20 ou 30 anos. Sua mãe recebe diversos	Your mother suffered an accident 5 years ago, which was a painful and emotionally draining experience for your family. Since then, she has been partially paralyzed. There is no chance of recovery, because there has been permanent damage. As a result, she will need a wheelchair for the rest of her life. However, her mother has adapted very well to her condition and could live for another 20 or 30 years. Her mother receives various medications automatically via a machine. An overdose

	medicamentos automaticamente por meio de uma máquina. Uma overdose causaria uma parada cardíaca, o que levaria à morte da sua mãe, e ninguém notaria que ela não morreu de causas naturais. Nesse caso, é aceitável ajustar a máquina para causar uma overdose na sua mãe?	would cause cardiac arrest, which would lead to your mother's death, and no one would notice that she didn't die of natural causes. In this case, is it acceptable to adjust the machine to cause your mother to overdose?
Prescriptive Norm Prescribes Action: Benefits of Action Greater than Costs	Sua mãe sofreu um acidente há 5 anos, o que foi uma experiência dolorosa e emocionalmente desgastante para a sua família. Desde então, ela está parcialmente paralisada. Não há nenhuma chance de recuperação, porque houve dano permanente. Como consequência disso, ela vai precisar de cadeira de rodas pelo resto da vida. No entanto, sua mãe se adaptou muito bem ao estado em que ela se encontra e pode viver por mais 20 ou 30 anos. Sua mãe recebe diversos medicamentos automaticamente por meio de uma máquina. Você percebe que a máquina está com defeito e está dando uma dose maior do que a sua mãe deveria receber e, se continuar, isso causaria uma overdose. A overdose causaria uma parada cardíaca, o que levaria à morte da sua mãe. Nesse caso, é aceitável impedir a máquina de causar uma overdose na sua mãe?	Your mother suffered an accident 5 years ago, which was a painful and emotionally draining experience for your family. Since then, she has been partially paralyzed. There is no chance of recovery, because there has been permanent damage. As a result, she will need a wheelchair for the rest of her life. However, her mother has adapted very well to her condition and could live for another 20 or 30 years. Your mother receives various medications automatically via a machine. You realize that the machine is malfunctioning and is giving your mother a higher dose than she should receive and, if it continues, this would cause an overdose. The overdose would cause cardiac arrest, which would lead to your mother's death. In this case, is it acceptable to stop the machine from overdosing your mother?
Prescriptive Norm Prescribes Action: Benefits of Action Smaller than Costs	Sua mãe sofreu um acidente há 5 anos, o que foi uma experiência dolorosa e emocionalmente desgastante para a sua família. Desde então, ela está em um estado vegetativo persistente. Não há nenhuma chance de recuperação, porque grandes partes do cérebro dela estão permanentemente danificadas. Como consequência disso, ela sente dor crônica severa, além de ser incapaz de se comunicar. No entanto, apesar do estado que sua mãe está, ela pode viver por mais 20 ou 30 anos. Sua mãe recebe diversos medicamentos automaticamente por meio de uma máquina. Você percebe que a máquina está com defeito e está dando uma dose maior do que a sua mãe deveria receber e, se continuar, isso causaria uma overdose. A overdose causaria uma parada cardíaca, o que levaria à morte da sua mãe. Nesse caso, é aceitável impedir a máquina de causar uma overdose na sua mãe?	Your mother suffered an accident 5 years ago, which was a painful and emotionally draining experience for your family. Since then, she has been in a persistent vegetative state. There is no chance of recovery because large parts of her brain are permanently damaged. As a consequence, she experiences severe chronic pain and is unable to communicate. However, despite her mother's condition, she could live for another 20 or 30 years. Your mother receives various medications automatically via a machine. You realize that the machine is faulty and is giving your mother a higher dose than she should receive and, if it continues, this would cause an overdose. The overdose would cause cardiac arrest, which would lead to your mother's death. In this case, is it acceptable to stop the machine from overdosing your mother?

Appendix C. Secondary Analysis for Körner and Deutsch's (2023) Data

Körner and Deutsch (2023), in two studies, asked German speaking participants and US Participants to indicate how they perceived both classic and factual dilemmas in terms of emotional valence and arousal, absurdness, typicality, and plausibility. Their data from those studies is openly available in the OSF link: https://osf.io/cg5tq/.

Through these studies, the authors found that new factual dilemmas based on historical events were perceived to be more realistic and less absurd than commonly used trolley-type dilemmas. Additionally, factual dilemmas induced higher participant engagement than traditional dilemmas. However, they did not test for differences in the participants' perceptions between countries, that is, German participants who lived where the dilemmas were based and US Participants who answered the European-based dilemmas.

Thus, we conducted several t-tests using the *tidyverse* (version 2.0.0; Wickham et al., 2019) and *rstatix* (version 0.7.2; Kassambara, 2023) packages in R. All measurements ranged from 1 to 7. Table C1 presents the results of each t-test conducted and the mean and standard deviation for each group.

Table C1

Results of t-tests for Germany and US Participants in the New Set of Factual Dilemmas

Variable[a]	US Participants		Germany Participants		*t*	*df*	*p*
	M	***SD***	***M***	***SD***			
Absurdness	4.07	1.54	3.12	1.05	8.60	344.27	< .001
Arousal	5.00	1.27	4.68	1.10	3.33	406.80	< .001
Valence	3.55	1.54	2.49	.68	10.24	281.15	< .001
Difficulty	4.68	1.13	4.10	1.08	6.65	445.85	< .001
Realism	4.87	.82	5.03	.82	2.49	461.26	< .001
Plausibility	5.01	.86	4.19	.86	12.19	461.69	< .001

Note. The US sample had 238 participants, and the German sample had 508 participants. a: All variables varied from 1 to 7, with a higher score indicating a higher level of the variable.

The dilemmas were found to be more realistic (t [461.26] = 2.49, $p < .001$) and less absurd (t [344.27] = 8.60, $p < .001$) by the German participants than by the US Participants, as expected. The German participants also felt more negative feelings from the dilemmas than the US Participants (t [281.15] = 10.24, $p < .001$). However, the US Participants found

the dilemmas more arousing (t [406.80] = 3.33, $p < .001$), more difficult (t [445.85] = 6.65, $p < .001$), and more plausible (t [461.69] = 12.19, $p < .001$) than the German participants did.

Together, these findings suggest that the set of historical and factual moral dilemmas was, in general, more effective with the German participants than with the US Participants, where those dilemmas were based. There are some exceptions, such as difficulties and plausibility perceptions.

Appendix D. News and Events Used for the Construction of New Dilemmas

Through the Internet search and AI prompts, we found several news items that could possibly be converted into real-life, local-based, moral dilemmas. These are presented in Table D1.

Table D1

Selected news and events, link source and proposed scenario.

Scenario Title	Link Source	Proposed Scenario[a]
Stem Cells	https://veja.abril.com.br/saude/humano-sintetico-cientistas-criam-embriao-usando-celulas-tronco/	The family member you love has a degenerative and incurable genetic disease. This disease inevitably leads to death and causes suffering over the years. However, genetic testing has indicated that a cure can be developed from a laboratory-generated fetus with DNA. This cure can also be used by other people who develop the same disease, including other family members. However, the fetus needs to be destroyed after six months of gestation. In this case, would you donate your DNA to generate the fetus and save the person you love?
Environmental Disaster	https://g1.globo.com/al/alagoas/noticia/2023/12/22/solo-da-mina-que-colapsou-em-maceio-continua-afundando-diz-defesa-civil.ghtml	You work in mineral extraction at a mining company near a town. One day, during your work, you notice that the sensors indicate ground movement, which could cause several areas of the town to collapse, resulting in the death of many people. The sensors automatically send a warning to the authorities after two minutes. You can mark the case as a false alarm and stop the system from warning the authorities. If the sensors are incorrect and the ground does not sink, a report will lead to the closure of the mine, which will damage the jobs and lives of many people, and many may never recover.
Public Lynching	https://brasil.elpais.com/brasil/2015/07/09/politica/1436398636_252670.html	You live in a neighborhood that has recently been plagued by several instances of sexual abuse. The police and government have done nothing to catch the culprit, and the feeling of revolt is widespread. One day, while you are walking down the street, you hear a commotion, and when you get closer, you discover that a man has sexually abused a teenage girl. Outraged by the situation in the neighborhood and believing him to be the culprit in previous cases, the people around you start attacking the man. In this case, would you ignore the situation and continue on your way, knowing that the people will probably not kill the man?
Last Resort	https://www.intercept.com.br/2018/09/22/na-	Your country is facing a deep political, social, and economic crisis, and corruption dominates

	ditadura-tudo-era-melhor-entenda-a-maior-fake-news-da-historia-do-brasil/	institutions. Social inequality is extreme, with millions of people unemployed and in debt, having difficulty accessing health, education, or even daily food. Protests are stifled, and the suffering of the population is widespread. Against this backdrop, a group has proposed a radical change in the government. They promise to implement a system that will bring about improvements to society as a whole. However, the revolution will involve acts of violence, and leaders make it clear that some people, including innocent people, will die in the process. In this case, would you support this group in bringing about a change in the government?
Misappropriation of Medicines	https://www.cnnbrasil.com.br/nacional/quase-r-2-bilhoes-relembre-operacoes-da-pf-contra-desvios-na-pandemia/	A city is facing an outbreak of a serious disease and access to potentially life-saving drugs is extremely limited, being available only through the SUS. The population is panicking, and the authorities are distributing doses only to priority groups, as production of the drug is scarce. A relative you love very much has recently been diagnosed with the disease, and their case is serious, with little chance of survival until the drug is available. However, an acquaintance of yours who work at the hospital where the doses of the medicine are stored offers a way to obtain the medicine. In this case, would you get the medicine for your relative, even though you know that this would take away the opportunity for people in a more serious condition to be treated and would lead to their death?
Police Lethality	https://www.cnnbrasil.com.br/nacional/letalidade-policial-sobe-quase-190-em-uma-decada-diz-anuario-de-seguranca/	You are a police officer on an operation in an area dominated by drug trafficking. The local drug lord, known to be responsible for several deaths and recruiting young people into crime, is spotted in an area close to a community. You have the chance to shoot and neutralize him, eliminating a major threat to the region. Because of the time of day, most people are inside their homes, and even if the shot results in a confrontation, it is likely that few innocent people would be hurt. In that case, would you shoot the drug lord now, risking the lives of innocent people in the area?
Legal Abortion	https://g1.globo.com/saude/noticia/2024/06/13/camara-aprova-urgencia-de-texto-que-equipara-aborto-a-crime-de-homicidio-entenda-o-que-e-o-aborto-legal-e-quando-ele-e-permitido.ghtml	Your niece, a teenager whom you treat like a daughter, confides that she is determined to have an illegal abortion after discovering an unwanted pregnancy and asks for your financial support to go through with the procedure. You know that if you don't help, she will use home remedies to perform the abortion, which could lead to her death. In this case, is it acceptable to pay for your niece's illegal procedure to preserve her life?
Alternative Treatments	https://noticias.uol.com.br/saude/ultimas-noticias/redacao/2020/01/15/pilula-do-cancer-o-	*We were unable to construct a scenario involving viable manipulations in norms and consequences for this news item without reaching upon other themes and domains.*

	que-e-e-por-que-bolsonaro-quer-liberar-remedio-vetado.htm	
Drug Trafficking	https://g1.globo.com/es/espirito-santo/noticia/2023/07/13/763-adolescentes-sao-apreendidos-em-6-meses-no-es-maioria-tem-ligacao-com-o-trafico-de-drogas.ghtml	You discover that your mother has been diagnosed with a serious and rare disease that requires extremely expensive treatment. This treatment is not available in the public health system, but it would ensure that your mother remains alive and free from suffering for a long time. Without treatment, doctors say your mother will likely die soon. Desperate and without financial resources, you are approached by an acquaintance who offers you a chance to make money quickly by helping to kidnap and murder someone for drug trafficking. The decision is to join the drug trade to get the money needed to save your mother's life or to follow other legal paths, even though you know this would not prevent her death. In this case, is it acceptable to join the drug trade?
Religious Intolerance	https://www.cartacapital.com.br/blogs/dialogos-da-fe/a-morte-de-mae-bernadete-e-as-varias-faces-do-racismo-religioso/	A small group of people begins to practice certain rituals in their neighborhood that seem strange and cause discomfort to the rest of the community. Due to these different practices, rumors and gossip begin to spread about this group of people, suggesting that their practices could be harmful to the community, creating a climate of hostility. During a heated discussion, an individual from the group is confronted by local residents, including some of his family members, who make various accusations. Before anyone can intervene, the individual is beaten to death. In this case, is it acceptable not to report the incident to the authorities in order to protect his family members?

Note. a: All proposed scenarios are consistent with the proscriptive norm and benefits greater than costs variation.

Appendix E. The 6 Constructed Brazilian Factual Dilemmas

Table E1 presents the six constructed Brazilian factual dilemmas and their four versions.

Table E1

Constructed Brazilian Factual Dilemmas

Dilemma	Manipulation Scenario	Brazilian Portuguese Version	English Version
Stem Cells	Proscriptive Norm Prohibits Action: Benefits of Action Greater than Costs	Um familiar que você ama está com uma doença genética degenerativa e incurável. A doença leva inevitavelmente à morte, causando sofrimento ao longo dos anos. Contudo, um exame genético indicou que uma cura poderia ser desenvolvida a partir de um feto gerado em laboratório com seu DNA. Essa cura também poderia ser usada em outras pessoas que venham a desenvolver a mesma doença, inclusive outros familiares. No entanto, o feto precisaria ser destruído após seis meses de gestação. Nesse caso, você doaria seu DNA para gerar esse feto e salvar a pessoa que você ama?	The family member you love has a degenerative and incurable genetic disease. This disease inevitably leads to death and causes suffering over the years. However, genetic testing has indicated that a cure can be developed from a laboratory-generated fetus with DNA. This cure can also be used by other people who develop the same disease, including other family members. However, the fetus needs to be destroyed after six months of gestation. In this case, would you donate your DNA to generate the fetus and save the person you love?
	Proscriptive Norm Prohibits Action: Benefits of Action Smaller than Costs	Um familiar que você ama está com uma doença genética degenerativa e incurável. A doença leva inevitavelmente à morte, mas ele ainda viverá muitos anos e sem grandes sofrimentos ou prejuízos. Um exame genético indicou que uma cura poderia ser desenvolvida a partir de um feto gerado em laboratório com seu DNA. Esse feto precisaria ser destruído durante o processo após seis meses de gestação. Nesse caso, você doaria seu DNA para gerar esse feto e salvar a pessoa que você ama?	The family member you love has a degenerative and incurable genetic disease. The disease inevitably leads to death, but he will still live for many years without suffering or damage. A genetic test indicated that a cure could be developed from a laboratory-generated fetus with his DNA. This fetus needs to be destroyed after six months of gestation. In this case, would you donate your DNA to generate the fetus and save the person you love?
	Prescriptive Norm Prescribes Action: Benefits of Action Greater than Costs	Um familiar que você ama está com uma doença genética degenerativa e incurável. A doença leva inevitavelmente à morte, causando sofrimento ao longo dos anos. Contudo, um exame genético indicou que uma cura poderia ser desenvolvida a partir de um feto gerado em laboratório com seu DNA. Essa cura também poderia ser usada em outras pessoas que venham a desenvolver a mesma doença, inclusive outros familiares. Durante o processo o feto passaria por uma	The family member you love has a degenerative and incurable genetic disease. This disease inevitably leads to death and causes suffering over the years. However, genetic testing has indicated that a cure can be developed from a laboratory-generated fetus with DNA. This cure can also be used by other people who develop the same disease, including other family members. During the process, the fetus would undergo surgery at six months of gestation, which would cause serious

		cirurgia aos seis meses de gestação que causaria graves sequelas, mas ele sobreviveria ao nascimento. Nesse caso, você doaria seu DNA para gerar esse feto e salvar a pessoa que você ama?	sequelae, but it would survive birth. In this case, would you donate your DNA to generate the fetus and save the person you love?
	Prescriptive Norm Prescribes Action: Benefits of Action Smaller than Costs	Um familiar que você ama está com uma doença genética degenerativa e incurável. A doença leva inevitavelmente à morte, mas ele ainda viverá muitos anos e sem grandes sofrimentos ou prejuízos. Um exame genético indicou que uma cura poderia ser desenvolvida a partir de um feto gerado em laboratório com seu DNA. Durante o processo o feto passaria por uma cirurgia aos seis meses de gestação que causaria graves sequelas, mas ele sobreviveria ao nascimento. Nesse caso, você doaria seu DNA para gerar esse feto e salvar a pessoa que você ama?	The family member you love has a degenerative and incurable genetic disease. The disease inevitably leads to death, but he will still live for many years without suffering or damage. A genetic test indicated that a cure could be developed from a laboratory-generated fetus with his DNA. During the process, the fetus would undergo surgery at six months of gestation, which would cause serious sequelae, but it would survive birth. In this case, would you donate DNA to create this fetus and save the person you love?
Environmental Disaster	Proscriptive Norm Prohibits Action: Benefits of Action Greater than Costs	Você trabalha na extração de minérios em uma mineradora que atua próxima a uma cidade. Um dia, durante seu trabalho, você nota que os sensores indicam movimentação do solo, o que pode causar o desmoronamento de várias regiões da cidade, resultando na morte de muitas pessoas. Os sensores automaticamente enviam um aviso de alerta para as autoridades após dois minutos, você pode marcar o caso como alarme falso e impedir o sistema de avisar as autoridades. Caso os sensores estejam errados e o solo não afunde, uma denúncia levará ao fechamento da mina, o que vai prejudicar o emprego e a vida de diversas pessoas e muitos poderão nunca se recuperar.Nesse caso, você impediria o sistema de avisar às autoridades sobre o risco?	You work in mineral extraction at a mining company near a town. One day, during your work, you notice that the sensors indicate ground movement, which could cause several areas of the town to collapse, resulting in the death of many people. The sensors automatically send a warning to the authorities after two minutes. You can mark the case as a false alarm and stop the system from warning the authorities. If the sensors are incorrect and the ground does not sink, a report will lead to the closure of the mine, which will damage the jobs and lives of many people, and many may never recover.
	Proscriptive Norm Prohibits Action: Benefits of Action Smaller than Costs	Você trabalha na extração de minérios em uma mineradora que atua próxima a uma cidade. Um dia, durante seu trabalho, você nota que os sensores indicam movimentação do solo, o que pode causar o desmoronamento de várias regiões da cidade, resultando na morte de poucas pessoas. Os sensores automaticamente enviam um aviso de alerta para as autoridades após dois minutos, você pode marcar o caso como alarme falso e impedir o sistema de avisar as autoridades. Caso os sensores estejam errados e o solo não afunde, uma denúncia levará ao fechamento da mina, o que vai prejudicar o emprego e a vida de diversas pessoas e muitos poderão nunca se	You work in mineral extraction at a mining company near a town. One day during your work, you notice that the sensors indicate ground movement, which could cause several areas of the town to collapse, resulting in the death of a few people. The sensors automatically send a warning to the authorities after two minutes. You can mark the case as a false alarm and stop the system from warning the authorities. If the sensors are incorrect and the ground does not sink, a report will lead to the mine being closed, which will damage the jobs and lives of several people, and many may never recover. In this case, would you stop the system from warning the authorities about the risk?

		recuperar. Nesse caso, você impediria o sistema de avisar às autoridades sobre o risco?	
	Prescriptive Norm Prescribes Action: Benefits of Action Greater than Costs	Você trabalha na extração de minérios em uma mineradora que atua próxima a uma cidade. Um dia, durante seu trabalho, você nota que os sensores indicam movimentação do solo, o que pode causar o desmoronamento de várias regiões da cidade, resultando na morte de muitas pessoas. Contudo, caso você esteja errado e o solo não afunde, uma denúncia levará ao fechamento da mina, o que vai prejudicar o emprego e a vida de diversas pessoas, mas a cidade e as pessoas se recuperariam eventualmente e poderiam estar melhor preparadas para o caso de um acidente. Nesse caso, você informaria às autoridades sobre o risco?	You work in mineral extraction at a mining company near a town. One day, during the course of your work, you notice that the sensors indicate that the ground is moving, which could cause several areas of the town to collapse, resulting in the death of many people. However, if you are wrong and the ground does not sink, a complaint would lead to the mine being closed down, which would damage the jobs and lives of several people, but the town and the people would eventually recover and be better prepared in the event of an accident. In this case, would you inform the authorities about the risk?
	Prescriptive Norm Prescribes Action: Benefits of Action Smaller than Costs	Você trabalha na extração de minérios em uma mineradora que atua próxima a uma cidade. Um dia, durante seu trabalho, você nota que os sensores indicam movimentação do solo, o que pode causar o desmoronamento de várias regiões da cidade, resultando na morte de poucas pessoas. Contudo, caso você esteja errado e o solo não afunde, uma denúncia levará ao fechamento da mina, o que vai prejudicar o emprego e a vida de diversas pessoas e muitos poderão nunca se recuperar. Nesse caso, você informaria às autoridades sobre o risco?	You work in mineral extraction at a mining company near a town. One day, during the course of your work, you notice that the sensors indicate that the ground is moving, which could cause several areas of the town to collapse, resulting in the death of a few people. However, if you are wrong and the ground does not sink, a complaint will lead to the closure of the mine, which will damage the jobs and lives of several people, and many people may never recover. In this case, would you inform the authorities about the risk?
Misappropriation of Medicines	Proscriptive Norm Prohibits Action: Benefits of Action Greater than Costs	Uma cidade está enfrentando o surto de uma doença grave e o acesso ao medicamento que pode salvar vidas é extremamente limitado, estando disponível apenas pelo SUS. A população está em pânico e as autoridades estão distribuindo as doses apenas para os grupos prioritários, já que a produção do remédio é escassa. Um familiar que você ama muito foi recentemente diagnosticado com a doença e o caso dele é grave, havendo poucas chances de que ele sobreviva até o medicamento estar disponível. No entanto, um conhecido seu que trabalha no hospital onde as doses do remédio ficam armazenadas lhe oferece uma forma de conseguir o medicamento. Nesse caso, você receberia o medicamento para o seu familiar, mesmo sabendo que isso vai tirar a oportunidade de pessoas em estado mais grave serem tratadas e as levaria a morte?	A city is facing an outbreak of a serious disease and access to potentially life-saving drugs is extremely limited, being available only through the SUS. The population is panicking, and the authorities are distributing doses only to priority groups, as production of the drug is scarce. A relative you love very much has recently been diagnosed with the disease, and their case is serious, with little chance of survival until the drug is available. However, an acquaintance of yours who work at the hospital where the doses of the medicine are stored offers a way to obtain the medicine. In this case, would you get the medicine for your relative, even though you know that this would take away the opportunity for people in a more serious condition to be treated and would lead to their death?
	Proscriptive Norm Prohibits Action:	Uma cidade está enfrentando o surto de uma doença grave e o acesso ao medicamento que pode salvar vidas é extremamente	A city is facing an outbreak of a serious disease and access to potentially life-saving drugs is extremely limited, being

	Benefits of Action Smaller than Costs	limitado, estando disponível apenas pelo SUS. A população está em pânico e as autoridades estão distribuindo as doses apenas para os grupos prioritários, já que a produção do remédio é escassa. Um familiar que você ama muito foi recentemente diagnosticado com a doença, mas esse familiar não faz parte do grupo prioritário e apesar do estado dele ser preocupante, ele pode passar algum tempo sem o medicamento. No entanto, um conhecido seu que trabalha no hospital onde as doses do remédio ficam armazenadas lhe oferece uma forma de conseguir o medicamento. Nesse caso, você receberia o medicamento para o seu familiar, mesmo sabendo que isso vai tirar a oportunidade de pessoas em estado mais grave serem tratadas e as levaria a morte?	available only through the SUS. The population is panicking, and the authorities are distributing doses only to priority groups, as production of the drug is scarce. A relative you love very much has recently been diagnosed with the disease, but they are not part of the priority group; although their condition is worrying, they can do so without the drug for some time. However, an acquaintance of yours who work at the hospital where the doses of the medicine are stored offers a way to get the medicine. In this case, would you get the medicine for your relative, even though you know that this would take away the opportunity for people in a more serious condition to be treated and would lead to their death?
	Prescriptive Norm Prescribes Action: Benefits of Action Greater than Costs	Uma cidade está enfrentando o surto de uma doença grave e o acesso ao medicamento que pode salvar vidas é extremamente limitado, estando disponível apenas pelo SUS. A população está em pânico e as autoridades estão distribuindo as doses apenas para os grupos prioritários, já que a produção do remédio é escassa. Um familiar que você ama muito foi recentemente diagnosticado com a doença, mas esse familiar não faz parte do grupo prioritário e apesar do estado dele ser preocupante, ele pode passar algum tempo sem o medicamento. No entanto, um conhecido seu que trabalha no hospital onde as doses do remédio ficam armazenadas diz possuir várias doses do medicamento que pegou no hospital por precaução e está disposto a dar para seu familiar. Nesse caso, você denunciaria seu amigo para as autoridades, mesmo sabendo que seu familiar pode não conseguir o medicamento a tempo?	A city is facing an outbreak of a serious disease and access to potentially life-saving drugs is extremely limited, being available only through the SUS. The population is panicking, and the authorities are distributing doses only to priority groups, as production of the drug is scarce. A relative you love very much has recently been diagnosed with the disease, but they are not part of the priority group; although their condition is worrying, they can do so without the drug for some time. However, an acquaintance of yours who works at the hospital where the doses of the drug are stored says he has several doses of the drug that he picked up at the hospital as a precaution and is willing to give them to your relative. In this case, would you report your friend to the authorities, even though you know your relative might not get the medicine on time?
	Prescriptive Norm Prescribes Action: Benefits of Action Smaller than Costs	Uma cidade está enfrentando o surto de uma doença grave e o acesso ao medicamento que pode salvar vidas é extremamente limitado, estando disponível apenas pelo SUS. A população está em pânico e as autoridades estão distribuindo as doses apenas para os grupos prioritários, já que a produção do remédio é escassa. Um familiar que você ama muito foi recentemente diagnosticado com a doença e o caso dele é grave, havendo poucas chances de que ele sobreviva até o medicamento estar disponível. No entanto, um conhecido seu que trabalha no hospital onde as doses do remédio ficam	A city is facing an outbreak of a serious disease, and access to potentially life-saving drugs is extremely limited, being available only through the SUS. The population is panicking, and the authorities are distributing doses only to priority groups, as production of the drug is scarce. A relative you love very much has recently been diagnosed with the disease, and their case is serious, with little chance of survival until the drug is available. However, an acquaintance of yours who works at the hospital where the doses of the drug are stored says he has several doses of the drug that he picked up at the

		armazenadas diz possuir várias doses do medicamento que pegou no hospital por precaução e está disposto a dar para seu familiar. Nesse caso, você denunciaria seu amigo para as autoridades, mesmo sabendo que seu familiar pode não conseguir o medicamento a tempo?	hospital as a precaution and is willing to give them to your relative. In this case, would you report your friend to the authorities, even though you know your relative might not get the medicine on time?
Police Lethality	Proscriptive Norm Prohibits Action: Benefits of Action Greater than Costs	Você é um policial e está em uma operação dentro de uma área dominada pelo tráfico. O chefe do tráfico local, conhecido por ser responsável por várias mortes e por recrutar jovens para o crime, é avistado em uma área próxima a uma comunidade. Você tem a chance de atirar e neutralizá-lo, eliminando uma ameaça importante para a região. Devido ao horário a maioria das pessoas estão dentro de suas casas e por mais que o tiro resulte em um confronto provavelmente poucos inocentes seriam feridos. Nesse caso, você atiraria no chefe do tráfico agora, arriscando a vida de inocentes no local?	You are a police officer on an operation in an area dominated by drug trafficking. The local drug lord, known to be responsible for several deaths and recruiting young people into crime, is spotted in an area close to a community. You have the chance to shoot and neutralize him, eliminating a major threat to the region. Because of the time of day, most people are inside their homes, and even if the shot results in a confrontation, it is likely that few innocent people would be hurt. In that case, would you shoot the drug lord now, risking the lives of innocent people in the area?
	Proscriptive Norm Prohibits Action: Benefits of Action Smaller than Costs	Você é um policial e está em uma operação dentro de uma área dominada pelo tráfico. O chefe do tráfico local, conhecido por ser responsável por várias mortes e por recrutar jovens para o crime, é avistado em uma área próxima a uma comunidade. Você tem a chance de atirar e neutralizá-lo, eliminando uma ameaça importante para a região. No entanto, a área está repleta de inocentes, incluindo crianças, e o tiro resultará num confronto em que vários civis irão morrer. Nesse caso, você atiraria no chefe do tráfico agora, arriscando a vida de inocentes no local?	You are a police officer on an operation in an area dominated by drug trafficking. The local drug lord, known to be responsible for several deaths and recruiting young people into crime, is spotted in an area close to a community. You have the chance to shoot and neutralize him, eliminating a major threat to the region. However, the area is full of innocent people, including children, and the shot will result in confrontation in which several civilians will die. In this case, would you shoot the drug lord now, risking the lives of innocent people on the spot?
	Prescriptive Norm Prescribes Action: Benefits of Action Greater than Costs	Você é um policial e está em uma operação dentro de uma área dominada pelo tráfico. O chefe do tráfico local, conhecido por ser responsável por várias mortes e por recrutar jovens para o crime, é avistado em uma área próxima a uma comunidade. Seu colega quer atirar e neutralizá-lo, eliminando uma ameaça importante para a região. No entanto, a área está repleta de inocentes, incluindo crianças, e o tiro resultará num confronto em que vários civis irão morrer. Nesse caso, você impediria seu colega de atirar no chefe do tráfico agora, arriscando a vida de inocentes no local?	You are a police officer on an operation in an area dominated by drug trafficking. The local drug lord, known to be responsible for several deaths and recruiting young people into crime, is spotted in an area close to a community. Your colleague wants to shoot and neutralize him, eliminating a major threat to the region. However, the area is full of innocent people, including children, and the shot will result in confrontation in which several civilians will die. In this case, would you stop your colleague from shooting the drug lord now, risking the lives of innocent people on the spot?
	Prescriptive Norm Prescribes Action: Benefits of Action	Você é um policial e está em uma operação dentro de uma área dominada pelo tráfico. O chefe do tráfico local, conhecido por ser responsável por várias mortes e por recrutar jovens para o crime, é avistado em uma área próxima a uma comunidade.	You are a police officer on an operation in an area dominated by drug trafficking. The local drug lord, known to be responsible for several deaths and recruiting young people into crime, is spotted in an area close to a community. His

	Smaller than Costs	Seu colega quer atirar e neutralizá-lo, eliminando uma ameaça importante para a região. Devido ao horário a maioria das pessoas estão dentro de suas casas e por mais que o tiro resulte em um confronto provavelmente poucos inocentes seriam feridos.Nesse caso, você impediria seu colega de atirar no chefe do tráfico agora, arriscando a vida de inocentes no local?	colleague wanted to shoot and neutralize him, eliminating a major threat to the region. Because of the time of day, most people are inside their homes, and even if the shot results in a confrontation, it is likely that few innocent people would be hurt. In this case, would you stop your colleague from shooting the drug lord now, risking the lives of innocent people in the area?
Public Lynching	Proscriptive Norm Prohibits Action: Benefits of Action Greater than Costs	Você mora em um bairro que tem sido assolado por diversos casos de abuso sexual recentemente. A polícia e o governo não têm feito nada para capturar o culpado e a sensação de revolta é generalizada. Um dia, enquanto está andando na rua, você ouve uma comoção e ao se aproximar descobre que um homem abusou sexualmente de uma adolescente. Muito revoltadas pela situação do bairro e acreditando que esse é o culpado pelos casos anteriores, as pessoas ao redor começam a agredir o homem. Nesse caso, você ignoraria a situação e seguiria seu caminho, sabendo que as pessoas provavelmente não irão matar o homem?	You live in a neighborhood that has recently been plagued by several instances of sexual abuse. The police and government have done nothing to catch the culprit, and the feeling of revolt is widespread. One day, while you are walking down the street, you hear a commotion, and when you get closer, you discover that a man has sexually abused a teenage girl. Outraged by the situation in the neighborhood and believing him to be the culprit in previous cases, the people around you start attacking the man. In this case, would you ignore the situation and continue on your way, knowing that the people will probably not kill the man?
	Proscriptive Norm Prohibits Action: Benefits of Action Smaller than Costs	Você mora em um bairro que tem sido assolado por diversos casos de abuso sexual recentemente. A polícia e o governo não têm feito nada para capturar o culpado e a sensação de revolta é generalizada. Um dia, enquanto está andando na rua, você ouve uma comoção e ao se aproximar descobre que um homem abusou sexualmente de uma adolescente. Muito revoltadas pela situação do bairro e acreditando que esse é o culpado pelos casos anteriores, as pessoas ao redor começam a agredir o homem. Nesse caso, você ignoraria a situação e seguiria seu caminho, sabendo que as pessoas provavelmente irão acabar matando o homem?	You live in a neighborhood that has recently been plagued by several instances of sexual abuse. The police and government have done nothing to catch the culprit, and the feeling of revolt is widespread. One day, while you are walking down the street, you hear a commotion, and when you get closer, you discover that a man has sexually abused a teenage girl. Outraged by the situation in the neighborhood and believing him to be the culprit in previous cases, the people around you start attacking the man. In this case, would you ignore the situation and continue on your way, knowing that people will probably end up killing the man?
	Prescriptive Norm Prescribes Action: Benefits of Action Greater than Costs	Você mora em um bairro que tem sido assolado por diversos casos de abuso sexual recentemente. A polícia e o governo não têm feito nada para capturar o culpado e a sensação de revolta é generalizada. Um dia, enquanto está andando na rua, você ouve uma comoção e ao se aproximar descobre que um homem abusou sexualmente de uma adolescente. Muito revoltadas pela situação do bairro e acreditando que esse é o culpado pelos casos anteriores, as pessoas ao redor começam a agredir o homem e caso continuem podem até matá-lo. Nesse caso, você chamaria a polícia para impedir as pessoas de	You live in a neighborhood that has recently been plagued by several instances of sexual abuse. The police and government have done nothing to catch the culprit, and the feeling of revolt is widespread. One day, while you are walking down the street, you hear a commotion, and when you get closer, you discover that a man has sexually abused a teenage girl. Outraged by the situation in the neighborhood and believing him to be the culprit in the previous cases, the people around you start attacking the man, and if they continue, they may even kill him. In this case, would you call the police to stop

		continuarem a agressão, sabendo que o homem também será preso e julgado?	them from continuing, knowing that the man would also be arrested and tried?
	Prescriptive Norm Prescribes Action: Benefits of Action Smaller than Costs	Você mora em um bairro que tem sido assolado por diversos casos de abuso sexual recentemente. A polícia e o governo não têm feito nada para capturar o culpado e a sensação de revolta é generalizada. Um dia, enquanto está andando na rua, você ouve uma comoção e ao se aproximar descobre que um homem abusou sexualmente de uma adolescente. Muito revoltadas pela situação do bairro e acreditando que esse é o culpado pelos casos anteriores, as pessoas ao redor começam a agredir o homem e caso continuem podem até matá-lo. Nesse caso, você chamaria a polícia para impedir as pessoas de continuarem a agressão, sabendo que esse homem irá seguir livre?	You live in a neighborhood that has recently been plagued by several instances of sexual abuse. The police and government have done nothing to catch the culprit, and the feeling of revolt is widespread. One day, while you are walking down the street, you hear a commotion, and when you get closer, you discover that a man has sexually abused a teenage girl. Outraged by the situation in the neighborhood and believing him to be the culprit in the previous cases, the people around you start attacking the man, and if they continue, they may even kill him. In this case, would you call the police to stop people from continuing their aggression, knowing that this man will go free?
Last Resort	Proscriptive Norm Prohibits Action: Benefits of Action Greater than Costs	O seu país enfrenta uma profunda crise política, social e econômica e a corrupção domina as instituições. A desigualdade social é extrema, com milhões de pessoas desempregadas e endividadas, com dificuldade de acesso a saúde, educação ou mesmo a alimentação diária. Protestos são sufocados e o sofrimento da população é generalizado. Nesse cenário, um grupo propõe uma mudança radical no governo. Eles prometem implantar um sistema que irá trazer melhorias para toda a sociedade. No entanto, a revolução envolverá atos de violência e os líderes deixam claro que algumas pessoas, inclusive inocentes, morrerão no processo. Nesse caso, você apoiaria esse grupo em trazer uma mudança ao governo?	Your country is facing a deep political, social, and economic crisis, and corruption dominates institutions. Social inequality is extreme, with millions of people unemployed and in debt, having difficulty accessing health, education, or even daily food. Protests are stifled, and the suffering of the population is widespread. Against this backdrop, a group has proposed a radical change in the government. They promise to implement a system that will bring about improvements to society as a whole. However, the revolution will involve acts of violence, and leaders make it clear that some people, including innocent people, will die in the process. In this case, would you support this group in bringing about a change in the government?
	Proscriptive Norm Prohibits Action: Benefits of Action Smaller than Costs	O seu país enfrenta uma profunda crise política, social e econômica e a corrupção domina as instituições. A desigualdade social é extrema, com milhões de pessoas desempregadas e endividadas, com dificuldade de acesso a saúde, educação ou mesmo a alimentação diária. Protestos são sufocados e o sofrimento da população é generalizado. Nesse cenário, um grupo propõe uma mudança radical no governo. Eles prometem implantar um sistema que irá trazer melhorias para toda a sociedade. No entanto, a revolução envolverá atos de violência e os líderes deixam claro que algumas pessoas, inclusive inocentes, morrerão no processo. O governo atual anunciou que qualquer apoiador desse grupo será perseguido e tratado como criminoso. Nesse caso, você apoiaria esse grupo	Your country is facing a deep political, social, and economic crisis, and corruption dominates institutions. Social inequality is extreme, with millions of people unemployed and in debt, having difficulty accessing health, education, or even daily food. Protests are stifled, and the suffering of the population is widespread. Against this backdrop, a group has proposed a radical change in the government. They promise to implement a system that will bring about improvements to society as a whole. However, the revolution will involve acts of violence, and leaders make it clear that some people, including innocent people, will die in the process. The current government has announced that any supporters of this group will be persecuted and treated as criminals. In that case, would you support this

	em trazer uma mudança ao governo, mesmo sabendo que sua família e conhecidos também serão afetados por sua decisão?	group in bringing about a change in the government, even though you know that your family and acquaintances will also be affected by their decisions?
Prescriptive Norm Prescribes Action: Benefits of Action Greater than Costs	O seu país enfrenta uma profunda crise política, social e econômica e a corrupção domina as instituições. A desigualdade social é extrema, com milhões de pessoas desempregadas e endividadas, com dificuldade de acesso a saúde, educação ou mesmo a alimentação diária. Protestos são sufocados e o sofrimento da população é generalizado. Nesse cenário, um grupo propõe uma mudança radical no governo. Eles prometem implantar um sistema que irá trazer melhorias para toda a sociedade. No entanto, a revolução envolverá atos de violência e os líderes deixam claro que algumas pessoas, inclusive inocentes, morrerão no processo. Você descobre que haverá uma reunião nessa noite com os líderes do movimento em um local conhecido da comunidade. O governo atual anunciou que qualquer apoiador desse grupo será perseguido e tratado como criminoso. Nesse caso, você denunciaria esse grupo para as autoridades?	Your country is facing a deep political, social, and economic crisis, and corruption dominates institutions. Social inequality is extreme, with millions of people unemployed and in debt, having difficulty accessing health, education, or even daily food. Protests are stifled, and the suffering of the population is widespread. Against this backdrop, a group has proposed a radical change in the government. They promise to implement a system that will bring about improvements to society as a whole. However, the revolution will involve acts of violence, and leaders make it clear that some people, including innocent people, will die in the process. You discover that there will be a meeting that evening with the movement's leaders at a location known to the community. The current government has announced that any supporters of this group will be persecuted and treated as criminals. In this case, would you denounce this group to the authorities?
Prescriptive Norm Prescribes Action: Benefits of Action Smaller than Costs	O seu país enfrenta uma profunda crise política, social e econômica e a corrupção domina as instituições. A desigualdade social é extrema, com milhões de pessoas desempregadas e endividadas, com dificuldade de acesso a saúde, educação ou mesmo a alimentação diária. Protestos são sufocados e o sofrimento da população é generalizado. Nesse cenário, um grupo propõe uma mudança radical no governo. Eles prometem implantar um sistema que irá trazer melhorias para toda a sociedade. No entanto, a revolução envolverá atos de violência e os líderes deixam claro que algumas pessoas, inclusive inocentes, morrerão no processo. Você descobre que haverá uma reunião nessa noite com os líderes do movimento em um local conhecido da comunidade e que conhecidos seus participarão. O governo atual anunciou que qualquer apoiador desse grupo será perseguido e tratado como criminoso. Nesse caso, você denunciaria esse grupo para as autoridades, mesmo sabendo que sua família e conhecidos também serão afetados por sua decisão?	Your country is facing a deep political, social, and economic crisis, and corruption dominates institutions. Social inequality is extreme, with millions of people unemployed and in debt, having difficulty accessing health, education, or even daily food. Protests are stifled, and the suffering of the population is widespread. Against this backdrop, a group has proposed a radical change in the government. They promise to implement a system that will bring about improvements to society as a whole. However, the revolution will involve acts of violence, and leaders make it clear that some people, including innocent people, will die in the process. You discover that there will be a meeting that evening with the movement's leaders at a well-known community venue and that your acquaintances will be attending. The current government has announced that any supporters of this group will be persecuted and treated as criminals. In this case, would you denounce this group to the authorities even though you know that your family and acquaintances will also be affected by your decision?

Appendix F. Analysis of Suggested Countries for a Dilemma Construction Study

Considering the creation and testing of the Brazilian Dilemmas, the next step towards truly understanding how these dilemmas operate across cultures is to create new dilemmas in another culture (Berry, 1989) and fit them to the CNI Model. However, to provide valuable information, the culture being compared should be sufficiently different from those in which this model has already been tested.

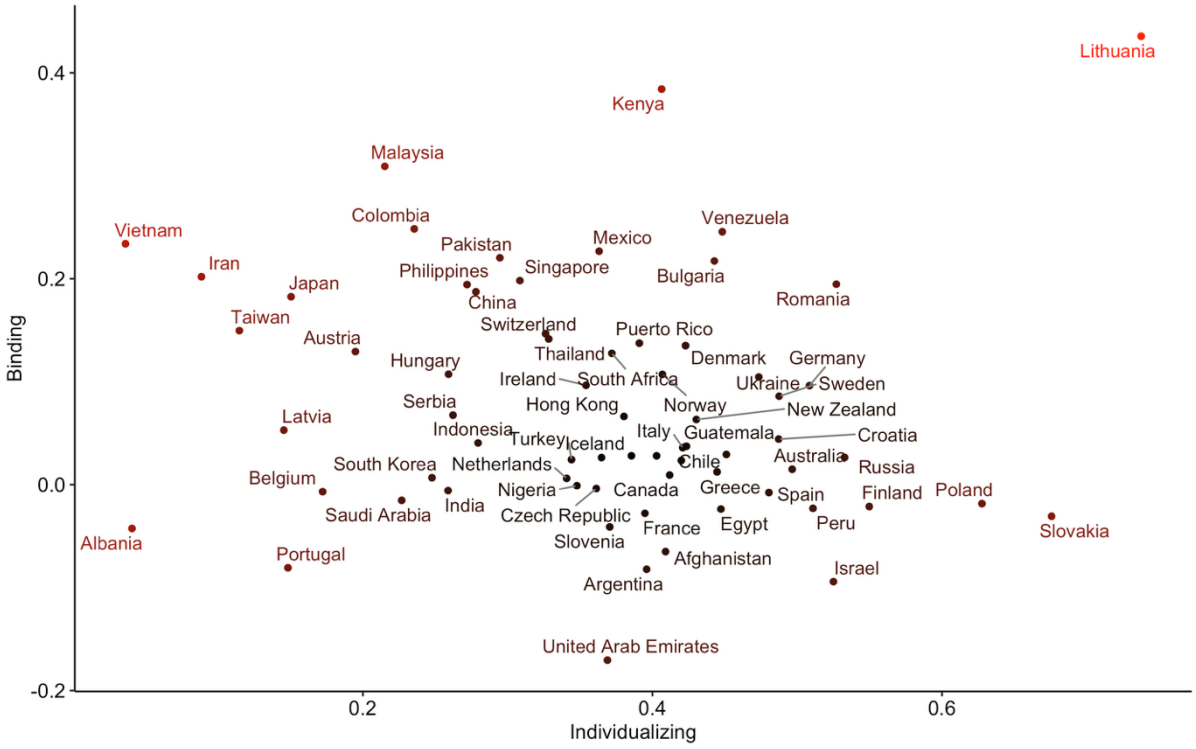
Thus, a study ought to avoid countries in the Global North, from which the CNI Model of Moral Decision Making and the GK Dilemmas are based (Gawronski et al., 2017; Körner et al., 2020; Nadarevic et al., 2021). Considering the possibility of comparing Brazilian factual dilemmas, we should also avoid similar countries to Brazil.

To better determine which countries are interesting for this diversity, we analyzed cross-cultural data from the Moral Foundations Questionnaire (MFQ), retrieved from Klein et al. (2018). All analyses were conducted in R with the *tidyverse* (version 2.0.0; Wickham et al., 2019).

Initially, we calculated each country's mean score in the binding and individualizing factors of the MFQ, and then we calculated the Euclidean distance of each country from Brazil and US. This data was finally plotted in Figure G1.

Figure G1

Scatterplot of Countries Euclidean Distance from Brazil and US on Moral Foundations



Thus, we suggest that factual and local-based dilemmas should be constructed in the following countries: Lithuania, Slovakia, Poland, Albania, Vietnam, or Malaysia.