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Juror Decision Making and Euthanasia: Exploring the Role of Jury Nullification, Manner of Death, and Defendant-Decedent Relationship

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Abstract

In cases of euthanasia, determinations of guilt may be influenced by legal and extra-legal factors. This study explores the role that nullification instructions play in juror decision making. A defendant may be viewed as less culpable if the act was done out of mercy and jury nullification may occur as a result. We anticipated that these determinations may be influenced by the manner of death and the relational distance between the defendant and the decedent. It is unknown how euthanasia is viewed when it is performed by a physician compared to a family member or friend. To answer these questions, participants acted as mock jurors in a euthanasia case. The descriptions of

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the case varied by the presence of nullification instructions, the manner of death, and the defendant's relationship to the decedent. The results revealed significant effects of method of euthanasia and the type of defendant on juror verdicts. Jurors were most likely to acquit in a case that provided nullification instructions and involved a spouse using lethal injection for euthanasia. This finding suggests that different circumstances of a euthanasia case will affect jurors' propensity to focus on personal sympathies and interpretations. Limitations and future directions are discussed.

Keywords
jury decision-making, jury nullification, euthanasia

Jury Nullification

Jury nullification is an acquittal of a defendant by a jury in disregard of the judge's instructions and the evidence presented (Rubenstein, 2006). Some jurors may opt for nullification on the grounds that while a defendant may be lawfully wrong, they are not morally wrong (Costanzo & Krauss, 2012). Jurors may recognize a crime has been committed from a legal standpoint, but the evidence and legal standards become less salient in their decision making. Instead, in the case of nullification, jurors may make a decision based on their subjective interpretation that the law they are being asked to apply is unjust or would result in a greater harm. It is generally accepted that the misunderstanding or accidental misapplication of law is insufficient for nullification. Rather, nullification by a juror or jury must contain a conscious decision to set aside a legal rule and replace it with a moral standard that competes with the legal instructions (Hannaford-Agor & Hans, 2003; Marder, 1999).

Potential jurors who know of nullification can be removed during the voir dire process and defense attorneys can be held in contempt of court if they argue for nullification (McKnight, 2013). However, people may still learn of nullification through informal channels and end up serving on a jury. One such channel is the Fully Informed Jury Association (https://fija.org), which provides visitors with FAQs, brochures, and news stories (e.g., Tynan, 2020) dealing with nullification. Rubenstein (2006) argues that when only a small proportion of jurors know of this power, nullification can begin to occur arbitrarily and may not be used in the most deserving cases. Typically, nullification only becomes a factor in cases that, by happenstance, involve a juror who knows of its existence. Judges may have little or no control over what cases are affected by nullification, so its application becomes uneven.

Although judges do not systematically make jurors aware of the existence of nullification, the potential for nullification instructions as a matter of standard legal practice are within reason (Rubenstein, 2006). Recently, the New Hampshire House of Representatives passed a bill that would require jurors to be instructed about nullification in all cases (Volokh, 2016). While the bill was ultimately rejected by the state

senate judiciary committee, similar laws could be implemented in other states in the future. For example, in 2002, voters in South Dakota considered an amendment to their state constitution that would have permitted jurors to consider the merits and applicability of laws, thus encouraging nullification. Although the ballot measure was defeated in convincing fashion (78% of the electorate voted against the constitutional amendment), it demonstrates that a significant minority of citizens support their ability to consider the fairness of laws and sentencing consequences when serving on juries (Hannaford-Agor & Hans, 2003). In general, courts fear that the indiscriminate allowance of jury nullification could encourage jurors to act on bias and prejudice (Hannaford-Agor & Hans, 2003; Rubenstein, 2006). For example, defendants who commit crimes against unsympathetic victims may be treated more leniently than the evidence allows (Horowitz et al., 2006). For these reasons, jurors are typically not encouraged to exercise their power to nullify.

When nullification does become a factor, morally ambiguous cases may receive more sympathetic treatment whereas clear cases of wrongdoing may be dealt with more severely. As such, juror decision making may be particularly influenced by nullification instructions in cases involving euthanasia. We now turn to a general discussion of euthanasia and a review of the research that has examined juror decision making within this context.

The Case of Euthanasia

Euthanasia in basic terms refers to "the intentional termination of a patient's life by someone other than the patient at the patient's own request" (Shekar & Goel, 2012, *p.* 628). Rulings in euthanasia cases vary, but most acts of euthanasia require the explicit approval or request of a patient to die (e.g., *Cruzan v. Director, Missouri Dept. of Health,* 1990). Euthanasia, even when performed at the request of a patient, is illegal in most of the United States. The term "physician-assisted suicide" or "medical aid in dying" (MAID) has some overlap with the description of euthanasia. At a patient's request, physicians provide the knowledge and/or means for ending one's own life (Csikai, 1999). Like euthanasia, physician-assisted suicide is illegal in most states. However, the establishment of "death with dignity" statutes have essentially legalized physician-assisted suicide in California, Colorado, the District of Columbia, Hawaii, Maine, Montana, New Jersey, Oregon, Vermont, and Washington. The most established death with dignity statutes exist in Oregon and Washington. In 1994, the Oregon Death with Dignity Act was passed by voter referendum and the state statute went into effect in 1997. In 2008, Washington passed a similar statute. Both statutes permit adult patients with a diagnosed terminal illness that will lead to death within 6 months to request and obtain a lethal dose of a prescribed medicine to be voluntarily self-administered. Because both of these state laws mandate the collection of annual data and the publication of statistical reports, most public information pertaining to medically-sanctioned euthanasia is specific and limited to Oregon and Washington (Al Rabadi et al., 2019). The most recent annual report published by the Washington State

Department of Health indicated that there were 340 participants in the state's death with dignity program that received lethal doses of medications in 2020. In that year, 252 patients died after taking a prescribed medication and 90% of those were reportedly enrolled in hospice care when they ingested the medication (Washington State Department of Health, 2021). Similarly, in Oregon in 2020, there were 370 terminally ill patients who received lethal doses of medications and 245 reported deaths. According to the Oregon state report, 95% of participant patients who died were enrolled in hospice care and 92% of them died at home. The report notes that since the law was passed in 1997, a total of 2895 patients have received prescription medications under Oregon's Death with Dignity Act and 1905 people have died from ingesting the medications (Oregon Public Health Division, 2021). In a combined analysis of data from Washington and Oregon it was determined that from 1998 to 2017 in OR and from 2009 to 2017 in WA, there were a total of 3368 patients who received prescriptions, with 2558 patient deaths from lethal ingestion. Over that time period, in both states, there were increases in the rate of patient deaths through state death with dignity programs (Al Rabadi et al., 2019). This finding was confirmed in another study that estimated that in Oregon the percentage of assisted suicide deaths as a portion of all deaths increased from 0.05% in 1998 to 0.23% in 2011 (Steck et al., 2013).

Euthanasia may also be referred to as "mercy killing", and some family members choose to commit this act themselves, without going through a physician. Such was the case of David Rodriguez, who killed his father who was suffering from Alzheimer's disease (Post, 2000). Typically such cases occur among older married couples and are more typically carried out by the husband, with the spouse's poor health and a compassionate relief of suffering offered as justifications (Canetto & Hollenshead, 2000). Although this type of euthanasia is illegal and considered murder, offenders may not necessarily be convicted. This outcome can best be seen in the case of brothers George and Lester Zygmaniak (Maguire, 1974). After a motorcycle accident, George was left paralyzed from the neck down and asked his brother Lester to end his suffering. Lester agreed, and shot George in the face with a shotgun while he was still in the hospital. Although Lester died 27 hours later, and George was initially charged with first-degree murder, a jury acquitted him on grounds of temporary insanity. The jury argued that the trauma of George's ordeal, as well as his love for his brother, rendered him incapable of making a rational decision and that he should not be held criminally responsible. Unlike the medically-sanctioned forms of euthanasia discussed above, euthanasia carried out or assisted by a friend or family member, outside of the guidance of a physician or a state-sanctioned death with dignity statute, is more difficult to document and quantify. In their study of mercy killings, Canetto and Hollenshead (2000) relied on data obtained from the Hemlock Society to analyze 112 cases of euthanasia that occurred in the United States between 1960 and 1993. These cases were uncovered through the regular scanning of 17,000 news sources. Criminal charges were filed in 93% of the mercy killings that were included in the study. This is understandable given that the method of obtaining case files through news media coverage likely skews these cases towards those that have garnered some official legal investigation. The

authors conclude that studying this topic is complex and difficult given that the rate of these recorded cases is so low (Canetto & Hollenshead, 2000).

Acceptability of Euthanasia

Attitudes on the ethicality of euthanasia vary and can be affected by individual factors. Religiosity is negatively associated with acceptance rates of euthanasia, with more religious individuals being more opposed to euthanasia (Bevacqua & Kurpius, 2013; Caddell & Newton, 1995). Different denominations of Christianity have shown different rates of acceptance, with mainline or moderate Protestants being more accepting than conservative Protestants and Catholics (Caddell & Newton, 1995; Verbakel & Jaspers, 2010). Using data from the General Social Survey between 1977 and 2004, Moulton and colleagues found an overall liberalization of attitudes towards euthanasia over time and across all religious denominations. Consistent with previous research, this study found important differences across denominations and revealed that Catholics and moderate Protestants have liberalized their attitudes towards euthanasia at a faster rate than have conservative Protestants. However, the authors conclude that these denominational differences are driven largely by other non-religious demographic factors like gender, race, and educational attainment (Moulton et al., 2006). Support for euthanasia is higher when it involves an elderly patient compared to a younger patient (Stolz et al., 2015). Opinions on euthanasia do not seem to vary by age, with high school students and middle-aged respondents showing similar levels of acceptance (Allen et al., 2006). Physicians show similar levels of acceptance, but they require specific criteria to have been met before considering assisted suicide, such as having an established relationship with the patient (Cohen et al. 1994). Finally, case analysis within states that have legalized physician-assisted suicide point to a number of end-of-life concerns that may contribute to the acceptability of this form of euthanasia. In an analysis of death with dignity cases in Oregon, the most frequently reported end-of-life concerns included the decreased ability to participate in enjoyable activities, the loss of autonomy, and the loss of dignity (Oregon Public Health Division, 2021). In addition, it appears that access to medical health insurance is a universal precursor to obtaining medically-aided euthanasia in death with dignity states. In Oregon, 100% of patients were covered by either private or public (i.e., Medicare or Medicaid) health insurance (Oregon Public Health, 2021). In Washington, 97% of death with dignity patients had health insurance (Washington State Department of Health, 2021). These findings may be important for understanding the selection of medically-supported versus non-medically supported euthanasia options for patients in death with dignity states.

There exists a relatively small body of literature that has examined the impact of euthanasia attitudes on juror decision making. In one of the earliest investigations, Finkel and colleagues examined the rationales behind mock juror nullification decisions and found that pro-euthanasia attitudes (e.g., assisted suicide should not be unlawful if it is carrying out a clear wish) were important explanations (Finkel et al., 1993). In another

mock jury experiment, it was found that, irrespective of the presence of a nullification instruction, jurors who possessed attitudes favorable to euthanasia reported significantly lower ratings of guilt (Meissner et al., 2003). Most recently, Peter-Hagene and Bottoms (2017) discovered that mock jurors that possessed pro-euthanasia attitudes were more likely to acquit and that the presence of a nullification instruction enhanced this tendency.

Nullification Instructions and Euthanasia

There is a body of research that has examined the impact that nullification instructions have on jurors deciding euthanasia cases. Meissner et al. (2003) instructed participants to respond to euthanasia cases as mock jurors. The authors presented participants with either standard jury instructions or one of two types of nullification instructions. The standard instructions described criteria for burden of proof, presumption of innocence, and reasonable doubt. The two nullification instructions (mild and radical) differed in the degree to which jurors were made aware of the power to nullify, with the mild instructions being more subtle. Participants were less likely to reach a guilty verdict with either of the nullification instructions as opposed to the standard instructions, but there were no significant differences between the mild and radical nullification instructions.

In another study, Horowitz (1988) exposed participants to different case vignettes and in some conditions, gave explicit jury nullification instructions. In a case involving euthanasia, the defendant was treated more leniently, while a defendant who killed a pedestrian in a drunk-driving case was treated more harshly. In this experiment, nullification instructions encouraged jurors to look at evidence as secondary or irrelevant; they instead considered the defendants' intent and situation when choosing a verdict, basing their decisions on sympathy or anger. In more extreme cases, awareness of jury nullification can cause jurors to ignore laws they simply do not agree with. Compared to normal jurors, highly authoritarian jurors, who also tend to be more close-minded and less accepting of outgroups, rely much more on their personal feelings and biases when aware of jury nullification (Kerwin & Shaffer, 1991).

Finally, Peter-Hagene and Bottoms (2017) found that exposure to a nullification instruction was significantly related to not guilty verdicts in a mock juror experiment. In addition to the main effect of nullification instructions on verdict, this study also discovered an interaction between jury instructions and euthanasia attitudes in predicting nullification verdicts. Specifically, the authors argued that nullification instructions may serve as "contextual encouragement" for the empowering of pro-euthanasia attitudes, thereby increasing the tendency of jurors to nullify (Peter-Hagene & Bottoms, 2017, *p*. 999).

Manner of Death

There are a variety of different methods theoretically available to carry out euthanasia. As examples, a patient can be shot with a firearm, be asphyxiated, or receive a lethal injection. These methods may communicate different levels of aggressiveness and violence and are likely to elicit different reactions in those not directly involved in the act. Achille and Ogloff (1997) found that people consider lethal injection to be less acceptable than withholding care, but little research has systematically compared acceptance of other active methods (e.g., asphyxiation). In one of the only studies examining euthanasia manner of death and juror decision making, Meissner et al. (2003) explored two methods of euthanasia (gunshot vs. unplugging a respirator) and their relationship to ratings of guilt from mock jurors. They found that the respirator method, which the authors interpreted as less aggressive, was associated with lower ratings of guilt. It is possible that methods of euthanasia that are perceived as especially violent or aggressive inhibit the ability of jurors to develop the empathy or sympathy for the defendant necessary to acquit.

Defendant-Decedent Relationship

Little research has examined whether public support and juror decision making in euthanasia is influenced by the relationship between the decedent and the individual performing the act. It has been estimated that public support for physician-assisted suicide among American citizens is close to 63% (Caddell & Newton, 1995). In their analysis of data from the General Social Survey, Caddell and Newton (1995) found greater support for active euthanasia under the care of a physician compared to patient-initiated suicide. The authors interpreted this finding as evidence that Americans prefer medical professionals to play a role in the end of life process for terminally ill patients. However, it is unclear whether euthanasia or assisted suicide carried out by a non-relative or non-medical professional is met with comparable support (Emanuel et al., 2016). In one of the only studies examining the direct comparison of different actors, Schoonman et al. (2013) exposed participants to hypothetical scenarios in which a patient asked their son, a friend, or a non-physician professional for the means to end their life through assisted suicide. Results indicated the highest degree of support and acceptability when assistance was offered by the family member (son). Acceptance of assisted suicide was lowest when assistance was offered by the friend. This implies that the relational distance between the patient and the individual assisting with euthanasia/suicide is an important consideration in determining support or acceptance for the practice. Although the professional received middling levels of support, this may be due to participants' perceptions that a professional would have more knowledge of and be better suited to provide assisted suicide information compared to a friend. While the research by Schoonman and colleagues examined general impressions of the "acceptability" of assisted suicide across these relationships, it is unclear whether these findings generalize to juror decision making in cases prosecuted for murder. To our knowledge, no study has examined the role that this relational distance plays in juror decision making or how this may interact with other factors like nullification instructions.

Hypotheses

Juror decision making and euthanasia are commonly studied in the context of dispositional factors such as authoritarianism or religiosity. However, few studies have examined the relative importance of nullification instructions, manner of death, and the relationship between the actor and the decedent. In this present study we asked participants to review a hypothetical euthanasia case prosecuted as a homicide and make a determination regarding the guilt of the defendant. In addition to measuring a number of dispositional variables (e.g., religiosity), we altered content contained in the case vignette (e.g., manner of death and relationship) and the jury instructions (standard vs. nullification). Below we summarize our expectations and hypotheses predicting juror decision making based on the literature that we have reviewed.

Hypothesis One – Nullification Instructions

Research has consistently demonstrated that nullification instructions increase the likelihood of not guilty votes and verdicts in euthanasia mock jury experiments (Kerwin & Shaffer, 1991; Meissner et al., 2003; Peter-Hagene & Bottoms, 2017). Therefore it was expected that the exposure to nullification instructions would increase the likelihood of decisions to acquit. Peter-Hagene and Bottoms (2017) further demonstrated that nullification instructions were particularly powerful for individuals already possessing pro-euthanasia attitudes. Therefore we expected to find an interaction between the presence of nullification instructions and attitudes supportive of euthanasia in predicting decisions in favor of acquittal.

Hypothesis Two – Manner of Death

Meissner et al. (2003) demonstrated that death caused by a more active and violent intervention (e.g., gunshot to the head) was associated with higher ratings of guilt compared to more passive and less violent methods of euthanasia (e.g., unplugging a respirator). Therefore, we anticipated that case descriptions involving less violent methods of euthanasia, such as lethal injection, to be more likely to produce nullification acquittals compared to more aggressive methods like asphyxiation or gunshots. We believed that participants' decisions regarding guilt would be shaped by assessments of the degree to which the euthanasia method was inhumane, brutal, or painful.

Hypothesis Three – Relationship with Decedent

Research suggests that there is greater support for euthanasia and greater leniency for defendants when it is carried out or supported by physicians (Caddell & Newton, 1995) or by close family members or those acting in a professional capacity (Schoonman et al., 2013). Therefore, we anticipated that participants would be more likely to nullify

and acquit when the defendant described in the vignette was closely related to the decedent (e.g., spouse) or when the defendant was a physician. In contrast, we expected defendants described as friends of the decedent to be viewed with less sympathy or leniency, resulting in higher rates of conviction.

Hypotheses Four – Interaction Between Manner of Death and Relationship with Decedent.

The present study incorporated active methods of euthanasia designed to directly cause death as opposed to descriptions of defendants indirectly contributing by providing the assistive means to the patient. In addition, only one method of euthanasia described, lethal injection, was consistent with the type of intervention one might expect from a physician. Therefore we expected to find an interaction between the relationship status and manner of death whereby the effect of the defendant status of physician is conditioned on the least serious or violent method of euthanasia. By extension, we hypothesized a higher rate of conviction for cases involving physicians using the other methods of euthanasia (e.g., asphyxiation) as these acts would be perceived as unfitting of their role as a doctor.

Additional Measures

Finally, we included a number of control variables in our analysis. Measures of authoritarianism and religiosity were included because of their negative relationship with acceptance of euthanasia and potential verdict decisions.

Materials and Methods

Participants

Participants were 676 users of mTurk (332 men and 283 women as well as three who did not self-identify). The race of study participants were as follows: 76.5% Caucasian, 7.8% Asian, 7.3% African American, 3.2% Hispanic, 3.9% mixed race, and 1.3% other. Participants had an age range of 18–74 (M = 37.0, SD = 12.0).

Fifty-six of these participants were non-United States residents and were excluded from the analyses. Additionally, one participant was excluded for providing nonsense data (e.g., entering the same value for all attitude measure items) and another was excluded after a technical malfunction caused two versions of the vignette to appear. Analyses were thus performed with a total of 618 participants. Those who completed the study were compensated with 1 USD.

Design. Participants read a vignette describing a case of active euthanasia. This case vignette is described in more detail below. The description contained conditions that varied by the method of euthanasia (most extreme/least extreme/median), type of

defendant (spouse/friend/doctor), and type of instructions (general/nullification) to create a 3 x 3 x 2 factorial design. The methods of euthanasia that were described in the case vignette were taken from an earlier study published by one of this article's authors (Bell, 2017). In this earlier study, participants responded to a series of narrative summaries describing different methods (e.g., gunshot, poisoning, lethal injection, asphyxiation, etc.) that could be used to euthanize a patient who had been hospitalized and rated them according to three traits; inhumanity, brutality/aggressiveness, and painfulness. The present study selected the three methods of euthanasia that received the highest acceptance, lowest acceptance, and moderate (i.e., median) acceptance according to these three constructs. These included lethal injection (high acceptance), asphyxiation with a bag (moderate acceptance), and a fatal bludgeoning of the head (low acceptance).

Materials

Case Vignette. Participants read a case vignette detailing the case of an elderly man who was killed in the hospital. In this vignette, the patient was hospitalized for severe burns, was in extreme pain, and was not expected to live longer than 3 months. The patient was euthanized by his wife, by his friend, or by his doctor, using one of the three methods described above (lethal injection/asphyxiation/bludgeoning). In all case vignettes the gender of the individuals remained unchanged so those who carried out the euthanasia were female (e.g., spouse, friend, doctor). The case vignette explained that the act was witnessed by a hospital staff member who reported it to the police, resulting in the arrest and prosecution of the defendant (wife, friend, or doctor) for murder. The vignette was followed by a paragraph describing either a jury's power to nullify or a standard instruction emphasizing the jury's general role and expectations in a court case. Participants assumed the role of a juror tasked with providing a guilty or a not guilty verdict.

Instructions. All participants received general instructions describing the roles and expectations of a jury. These instructions described the concepts of presumption of innocence, burden of proof, and reasonable doubt. They also provided a clear statement of the defendant's name, the crime she was being tried for, and the necessary legal elements of the crime of murder. For these general instructions we used the New York state jury instructions for second-degree murder taken from New York's Criminal Jury Instructions and Model Colloquies (www.nycourts.gov/judges/cji/index.shtml). The final paragraph of these instructions differed depending on the nullification condition; some participants read a brief description of the existence of and protocol for jury nullification (nullification instructions) while the remainder of jurors received a general statement of adhering to the law and not allowing personal biases to interfere with decision-making (standard instructions). The nullification instruction we used was borrowed from prior investigations of nullification and euthanasia (Horowitz et al., 2006; Meissner et al., 2003):

While you must give respectful attention to the laws [applicable to this case], you have the final authority to decide whether or not to apply a given law to the acts of the defendant on trial. As [a juror], you represent the community and it is appropriate to bring into your deliberation the feelings of the community and your own feelings based on your conscience. You must respect the law, that is clear. However, regardless of your respect for the law nothing should stop you from acquitting the defendant if you feel the law, as applied to the fact situation in this case, would lead you to an injustice.

The alternative (non-nullification) standard instruction that we used was also based on prior research by Kerwin and Shaffer (1991):

It is your duty to accept these instructions and to apply the law as it is given to you. You are not permitted to change the law, nor apply your own conception of what you think the law should be. In reaching your verdict, you must not be influenced by any consideration of sympathy or prejudice.

Attitude Measures. Participants completed measures of euthanasia attitudes, right-wing authoritarianism, and religiosity. Select items were taken from the Attitudes Toward Euthanasia Measure (ATE; Roelands, Van den Block, Geurts, Deliens, & Cohen, 2015). The ATE contains items asking for opinions on euthanasia, divided into several sections. Section 9, which is given to participants who indicate that euthanasia is sometimes acceptable (as opposed to always or never), is included in the present study. This section contains 10 items asking for agreement with euthanasia in various conditions and scenarios. The remaining items were designed to be answered by medical students with some knowledge of medical procedures and laws and were excluded from the present study. This scale produced a Cronbach's alpha of .97.

The Right-Wing Authoritarianism Scale (RWA; Altemeyer, 1990) is a 30-item measure designed to examine right-wing authoritarianism. Altemeyer (1990) defines this construct as a combination of authoritarian submission (i.e., submission to society's authorities), authoritarian aggression (i.e., aggression towards others based on authority), and conventionalism (i.e., adherence to social conventions established by authority). Participants responded to a series of statements and rated their agreement with each statement on a nine-point Likert scale from −4 to +4 (*−4 = very strongly disagree, 0 = neutral, +4 = very strongly agree*). Reliability for this right-wing authoritarianism scale was $\alpha = .96$.

The Religiosity Measure (RM; Lewis & Bates, 2013) is a three-item questionnaire that asks participants about the extent and importance of their religious beliefs and commitments. Each item is measured on a four-point Likert scale (*1 = not at all, 4 = very*). Higher aggregate scores on this measure indicate higher levels of religiosity. The reliability rating for this religiosity scale was $\alpha = .95$.

Outcome measures. Our outcome measure was a binary assessment of guilt or innocence of the defendant.[1]

Demographic Survey. At the end of the study, participants completed a demographic survey and provided information on gender, age, and race. Participants were also asked to indicate their religious affiliation.

Procedure

After completing the consent form, participants read the case vignette which had the aforementioned manipulations of perpetrator relationship (wife, friend, doctor) and the manner of death (lethal injection, asphyxiation, or bludgeoning). At the end of the vignette, the participants received instructions on jury deliberations (featuring a standard instruction or nullification option instructions). Participants next were asked to indicate if they would vote to convict or acquit (and if they voted to convict, they were asked to provide the sentencing recommendation). From there, participants completed the ATE, the RWA, and RM attitude measures. Finally, participants completed questions measuring demographics and then were debriefed.

All analyses were completed using IBM SPSS Statistics (Version 26.0).

Results

Hypothesis One – Nullification Instructions

As predicted, participants in the nullification condition returned more not guilty verdicts (30%) than participants in the normal instruction condition (15%), $b = .877$, $SEb = .201$, Wald (1 df) = 18.949, $p < .001$. Also as predicted, there was an interaction between attitudes towards euthanasia and nullification instructions, such that participants who were more supportive of euthanasia were more likely to return not guilty verdicts $b = .036$, $SEb = .017$, Wald (1 df) = 4.762, $p = .029$.

Hypothesis Two – Manner of Death

As predicted, participants in the injection condition returned more not guilty verdicts (31%) than participants in the smother with a bag condition (25%), or the smash in the head condition (10%), $b = 1.355$, $SEb = .279$, Wald (1 df) = 23.528, $p < .001$.

Hypothesis Three – Relationship With Decedent

As predicted, participants in the wife condition returned more not guilty verdicts (30%) than participants in the friend condition (20%), or the doctor condition (18%), $b = 0.706$, $SEb = .239$, Wald (1 df) = 10.692, $p = .005$.

Hypothesis Four – Interaction Between Manner of Death and Relationship with Decedent

Contrary to our predictions, there was no interaction between the method of euthanasia employed and the relationship with the decedent ($b = -1.354$, $SEb = .767$, Wald (1 df) = 3.782, $p = .436$).

Additional Measures

We also analyzed the independent impact of authoritarianism and attitudes towards euthanasia on the decisions. As expected based on the extant literature, we found that attitudes toward euthanasia impacted guilt decisions such that participants were more likely to find the defendant not guilty if they supported euthanasia $b = 0.033$, $SEb = .008$, Wald (1 df) = 16.315, $p < .001$). Authoritarianism however did not predict decisions on the guilt or innocence overall, $b = -0.002$, $SEb = .004$, Wald (1 df) = .207, $p = .649$)

Discussion

As predicted, nullification instructions yielded more not guilty verdicts. This finding is consistent with prior research demonstrating the power of nullification instructions more generally (Horowitz, 1988) as well as research that has examined nullification instructions within the context of euthanasia (Meissner et al., 2003). The impact of the nullification instruction was especially powerful for participants that already possessed attitudes more favorable of euthanasia. This finding is consistent with the research by Peter-Hagene and Bottoms (2017) who found this interaction between euthanasia attitudes and nullification instructions when predicting juror verdicts. In addition, conditions incorporating lethal injection yielded the fewest guilty verdicts compared with vignettes describing the other methods (e.g., asphyxiation) that have previously been rated as more inhumane and brutal (BLINDED FOR PEER REVIEW). Fewer guilty verdicts were given to defendants with presumably the closest relationship to the patient (i.e., wife) in comparison to cases where the defendant was a friend or a physician. Finally, we observed a strong and significant independent effect of pro-euthanasia attitudes on not guilty verdicts. These results suggest that guilty verdicts are least likely when the defendant has a close relationship with the patient, uses a non-aggressive method of euthanasia, and when the jury is provided nullification instructions.

General Discussion

Participants' decisions seemed to be most affected by the method of euthanasia and the defendant/patient relationship described in the vignette. More acceptable methods (i.e., injection) yielded fewer guilty verdicts and the least acceptable method (i.e.,

head smashed in) yielded more guilty verdicts. This finding is consistent with prior research that has found that methods such as lethal injection, which communicate low levels of pain, are seen as more humane ways of killing a person. This finding is also supported by research that has demonstrated lethal injection yielding the lowest ratings of pain and brutality and the highest rating of mercifulness (Bell, 2017).

Participants gave fewer guilty verdicts to the wife compared to the friend or doctor. This finding suggests that the perceived closeness of the relationship between defendant and patient played a role in participants' decisions. A spousal relationship may imply stronger feelings of love and care than a relationship between two friends. Conversely, a doctor/patient relationship could imply a more detached and professional relationship. Thus, an act of euthanasia performed by a doctor on the basis of personal feelings could be seen as highly unprofessional and inappropriate.

The presence of nullification instructions yielded a significant difference in verdicts. Participants may simply have not read the instructions closely or even ignored the instructions. Manipulation check items were not used to assess if participants comprehended the instructions. However, manipulation checks were implemented for the vignette and all participants used in analyses gave responses indicating they read and understood the vignette. As these instructions immediately followed the vignette, it is likely participants paid a similar level of attention to them. This study provided evidence that participants would choose to ignore evidence and still acquit the defendant. All versions of the vignette included an eyewitness account of the crime and a confession from the perpetrator, yet some participants still gave not guilty verdicts. Among those who gave not guilty verdicts, some participants acknowledged the evidence of murder when asked to explain their reasoning, but viewed the act as merciful and undeserving of punishment. This finding suggests that participants were influenced by non-legal circumstances surrounding the case, like the manner of death, the relationship between the defendant and the patient, and the presence of nullification instructions.

This study is limited in that it did not test for gender effects of the perpetrator and victim. The patient described in the vignettes was always male and the defendant was always female. Female defendants are often treated more leniently than males throughout a variety of court proceedings (Goulette et al., 2015) and it is likely that such gender differences would extend to juror decision making in euthanasia cases. The victim's age may have also affected participants, such that they were more likely to nullify because the victim was elderly. Some participants may have based their decisions on a rationale of the patient being old and close to death anyway. Cases involving younger victims may result in fewer instances of nullification and should be explored in future research.

Because data were collected through Amazon Mechanical Turk, participants could only complete the study and determine a verdict individually. This is obviously different from the collaborative decision making process contained in actual jury deliberation or other mock jury research that involves participatory decision making.

Table 1. Average sentence length across the variables of euthanasia method and defendant.

	Method		
Defendant	Injection	Smother	Smash
Wife	4.73 (5.48)	5.91 (6.83)	8.53 (8.11)
Friend	6.43 (6.54)	7.35 (6.95)	11.25 (7.37)
Doctor	5.42 (6.10)	10.36 (8.16)	11.56 (8.12)

While the present study offers better verisimilitude than many juror studies, in that participants comprised a diverse range of ages and occupations, this study may have benefitted from collecting data from groups in order to increase external validity. However, meta-analyses of mock jury studies showed only marginal differences in several variables. Saks and Marti (1997) found no differences in the rate of correct verdicts between 6-person and 12-person juries. However, larger juries spent more time deliberating and were more likely to contain members of minority groups. When comparing student and non-student jurors, Bornstein et al. (2017) found no significant differences in rates of verdicts and only marginally significant differences in sentencing.

Nevertheless, the present data do not necessarily represent real juries who may spend a great deal of time deliberating before reaching a verdict. The average completion time for the study was just under 16 minutes, a significantly lower amount of time compared to the hours of deliberation that one might find in real court cases. Deliberation time was not measured, so it is unknown if different versions of the vignette would affect this variable. Meissner et al. (2003) found that post-deliberation guilt judgments were less strongly related to jurors' personal beliefs even with the presence of nullification instructions, suggesting that group deliberation can mitigate the effects of non-evidentiary information. Therefore, future research should incorporate a similar design with group deliberation and obtain both pre- and post-deliberation measures of verdicts.

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Data availability

The data that support the findings of this study are available on the Open Science Framework (OSF).

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Notes

1. We also collected data on another outcome measure - the length of sentence participants would recommend if the defendant had been found guilty (see results in Table 1). For this measure, participants were told that the maximum sentence that could be imposed was 25 years (allowing this measure to have valid scores of 0–25 years). However, given the lack of real world utility (and the convergent evidence offered by this measure), we only report the guilty/not guilty measure in the paper (although the full data are available on the OSF).

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