Pain, Attitudes, and (In)Action: Divergent Legacies of Herbicidal Warfare in Vietnam*

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Abstract

We investigate the legacies of wartime violence with a formal model and a lab-in-the-field experiment involving Agent Orange victims in Vietnam, revealing two contrasting patterns. First, *attitudinal* change does not necessarily lead to *behavioral* shifts. Past victimization is positively associated with empathy toward Agent Orange victims—but only among direct victims (survivors), not indirect victims (family members). However, the heightened empathy does not translate into greater sharing in a Dictator Game. Second, *behavioral* change does not necessarily reflect *attitudinal* shifts. A Dictator Game with randomized receiver victimhood reveals that, unlike non-victims, direct and indirect victims do not adjust their choices in response to the receiver's victimhood—even though direct victims express greater empathy toward other victims. Formalizing intra-individual *persistence* (e.g., empathy toward victims) and inter-individual *transmission* mechanisms (e.g., social norm compliance), presented model encompasses our field evidence and existing insights of convergent legacies as special cases.

Keywords: Agent Orange; legacies; prosocial behavior; social norm; wartime violence

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Although the war has ended, the pain persists.
Survey respondent, Đà Nẵng, 2024

1 Introduction

How does wartime violence shape people's attitudes and behavior in post-conflict societies? War can leave lasting attitudinal and behavioral legacies through two distinct pathways: first, attitudes and behavior *of* victims; and second, people's attitudes and behavior *toward* victims. Through a formal model and a lab-in-the-field experiment in Agent Orange-affected central Vietnam, we investigate (i) the attitudes and behavior *of* those with and without victimization experiences, (ii) their attitudes and behavior *toward* victims, and (iii) the corresponding difference-in-differences. We found, *inter alia*, that those *with* "my pain" (i.e., own exposure to Agent Orange) exhibit heightened empathy toward victims but do not change their behavioral choices in response to "your pain" priming (i.e., receiver's exposure to Agent Orange) in a Dictator Game—whereas the opposite pattern holds for those *without* "my pain." We also formally derive the general boundary conditions under which the attitudinal tendencies conditional on "my pain" and the behavioral effect of "your pain" may converge or diverge, nesting the field evidence and existing insights as special cases.

Focusing on the first pathway, previous studies demonstrate that individuals exposed to wartime violence often exhibit increased empathy toward others and heightened prosocial behavior. For example, Blattman (2009) finds that former child soldiers of the Lord's Resistance Army in Uganda are more likely to engage in community activities and political participation despite their traumatic past. Bauer et al. (2016) present a meta-analysis with data from multiple conflict-affected regions and find that exposure to wartime violence fosters cooperative and altruistic behavior among victims.

While offering valuable insights, previous studies have largely overlooked the second pathway: how wartime violence alters people's attitudes and behavior toward victims. By generating victims, war can affect patterns of social contact and interactions such that non-

victims in post-war societies have more chance to face victims than in other societies. Related to this pathway, Charnysh and Riaz (2023), De Juan et al. (2023), and De Juan et al. (2024) demonstrate how witnessing others' victimization, in addition to exposure to violence, can alter bystanders' support toward the perpetrator and more general political attitudes. In a similar vein, Wayne, Damann and Fachter (2023) show that the Holocaust and socialization of group-level victimhood shape political attitudes, though not behavior, toward out-groups, even in the absence of personal or familial victimhood.

Moreover, the effects of social contact with victims do not necessarily be consistent across own past victimhood, as well as attitudes and behavioral choices. Facing victims, for example, non-victims may adjust their behavior to reflect others' victimhood, while victims in a way that deviates from how victims would behave facing other victims. Indeed, Bauer, Fiala and Levely (2018) present a novel behavioral experiment in Uganda, revealing that priming the receiver's experience of long-term child soldiering increases trust game investments by parents of abducted children. Relatedly, insights from the psychology literature suggest that social contact can produce divergent effects on attitudes and behavior (Fishbein, 1967; Lapiere, 1934; Wicker, 1969). Recent experimental evidence also suggests that social contact and priming fosters altruistic behavior without inducing an attitudinal change (e.g., Paluck, 2009; Paluck and Green, 2009; Scacco and Warren, 2018). Yet little is known about the attitudinal and behavioral effects of exposure to others' victimization and heterogeneity across own victimization experiences, or difference-in-differences.

We investigate the understudied legacies and inconsistencies, both theoretically and empirically. Theoretically, we develop a formal model that outlines the boundary conditions under which individuals' own exposure to wartime violence, "my pain," and others' victimization, "your pain," jointly shape the choices in a Dictator Game, given the constraints imposed by social norms.[1] In one case, victims *broadly* exhibit generous or prosocial behav-

[1]We extend the framework of Krupka and Weber (2013), which embeds norm compliance within a utility-based model. As introduced in Section 3, the model conceptualizes social norms as comprising two components: (i) shared expectations about how much non-victims should help victims, and (ii) how much victims should accept from non-victims. The theoretical predictions hinge on the balance between the additional

ior, irrespective of the "your pain" condition, as documented in the literature (e.g., Bauer et al., 2016). In another, "your pain" leads victims to increase their sharing toward victim receivers, yielding in a behavioral effect greater than that observed among non-victims—consistent with elevated empathy among victims for fellow victims (e.g., Dinas, Fouka and Schläpfer, 2021*a*; Hartman and Morse, 2020). This attitude-behavior *convergence* occurs when the additional empathy of victims outweighs the gap between the norms about (i) how much non-victims should support victims and (ii) how much victims should accept from non-victims. Conversely, a distinct pattern of *divergence* emerges when the gap between the two social norms overrides the additional empathy: non-victims adjust their sharing generously, while victims themselves do not, despite exhibiting greater empathy. We also derive the boundary conditions under which the behavioral effect of "your pain" depends on the form of victimization (e.g., survivors vs. family members). Accordingly, the model elucidates the conditions under which "your pain" shapes behavioral choices, and when attitudinal and behavioral responses converge, diverge, or remain neutral—incorporating the prosocial attitudes and behavior of victims documented in the literature as special cases.[2]

Empirically, we leverage a lab-in-the-field experiment with a hard-to-reach sample of Agent Orange survivors and their family members along with non-victims in Đà Nẵng, Vietnam to validate the theoretical insights, yielding two major findings. First, consistent with the literature, historical victimization is positively associated with stated empathy toward other Agent Orange victims. However, this pattern is evident only among direct victims (survivors), not among indirect victims (family members). Moreover, the heightened empathy does not translate into behavioral change in a Dictator Game. Second, and unseen in the literature, results from an embedded Dictator Game with experimentally manipulated, randomized receiver's victimization status reveals a divergent pattern: unlike non-victims, victims do not change their choices based on the receiver's victimization status. While

empathy of victims toward fellow victims and the gap between these two norms.

[2]The model also provides a parsimonious framework that incorporates the intra-individual "persistence" channel (e.g., empathy of victims) and the inter-individual "transmission" channel (e.g., shared social norms), both of which underlie the legacies of political violence (Walden and Zhukov, 2020).

non-victims share a greater amount toward Agent Orange victims, past victimization and increased empathy do not translate into the behavior change among direct or indirect victims. Furthermore, we find little evidence that the same experimental manipulation of receiver's victimhood affects the stated empathy toward victims among victim or non-victim respondents. Data-driven, causal forest estimates confirm significant heterogeneity in the treatment effect of the randomized receiver victimhood across sender's victimization experience, while revealing little effect heterogeneity depending on other respondent- or household-level covariates. Additional analysis with the structural topic model also reveals suggestive patterns in the open-ended survey responses consistent with the assumptions of the presented model.

Collectively, the results uncover two contrasting attitude-behavior inconsistencies. First, past victimization is positively associated with stated empathy toward Agent Orange victims (attitudes), but not with Dictator Game sharing (behavior). Second, experimental priming of the receiver's victimhood leads to increased Dictator Game sharing among non-victims, without inducing changes in stated empathy. While rarely connected to the literature on historical legacies, the attitude-behavior inconsistency has been long-noted in the psychology literature (e.g., Fishbein, 1967; Lapiere, 1934; Wicker, 1969), and also confirmed by recent experimental evidence (e.g., Adida, Lo and Platas, 2018; Paluck and Green, 2009; Scacco and Warren, 2018). Our field evidence reveals the previously-overlooked legacies of wartime violence that resonate the established insights on the attitude-behavior inconsistency.

This article advances broader literature in several ways. First, this article expand the literature on the legacies of wartime violence and historical events by revealing the moderation effect of victimization in altering people's behavior. Previous studies primarily focus on how victimization shapes attitudes and behavior *of* victims, yet past events also leave lasting legacies on how people respond *toward* others' victimhood. As we highlight, victims and non-victims also differ in their attitudinal and behavioral responses toward others' victimhood. Second, our study also carries implications for the literature on the inconsistency between stated attitudes and revealed behavior, both empirically and theoretically. Em-

pirically, our findings document contrasting inconsistencies between past victimization and experimentally-manipulated victimhood, on the one hand, and attitudinal and behavioral outcomes, on the other. Theoretically, the presented model not only nests the findings as a special case, but also lays out the general conditions under which attitude-behavior associations would be either convergent or divergent, providing microfoundations of the literature.

The rest of this article proceeds as follows. The next section reviews related literature, and Section 3 presents a formal model. Section 4 provides the experiment design, followed by the reduced-form results in Sections 5 and 6. Section 7 presents supplementary topic model estimates, and Section 8 addresses robustness concerns and alternative explanations. Section 9 concludes with broader implications and pathways for future research.

2 Violence, Attitudes, and Behavior

The idea of lasting legacies of political violence is not new, and the past decades have witnessed a surge in empirical investigations showing how political violence persistently shapes people's attitudes and behavior.[3] Yet the debate continues over the direction of the enduring effects. Some studies highlight the prosocial consequences of victimization, including increased empathy toward vulnerable groups, altruism, local collective action, and civic and political engagement (e.g., Bellows and Miguel, 2006, 2009; Blattman, 2009; Gilligan, Pasquale and Samii, 2014; Koos and Traunmüller, 2024; Lindsey and Koos, 2025; Voors et al., 2012). Others, however, emphasize its divisive effects, such as heightened ingroup favoritism and outgroup antagonism (e.g., Bauer et al., 2014; Beber, Roessler and Scacco, 2014; Choi and Bowles, 2007). Partly addressing the contradictory findings, Kljajić, Shelef and vander Wilden (2024) presents a meta-analysis, showing that "exclusive" collective victimhood or a shared sense of group-level suffering as a unique history is associated with conflict-enhancing attitudes. In contrast, "inclusive" victimhood that highlights parallels between group experiences is associated with conflict-ameliorating attitudes.

[3]See, for example, Bauer et al. (2016) and Walden and Zhukov (2020) for a review.

Beyond immediate legacies, several studies investigate how past victimization and contemporary priming jointly shape people's attitudes and behavior. For instance, Wayne and Zhukov (2022) and Dinas, Fouka and Schläpfer (2021*a*,*b*) show how survivors of past violence and their descendants respond differently to the experimental priming of others' suffering compared with non-victims, leading to differential attitudes toward vulnerable outgroup members. Holocaust survivors and their descendants, for example, are less susceptible to experimental priming of the "never again" imperative and show supportive attitudes toward refugees, the responses of non-Jews and Jews without survivor relatives are swayed depending on the experimental manipulation (Wayne and Zhukov, 2022, see also, Shelef and VanderWilden, 2024; Wayne, Damann and Fachter, 2023). Dinas, Fouka and Schläpfer (2021*a*) document similar divergent effects. The experiment shows that priming of past and present forced relocation increases attitudinal and quasi-behavioral measures of sympathy for modern day refugees among descendants of forced migrants but not among non-descendants in Greece and Germany. Bauer, Fiala and Levely (2018) present an unique experiment with trust and dictator games, combined with a randomized manipulation of the receiver's experiences of child soldering in Uganda. They find, among others, that priming the receiver's experience of "long" (around a year), though not "short" (around one month), abduction is positively associated with trust game investments among the parents of child soldiers.[4]

These findings highlight the interplay between historical victimization and post-war factors. Specifically, the observed heterogeneous effects underscore the role victimization as a non-randomizable moderator of a randomizable experimental treatment that shapes people's attitudes and behavior. This "victimization-as-moderator" perspective not only illuminates relatively underexplored pathways through which historical events shape contemporary outcomes, but also offers a way to mitigate the identification challenges inherent in the commonly used "victimization-as-treatment" approach. For instance, individuals exposed to wartime violence may systematically differ from those who are not—such that those with

[4]Although not focusing on victimization, Whitt and Wilson (2007) present a Dictator Game experiment with a randomized receiver's ethnicity to examine in/outgroup behavior in a post-conflict setting.

more prosocial dispositions may be more likely to experience victimization—introducing confounding bias. The "victimization-as-moderator" perspective helps mitigate inferential threats by leveraging randomizable experimental manipulations.[5]

What remains less clear is how war alters people's attitudes and behavior *toward* victims, how these effects deviate from those *of* own victimization, and how the effects vary depending on past victimhood. While yielding insightful findings on how violence shapes victims' attitudes and behaviors, previous studies have largely overlooked how victimization alters those of non-victims in postwar societies. Related to this potential pathway, Charnysh and Riaz (2023), De Juan et al. (2023), and De Juan et al. (2024) demonstrate how witnessing others' victimization or indirect exposure to violence, in addition to individual-level direct exposure to political violence, affects bystanders' support toward the perpetrator and more general political attitudes. In a similar vein, Wayne, Damann and Fachter (2023) show the Holocaust and socialization of group-level or collective victimhood shape political attitudes, though not behavior, toward out-groups, even in the absence of personal or familial victimization experiences (see also, Shelef and VanderWilden, 2024).

Furthermore, postwar societies often exhibit altered patterns of social contact and interactions, where non-victims more frequently engage with survivors, their family members, and descendants, potentially generating attitudinal and behavioral changes of non-victims along with victims. While previous studies document that victims often deviate away from equilibrium behavior in behavioral games into an altruistic way (e.g., Bauer et al., 2014, 2016; Gilligan, Pasquale and Samii, 2014; Voors et al., 2012), non-victims would also change their behavior when facing victims. This intuition is consistent with the findings that victims and non-victims show differing attitudinal (Dinas, Fouka and Schläpfer, 2021*b*; Wayne and Zhukov, 2022) and behavioral responses to experimental manipulations (Bauer, Fiala and Levely, 2018; Dinas, Fouka and Schläpfer, 2021*a*).

In principle, social contact and exposure to others' experiences can affect attitudes and

[5]Treating victimization as a moderator can induce a concern for misspecification bias in the interaction effect (e.g., Blackwell and Olson, 2022). Section 8 addresses the concern.

behavior of both victims and non-victims, yet the attitudinal and behavioral effects do not necessarily evolve consistently (Fishbein, 1967; Lapiere, 1934; Wicker, 1969). Echoing the longstanding insights, recent experimental evidence suggests divergent effects, such that single priming can have behavioral effects (e.g., altruistic choices) without inducing meaningful attitudinal changes (e.g., empathy toward vulnerable groups). For example, Adida, Lo and Platas (2018) show divergent effects of a perspective-taking treatment on attitudinal and behavioral measures of support for refugees. Paluck (2009), Paluck and Green (2009), and Scacco and Warren (2018) provide field evidence for similar divergent effects.

Moreover, the attitudinal and behavioral effects of social contact may be contingent on individuals' past victimization experiences and can diverge from the effects of personal victimization. For instance, social contact might increase empathy without promoting behavioral change among non-victims, while fostering both among victims. Likewise, the effects of social contact or exposure to others' victimization may differ from those of exposure to wartime violence documented in previous studies. A better understanding of legacies of war requires insights into how wartime violence shapes both victims' and non-victims' attitudes and behavior toward victims, along with the corresponding difference-in-differences.

3 Model

Treating attitudinal effects as an empirical question, we develop a formal model to account for behavioral responses to others' victimhood, "your pain," in a Dictator Game widely employed to study the behavioral legacies of wartime violence (Bauer et al., 2016; Walden and Zhukov, 2020). Besides the link to the existing insights, the focus on the nonstrategic setting allows us to rule out behavioral changes driven by expectations about how opponents will behave based on their exposure to wartime violence (Bauer et al., 2016, 270; Krupka and Weber, 2013, 497), thereby isolating behavioral changes attributable to factors on the sender's side. In the following, we assume that the sender's utility in a Dictator Game is

based on her intrinsic attitude or empathy toward victims and compliance with social norms, along with material gains. By doing so, the model clarifies when (i) "your pain" induces behavioral change, (ii) the behavioral effect may converge with the attitudinal tendencies implied by own victimhood, "my pain," and (iii) the behavioral effect may diverge from the implied attitudinal tendencies. The model also allows for behavioral responses of direct (e.g., survivor) and indirect victims (e.g., family member) to either converge or diverge.

3.1 Setup and Interpretation

We describe a Dictator Game in which a respondent (i.e., "sender") makes a single decision on how much money to share with a hypothetical "receiver."[6] Denote a respondent's initial endowment and actual sharing in the game by M and m, respectively.[7] Clearly, we would obtain $m^* \equiv \arg\max_m M - m = 0$ as a unique optimal choice (i.e., a unique Nash equilibrium if we consider this decision problem as a game) if the respondent's payoff is solely defined in terms of material gains.

Here, we extend the simple framework by Krupka and Weber (2013) that incorporates the role of social norms in a similar context. Define a participant's payoff function as $u\left(x, \Psi(m)\right)$, where x is the respondent's material gain and $\Psi(m)$ is her nonmaterial or psychological payoff. By the budget constraint $M = x + m$, we have $x = M - m$. Let the function Ψ be weakly increasing in the sharing m with a decreasing marginal return: $\frac{\partial \Psi}{\partial m} \geq 0$ for any m; $\frac{\partial \Psi(0)}{\partial m} > 0$; $\lim_{m\to\infty} \frac{\partial \Psi}{\partial m} = 0$; and $\frac{\partial^2 \Psi}{\partial m^2} \leq 0$ for any m. We assume that $u(\cdot, \cdot)$ is quasi-linear such that $u\left(x, \Psi(m)\right) = x + \Psi(m) = M - m + \Psi(m)$. This implies that, by the first-order condition, $\frac{\partial \Psi(m)}{\partial m} = 1$ holds under an optimal m.

More specifically, we assume that the respondent (sender) in the Dictator Game has a nonmaterial or psychological bliss point and incurs a quadratic loss when m is smaller than it. Denote the bliss point by a function $\psi(s, r; \theta)$, where θ is a vector of parameters discussed below. First, vector $s = (s_h, s_d)$, where $s_h, s_d \in \{0, 1\}$, represents the victim status of the

[6] In our experiment, we randomly assign the receiver's status of herbicide victimhood.
[7] In our experiment, we have $M = 80,000$ VND.

participant in the experiment (the sender). The first component s_h is a binary indicator that the respondent is from a victim household. The second component s_d takes the value of one when the respondent is a direct victim and zero when she is an indirect victim (family member of a direct victim). For simplicity, we denote $s = 0$ when $s_h = 0$ to refer to a non-victim, $s = 1$ when $(s_h, s_d) = (1, 1)$ (direct victim), and $s = \mathtt{i}$ when $(s_h, s_d) = (1, 0)$ (indirect victim). Second, $r \in \{0, 1\}$ is the receiver's victim status, where the value of one denotes victimhood. Note that we do not distinguish the direct and indirect victimhood for the receiver.

Now we define the nonmaterial payoff.

$$\Psi(m) \quad = \quad \begin{cases} -\zeta \left(\psi(s, r; \theta) - m\right)^2 & (m < \psi(s, r; \theta)) \\ 0, & (\text{otherwise}) \end{cases}$$

where $\zeta \geq 0$ is a parameter that determines the weight she puts on the nonmaterial component. We specify how the nonmaterial component in the sender's payoff varies over her own and the receiver's victim statuses. Given a vector of parameters $\theta = (\alpha_{\mathcal{P}0}, \alpha_{\mathcal{P}1}, \alpha_{\mathcal{T}}, \overline{\sigma}, \underline{\sigma}, \iota) \in \mathbb{R}^6$, define sender's psychological bliss point $\psi(s, r; \theta)$ as

$$\begin{aligned} \psi(s, r; \theta) &= \mathcal{P}(s, r) + \mathcal{T}(s, r) + \varepsilon, \text{ where} \\ \mathcal{P}(s, r) &\equiv (\alpha_{\mathcal{P}0} + \alpha_{\mathcal{P}1} r)\, s_h s_d \text{ and} \\ \mathcal{T}(s, r) &\equiv (\alpha_{\mathcal{P}0} + \alpha_{\mathcal{P}1} r)\, s_h (1 - s_d)\iota + (\alpha_{\mathcal{T}} + (1 - s_h)\overline{\sigma})\, r - s_h (1 - r)\underline{\sigma}. \end{aligned}$$

We move on to the interpretation of the model. Following the typology of legacies of wartime violence by Walden and Zhukov (2020), we suppose that researchers observe the legacies through two pathways: intra-individual *persistence* and inter-individual *transmission*. In the nonmaterial bliss point $\psi(s, r; \theta)$, the first term $\mathcal{P}(s, r)$ and the second term $\mathcal{T}(s, r)$ refer to the effects of persistence and transmission, respectively. The third term, ε, represents factors not captured by $\mathcal{P}(s, r)$ and $\mathcal{T}(s, r)$. Suppose it is unobservable to

the researcher and is a random variable with mean zero that is independent and identically distributed across individuals.

We begin with the persistent legacies, $\mathcal{P}(s, r)$. Following Walden and Zhukov (2020), we define persistence narrowly as the effects of *first-hand* exposure to wartime violence, implying that this term is relevant only to direct victims ($s_h = s_d = 1$). The parameters $\alpha_{\mathcal{P}0}$ and $\alpha_{\mathcal{P}1}$ represent the *attitudinal* legacies of herbicide victims. The former stands for a victim's persistent empathy toward all members of society. The latter, $\alpha_{\mathcal{P}1}$, denotes a victim's additional persistent empathy toward other herbicide victims. Thus, if $\alpha_{\mathcal{P}0}, \alpha_{\mathcal{P}1} > 0$, a victim has a more pro-social attitude compared to a non-victim respondent.

Next, consider the effect of transmitted legacies, $\mathcal{T}(s, r)$. The first term, $(\alpha_{\mathcal{P}0} + \alpha_{\mathcal{P}1} r)\, s_h(1 - s_d)\iota$, assumes that an indirect victim ($s = \texttt{i}$) partially inherits the persistent legacies of the survivor(s) in her family. This socialization process among family members has the shortest path of transmission. Note that we merely assume $\iota \in \mathbb{R}$. It could be the case that an indirect victim becomes more empathetic than survivors ($\iota > 1$) because of interactions with the direct victims in their family. Conversely, if she has faced social stigma and borne financial or psychological burdens as a family of herbicide survivors, she could even discriminate against the direct victims and become hostile toward other members in the society ($\iota < 0$).

The second term, $(\alpha_{\mathcal{T}} + (1 - s_h)\overline{\sigma})\, r$, represents two effects of transmitted logacies of wartime violence when the respondent is facing a victim receiver ($r = 1$). The first one relates to an attitudinal influence of wartime violence widely shared in a given society. Namely, $\alpha_{\mathcal{T}}$ indicates the level of empathy toward victims, which all members of society commonly possess. The second component, $(1 - s_h)\overline{\sigma}$, describes the effect of *social norms*. That is, $\overline{\sigma}$ denotes a shared perception on how much non-victims should share with victims. A positive $\overline{\sigma}$ implies that members of society widely accept that non-victims should provide more support for victims of wartime violence. A negative value, on the other hand, would mean discrimination against victims.

The third term in the transmission effect, $-s_h(1-r)\underline{\sigma}$, also pertains to social norms. This

appears when the sender and the receiver constitute the other asymmetric dyad (i.e., $s = 1, r = 0$). As above, $\underline{\sigma}$ indicates a shared perception about how much victim senders should take from non-victim receivers. When $\underline{\sigma}$ is positive, it implies a widely shared perception that victims deserve more financial resources. A negative $\underline{\sigma}$ would indicate self-discrimination. We normalize social norms regarding symmetric sender-receiver dyads ($s = r = 0$ and $s = r = 1$) to zero.

3.2 Predictions

The Dictator Game with the additional nonmaterial component yields the straightforward solution denoted by $m^*(s, r; \theta)$.

Proposition 1 *The unique optimal choice in the Dictator Game with the nonmaterial component $\psi(s, r; \theta)$ is*

$$m^*(s,r;\theta) = \begin{cases} 0 & \left(\psi(s,r;\theta) < \frac{1}{2\zeta}\right) \\ \psi(s,r;\theta) - \frac{1}{2\zeta} & \left(\psi(s,r;\theta) \in \left[\frac{1}{2\zeta}, M + \frac{1}{2\zeta}\right]\right) \\ M & \left(\psi(s,r;\theta) > M + \frac{1}{2\zeta}\right). \end{cases}$$

Based on the simple solution, the model enables us to present specific conditions under which a particular result should appear in the experiment. To this end, observe that we have defined parameters so that victims (either sender or receiver) receive more money as their values increase. For example, the last term in $\mathcal{T}(s, r)$ has a negative sign. Thus, when a large positive value of $\underline{\sigma}$ induces a victim sender to retain more money. This formulation facilitates the intuition below.

Aggregated Differences First, the following result shows when (i) victims are generally more pro-social and (ii) all members in society are more generous to victims.

Corollary 1 *(i) Suppose* $\alpha_{\mathcal{P}0} + \alpha_{\mathcal{P}1} \geq \overline{\sigma}$ *and* $\alpha_{\mathcal{P}0} \geq \underline{\sigma}$*. Then,*

$$\underbrace{m^*(1, r; \theta)}_{\text{“My pain”}} \geq m^*(0, r; \theta) \qquad r \in \{0, 1\}.$$

(ii) Suppose $\alpha_{\mathcal{P}1} \geq -\alpha_{\mathcal{T}} - \underline{\sigma}$ *and* $0 \geq -\alpha_{\mathcal{T}} - \overline{\sigma}$*. Then*

$$\underbrace{m^*(s, 1; \theta)}_{\text{“Your pain”}} \geq m^*(s, 0; \theta) \qquad s \in \{0, 1\}.$$

The results in the corollary are straightforward. Note that the left-hand side and right-hand side in each condition show the persistence and transmission mechanisms of legacies of political violence, respectively. Thus, (i) victims are generally “nicer” to others when, almost by definition, the empathy of victims ($\alpha_{\mathcal{P}0}$ and $\alpha_{\mathcal{P}1}$) exceeds the effects of social norms about how much the community should support them. On the other hand, (ii) all members in society are “nicer” to victims as long as they do not discriminate against the victims (large $\alpha_{\mathcal{T}}$, $\overline{\sigma}$, and $\underline{\sigma}$). Part (i) of the corollary summarizes the conditions under which the primary finding in the literature that wartime violence fosters altruistic behavior by victims holds (Bauer et al., 2016).

Heterogeneous Effects Second, we are interested in the treatment effects of herbicide victimhood on pro-social behavior. We can interpret the model in terms of heterogeneous treatment effects (HTE) conditional on the sender's victimhood status. To this end, introduce the following notations to define the theoretical analogues to empirical terms. Define survey respondent i's treatment as $R_i \in \{0, 1\}$, where the value of one represents that she is assigned a victim receiver. Similarly, denote i's observed victim status as S_i. Then, we denote i's Dictator Game sharing as a potential outcome by $Y_i(R_i)$. Based on the above notation, we consider the equilibrium sharing in the formal model as individual i's potential outcome given treatment $R_i = r$ and victim status $S_i = s$.

Assumption 1 *We can interpret* $m^*(s, r; \theta) = (Y_i(R_i = r)|S_i = s)$.

Moreover, define the HTE conditional on $S_i = s$ as $\tau(s) \equiv \mathbb{E}[Y_i(1) - Y_i(0)|S_i = s]$. We say that a respondent's attitude and behavior are *convergent* if $\tau(1) \geq \tau(0)$ and *divergent* otherwise. Now we are ready to present our main theoretical prediction.

Corollary 2 *A sender's attitude and behavior are convergent if and only if* $\alpha_{\mathcal{P}1} \geq \overline{\sigma} - \underline{\sigma}$.

We can situate the results in existing studies as special cases of the above model. Consider the inequality $\alpha_{\mathcal{P}1} \geq \overline{\sigma} - \underline{\sigma}$, the condition in Corollary 2. When $\alpha_{\mathcal{P}1}$ is large enough, the model becomes consistent with those studies that find convergent results. Recall that $\alpha_{\mathcal{P}1}$ expresses the *additional* empathy of a victim toward other victims. That is, if the persistent positive attitude of a victim sender toward other senders is larger than the difference between norms about (i) how much non-victims should give to victims and (ii) how much victims should take from non-victims, then the attitude toward victims directly translates into behavior (e.g., Dinas, Fouka and Schläpfer, 2021*a*; Hartman and Morse, 2020).

On the other hand, when $\alpha_{\mathcal{P}1} < \overline{\sigma} - \underline{\sigma}$, attitude (empathy toward victims) and behavior (Dictator Game sharing) diverge. Recall that $\alpha_{\mathcal{P}1}$ reflects a victim's persistent (additional) empathy toward other victims. The right-hand side pertains to the transmission mechanism. If the members in the society share the perception that non-victims should help victims more (large $\overline{\sigma}$) but victims should not take too much from non-victims (small $\underline{\sigma}$), then attitudes toward victims and pro-social behavior should not be convergent.

In the second (divergent) case, where $\alpha_{\mathcal{P}1} < \overline{\sigma} - \underline{\sigma}$, we can interpret the large value of $\overline{\sigma} - \underline{\sigma}$ as a product of collective victimhood and societal transmission of herbicide legacies. Recall that a larger $\overline{\sigma}$ indicates a shared perception that non-victims should share more with victims. This social norm can arise from education on national history and other forms of *institutionalization* of legacies (Walden and Zhukov, 2020). A smaller $\underline{\sigma}$ can represent a shared perception that all members in a society with a history of wartime violence are equally "victims," regardless of the first-hand exposure to violence. Such perceptions would induce survivors and their family members to refrain from demanding more from non-victims.

Disaggregating Victimhood The third prediction is on the role of *indirect* victimhood. We have assumed that an indirect victim has a parameter ι that determines how her interactions with the survivors in her family transmit a direct victim's persistent empathy to the former's preference. We are also interested in when different forms of victimhood translate into changes in altruistic behavior.

Corollary 3 *Suppose $\alpha_{\mathcal{P}1} \neq 0$. Then, when $\alpha_{\mathcal{P}1}$ is positive, $\tau(\boldsymbol{i}) \geq \tau(1)$ if and only if $\iota \geq 1$, and $\tau(\boldsymbol{i}) \geq \tau(0)$ if and only if $\iota \geq \frac{\overline{\sigma}-\underline{\sigma}}{\alpha_{\mathcal{P}1}}$. When $\alpha_{\mathcal{P}1}$ is negative, $\tau(\boldsymbol{i}) \geq \tau(1)$ if and only if $\iota \leq 1$, and $\tau(\boldsymbol{i}) \geq \tau(0)$ if and only if $\iota \leq \frac{\overline{\sigma}-\underline{\sigma}}{\alpha_{\mathcal{P}1}}$.*

This result is also straightforward. Suppose $\alpha_{\mathcal{P}1} > 0$: victims are more empathetic toward other victims, for which our experiment finds evidence below. Intuitively, one's indirect exposure to violence would discount the empathy toward other victims ($\iota \leq 1$) because she does not have first-hand experiences. On the other hand, when the second-hand exposure to wartime violence reinforces the empathy of indirect victims toward other victims (large ι), the treatment effect of "your pain" on sharing behavior could even become the largest. When victims have a self-discriminatory attitude toward other victims ($\alpha_{\mathcal{P}1} < 0$), indirect victimhood has the opposite effect.

4 Experiment Design

To examine the theoretical predictions, we rely on a lab-in-the-field experiment involving Agent Orange survivors and their family members, along with non-victims in Vietnam, with three components: sociodemographic questions, a Dictator Game, and questions measuring empathy toward Agent Orange victims, followed by an open-ended question about their thoughts on the victims. To facilitate causal identification, we randomly manipulate the receiver victimhood condition in the Dictator Game and its timing relative to the sociodemographic questions.

4.1 Study Area and Sampling

The experiment was fielded in Cẩm Lệ and Ngũ Hành Sơn *Quận* (districts) of Đà Nẵng in September 2024, which hosted one of the two major US airbases—alongside Bien Hoa in Saigon—used for herbicidal warfare in Operation Ranch Hand (1962–1971; Figure 1). Cẩm Lệ and Ngũ Hành Sơn are suburban districts with the highest number of Agent Orange survivors relative to their population size. Importantly, unlike central districts such as Hải Châu and Quận Thanh Khê, where houses were often leased for commercial purposes, household members typically reside at their registered addresses in Cẩm Lệ and Ngũ Hành Sơn. These two districts thus allow us to conduct a survey with predetermined households.

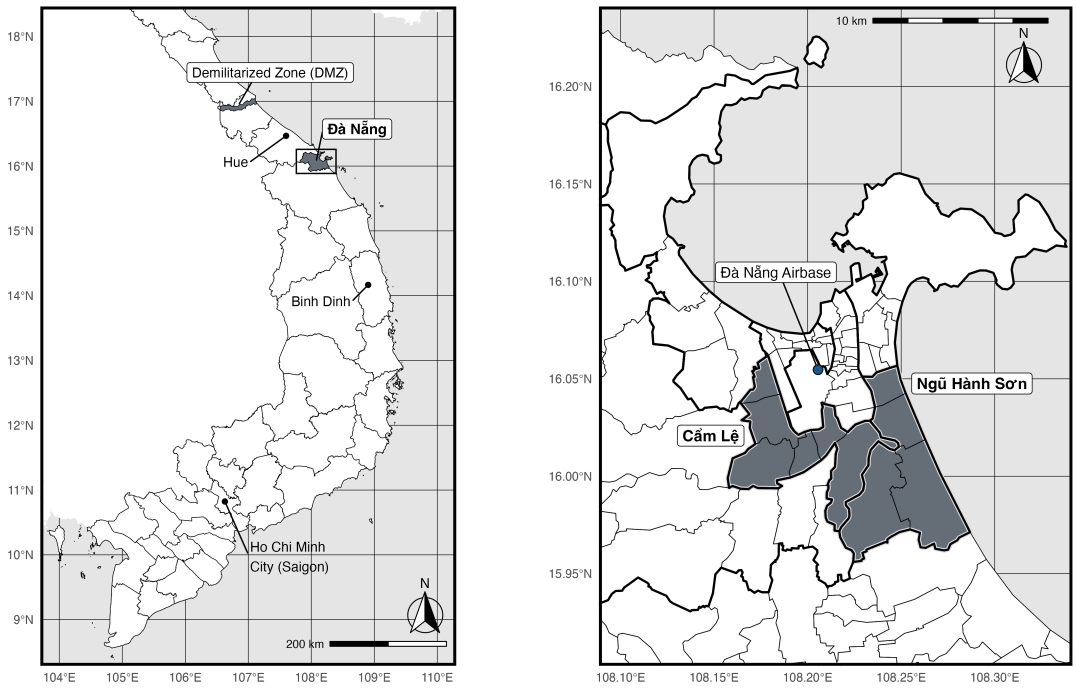
We employed a mixed sampling strategy to obtain a sample of 436 household representatives.[8] First, using the administrative lists in ten *Phường* (wards) of the two districts, we attempted to visit *all* 398 registered households with Agent Orange survivors (victim households).[9] We reached representatives of 209 victim households, resulting in a response rate of 52.51%. We then employed a proportional sampling strategy to select households without survivors (non-victim households). In total, we randomly visited thirty neighborhood groups, each comprising ten randomly selected households. The number of groups in each ward was proportional to the ward's share of the total households across the two districts. This procedure yielded a sample of 227 non-victim households.

4.2 Manipulation and Measurement

Observed Victimhood We rely on two indicators to measure exposure to Agent Orange. First, to measure our benchmark, household-level exposure, we use the administrative victim records compiled by the local people's committee. The household-level indicator of victimization, "my pain," is coded as a dummy variable that takes a value of one for respondents

[8]We initially aimed to collect 600 respondents, resulting in a sample of 436 participants with a response rate of 72.7% within the period. Admittedly, the sample violates the sampling strategy due to the availability of the respondents and investigators, along with adverse weather events in central and northern Vietnam during our experiment, including typhoon *Yagi*, the most powerful typhoon in Southeast Asia in 2024.

[9]The list of the registered Agent Orange survivors was provided by the district government.



(a) Đà Nẵng, Vietnam (b) Survey Districts

Figure 1: Study Area

Notes: (a) Lines represent provincial boundaries as of September 2024. Areas in dark colors indicate the former demilitarized zone (DMZ) and Đà Nẵng. (b) Bold (thin) lines represent district (ward) boundaries. Dark color indicates the survey area, Cẩm Lệ and Ngũ Hành Sơn districts.

whose households include one or more Agent Orange survivors and zero otherwise, regardless of the respondents' own victimization status. Second, to measure respondent-level victimhood, we use self-reported responses to distinguish direct victims (survivors) from indirect victims (family members). Due to genetic transmission and residual contamination, both mid-war victims and postwar-generation descendants are classified as direct victims.

Each measure has distinct advantages and limitations. The household-level official records partially mitigate measurement errors and nondisclosure bias associated with self-reported responses to traumatic experiences (e.g., Koos and Traunmüller, 2024; Lindsey and Koos, 2025). However, this measure masks personal experiences. In contrast, the respondent-level indicator distinguishes between direct and indirect victims, enabling a more nuanced investigation. Nonetheless, its self-reported nature may introduce non-classical measurement errors. Indeed, in the open-ended question, a victim respondent expressed fear of "social dis-

crimination," being "afraid of the community knowing and shunning because I am a victim of Agent Orange." To mitigate these limitations, we incorporate both of these two indicators rather than relying solely on one of the two indicators.

Experimental Manipulation The experiment randomly manipulates two treatments.[10] The first and primary treatment, "your pain," manipulates the receiver's victimhood in the Dictator Game, allowing us to examine attitudinal and behavioral tendencies toward victims. In the treatment condition, the respondent is told that the receiver is an individual from a household with herbicide victims, whereas in the control condition, the receiver from a household without victims.[11] The second treatment manipulates the timing of the Dictator Game relative to the sociodemographic questions. In the control condition, respondents play the Dictator Game before answering the sociodemographic questions, whereas in the treatment condition, the Dictator Game is placed after the sociodemographic questions, but before the empathy questions described below. While this treatment is not our primary focus, randomized Dictator Game timing allows us to account for potential order effects.

Outcomes and Covariates We collect two outcome measures: stated empathy toward Agent Orange victims and sharing in a simple Dictator Game. First, the attitudinal outcome, stated empathy toward herbicide victims, is measured as the simple average of three ten-point Likert-scale questions assessing the degree of empathy toward Agent Orange victims. Following Balmas, Attias and Halperin (2024), we asked respondents to rate their responses on a ten-point scale for the following questions: "empathy toward Agent Orange victims in their predicament," "concern for the well-being of Agent Orange victims," and "fear for the

[10]Despite the focus on the role of past victimhood as a moderator, we used simple randomization rather than blocked randomization, primarily due to technical constraints in the field and limited information on sample respondents and households outside the field. At the cost of increased uncertainty, simple randomization also ensures that our experimental treatments are assigned randomly across direct and indirect victims, which we code based on self-reported responses and are not observable outside the field.

[11]The treatment condition is: "How much of the 80,000 VND would you like to share with an anonymous receiver from a household with Agent Orange victims?"; the control condition is: "How much of the 80,000 VND would you like to share with an anonymous receiver from a household with no Agent Orange victims?" In both conditions, the receiver is assumed to be residing in the same ward as the sender (respondent).

fate of Agent Orange victims" (Cronbach's $\alpha = 0.896$; 95% CI: 0.875 0.914). These three Likert-scale questions are always presented after the Dictator Game, allowing us to identify the potential effect of "your pain" on both attitudinal and behavioral responses.[12]

Second, our behavioral outcome is the sharing in the Dictator Game. Since the receiver has no power to influence the dictator's (respondent's) decision and cannot repay the dictator, any positive amount given indicates that the dictator derives utility from benefiting others. Respondents chose how much of the 80,000 VND—approximately four times the minimum hourly wage in Đà Nẵng (21,200 VND $\approx$ 0.9 USD at the time of the experiment)—they are willing to share with an anonymous receiver residing in the same ward, in increments of 10,000 VND. The respondents received the remaining amount, and, once the entire experiment was completed, the shared amount was sent to another randomly selected respondent from the same ward reflecting the "your pain" condition. Importantly, when respondents made their allocation decisions in the Dictator Game, they had not yet received any sharing from others; at the time of the experiment, they only had the initial 80,000 VND in hand and were unaware of how much they might later receive if assigned to the receiver role.[13]

While attitudes and behavior are often expected to be positively correlated (e.g., Hartman and Morse, 2020), we collect both measures reflecting the recent findings that single experimental priming can have divergent effects on attitudes and behavioral choices (e.g., Adida, Lo and Platas, 2018; Paluck, 2009; Scacco and Warren, 2018). Combined with the "your pain" treatment, these attitudinal and behavioral outcomes allow us to measure stated and revealed favoritism toward, or discrimination against, Agent Orange victims.

We also measure auxiliary outcomes and sociodemographic attributes. Auxiliary outcomes include the self-reported responses on social group participation and leadership. While

[12]The survey order is as follows: In the "Dictator Game (DG) at the end" condition (treated condition for the DG timing treatment), (1) sociodemographic questions, (2) DG, and (3) empathy questions, and in the "DG at the beginning" condition (control), (1) DG, (2) sociodemographic questions, and (3) empathy questions. The open-ended question is placed after the DG and these questions in both conditions.

[13]The "anonymous receiver residing in the same ward" condition guards against social distance that could affect the Dictator Game allocations. Dictators tend to give less to immediate friends than to total strangers (Engel, 2011, 596–597); our implementation falls somewhere between these two extremes. Also note that the money transfer eliminates the possibility of deception.

these outcomes inform the literature, we relegate the corresponding estimates on these non-preregistered measures to Appendix C. We also collect eighteen household- and respondent-level covariates, including educational attainment, gender, and income. Appendix Table B.1 and Figure B.1 report summary statistics and pairwise correlations of the variables.

4.3 Estimation Strategy

Baseline Specification We begin our empirical analysis with the following OLS model to estimate the average treatment effect (ATE) of the experimental treatment and the corresponding heterogeneous treatment effect (HTE) conditional on observed victimhood:

$$\begin{aligned} Y_i = \gamma \text{MyPain}_i + \tau \text{YourPain}_i + \eta \text{GameTiming}_i + \delta \text{MyPain}_i \times \text{YourPain}_i \\ + \boldsymbol{\beta}' \boldsymbol{X}_i^{\text{HH}} + \boldsymbol{\phi}' \boldsymbol{X}_i^{\text{R}} + \text{Week}_{w(i)} + \epsilon_i, \end{aligned} \tag{1}$$

where i indexes individuals and Y is the attitudinal (stated empathy) or behavioral (Dictator Game sharing) outcome. MyPain, YourPain, and GameTiming are binary indicators that, respectively, take the value of one if respondent i is a direct (survivor) or indirect victim (family member), plays a Dictator Game assuming a victim receiver, and plays a Dictator Game at the end of the survey and zero otherwise. $\boldsymbol{X}_i^{\text{HH}}$ and $\boldsymbol{X}_i^{\text{R}}$ are household- and respondent-level covariates, and $\text{Week}_{w(i)}$ denotes week fixed effects.[14]

The parameters of interest are τ and δ, which, respectively, capture the ATE of the "your pain" treatment and HTE, or the difference-in-differences between victims' and non-victims' responses. γ reflects the association between past victimhood and the outcomes. While the non-random nature of victimization prevents a causal interpretation, γ helps validate the model assumptions and assess whether existing insights travel to the Vietnamese context.

Disaggregated Specification The baseline specification collapses respondent-level victimhood into a single variable, "my pain." To further investigate effect heterogeneity across

[14] We include week fixed effects to address potential effects of adverse weather events noted in footnote 8.

personal experiences, we estimate the following model with two respondent-level indicators, DirectVictim (survivors) and IndirectVictim (family members):

$$\begin{aligned} Y_i = {} & \gamma_1 \text{DirectVictim}_i + \gamma_2 \text{IndirectVictim}_i + \tau \text{YourPain}_i + \eta \text{GameTiming}_i \\ & + \delta_1 \text{DirectVictim}_i \times \text{YourPain}_i + \delta_2 \text{IndirectVictim}_i \times \text{YourPain}_i \\ & + \boldsymbol{\beta}' \boldsymbol{X}_i^{\text{HH}} + \boldsymbol{\phi}' \boldsymbol{X}_i^{\text{R}} + \text{Week}_{w(i)} + \epsilon_i. \end{aligned} \tag{2}$$

The parameters of interest are δ_1 and δ_2, which capture the effect heterogeneity of "your pain" across the observed victimhood, along with the main effects, γ_1, γ_2, and τ.

Link to the Formal Model In the baseline specification, assuming that victims are weakly more empathetic toward other victims (i.e., $\gamma \geq 0$ on stated empathy, or $\alpha_{\mathcal{P}1} \geq 0$ in the formal model), δ on the behavioral outcome (Dictator Game sharing) directly tests Corollary 2. If $\alpha_{\mathcal{P}1} \geq \overline{\sigma} - \underline{\sigma}$, the model predicts that increased empathy translates into greater sharing by victims toward other victims, resulting in $\delta \geq 0$. Conversely, if $\alpha_{\mathcal{P}1} < \overline{\sigma} - \underline{\sigma}$, the model predicts a divergence between attitudes and behavior, such that non-victims offer more to victims than victims themselves do, yielding $\delta < 0$, despite victims' elevated empathy. Corollary 1, along with conventional wisdom, predict $\tau > 0$ on the behavioral outcome.

In the disaggregated specification, δ_1 and δ_2 on the behavioral outcome allow us to examine the model's predictions, along with γ_1 and γ_2 on the attitudinal outcome. If the persistent empathy of direct victims is sufficiently strong ($\alpha_{\mathcal{P}1} \geq \overline{\sigma} - \underline{\sigma}$) and the familial transmission is large enough ($\iota \geq \frac{\overline{\sigma} - \underline{\sigma}}{\alpha_{\mathcal{P}1}}$), then Corollaries 2 and 3 predict that both direct and indirect victims should respond to "your pain" with increased sharing in the Dictator Game, leading to $\delta_1 \geq 0$ and $\delta_2 \geq 0$. Conversely, if $\alpha_{\mathcal{P}1} < \overline{\sigma} - \underline{\sigma}$ and $\iota < \frac{\overline{\sigma} - \underline{\sigma}}{\alpha_{\mathcal{P}1}}$, then the model predicts the opposite coefficient signs. In this case, neither direct nor indirect victims increase sharing in response to "your pain," yielding $\delta_1 < 0$ and $\delta_2 < 0$, assuming $\tau > 0$ (Corollary 1). In addition, while remaining suggestive given the hardly-exogenous nature of past victimhood, γ_1 and γ_2 on the attitudinal outcome help validate $\alpha_{\mathcal{P}1}$ and ι.

Causal Forest and Topic Modeling We also present two layers of additional estimates. First, to explore not pre-specified sources of effect heterogeneity, we report data-driven, causal forest estimates (Athey, Tibshirani and Wager, 2019; Wager and Athey, 2018), for both of the baseline and disaggregated specifications. Second, we leverage the open-ended responses and the structural topic model to discover latent topics and their associations with respondent attributes and experimental treatments (Roberts et al., 2013, 2014). Although not preregistered and remaining suggestive, the topic modeling helps validate the sense of collective victimhood and social norms, which are crucial to the presented formal model.

4.4 Covariate Balance

Table 1 presents balance statistics for the experimental treatments.[15] Consistent with the randomization, the covariates and, importantly, three victimization indicators are broadly balanced across the treatment conditions, with negligible absolute standardized mean differences (ASMD) and Kolmogorov-Smirnov (KS) statistics. Evaluating balance on individual covariates, a substantively small exception is family size across the "your pain" treatment, with an ASMD of 0.282 and a KS statistic of 0.118. Evaluating overall balance, however, omnibus F-tests of joint orthogonality fail to detect meaningful imbalance across the treatment conditions, with randomization inference p-values greater than 0.10.[16]

5 Benchmark Estimates

We report the results in several steps. We first report the naive differences in the attitudinal and behavioral outcomes across observed and experimental conditions, followed by regression

[15] Appendix Table B.2 reports balance statistics for observed Agent Orange victimhood indicators.

[16] We follow Kerwin, Rostom and Sterck (2024) in reporting a randomization inference p-values for the omnibus F-tests of joint orthogonality. Specifically, we first re-randomize the treatment 10,000 times to generated placebo assignments, and then obtain joint orthogonality F-statistics from OLS models regressing the placebo treatment on the covariates and victimization indicator(s). The resultant p-value reflects the ratio of the placebo assignments yielding F-statistics as large or larger than the observed estimate. This approach also allows us to account for design-based uncertainty arising from the randomization process rather than sampling-based uncertainty (Abadie et al., 2020).

Table 1: Covariate Balance Across Experimental Treatments

	Panel A: "Your Pain"					
	Non-victim ($N = 216$)		Victim ($N = 220$)		Balance Statistics	
	Mean^{C}	SD^{C}	Mean^{T}	SD^{T}	ASMD	KS
Observed Victimhood						
My Pain (household with 1+ survivors)	0.468	0.499	0.491	0.500	0.047	0.023
Direct Victim (survivor)	0.310	0.463	0.314	0.464	0.007	0.003
Indirect Victim (family member)	0.157	0.364	0.177	0.382	0.053	0.020
Household-Level Covariates						
Female Household Head	0.384	0.486	0.400	0.490	0.032	0.016
ln Wage Income (in million VND)	4.533	1.824	4.857	1.552	0.192	0.097
ln House Size (in m^2)	4.525	0.498	4.531	0.498	0.013	0.031
Family Size	3.611	1.675	4.114	1.878	0.282	0.118
Child Family Member	0.426	0.494	0.527	0.499	0.204	0.101
Elderly Family Member	0.630	0.483	0.700	0.458	0.149	0.070
Family Member Military Service	0.426	0.494	0.386	0.487	0.081	0.040
Family Member Party Membership	0.292	0.455	0.295	0.456	0.008	0.004
Respondent-Level Covariates						
Age	59.181	13.813	60.586	14.173	0.100	0.072
Female	0.458	0.498	0.464	0.499	0.011	0.005
Years of Education	9.579	3.864	9.632	4.427	0.013	0.086
College Education	0.176	0.381	0.218	0.413	0.106	0.042
Military Service	0.370	0.483	0.345	0.476	0.052	0.025
Party Membership	0.236	0.425	0.255	0.436	0.043	0.018
Retired	0.412	0.492	0.400	0.490	0.025	0.012
Unable to Work	0.074	0.262	0.114	0.317	0.136	0.040
Religious Belief	0.074	0.262	0.077	0.267	0.012	0.003
Birthplace Đà Nẵng	0.537	0.499	0.509	0.500	0.056	0.028
***F*-Test for Joint Orthogonality**						
My Pain and covariates	Randomization inference p-value = 0.160					
Direct victim, indirect victim, and covariates	Randomization inference p-value = 0.192					
	Panel B: Game Timing					
	Beginning ($N = 206$)		End ($N = 230$)		Balance Statistics	
	Mean^{C}	SD^{C}	Mean^{T}	SD^{T}	ASMD	KS
Observed Victimhood						
My Pain (household with 1+ survivors)	0.461	0.498	0.496	0.500	0.069	0.034
Direct Victim (survivor)	0.296	0.457	0.326	0.469	0.065	0.030
Indirect Victim (family member)	0.165	0.371	0.170	0.375	0.012	0.005
Household-Level Covariates						
Female Household Head	0.417	0.493	0.370	0.483	0.098	0.048
ln Wage Income (in million VND)	4.746	1.604	4.652	1.781	0.055	0.045
ln House Size (in m^2)	4.522	0.553	4.533	0.443	0.021	0.065
Family Size	3.874	1.846	3.857	1.754	0.010	0.034
Child Family Member	0.510	0.500	0.448	0.497	0.124	0.062
Elderly Family Member	0.675	0.468	0.657	0.475	0.039	0.018
Family Member Military Service	0.413	0.492	0.400	0.490	0.026	0.013
Family Member Party Membership	0.257	0.437	0.326	0.469	0.152	0.069
Respondent-Level Covariates						
Age	59.903	14.636	59.878	13.431	0.002	0.062
Female	0.476	0.499	0.448	0.497	0.056	0.028
Years of Education	9.733	4.362	9.491	3.962	0.058	0.098
College Education	0.228	0.420	0.170	0.375	0.147	0.059
Military Service	0.369	0.483	0.348	0.476	0.044	0.021
Party Membership	0.214	0.410	0.274	0.446	0.141	0.060
Retired	0.383	0.486	0.426	0.495	0.087	0.043
Unable to Work	0.112	0.315	0.078	0.269	0.114	0.033
Religious Belief	0.068	0.252	0.083	0.275	0.056	0.015
Birthplace Đà Nẵng	0.549	0.498	0.500	0.500	0.097	0.049
***F*-Test for Joint Orthogonality**						
My Pain and covariates	Randomization inference p-value = 0.490					
Direct victim, indirect victim, and covariates	Randomization inference p-value = 0.519					

Notes: SD = Standard Deviation; ASMD = Absolute Standardized Mean Difference; ASMD = $\frac{|\bar{X}_T - \bar{X}_C|}{\sqrt{(s_T^2(X)+s_C^2(X))/2}}$ for continuous variables, and $\frac{|\bar{X}_T - \bar{X}_C|}{\sqrt{(\bar{X}_T(1-\bar{X}_T)+\bar{X}_C(1-\bar{X}_C))/2}}$ for dichotomous variables, where $\bar{X}_T$ and $\bar{X}_C$ are, respectively, subsample mean in the treatment group and the control group, and $s_T^2(X)$ and $s_C^2(X)$ are subsample variance; KS = Kolmogorov-Smirnov statistics. See footnote 16 for the details of the omnibus F-tests of joint orthogonality.

estimates. We then test for potential effect heterogeneity across remaining covariates with a causal machine learning approach. Following sections report regression estimates with disaggregated respondent-level victimhood and latent topics in the open-ended responses.

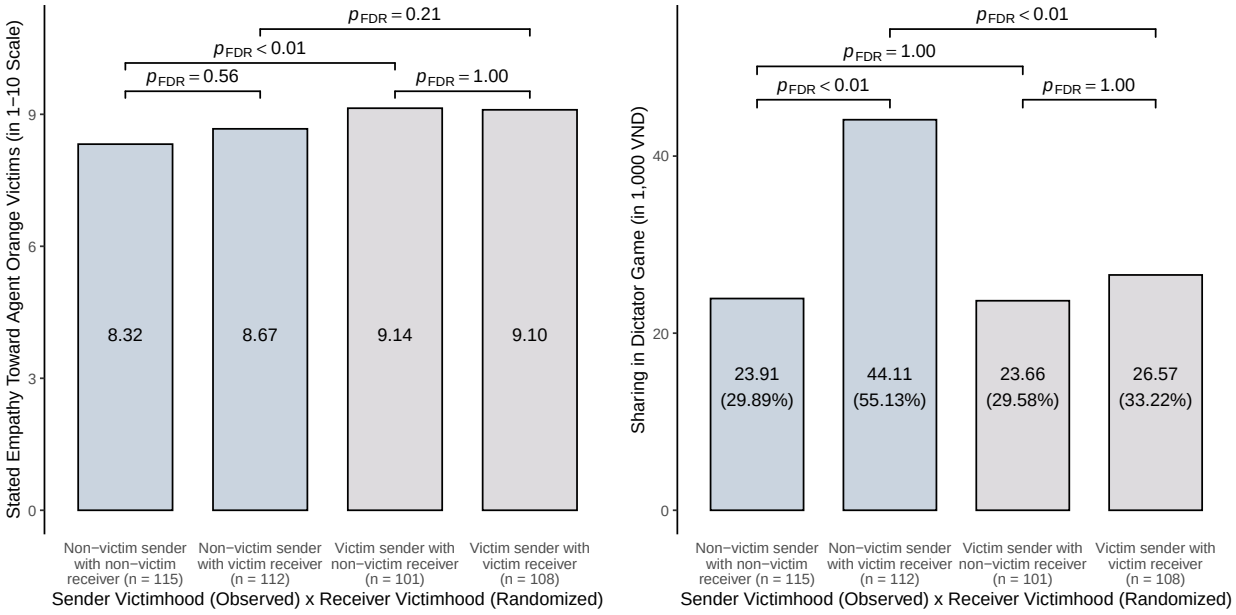
5.1 Empirical First Cut

Figure 2 displays the initial findings, lending support for the predictions of the model with parameter values $\alpha_{\mathcal{P}1} \leq \overline{\sigma} - \underline{\sigma}$ (divergent effects).[17] First, regarding "my pain," victim respondents on average show higher empathy toward herbicide victims (right two bars in Panel (a)) than non-victim respondents (left two bars), yielding a statistically significant difference-in-means in the absence of the "your pain" treatment. As shown in Appendix Figure C.1, the positive association holds when simply comparing victim respondents with non-victims. Second, regarding "your pain," there is little difference in stated empathy across the treatment conditions. By contrast, turning to Panel (b), the average sharing in the Dictator Game remains similar across subgroups, excepting for non-victims with the "your pain" treatment.[18] These patterns suggest noticeable behavioral effect of the "your pain" treatment and its heterogeneity across past victimhood, with little attitudinal effect.

Table 2 reports the regression estimates for the attitudinal and behavioral outcomes, with and without covariate adjustments and the interaction term. Models (1) and (2) include week fixed effects along with observed victimhood indicator and the two randomized treatments, with and without the interaction term between "my pain" and "your pain." Models (3) and (4) also adjust for household-level covariates, and Models (5) and (6) further control for respondent-level covariates. We report robust standard errors in the following and randomization inference estimates in Appendix D, yielding similar conclusions.

[17] As in Corollary 2, with $\alpha_{\mathcal{P}1} \leq \overline{\sigma} - \underline{\sigma}$, the model predicts the treatment effect of "your pain" conditional on past victimhood to deviate from the positive association between past victimization and stated empathy toward other victims, such that (1) the treatment effect is greater among non-victims (2) while victims exhibit greater empathy. Figure C.1 presents additional naive comparisons.

[18] Somewhat unexpectedly given the literature, the results reveal little difference in Dictator Game sharing between victims and non-victims in the absence of the "your pain" treatment. While the endogenous nature of observed victimhood limits causal interpretation, this null finding may reflect the widespread exposure to



(a) Stated Empathy (b) Dictator Game Sharing

Figure 2: Stated Empathy Toward Agent Orange Victims and Dictator Game Sharing

Notes: (a) Subgroup average of stated empathy and (b) Dictator Game sharing. Left (right) two bars in each panel display the average of non-victim (victim) respondents, with and without the "your pain" treatment. p_{FDR} denotes the false discovery rate corrected p-value for the corresponding two-sample t-test.

As reported in Panel A, victim respondents are more empathetic toward other victims. However, the positive association becomes less pronounced with covariate adjustments in Models (3) to (6). Nonetheless, the estimates with disaggregated victimhood in the next section suggest that the unstable estimates mainly arise from indirect victims being less empathetic, in addition to potential confounding bias due to the underlying heterogeneity between victims and non-victims. In contrast, the coefficients on the randomized treatments remain indistinguishable from zero, suggesting little treatment effects of "your pain" and Dictator Game timing. The null effects align with the findings of Shelef and VanderWilden (2024), and might reflect the limited role of short-term primes in shaping people's attitudes.

Turning to Panel B, the regression estimates indicate a positive treatment effect of "your pain" and reveal its heterogeneity across past victimhood. Across all model specifications, the coefficient on "your pain" is consistently signed positive, while the interaction term between

wartime violence beyond Agent Orange (e.g., bombing) in the Vietnamese context.

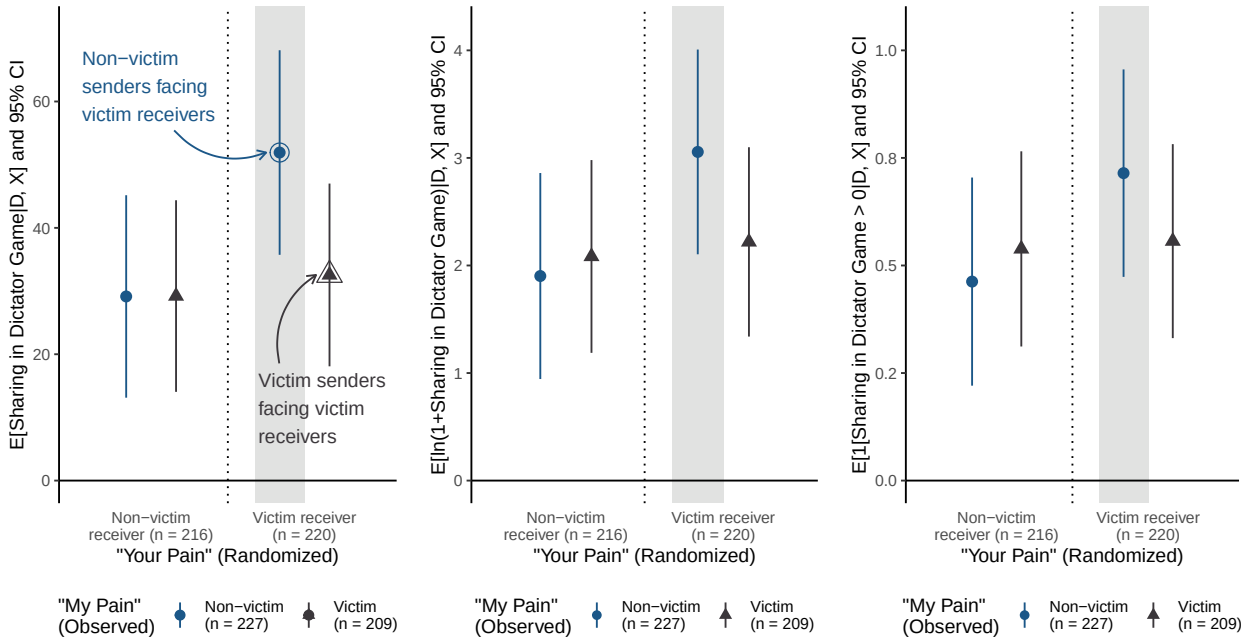
Table 2: Agent Orange Exposure, Stated Empathy, and Dictator Game Sharing

	Panel A: Stated Empathy (in 1–10 Scale)					
	(1)	(2)	(3)	(4)	(5)	(6)
γ: My Pain	0.462***	0.645***	0.165	0.320	0.272	0.392
	(0.166)	(0.233)	(0.180)	(0.244)	(0.183)	(0.244)
τ: Your Pain	0.137	0.314	0.229	0.379	0.203	0.320
	(0.153)	(0.244)	(0.155)	(0.243)	(0.154)	(0.243)
η: Game Timing	−0.026	−0.018	0.016	0.022	0.065	0.070
	(0.152)	(0.152)	(0.149)	(0.149)	(0.150)	(0.150)
δ: My Pain × Your Pain		−0.367		−0.310		−0.243
		(0.295)		(0.294)		(0.298)
Average outcome	8.794	8.794	8.794	8.794	8.794	8.794
Adjusted R^2	0.050	0.051	0.106	0.106	0.135	0.135
	Panel B: Dictator Game Sharing (in 1,000 VND)					
γ: My Pain	−4.067	3.926	−11.179***	−1.832	−9.576**	0.063
	(3.709)	(4.726)	(3.903)	(5.053)	(4.006)	(5.048)
τ: Your Pain	11.854***	19.614***	13.398***	22.454***	13.375***	22.778***
	(3.310)	(4.635)	(3.287)	(4.502)	(3.335)	(4.520)
η: Game Timing	0.652	1.011	1.024	1.424	1.680	2.068
	(3.274)	(3.279)	(3.222)	(3.207)	(3.248)	(3.234)
δ: My Pain × Your Pain		−16.087**		−18.741***		−19.437***
		(6.539)		(6.436)		(6.461)
Average outcome	29.702	29.702	29.702	29.702	29.702	29.702
Adjusted R^2	0.060	0.071	0.118	0.133	0.135	0.152
Observations	436	436	436	436	436	436
Week FE	✓	✓	✓	✓	✓	✓
Household-level covariates			✓	✓	✓	✓
Respondent-level covariates					✓	✓

Notes: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors in parentheses. Household-level covariates: Female household head, ln income, ln house size, family size, child family member, elderly family member, family member party membership, family member military service. Respondent-level covariates: Age, female, years of education, college education, party membership, military service, retired, unable to work, religious belief, birthplace Đà Nẵng.

"my pain" and "your pain" is negative. These estimates suggest that past victimhood and randomized priming jointly shape people's behavior—as revealed by the interaction term or difference-in-differences between (1) Dictator Game sharing by victims across randomized receiver victimhood conditions and (2) sharing by non-victims across the same conditions. Meanwhile, the timing of the Dictator Game fails to retain statistical significance across model specifications, suggesting little order effects.

Figure 3 graphically summarizes the difference-in-differences using conditional expectations, along with the estimates for logged and binary versions of the outcome variable. As shown in Figure 3(a), the estimates of Model 6 translate into, among survivors and their



(a) Dictator Game Sharing (b) $\ln(1 + \text{DG Sharing})$ (c) $\mathbb{1}[\text{DG Sharing} > 0]$

Figure 3: "Your Pain" Priming and Dictator Game Sharing

Notes: (a) Symbols and vertical segments represent the point estimates and the corresponding 95% confidence intervals based on Model (6) of Table 2. Appendix Table C.3 reports the full OLS estimates for Panels (b) and (c). Continuous (dichotomous) variables are held at mean (mode) values.

family members, the average sharing remains 29.21 out of 80 thousand VND to a non-victim receiver and 32.55 to a victim receiver, yielding an insignificant difference of 3.34 (95% CI: $-5.95, 12.63$). In contrast, among non-victims, the difference in sharing significantly increases to 22.78 (95% CI: $13.92, 31.64$), indicating heterogeneous responses to the randomized receiver condition. As shown in Figures 3(b) and 3(c), the pattern remains virtually unchanged with alternative outcome transformations: log-transformed sharing amount, $\ln(1 + \text{DG Sharing})$, and a binary indicator for any positive sharing, $\mathbb{1}[\text{DG Sharing} > 0]$.[19]

One might question whether the priming affects stated attitudes among respondents who offer greater (or lesser) sharing in the Dictator Game, due to cognitive consistency. However, as reported in Appendix Table C.2, the average controlled direct effect (ACDE), which isolates the causal effect of the treatment while holding the mediator (Dictator Game

[19] Alternative transformation $\ln(10 + \text{DG Sharing})$ yields similar results. As reported in Appendix Table C.1, the results also remain robust with the household-level number of Agent Orange victims replacing the "my pain" indicator to account for potential cumulative effects.

sharing) constant, is almost identical to the ATE, with ATE − ACDE = 0.024 (95% CI: $-0.398, 0.446$).[20] The negligible ATE-ACDE difference suggests that the behavioral choice plays a minor mediating role linking the "your pain" treatment and stated empathy.

Overall, the estimates reveal contrasting associations for past victimization and receiver victimhood priming, uncovering two attitudinal-behavioral inconsistencies. First, while past victimization is positively associated with stated empathy toward victims, this increased empathy is not coupled with increases sharing in the Dictator Game. Second, receiver victimhood priming is positively associated with Dictator Game sharing among non-victims, but not among victims. However, the results provide little evidence that the "your pain" treatment affects stated empathy, regardless of respondents' past victimization experiences. Unlike past victimization, the "your pain" treatment shapes the behavioral choices of non-victims without altering the attitudes of either non-victims or victims toward victims.

5.2 Causal Forest and Effect Heterogeneity

The estimates above implicitly assumes away potential interactions between the "your pain" treatment and household- and individual-level attributes other than past victimhood. We rely on the causal forest approach to uncover *not* pre-specified, potential sources of effect heterogeneity while mitigating the concerns of multiple-testing, data snooping, and p-hacking.

Table 3 reports the best linear projection (BLP) of the HTE function $\hat{\tau}(\cdot)$ onto standardized covariates.[21] Models (1) and (3) regress $\hat{\tau}(\cdot)$ on "my pain," whereas Models (2) and (4) include all covariates. Models (1) and (2) assume oracle treatment propensities reflecting the experiment design, whilst Models (3) and (4) estimate propensity scores using regression forests adjusting for covariates (R-learner, Nie and Wager, 2021). The results paint a picture

[20] The ATE-ACDE difference is based on τ in Model (5) of Table 2. We obtain the ACDE estimate using the sequential g-estimator with the corresponding model specification with the Dictator Game sharing recentered at 80. The ATE-ACDE difference serves as a summary of how a mediator operates in the underlying causal mechanism, as the ACDE reflects the direct effect of the treatment after "demediating" the indirect effect through the mediator and the treatment-mediator interaction effect (Acharya, Blackwell and Sen, 2016).

[21] The BLP regresses the HTE function $\hat{\tau}(\cdot)$ onto covariates $\boldsymbol{X}$ with a linear model $\hat{\tau}(\boldsymbol{X}_i) = \alpha + \boldsymbol{X}_i'\boldsymbol{\beta}$ using a doubly-robust estimator (Cui et al., 2023). Coefficients $\boldsymbol{\beta}$ measure the associations between $\hat{\tau}(\cdot)$ and the covariates, and, when the covariates are standardized (mean-zero), intercept α captures the ATE.

Table 3: Best Linear Projection of the Heterogeneous Treatment Effect Function

	HTE Function $\hat{\tau}(\cdot)$, with Treatment Propensities Are:			
	Assumed to Be 0.5		Estimated (R-Learner)	
	(1)	(2)	(3)	(4)
Average Treatment Effect	11.365***	11.365***	11.400***	11.400***
	(3.175)	(3.258)	(3.200)	(3.284)
My Pain	−8.833***	−10.211**	−8.731***	−10.064**
	(3.176)	(4.155)	(3.201)	(4.127)
	[−17.660]	[−20.415]	[−17.457]	[−20.123]
Birthplace Đà Nẵng		7.294**		7.545**
		(3.681)		(3.699)
		[14.587]		[15.090]
Sequential cross-fold validation (H_0: no effect heterogeneity)	$p_{\text{SCV}} = 0.001$		$p_{\text{SCV}} = 0.002$	
Observations	436	436	436	436
Covariates are standardized	✓	✓	✓	✓
Covariates and Week FE		✓		✓

Notes: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors in parentheses. Rescaled coefficients on the original scale are in square brackets, obtained by multiplying the reported coefficients by $\frac{1}{\text{standard deviation}}$. Covariates not significantly associated with $\hat{\tau}(\cdot)$ are omitted for brevity. Models (1) and (2) assume treatment propensities of 0.5 reflecting the experiment protocol, while Models (3) and (4) estimate propensity scores using separate regression forests. See notes in Table 2 for a list of covariates.

consistent with the regression estimates: "my pain" is significantly and negatively associated with the positive treatment effect of "your pain" on Dictator Game sharing. Moreover, the sequential cross-fold estimation of rank-average treatment effects rejects the null of no effect heterogeneity (Wager, 2024), supporting the empirical claim of heterogeneous effect.

The causal forest approach also alleviates a potential concern that the observed heterogeneity in behavioral response to the "your pain" treatment may be attributable to other respondent characteristics correlated with victimhood, such as age, income, or military service, rather than to victimhood itself (see Appendix Figure B.1 and Table B.2).[22] Contrary to this concern, the BLP estimates reveal no systematic association between the treatment effect and household- or respondent-level covariates, with the sole exception of a positive

[22]The absence of effect heterogeneity across respondent attributes also helps address concerns about the external validity of the findings. These concerns center on whether the analysis sufficiently accounts for relevant treatment effect moderators and whether the sample adequately represents the target population with respect to moderators (Devaux and Egami, 2022; Westreich et al., 2019). The limited moderating role of respondent attributes and the negative association between the treatment effect and past victimhood, suggest that the behavioral effect of the "your pain" priming would likely remain robust even in samples with different distributions of the observed covariates.

coefficient on respondents' birthplace. This association is consistent with the notion of "contextual exposure" to the traumatic past via the "'context' they live in" (Yaylacl and Price, 2023, 4). Individuals can be exposed to shared memories or collective victimhood, even without firsthand victimization or direct family and social connections to victims, by being from a region that suffered political violence. Another possibility is that respondents originally from Đà Nẵng are more likely to be indirectly exposed to Agent Orange via community ties than migrants. As an anecdote, a migrant respondent remarked, "I have never met or interacted with the victims, so I do not fully understand or have detailed information about them." In either case, the estimates may capture a positive association between the "your pain" effect and societal exposure to wartime violence.

6 Disaggregated Estimates

To account for personal experiences, Table 4 reports regression estimates with disaggregated victimhood, revealing two noteworthy patterns that align with the model's predictions when the parameters satisfy $\alpha_{\mathcal{P}1} < \overline{\sigma} - \underline{\sigma}$ and $\iota < \frac{\overline{\sigma}-\underline{\sigma}}{\alpha_{\mathcal{P}1}}$ (smaller transmission of attitudes).[23] First, as reported in Panel A, the estimates reveal a clear pattern in the attitudinal outcome: direct victimization is consistently and positively associated with levels of stated empathy. On average, direct victims exhibit 0.548-point higher empathy toward other victims, adjusting for household- and respondent-level covariates (Model 5). In contrast, the coefficients on indirect victimhood remain substantively and statistically insignificant across model specifications, suggesting that increased empathy is persistent within individuals (direct victims), but does not necessarily transmit across individuals. Formally evaluating the suggested difference, the F-test for the equality of the coefficients on the two victimization indicators rejects the null hypothesis of $\gamma_1 = \gamma_2$ at the 5% level.[24] As in the baseline estimates, the

[23] $\iota < \frac{\overline{\sigma}-\underline{\sigma}}{\alpha_{\mathcal{P}1}}$ implies smaller transmission of attitudes such that indirect victims discount the victimization-induced empathy toward victims. Appendix Figure C.2 displays the naive differences.

[24] Appendix Table C.5 reveals similar patterns in social engagement. While direct victimization is positively associated with group membership, the coefficient estimates on indirect victimization remain negligible.

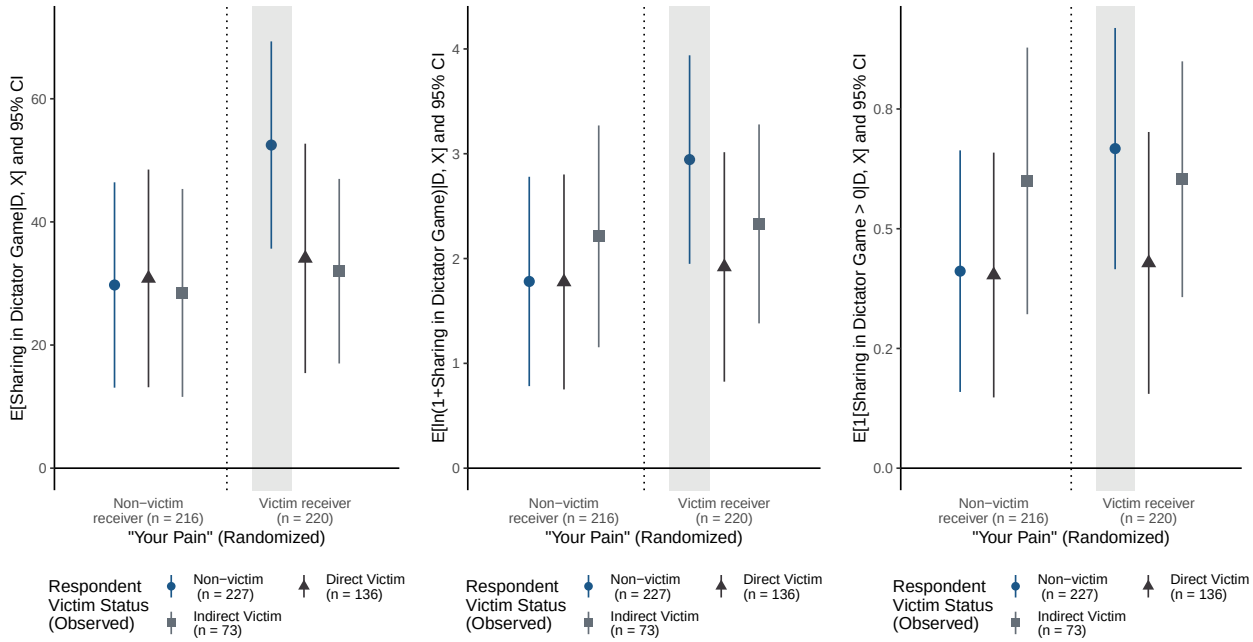
Table 4: Disaggregated Victimhood, Stated Empathy, and Dictator Game Sharing

	Panel A: Stated Empathy (in 1–10 Scale)					
	(1)	(2)	(3)	(4)	(5)	(6)
γ_1: Direct Victim	0.757***	0.944***	0.441**	0.655***	0.548***	0.696***
	(0.155)	(0.211)	(0.182)	(0.229)	(0.187)	(0.232)
γ_2: Indirect Victim	−0.226	−0.087	−0.193	−0.142	−0.078	−0.021
	(0.240)	(0.342)	(0.244)	(0.341)	(0.258)	(0.352)
τ: Your Pain	0.158	0.319	0.217	0.367	0.196	0.309
	(0.151)	(0.243)	(0.154)	(0.244)	(0.153)	(0.245)
η: Game Timing	−0.030	−0.020	0.005	0.022	0.053	0.064
	(0.149)	(0.150)	(0.149)	(0.149)	(0.149)	(0.149)
δ_1: Direct Victim × Your Pain		−0.371		−0.427		−0.303
		(0.291)		(0.301)		(0.308)
δ_2: Indirect Victim × Your Pain		−0.262		−0.072		−0.091
		(0.426)		(0.427)		(0.436)
F-test: $\gamma_1 = \gamma_2$	22.363***	12.082***	7.369***	6.816***	6.071**	4.935**
F-test: $\delta_1 = \delta_2$		0.079		0.772		0.257
F-test: $\delta_1 = \delta_2 = 0$		0.814		1.120		0.507
Average outcome	8.794	8.794	8.794	8.794	8.794	8.794
Adjusted R^2	0.086	0.084	0.117	0.116	0.144	0.142
	Panel B: Dictator Game Sharing (in 1,000 VND)					
γ_1: Direct Victim	−0.851	6.208	−9.333*	0.017	−8.418*	1.072
	(4.191)	(5.586)	(4.787)	(6.039)	(4.903)	(6.039)
γ_2: Indirect Victim	−11.580**	−2.661	−13.577***	−4.311	−11.043**	−1.287
	(4.667)	(6.095)	(4.721)	(6.339)	(4.940)	(6.403)
τ: Your Pain	12.077***	19.654***	13.316***	22.359***	13.346***	22.732***
	(3.308)	(4.631)	(3.290)	(4.499)	(3.339)	(4.520)
η: Game Timing	0.609	0.882	0.951	1.367	1.627	2.030
	(3.267)	(3.293)	(3.225)	(3.227)	(3.255)	(3.259)
δ_1: Direct Victim × Your Pain		−14.672*		−18.872**		−19.483**
		(7.830)		(7.618)		(7.666)
δ_2: Indirect Victim × Your Pain		−17.718**		−18.367**		−19.205**
		(8.094)		(8.354)		(8.504)
F-test: $\gamma_1 = \gamma_2$	4.740**	1.683	0.605	0.373	0.210	0.108
F-test: $\delta_1 = \delta_2$		0.106		0.003		0.001
F-test: $\delta_1 = \delta_2 = 0$		3.186**		4.238**		4.509**
Average outcome	29.702	29.702	29.702	29.702	29.702	29.702
Adjusted R^2	0.067	0.076	0.117	0.130	0.133	0.148
Observations	436	436	436	436	436	436
Week FE	✓	✓	✓	✓	✓	✓
Household-level covariates			✓	✓	✓	✓
Respondent-level covariates					✓	✓

Notes: $^*p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors in parentheses. See notes in Table 2 for a full list of covariates.

coefficients on the two experimental treatments and the interaction terms remain negligible.

Second, turning to the behavioral outcome, Panel B reveals patterns that align with the baseline estimates. Notably, despite differing levels of stated empathy, the results highlight



(a) Dictator Game Sharing (b) $\ln(1 + \text{DG Sharing})$ (c) $\mathbb{1}[\text{DG Sharing} > 0]$

Figure 4: "Your Pain" Priming and Dictator Game Sharing, Respondent-Level Victimhood

Notes: (a) Symbols and vertical segments represent the point estimates and the corresponding 95% confidence intervals based on Model (6) of Table 4. Appendix Table C.4 reports the full OLS estimates for Panels (b) and (c). Continuous (dichotomous) variables are held at mean (mode) values.

a striking similarity in how direct and indirect victims respond to the manipulated receiver's victimhood status in the Dictator Game. Across model specifications, the coefficient on "your pain" is consistently signed positive, while its interaction terms with the two respondent-level exposure indicators are negatively signed. In contrast, as "my pain" in the baseline results, the main effects of direct and indirect victimhood are negligible both in magnitude and significance once adjusting for interaction terms. Importantly, the F-tests for the equality of the main effects of direct and indirect victimhood ($\gamma_1 = \gamma_2$) and their interactions with "your pain" ($\delta_1 = \delta_2$) fail to reject the null hypotheses, while rejecting the joint nullity ($\delta_1 = \delta_2 = 0$) at the 5% level across model specifications.

As shown in Figure 4, the positive treatment effect of "your pain" is almost offset by its interaction with direct or indirect victimization. On average, direct victims offer 30.83 thousand VND to a non-victim receiver and 34.07 to a victim receiver, yielding a negligible difference of 3.25 (95% CI: $-9.01, 15.50$). Similarly, among indirect victims, the difference

Table 5: Best Linear Projection of the HTE Function, Disaggregated Victimhood

	HTE Function $\hat{\tau}(\cdot)$, with Treatment Propensities Are:			
	Assumed to Be 0.5		Estimated (R-Learner)	
	(1)	(2)	(3)	(4)
Average Treatment Effect	11.315***	11.315***	11.460***	11.460***
	(3.193)	(3.279)	(3.214)	(3.300)
Direct Victim	−7.035**	−9.329*	−6.801*	−8.922*
	(3.523)	(4.887)	(3.544)	(4.859)
	[−15.169]	[−20.114]	[−14.664]	[−19.236]
Indirect Victim	−8.389***	−7.935**	−8.362***	−8.061**
	(2.904)	(3.595)	(2.922)	(3.605)
	[−22.444]	[−21.229]	[−22.370]	[−21.567]
Birthplace Đà Nẵng		7.337**		7.526**
		(3.705)		(3.725)
		[14.672]		[15.050]
Sequential cross-fold validation (H_0: no effect heterogeneity)	$p_{\text{SCV}} = 0.007$		$p_{\text{SCV}} = 0.029$	
Observations	436	436	436	436
Covariates are standardized	✓	✓	✓	✓
Covariates and Week FE		✓		✓

Notes: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors in parentheses. Rescaled coefficients on the original scale are in square brackets, obtained by multiplying the standardized coefficients by $\frac{1}{\text{standard deviation}}$. Covariates not significantly associated with $\hat{\tau}(\cdot)$ are omitted for brevity. Models (1) and (2) assume treatment propensities of 0.5 reflecting the experiment protocol, while Models (3) and (4) estimate propensity scores using separate regression forests. See notes in Table 2 for a list of covariates.

in offers remains substantively and statistically insignificant: 3.53 (95% CI: $-10.74, 17.79$). In sharp contrast, among non-victim respondents, the difference in conditional expectations rises to 22.73 (95% CI: 13.87, 31.59), with offers of 29.75 to non-victim receivers and 52.49 to victims. The overall pattern remains consistent across alternative outcome specifications, $\ln(1 + \text{DG Sharing})$ and $\mathbb{1}[\text{DG Sharing} > 0]$ (Panels (b) and (c)).[25]

As in the baseline estimates, causal forest estimates also supports the theoretical predictions. Table 5 reports the BLP of the HTE function with the disaggregated victimization indicators. The treatment effect is significantly and negatively associated with the two respondent-level victimization indicators, suggesting a negligible treatment effect among both direct and indirect victims. Likewise, the sequential cross-fold estimation rejects the null of no effect heterogeneity. For other observed covariates including respondent age and

[25]If anything, although remaining marginally significant ($t = 1.734$), Figure 4(c) suggests a weak positive association between indirect victimhood and the likelihood of positive amount sharing in the Dictator Game.

household income, the associations remain substantively and statistically indistinguishable from zero, with the exception of birthplace.[26]

Overall, two attitude-behavior inconsistencies are more pronounced than in the baseline analysis. First, direct and indirect victims exhibit differing attitudes toward victims: while direct victims tend to express greater empathy, indirect victims are no more empathetic than non-victims. At the same time, the greater empathy does not translate into generous offers in the Dictator Game. Second, direct and indirect victims remain insusceptible to the "your pain" priming, while non-victims' choices in the Dictator Game were swayed depending on the receiver victimhood. At the same time, "your pain" has little effect on stated empathy, regardless of respondents' victimhood. Combined, direct victimization is positively associated with attitudinal change, but not with behavioral change; and priming the receiver's victimhood leads to behavioral change among non-victims without inducing attitudinal change among either non-victims or victims. More generally, the findings highlight that attitudinal change does not necessarily lead to behavioral change, and *vice versa*.

7 Latent Topic Estimates

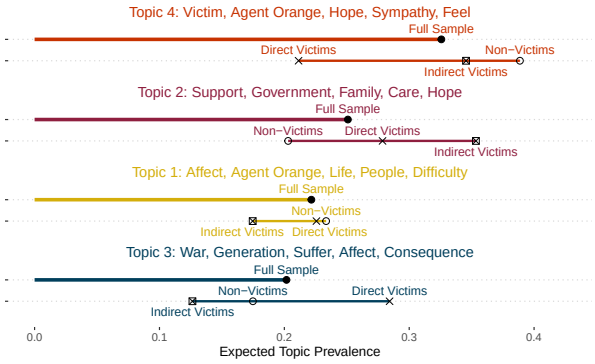
Crucial to our formal model are social norms supporting Agent Orange victims and their deservingness to receive help, and intrinsic empathy toward victims. To explore, albeit indirectly, the validity of the model, we analyze the latent topics in the open-ended responses and their associations with respondent attributes using the structural topic model (STM).[27]

Figure 5 display the discovered topics along with token prevalence and representative responses.[28] Reflecting the token prevalence and representative responses, each topic comprises

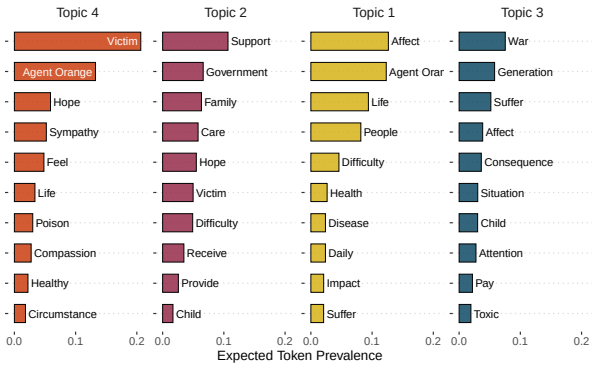
[26]Note that the current analysis codes both first-generation survivors and postwar-generation victims as direct victims. The absence of significant associations suggests that respondent age—which varies across first- and post-war generation victims—plays only a minor role in shaping the treatment effect.

[27]The Vietnamese texts were translated into English by a research assistant unaware of the experiment design and the formal model, using machine-translated texts via the Google Translation API as the baseline. Appendix C.7 replicates the estimates with the machine-translated texts, yielding similar results.

[28]We estimate the STM with $K = 4$ topics and the right-hand-side variables in Equation 2 as the prevalence covariates, using the spectral initialization. K is chosen to strike the balance between semantic coherence



(a) Topic Prevalence



(b) Topic-Token Prevalence

Topic 4: Moral Sentiment

NV: I hope they are healthy.
NV: Compassion for the victims, hoping they will be better every day.
NV: I wish for the victims to become stronger and healthier day by day.
NV: Not discriminating, respecting the victims.
NV: Very sympathetic and loving towards the victims of Agent Orange.
IV: Empathy for the victims. Hope they get better day by day.
NV: Due to limited information and opportunities to interact with victims of Agent Orange poisoning, it is difficult to fully assess the level of concern and worry for them.
NV: I hope they have a better life.
NV: Expressing a great deal of sympathy for the victims of Agent Orange.
NV: Hope the victim become healthier day by day.
NV: There are few opportunities to have direct contact with victims of Agent Orange poisoning. Only through watching on TV.

Topic 2: Societal Support

IV: Desire to be supported and provided with assistance fees to care for the victims.
NV: The government should create favorable conditions for victims to receive proper care and adequate medical treatment.
NV: Hope that the higher authorities will provide assistance and additional financial support for victims and disabled veterans in difficult circumstances.
IV: Our family thanks the neighborhood association for caring, encouraging, and gifting the child during holidays and Tet.
IV: Can't send the child to school, hope to have a place to take care of the child, and support with financial support to take care of the child.
IV: Our family is grateful for the care and support from the Party and our neighbors.
NV: Hope the government can provide additional living expenses are provided for those facing difficult circumstances.
NV: I hope victims receive support, allowances enough for living expenses and medical treatment.

Topic 1: Victim Suffering

NV: People who died from Agent Orange had very difficult lives.
DV: People affected by Agent Orange have long−term effects on their lives.
NV: People affected by Agent Orange suffer a great impact on their lives.
NV: People affected by Agent Orange have their bodies and lives impacted for a lifetime.
NV: People exposed to Agent Orange affect health and everyday life.
NV: Those affected by the toxic agent Agent Orange have a significant impact on their health.
NV: Those affected by Agent Orange need the help of society to improve their lives.
NV: The person exposed to Agent Orange suffers hardships in life.
NV: Agent Orange has a significant impact on the mental and daily life of those who are exposed to it.
NV: Because Agent Orange makes it difficult.
NV: People affected by Agent Orange have a very difficult life in both daily life and activities.

Topic 3: Historical Tragedy

DV: As a child, the pain was intense, but it gradually eased with age. I witnessed how hard it was for the parents to raise their child−it was truly a struggle.
NV: That is the dreadful consequence of war. It lasts for many generations. Extremely tragic.
DV: Due to the impact caused by the war, so must accept and endure it.
DV: It is something nobody wants, but due to war, it must be endured, affecting many generations and thus deserving great pity and hardship. Society needs to pay even more attention.
NV: There are many cases of infection, and even in the third generation, birth defects still occur. Some people did not participate in the war but lived in contaminated areas, so their descendants still suffer from birth defects. Very pitiful.
DV: As a fortunate person, the second generation is not affected. Very sympathetic to those suffering from the aftermath of toxins passed down through multiple generations.

(c) Representative Responses

Figure 5: Topics in the Open-Ended Survey Responses

Notes: (a) Symbols and segments represent topic prevalence and the range of subsample prevalence. Solid dots (hollow symbols) indicate full sample (subsample) prevalence. Text labels display the five most frequent tokens. (b) Prevalence of the ten most frequent tokens in each topic. (c) Representative responses with high proportions of tokens assigned to each topic. Two-letter labels preceding the example texts indicate the respondents' victimhood: DV = Direct Victims; ID = Indirect Victims; NV = Non-Victims.

distinct views: Topic 1 describes the physical and psychological consequences of exposure to Agent Orange; Topic 2 reflects expressions of support for victims—capturing social norms for support and their deservingness; and Topics 3 and 4 comprise emotional responses to the suffering and personal stories of victims, but in distinct ways. Topic 4 (upper left, Panel (c)) reflects expressions sympathy, compassion, and concerns directed toward victims, whereas Topic 3 (lower right) frames the suffering, including their own, as part of a historical and intergenerational tragedy. Notably, these topics discovered by the unsupervised approach

and exclusivity along with topic interpretability (Roberts et al., 2014, 1070), based on the estimates with $K = 3$ to 10, 15, and 20. Given the linguistic nuances in the Vietnamese context, the terms "the State" and "government" are treated as interchangeable. Appendix Figures C.3 and C.4 displays naive token co-occurrence networks for the human- and machine-translated texts, substituting word clouds.

Table 6: Topic Prevalence, Past Victimization, and Experimental Treatments

	STM-Based Topic Prevalence			
	(1) Topic 4 Moral Sentiment	(2) Topic 2 Societal Support	(3) Topic 1 Victim Suffering	(4) Topic 3 Historical Tragedy
γ_1: Direct Victim	-0.110^{**}	-0.070	0.009	0.180^{***}
	(0.053)	(0.054)	(0.045)	(0.043)
γ_2: Indirect Victim	-0.115^{*}	0.103	-0.059	0.076
	(0.063)	(0.065)	(0.051)	(0.050)
τ: Your Pain	-0.080^{**}	0.040	-0.003	0.046
	(0.040)	(0.038)	(0.032)	(0.031)
η: Game Timing	-0.010	0.041	0.001	-0.028
	(0.029)	(0.029)	(0.024)	(0.023)
δ_1: Direct Victim	0.089	-0.001	-0.021	-0.073
$\times$ Your Pain	(0.063)	(0.063)	(0.054)	(0.052)
δ_2: Indirect Victim	0.125	-0.018	-0.019	-0.090
$\times$ Your Pain	(0.085)	(0.085)	(0.071)	(0.063)
Topic Prevalence	0.326	0.251	0.222	0.202
Observations	427	427	427	427
Covariates and Week FE	✓	✓	✓	✓

Notes: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Standard errors incorporating the uncertainty of the topic prevalence in parentheses (Roberts et al., 2014). Nine respondents are excluded due to item nonresponse. Topics are ordered by their full-sample prevalence. See notes in Table 2 for a list of covariates.

broadly align with the core building-blocks of the formal model—empathy, social norms to support victims, and perceived deservingness of victims to receive support.

Moving to differences across respondent attributes, Table 6 displays linear regression estimates with the specification of Equation 2. The reported coefficients reflect the associations between respondent attributes, including the experimental treatments, and the within-text topic proportions.[29] On average, the coefficients on direct victimhood in Models (1) and (4) suggest survivors are less likely express externally-directed, emotional reactions to victimhood (Topic 4, moral sentiment), while more likely to discuss suffering and embeddedness in wartime violence (Topic 3, historical tragedy). The coefficients on indirect victimhood in Models (1) and (4) exhibit a similar pattern, though they fail to retain statistical significance at the 5% level. It is also worth noting that despite differences in statistical significance, direct victimhood, indirect victimhood, and the "your pain" treatment show negative coefficient signs in Model (1) (Topic 4). Similarly, neither direct nor indirect victimization

[29]The STM is a mixed-membership model that allows each response to be represented as a vector of proportions indicating the fraction of tokens associated with each topic. The reported coefficients reflect the associations between respondent attributes and the within-text topic proportions.

experiences, nor the "your pain" treatment, are systematically associated with the prevalence of Topic 2 (societal support, Model 2) or Topic 1 (victim suffering, Model 3).[30]

Three patterns in the estimates are particularly suggestive. First, the estimates suggest that both past victimization and experimental priming may constrain respondents' tendencies to express outward-looking, solidaristic narratives (Topic 4), while direct victimhood tends to reinforce more introspective engagements with historical trauma (Topic 3). These patterns are notable given the previously reported null effect of "your pain" on stated empathy, suggesting that priming may still shape broader attitudinal orientations even while not affecting direct measures of empathy. Second, the pattern of coefficient signs on Topic 3 mirrors those observed for stated empathy in Table 4. This alignment suggests that the attitudinal outcome is anchored in respondents' own historically-embedded experiences of suffering (Topic 3) than in externally-directed moral sentiments (Topic 4)—consistent with the notion of intra-individual persistence rather than inter-individual transmission. Third, the null results for Topic 2 are also revealing when considered alongside the divergent behavioral effects of the "your pain" treatment: although both victims and non-victims articulate support for victims, only non-victims translate this sentiment into behavioral change when primed with others' suffering, lending additional credibility to the theoretical predictions.

8 Robustness and Alternative Explanations

Several robustness concerns remain in the empirical claims. First, the analysis thus far relies on sampling-based uncertainty, rather than design-based uncertainty arising from the randomization process (Abadie et al., 2020). Second, the analysis does not formally test for effect heterogeneity across outcome types. Third, the focus on the interaction between observed victimization and the randomized component invites a concern for a form of misspecification bias or "omitted interaction bias" (Blackwell and Olson, 2022). Fourth, covariate imbalance

[30] If anything, although statistically insignificant ($t = 1.567$; $p = 0.118$), indirect victimhood is positively associated with the prevalence of Topic 2.

may drive the reported patterns across observed victimhood. Fifth, the findings may be sensitive to the choice of functional forms. Last, the reported treatment effects and associations may be heterogeneous or nonmonotonic along the outcome distribution.

Appendix D addresses these concerns with a series of robustness checks: (i) randomization inference to address design-based uncertainty; (ii) difference-in-difference-in-differences estimates with a triple interaction between observed victimhood, "your pain" treatment, and outcome types (i.e., stated empathy and Dictator Game sharing); (iii) fully-moderated models adjusting for all possible interactions between the moderator and covariates; (iv) preprocessing via cardinality matching (Zubizarreta, 2012); (v) Tobit and probit estimates; and (vi) quantile treatment effect estimates (Firpo, 2007). Reassuringly, the results remain robust to these alternative modes of inference, model specifications, and preprocessing. If anything, as reported in Appendix D.6, the positive association between direct victimhood and stated empathy toward victims is more pronounced in the lower quantiles.[31]

Another class of concerns arises from two alternative explanations that could account for the reported associations. First, the potential gap in income between victim and non-victim respondents may explain the observed heterogeneous behavioral responses to the "your pain" treatment: non-victims are simply richer and thus willing to share more in the Dictator Game. Yet this explanation is at odds with the causal forest estimates reported above and struggles to account for the lack of the increased sharing by non-victims in the absence of the priming.[32] As reported above, despite the imbalance in household income (Appendix Table B.2), the main results also remain robust in the fully moderated models, indicating little sign of omitted interaction bias.

Second, the historical victimization may be less salient among survivors and their family

[31] Direct victimhood is associated with a 0.284-point (insignificant) increase in the median of the stated empathy distribution (95% CI: $-0.217, 0.785$), whilst the coefficient estimate increases to 1.85 (95% CI: $0.603, 3.11$) at the 10th percentile of the outcome distribution. The positive association almost disappears at the 90th percentile of the distribution with the coefficient of 0.040 (95% CI: $-0.018, 0.099$; Figure D.6). The treatment effect of "your pain" on Dictator Game sharing are statistically significant at the 5% level between the median and the 75th percentile of the outcome distribution, whilst the coefficients on Dictator Game timing remain insignificant across the outcome distribution (Figure D.7).

[32] Causal forest estimates in Tables 3 and 5 fail to detect effect heterogeneity across household income.

members, which could explain the interaction effect between the "your pain" treatment and past victimhood (cf. Bauer, Fiala and Levely, 2018, 28). However, Model (4) in Table 6 suggests the opposite holds at least for survivors such that survivors are *more* likely to talk about historical victimization (Topic 3). Regarding externally-oriented emotional reactions (Topic 4), Model (1) also suggests that a negative effect of the "your pain" treatment and little interaction with past victimhood, as opposed to its behavioral effects.

9 Conclusion

This article has explored the attitudinal and behavioral legacies of herbicidal warfare during the Vietnam War in contemporary Vietnam, with a formal model and a lab-in-the-field experiment. The empirical findings are twofold. First, consistent with the literature, we find that historical victimization is positively associated with empathy toward other Agent Orange victims—but only among direct victims (survivors), not indirect victims (family members). However, this heightened empathy does not translate into greater generosity in a Dictator Game. Second, and in contrast to existing assumptions about victimization-induced altruism, non-victims respond to experimental priming of the receiver's victimhood with increased sharing; and victims, despite expressing greater empathy, do not adjust their behavior based on others' victimhood. The field evidence of the divergence between the elevated empathy of victims and their insusceptibility to the "your pain" priming is consistent with the predictions under institutionalization of historical victimization coupled with collective victimhood, as laid out by the presented formal model.

These findings speak to the broader literature on the legacies of political violence and attitude-behavior inconsistencies. Empirically, the documented divergence—whereby direct victims exhibit elevated empathy toward other victims, yet remain largely unresponsive to the "your pain" priming—underscores the importance of distinguishing between attitudinal and behavioral responses when examining the long-term consequences of violence. Theo-

retically, the formal model offers a unified framework that accounts for both convergence and divergence between attitudinal dispositions and behavioral outcomes. By integrating intra-individual persistence and inter-individual transmission channels, the model articulates general mechanisms and generates testable predictions that nest existing insights as special cases, while remaining applicable to a broader range of post-conflict contexts.

This article highlights at least two pathways for future research. First, a natural extension of the present analysis is to examine how individual-level, persistent attitudes and socially transmitted norms jointly shape decision-making in broader settings. For example, while our analysis focuses on a simple Dictator Game involving in-group members (i.e., individuals residing in the same wards), extending the theoretical and empirical framework to other behavioral games or to interactions with out-group members may further illuminate the legacies of wartime violence and the underlying mechanisms. Second, it is especially important to understand how individual empathy and social norms interact and co-evolve. Whereas the current analysis implicitly assumes that intra-individual persistence and inter-individual transmission operate independently, these forces may in fact interact—reinforcing or offsetting one another. Theoretical and empirical investigations into such interactions would offer deeper insights into how past experiences persistently influence subsequent outcomes.

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Online Appendix for "Pain, Attitudes, and (In)Action: Divergent Legacies of Herbicidal Warfare in Vietnam"

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A Proofs

Proof of Proposition 1 We can immediately derive an interior solution by first-order condition. Because the concavity of the quadratic loss guarantees a unique global maximum, we obtain $m^*(s,r;\theta) \equiv \arg\max_m u(x,\Psi(m))$ by setting $\frac{\partial u(x,\Psi(m))}{\partial m} = 0$ for $m < \psi(s,r;\theta)$. When the parameter ζ is small or large relative to the solution, we have a corner solution 0 or M, respectively. □

Proof of Corollary 1 First, focus on when "my pain" ($s = 1$) makes a respondent more generous compared to when she is a non-victim. By the definition of $\psi(s,r;\theta)$ and Proposition 1, the inequality $m^*(1,r;\theta) \geq m^*(0,r;\theta)$ for $r \in \{0,1\}$ reduces to

$$\alpha_{\mathcal{P}0} + \alpha_{\mathcal{P}1} r - \underline{\sigma}(1-r) \geq \overline{\sigma} r.$$

Substituting $r = 1$ and $r = 0$ leads to each of the conditions: $\alpha_{\mathcal{P}0} + \alpha_{\mathcal{P}1} \geq \overline{\sigma}$ for $r = 1$ and $\alpha_{\mathcal{P}0} \geq \underline{\sigma}$ for $r = 0$.

Next, move on to the "your pain" aspect. We focus on $s \in \{0,1\}$ here (fix $s_d = 1$). Then, $m^*(s,1;\theta) \geq m^*(s,0;\theta)$ becomes

$$\alpha_{\mathcal{P}1} s_h + \alpha_{\mathcal{T}} + (1-s_h)\overline{\sigma} \geq -s_h \underline{\sigma},$$

which yields the conditions: $\alpha_{\mathcal{P}1} \geq -\alpha_{\mathcal{T}} - \underline{\sigma}$ for $s = 1$ and $0 \geq -\alpha_{\mathcal{T}} - \overline{\sigma}$ for $s = 0$. □

Proof of Corollary 2 We want to show the condition under which

$$\tau(0) = \mathbb{E}\left[Y_i(1) - Y_i(0) | S_i = 0\right] \leq \tau(1) = \mathbb{E}\left[Y_i(1) - Y_i(0) | S_i = 1\right].$$

By Assumption 1, we can simply "translate" the empirical terms into the equilibrium decision and obtain

$$\mathbb{E}\left[m^*(0,1;\theta) - m^*(0,0;\theta)\right] \leq \mathbb{E}\left[m^*(1,1;\theta) - m^*(1,0;\theta)\right],$$

which simplifies to $\alpha_{\mathcal{P}1} \geq \overline{\sigma} - \underline{\sigma}$. □

Proof of Corollary 3 By Assumption 1, observe that

$$\begin{aligned}
\tau(1) &= \mathbb{E}\left[m^*(1,1;\theta) - m^*(1,0;\theta)\right] = \alpha_{\mathcal{P}1} + \alpha_{\mathcal{T}} + \underline{\sigma} \\
\tau(0) &= \mathbb{E}\left[m^*(0,1;\theta) - m^*(0,0;\theta)\right] = \alpha_{\mathcal{T}} + \overline{\sigma} \quad \text{and} \\
\tau(\mathtt{i}) &= \mathbb{E}\left[m^*(\mathtt{i},1;\theta) - m^*(\mathtt{i},0;\theta)\right] = \alpha_{\mathcal{P}1} \cdot \iota + \alpha_{\mathcal{T}} + \underline{\sigma}.
\end{aligned}$$

Comparing them immediately yields the result. □

B Data Details

B.1 Descriptive Statistics and Pairwise Correlations

Table B.1: Descriptive Statistics

	N	Mean	SD	Min	Max
Randomized Treatments					
"Your Pain" (1 if Victim Receiver in Dictator Game)	436	0.505	0.501	0	1
Dictator Game Timing (1 if after sociodemographic questions)	436	0.528	0.500	0	1
Agent Orange Victimization					
"My Pain" (1 if household with 1+ victims)	436	0.479	0.500	0	1
Direct Victim (Survivor)	436	0.312	0.464	0	1
Indirect Victim (Family Member)	436	0.167	0.374	0	1
Outcomes					
Sharing in Dictator Game	436	29.702	35.013	0	80
Logged Sharing in Dictator Game = ln(1+Dictator Game Sharing)	436	1.984	2.024	0	4.394
Any Sharing in Dictator Game = $\mathbb{1}$[Dictator Game Sharing > 0]	436	0.502	0.501	0	1
Empathy Toward Herbicide Victims	436	8.794	1.596	2	10
Simple Average of three ten-point Likert-scale questions:					
(1) Empathy toward herbicide victims in their predicament	436	8.794	1.596	2	10
(2) Concern for the well-being of herbicide victims	436	8.805	1.402	4	10
(3) Fear for the fate of herbicide victims	436	8.911	1.397	1	10
Social Group Membership (1 if any)	436	0.447	0.498	0	1
Social Group Leadership (1 if any)	436	0.126	0.332	0	1
Household Attributes					
Female Household Head	436	0.392	0.489	0	1
ln Wage Income (in million VND)	436	4.696	1.698	0	7.314
ln House Size (in m^2)	436	4.528	0.498	2.303	5.940
Family Size	436	3.865	1.796	1	12
Children Family Member	436	0.477	0.500	0	1
Elderly Family Member	436	0.665	0.472	0	1
Family Member Military Service (1 if anyone)	436	0.406	0.492	0	1
Family Member Party Membership (1 if anyone)	436	0.294	0.456	0	1
Respondent Attributes					
Age	436	59.890	13.997	23	97
Female	436	0.461	0.499	0	1
Years of Education	436	9.606	4.153	0	18
College Education	436	0.197	0.398	0	1
Party Membership	436	0.245	0.431	0	1
Military Service	436	0.358	0.480	0	1
Retired	436	0.406	0.492	0	1
Unable to Work	436	0.094	0.292	0	1
Religious Belief	436	0.076	0.265	0	1
Birthplace Đà Nẵng	436	0.523	0.500	0	1
Survey Week					
Week 36 (September 5–7)	436	0.119	0.324	0	1
Week 37 (September 8–14)	436	0.266	0.442	0	1
Week 38 (September 15–21)	436	0.339	0.474	0	1
Week 39/40 (September 22–30)	436	0.275	0.447	0	1

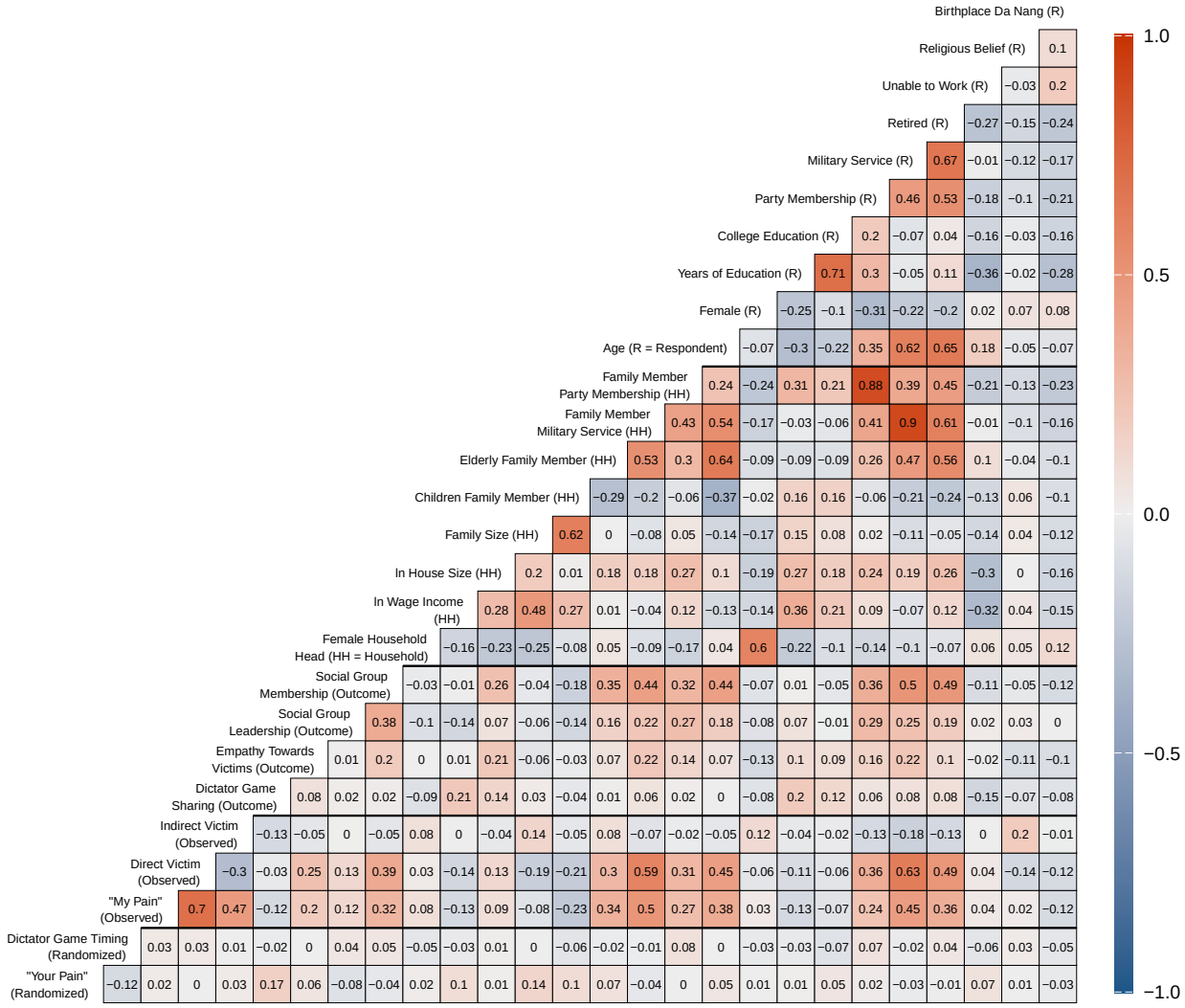


Figure B.1: Correlation Matrix

Notes: Shades and number labels in tiles represent pairwise (Peason's) correlation estimates between the row and column variables. Darker shades indicate higher correlation estimates. "H" denotes household-level covariates, and "R" denotes respondent-level covariates.

B.2 Covariate Balance Across Observed Victimization

Table B.2: Covariate Balance Across Victimization Status

	Panel A: "My Pain"					
	Non-victim ($N = 227$)		Victim ($N = 209$)		Balance Statistics	
	Mean^{C}	SD^{C}	Mean^{T}	SD^{T}	ASMD	KS
Household Attributes						
Female Household Head	0.352	0.478	0.435	0.496	0.170	0.083
ln Income	4.915	1.530	4.459	1.838	0.269	0.215
Family Size	3.996	1.606	3.722	1.976	0.152	0.147
Any Children	0.586	0.493	0.359	0.480	0.467	0.227
Any Elderly	0.511	0.500	0.833	0.373	0.729	0.322
ln House Size	4.485	0.513	4.574	0.477	0.180	0.171
Family Member Military Service	0.172	0.377	0.660	0.474	1.141	0.488
Family Member Party Membership	0.176	0.381	0.421	0.494	0.555	0.245
Respondent Attributes						
Age	54.819	12.837	65.397	13.121	0.815	0.435
Female	0.445	0.497	0.478	0.500	0.067	0.034
Years of Education	10.132	4.009	9.033	4.240	0.266	0.125
College Education	0.225	0.417	0.167	0.373	0.144	0.057
Military Service	0.150	0.357	0.584	0.493	1.008	0.434
Party Membership	0.145	0.352	0.354	0.478	0.497	0.209
Retired	0.238	0.426	0.589	0.492	0.762	0.351
Unable to Work	0.084	0.277	0.105	0.307	0.074	0.022
Religious Belief	0.070	0.256	0.081	0.273	0.041	0.011
Birthplace Đà Nẵng	0.581	0.493	0.459	0.498	0.246	0.122
	Panel B: Direct Victim					
	Non-victim ($N = 227$)		Direct Victim ($N = 136$)		Balance Statistics	
	Mean^{C}	SD^{C}	Mean^{T}	SD^{T}	ASMD	KS
Household Attributes						
Female Household Head	0.352	0.478	0.412	0.492	0.122	0.059
ln Income	4.915	1.530	4.338	2.005	0.323	0.211
Family Size	3.996	1.606	3.346	1.839	0.376	0.228
Any Children	0.586	0.493	0.324	0.468	0.546	0.262
Any Elderly	0.511	0.500	0.875	0.331	0.859	0.364
ln House Size	4.485	0.513	4.623	0.473	0.279	0.211
Family Member Military Service	0.172	0.377	0.838	0.368	1.788	0.666
Family Member Party Membership	0.176	0.381	0.500	0.500	0.728	0.324
Respondent Attributes						
Age	54.819	12.837	69.169	11.509	1.177	0.589
Female	0.445	0.497	0.419	0.493	0.052	0.026
Years of Education	10.132	4.009	8.904	4.440	0.290	0.149
College Education	0.225	0.417	0.162	0.368	0.160	0.063
Party Membership	0.145	0.352	0.478	0.500	0.769	0.333
Military Service	0.150	0.357	0.809	0.393	1.755	0.659
Retired	0.238	0.426	0.765	0.424	1.240	0.527
Unable to Work	0.084	0.277	0.110	0.313	0.090	0.027
Religious Belief	0.070	0.256	0.022	0.147	0.232	0.048
Birthplace Đà Nẵng	0.581	0.493	0.434	0.496	0.299	0.148

(*continued*)

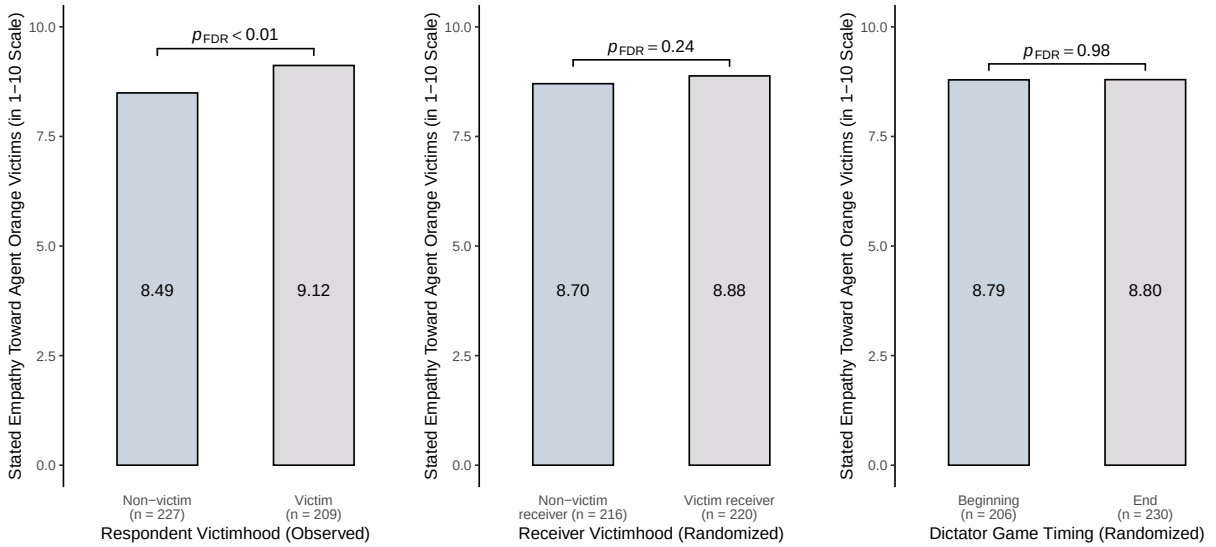
Table B.2 (contd.): Covariate Balance Across Victimization Status

	Panel C: Indirect Victim					
	Non-victim ($N = 227$)		Indirect Victim ($N = 73$)		Balance Statistics	
	Mean^{C}	SD^{C}	Mean^{T}	SD^{T}	ASMD	KS
Household Attributes						
Female Household Head	0.352	0.478	0.479	0.500	0.260	0.127
ln Income	4.915	1.530	4.685	1.464	0.154	0.222
Family Size	3.996	1.606	4.425	2.041	0.234	0.117
Any Children	0.586	0.493	0.425	0.494	0.327	0.161
Any Elderly	0.511	0.500	0.753	0.431	0.519	0.242
ln House Size	4.485	0.513	4.484	0.477	0.001	0.098
Family Member Military Service	0.172	0.377	0.329	0.470	0.368	0.157
Family Member Party Membership	0.176	0.381	0.274	0.446	0.236	0.098
Respondent Attributes						
Age	54.819	12.837	58.370	13.115	0.274	0.162
Female	0.445	0.497	0.589	0.492	0.291	0.144
Years of Education	10.132	4.009	9.274	3.856	0.218	0.143
College Education	0.225	0.417	0.178	0.383	0.116	0.047
Party Membership	0.145	0.352	0.123	0.329	0.065	0.022
Military Service	0.150	0.357	0.164	0.371	0.040	0.015
Retired	0.238	0.426	0.260	0.439	0.052	0.022
Unable to Work	0.084	0.277	0.096	0.294	0.043	0.012
Religious Belief	0.070	0.256	0.192	0.394	0.365	0.121
Birthplace Đà Nẵng	0.581	0.493	0.507	0.500	0.150	0.075

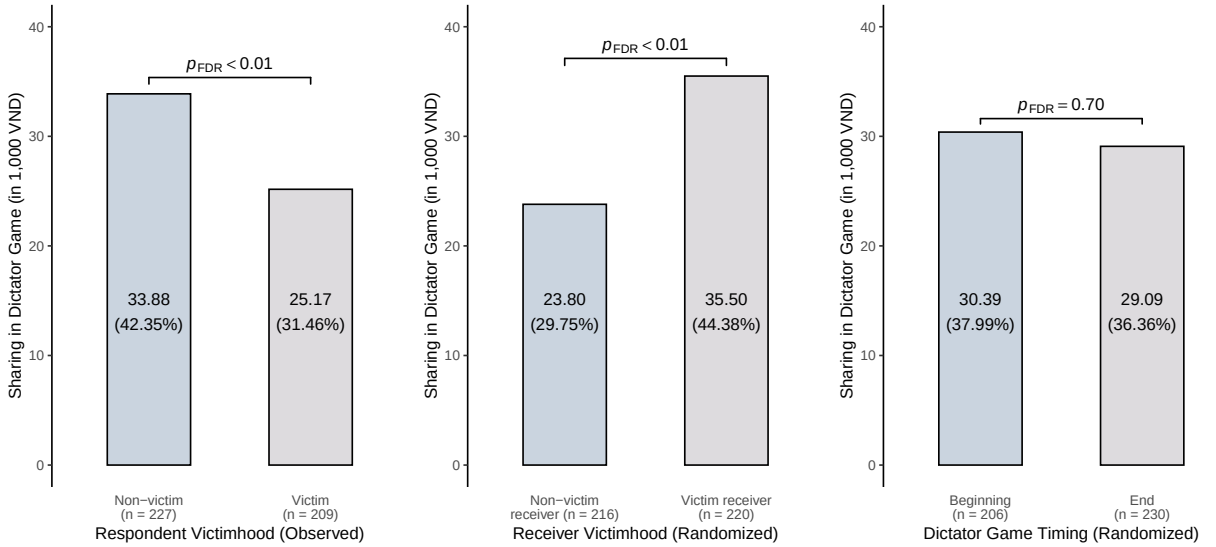
Notes: SD = Standard Deviation; ASMD = Absolute Standardized Mean Difference = $\frac{|\bar{X}_T - \bar{X}_C|}{\sqrt{(s_T^2(X)+s_C^2(X))/2}}$ for continuous variables, and $\frac{|\bar{X}_T - \bar{X}_C|}{\sqrt{(\bar{X}_T(1-\bar{X}_T)+\bar{X}_C(1-\bar{X}_C))/2}}$ for dichotomous variables, where $\bar{X}_T$ and $\bar{X}_C$ are, respectively, subsample mean in the treatment group and the control group, and $s_T^2(X)$ and $s_C^2(X)$ are subsample variance; KS = Kolmogorov-Smirnov statistics.

C Additional Results

C.1 Naive Difference Across "My Pain"



(a) Empathy|"My Pain" (b) Empathy|"Your Pain" (c) Empathy|Game Timing

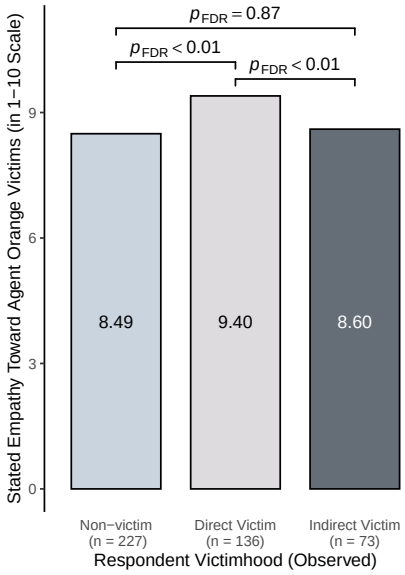


(d) DG Share|"My Pain" (e) DG Share|"Your Pain" (f) DG Share|Game Timing

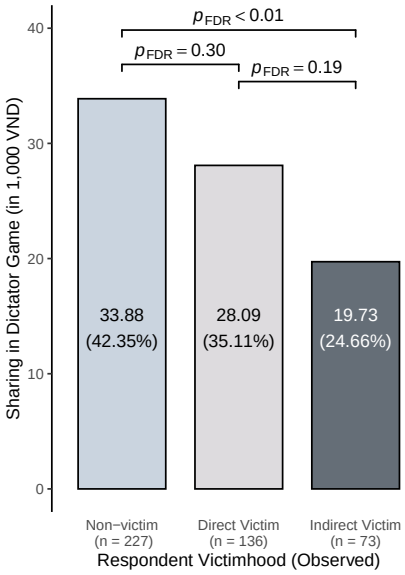
Figure C.1: Naive Differences in Stated Empathy Toward Agent Orange Victims and Dictator Game Sharing Across Past Victimhood and Randomized Treatment Conditions

Notes: Bars display subgroup averages of stated empathy ((a)–(c)) and Dictator Game sharing ((d)–(f)). p_{FDR} denotes the false discovery rate (FDR) corrected p-value for the corresponding two-sample t-test.

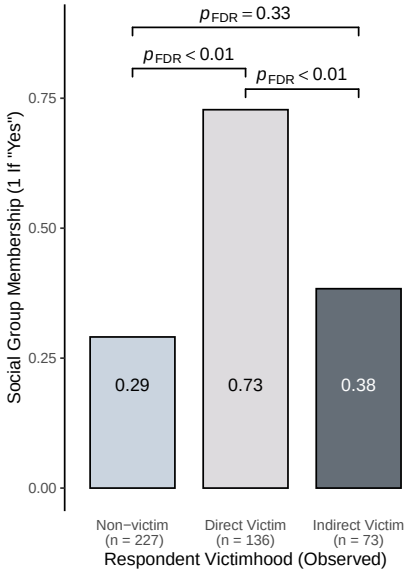
C.2 Naive Difference Across Direct and Indirect Victimization



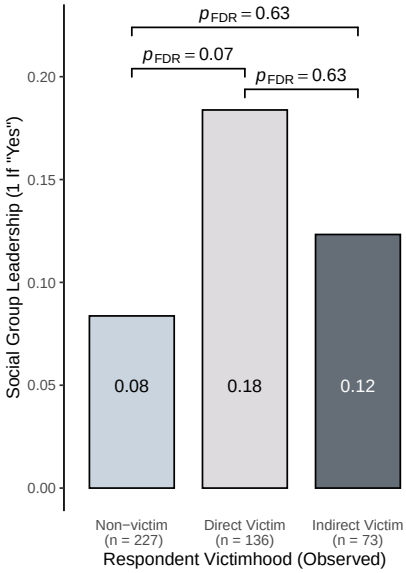
(a) Stated Empathy



(b) Dictator Game Sharing



(c) Social Group Membership



(d) Social Group Leadership

Figure C.2: Naive Differences in Stated Empathy Toward Herbicide Victims and Dictator Game sharing Across Observed Respondent-Level Herbicide Exposure

Notes: Bars in each panel display subgroup averages of stated empathy, Dictator Game sharing, social group membership, and social group leadership. p_{FDR} denotes the false discovery rate (FDR) corrected p-value for the corresponding two-sample t-test.

C.3 Adjustments for the Number of Victims

Table C.1: Regression Estimates with the Household-Level Number of Agent Orange Victims

	Panel A: Stated Empathy (in 1–10 Scale)					
	(1)	(2)	(3)	(4)	(5)	(6)
Single Victim	0.407**	0.585**	0.133	0.265	0.234	0.313
	(0.174)	(0.248)	(0.187)	(0.260)	(0.188)	(0.255)
Multiple Victim	0.740***	0.896***	0.384*	0.599**	0.521**	0.787**
	(0.188)	(0.227)	(0.207)	(0.251)	(0.243)	(0.317)
Your Pain	0.145	0.314	0.234	0.378	0.209	0.320
	(0.153)	(0.244)	(0.155)	(0.243)	(0.154)	(0.244)
Game Timing	−0.030	−0.021	0.015	0.017	0.063	0.059
	(0.152)	(0.153)	(0.149)	(0.150)	(0.150)	(0.152)
Single Victim × Your Pain		−0.352		−0.267		−0.163
		(0.312)		(0.311)		(0.313)
Multiple Victim × Your Pain		−0.343		−0.477		−0.593
		(0.372)		(0.372)		(0.429)
Average outcome	8.794	8.794	8.794	8.794	8.794	8.794
Adjusted R^2	0.051	0.049	0.105	0.104	0.135	0.134
	Panel B: Dictator Game Sharing (in 1,000 VND)					
Single Victim	−3.218	4.786	−10.147**	−1.569	−8.960**	−0.588
	(3.911)	(5.021)	(4.066)	(5.459)	(4.144)	(5.432)
Multiple Victim	−8.352	0.477	−18.124***	−5.209	−13.711*	1.433
	(6.351)	(8.516)	(6.798)	(8.216)	(7.351)	(8.419)
Your Pain	11.736***	19.599***	13.235***	22.410***	13.281***	22.692***
	(3.319)	(4.637)	(3.293)	(4.505)	(3.350)	(4.522)
Game Timing	0.705	1.004	1.065	1.237	1.723	1.791
	(3.283)	(3.323)	(3.225)	(3.243)	(3.254)	(3.272)
Single Victim × Your Pain		−15.798**		−17.280**		−16.946**
		(6.922)		(6.778)		(6.852)
Multiple Victim × Your Pain		−19.336		−28.527**		−33.305**
		(12.928)		(13.594)		(13.877)
Average outcome	29.702	29.702	29.702	29.702	29.702	29.702
Adjusted R^2	0.059	0.069	0.119	0.135	0.134	0.153
Observations	436	436	436	436	436	436
Week FE	✓	✓	✓	✓	✓	✓
Household-level covariates			✓	✓	✓	✓
Respondent-level covariates					✓	✓

Notes: $^*p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors in parentheses. Estimates are from OLS models replacing the baseline "my pain" indicator with dummies for single and multiple Agent Orange victims in respondent's household. Of the victim respondents, 175 reported one victim, 29 reported two, and 5 reported three, along with 227 non-victim respondents. Due to the small number of observations with three victims, Single Victim and Multiple Victim dummies collapse respondents with two or three victims into a single category, with non-victim respondents as the baseline category. Household-level covariates: Female household head, ln income, ln house size, family size, child family member, elderly family member, family member party membership, family member military service. Respondent-level covariates: Age, female, years of education, college education, party membership, military service, retired, unable to work, religious belief, birthplace Đà Nẵng.

C.4 Sequential *G*-Estimation: ATE and ACDE

Table C.2: Average Controlled Direct Effect (ACDE) Estimates of the "Your Pain" Treatment on Stated Empathy with Dictator Game Sharing as the Mediator, along with the Corresponding ATE Estimates

	Outcome: Stated Empathy (in 1–10 Scale)					
	(1)	(2)	(3)	(4)	(5)	(6)
ACDE (Your Pain)	0.083	0.230	0.193	0.326	0.179	0.285
	(0.151)	(0.239)	(0.152)	(0.239)	(0.150)	(0.237)
ATE (Your Pain, Table 2)	0.137	0.314	0.229	0.379	0.203	0.320
	(0.153)	(0.244)	(0.155)	(0.243)	(0.154)	(0.243)
ATE − ACDE	0.054	0.085	0.035	0.053	0.024	0.035
	(0.215)	(0.341)	(0.218)	(0.341)	(0.215)	(0.340)
Average outcome	8.794	8.794	8.794	8.794	8.794	8.794
Observations	436	436	436	436	436	436
Week FE	✓	✓	✓	✓	✓	✓
Household-level covariates			✓	✓	✓	✓
Respondent-level covariates					✓	✓
My Pain × Your Pain		✓		✓		✓

Notes: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors in parentheses for the ATE estimates. Standard errors based on the consistent variance estimator of Acharya, Blackwell and Sen (2016) in parentheses for the ACDE estimates. ATE = average treatment effect. ACDE = average controlled direct effect. ATE − ACDE denotes the difference between the ATE estimates reported in Panel A of Table 2 in the main text and the reported ACDE estimates. The estimates of Model (5) are discussed in the main text. Household-level covariates: Female household head, ln income, ln house size, family size, child family member, elderly family member, family member party membership, family member military service. Respondent-level covariates: Age, female, years of education, college education, party membership, military service, retired, unable to work, religious belief, birthplace Đà Nẵng.

C.5 Logged and Binary Dictator Game Sharing

Table C.3: Regression Estimates with Logged and Binary Dictator Game Sharing

	Panel A: $\ln(1 + \textbf{Dictator Game Sharing})$					
	(1)	(2)	(3)	(4)	(5)	(6)
γ: My Pain	−0.105	0.311	−0.417*	0.074	−0.323	0.182
	(0.219)	(0.283)	(0.235)	(0.301)	(0.242)	(0.303)
τ: Your Pain	0.637***	1.042***	0.669***	1.144***	0.661***	1.154***
	(0.192)	(0.261)	(0.192)	(0.255)	(0.194)	(0.255)
η: Game Timing	0.126	0.144	0.129	0.150	0.166	0.187
	(0.192)	(0.192)	(0.190)	(0.189)	(0.192)	(0.191)
δ: My Pain × Your Pain		−0.839**		−0.983**		−1.018***
		(0.382)		(0.380)		(0.382)
Average outcome	1.984	1.984	1.984	1.984	1.984	1.984
Adjusted R^2	0.053	0.062	0.097	0.110	0.114	0.128
	Panel B: $\mathbb{1}[\textbf{DG Sharing} > 0]$					
γ: My Pain	−0.007	0.089	−0.062	0.051	−0.040	0.076
	(0.055)	(0.072)	(0.061)	(0.077)	(0.063)	(0.078)
τ: Your Pain	0.141***	0.235***	0.142***	0.251***	0.139***	0.252***
	(0.048)	(0.064)	(0.048)	(0.062)	(0.048)	(0.062)
η: Game Timing	0.048	0.052	0.046	0.051	0.055	0.060
	(0.048)	(0.048)	(0.048)	(0.047)	(0.048)	(0.048)
δ: My Pain × Your Pain		−0.193**		−0.227**		−0.234**
		(0.095)		(0.095)		(0.096)
Average outcome	0.502	0.502	0.502	0.502	0.502	0.502
Adjusted R^2	0.047	0.054	0.083	0.094	0.095	0.106
Observations	436	436	436	436	436	436
Week FE	✓	✓	✓	✓	✓	✓
Household-level covariates			✓	✓	✓	✓
Respondent-level covariates					✓	✓

Notes: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors in parentheses. Household-level covariates: Female household head, ln income, ln house size, family size, child family member, elderly family member, family member party membership, family member military service. Respondent-level covariates: Age, female, years of education, college education, party membership, military service, retired, unable to work, religious belief, birthplace Đà Nẵng.

Table C.4: Regression Estimates with Logged and Binary Dictator Game Sharing, Disaggregated Victimhood Indicators

	Panel A: ln(1 + **Dictator Game Sharing**)					
	(1)	(2)	(3)	(4)	(5)	(6)
γ_1: Direct Victim	−0.093	0.284	−0.528*	−0.040	−0.501*	−0.005
	(0.244)	(0.331)	(0.279)	(0.356)	(0.286)	(0.357)
γ_2: Indirect Victim	−0.134	0.340	−0.272	0.225	−0.098	0.430
	(0.296)	(0.380)	(0.299)	(0.391)	(0.316)	(0.399)
τ: Your Pain	0.638***	1.042***	0.674***	1.150***	0.666***	1.163***
	(0.193)	(0.261)	(0.192)	(0.255)	(0.193)	(0.255)
η: Game Timing	0.125	0.140	0.134	0.155	0.175	0.195
	(0.192)	(0.193)	(0.190)	(0.191)	(0.192)	(0.192)
δ_1: Direct Victim × Your Pain		−0.783*		−0.985**		−1.019**
		(0.449)		(0.442)		(0.446)
δ_2: Indirect Victim × Your Pain		−0.940*		−0.988*		−1.044*
		(0.529)		(0.541)		(0.551)
F-test for $\gamma_1 = \gamma_2$	0.017	0.018	0.587	0.376	1.313	0.969
F-test for $\delta_1 = \delta_2$		0.069		0.000		0.002
F-test for $\delta_1 = \delta_2 = 0$		2.465*		3.335**		3.611**
Average outcome	1.984	1.984	1.984	1.984	1.984	1.984
Adjusted R^2	0.051	0.057	0.096	0.107	0.115	0.127
	Panel B: $\mathbb{1}$[**DG Sharing** > 0]					
γ_1: Direct Victim	−0.031	0.055	−0.123*	−0.013	−0.120*	−0.008
	(0.060)	(0.081)	(0.068)	(0.087)	(0.070)	(0.088)
γ_2: Indirect Victim	0.049	0.163	0.018	0.137	0.062	0.188*
	(0.079)	(0.103)	(0.080)	(0.105)	(0.085)	(0.109)
τ: Your Pain	0.140***	0.234***	0.145***	0.255***	0.141***	0.256***
	(0.048)	(0.064)	(0.048)	(0.062)	(0.048)	(0.062)
η: Game Timing	0.048	0.051	0.049	0.053	0.059	0.063
	(0.048)	(0.048)	(0.048)	(0.048)	(0.048)	(0.048)
δ_1: Direct Victim × Your Pain		−0.179*		−0.223**		−0.231**
		(0.109)		(0.108)		(0.109)
δ_2: Indirect Victim × Your Pain		−0.228		−0.239*		−0.252*
		(0.141)		(0.144)		(0.147)
F-test for $\gamma_1 = \gamma_2$	0.995	0.979	2.647	1.772	3.935**	2.830*
F-test for $\delta_1 = \delta_2$		0.097		0.011		0.018
F-test for $\delta_1 = \delta_2 = 0$		2.151		2.863*		3.080**
Average outcome	0.502	0.502	0.502	0.502	0.502	0.502
Adjusted R^2	0.047	0.053	0.087	0.096	0.102	0.112
Observations	436	436	436	436	436	436
Week FE	✓	✓	✓	✓	✓	✓
Household-level covariates			✓	✓	✓	✓
Respondent-level covariates					✓	✓

Notes: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors in parentheses. Household-level covariates: Female household head, ln income, ln house size, family size, child family member, elderly family member, family member party membership, family member military service. Respondent-level covariates: Age, female, years of education, college education, party membership, military service, retired, unable to work, religious belief, birthplace Đà Nẵng.

C.6 Past Victimization and Social Engagement

Table C.5: Disaggregated Herbicide Exposure and Social Group Engagement, OLS Estimates

	Panel A: Social Group Membership					
	(1)	(2)	(3)	(4)	(5)	(6)
γ_1: Direct Victim	0.454***	0.485***	0.191***	0.216***	0.107	0.151*
	(0.054)	(0.074)	(0.067)	(0.082)	(0.069)	(0.082)
γ_2: Indirect Victim	0.057	0.044	−0.047	−0.096	0.014	−0.029
	(0.072)	(0.098)	(0.073)	(0.099)	(0.073)	(0.095)
τ: Your Pain	−0.036	−0.025	−0.029	−0.030	−0.029	−0.017
	(0.045)	(0.062)	(0.043)	(0.057)	(0.042)	(0.056)
η: Game Timing	0.031	0.033	0.032	0.037	0.031	0.038
	(0.045)	(0.045)	(0.043)	(0.043)	(0.042)	(0.043)
δ_1: Direct Victim × Your Pain		−0.054		−0.049		−0.088
		(0.099)		(0.091)		(0.089)
δ_2: Indirect Victim × Your Pain		0.035		0.113		0.105
		(0.135)		(0.140)		(0.138)
F-test for $\gamma_1 = \gamma_2$	31.236***	18.484***	8.539***	8.997***	1.139	2.807*
F-test for $\delta_1 = \delta_2$		0.369		1.176		1.681
F-test for $\delta_1 = \delta_2 = 0$		0.232		0.595		0.966
Average outcome	0.443	0.443	0.443	0.443	0.443	0.443
Adjusted R^2	0.159	0.156	0.274	0.273	0.327	0.328
	Panel B: Social Group Leadership					
γ_1: Direct Victim	0.094**	0.090	−0.031	−0.041	−0.047	−0.051
	(0.039)	(0.056)	(0.049)	(0.061)	(0.051)	(0.062)
γ_2: Indirect Victim	0.011	0.047	−0.027	−0.015	−0.001	0.014
	(0.056)	(0.077)	(0.057)	(0.080)	(0.058)	(0.080)
τ: Your Pain	−0.047	−0.034	−0.033	−0.035	−0.037	−0.034
	(0.032)	(0.037)	(0.032)	(0.037)	(0.033)	(0.038)
η: Game Timing	0.020	0.019	0.007	0.006	0.012	0.010
	(0.032)	(0.032)	(0.030)	(0.030)	(0.031)	(0.031)
δ_1: Direct Victim × Your Pain		−0.000		0.019		0.009
		(0.076)		(0.073)		(0.073)
δ_2: Indirect Victim × Your Pain		−0.077		−0.027		−0.034
		(0.094)		(0.094)		(0.095)
F-test for $\gamma_1 = \gamma_2$	2.131	0.253	0.005	0.086	0.502	0.548
F-test for $\delta_1 = \delta_2$		0.496		0.182		0.157
F-test for $\delta_1 = \delta_2 = 0$		0.348		0.092		0.083
Average outcome	0.122	0.122	0.122	0.122	0.122	0.122
Adjusted R^2	0.017	0.015	0.111	0.107	0.140	0.136
Observations	436	436	436	436	436	436
Week FE	✓	✓	✓	✓	✓	✓
Household-level covariates			✓	✓	✓	✓
Respondent-level covariates					✓	✓

Notes: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors in parentheses. Household-level covariates: Female household head, ln income, ln house size, family size, child family member, elderly family member, family member party membership, family member military service. Respondent-level covariates: Age, female, years of education, college education, party membership, military service, retired, unable to work, religious belief, birthplace Đà Nẵng. Model specifications follow Table 4 in the main text.

C.7 Open-Ended Survey Responses and Topic Modeling

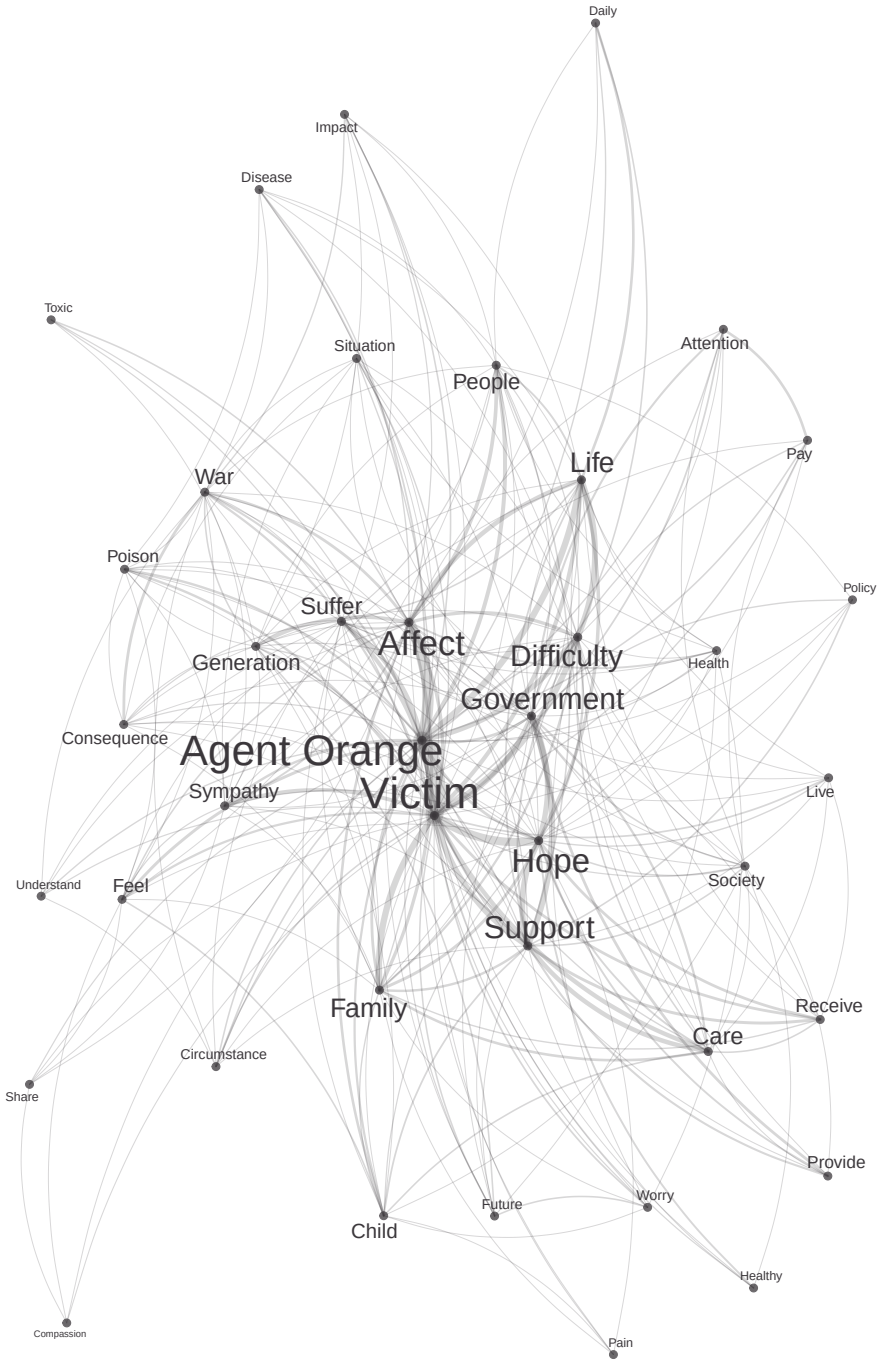


Figure C.3: Token Co-Occurrence Network of Human-Translated Texts

Notes: Co-occurrence network of the 40 most frequent tokens. Node label size (edge width) is proportional to the square root of token (co-occurrence) frequencies. Texts were translated by a research assistant.

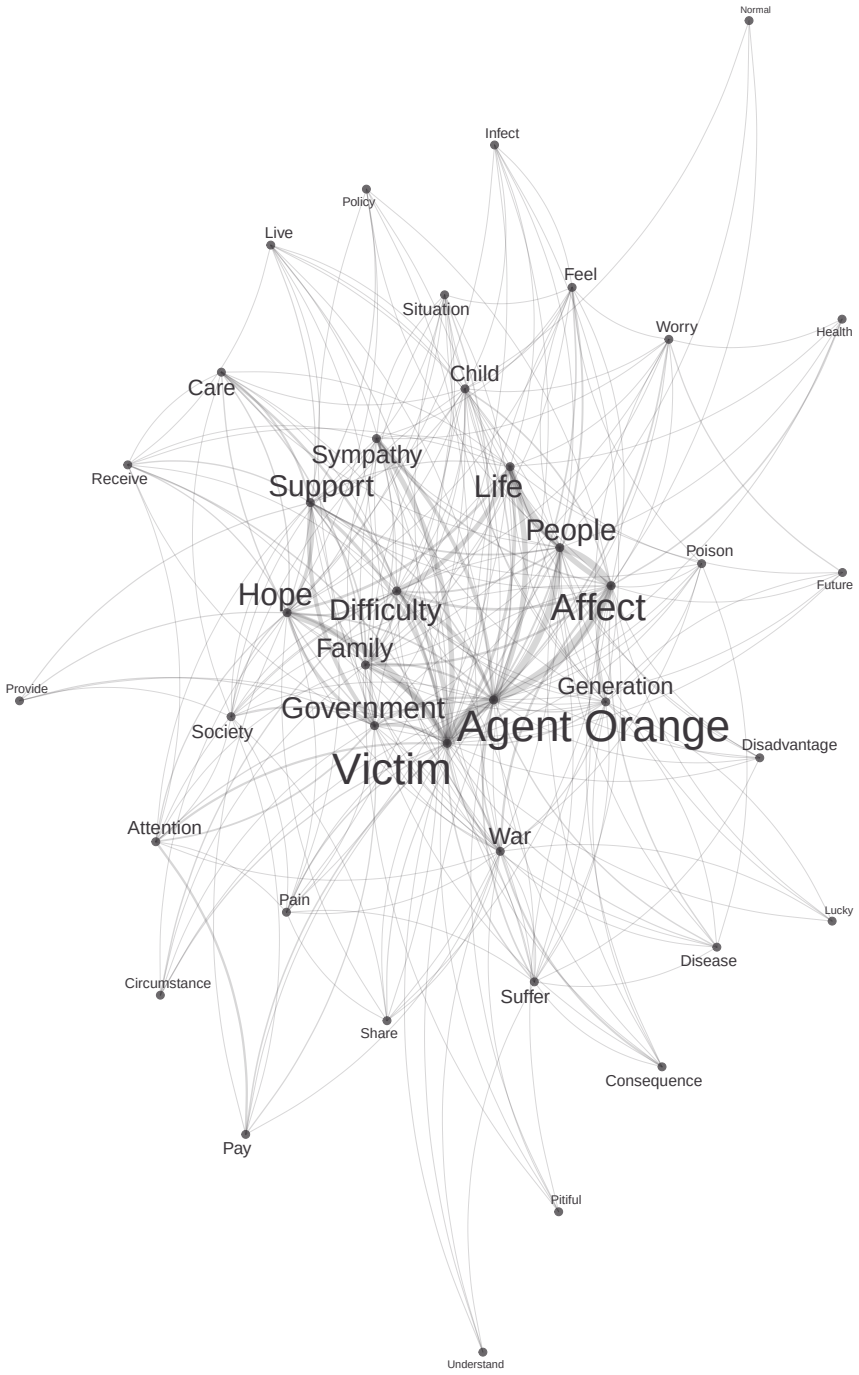
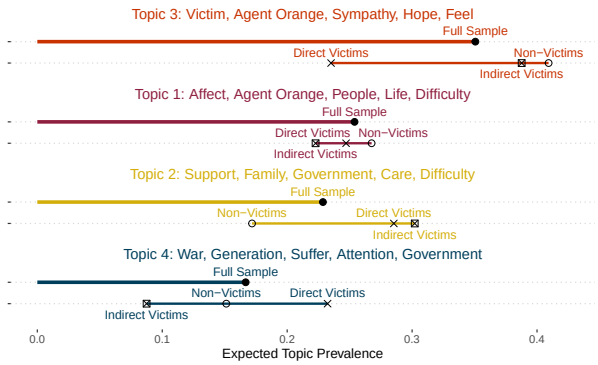
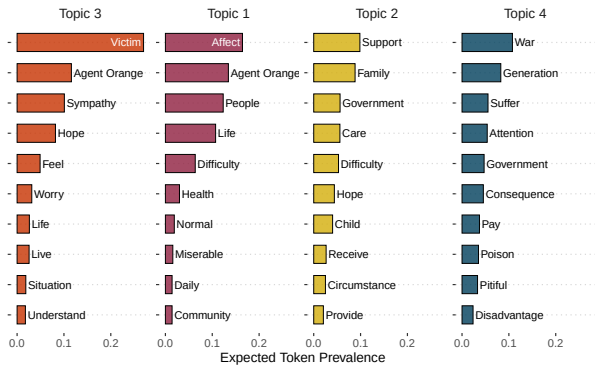


Figure C.4: Token Co-Occurrence Network of Machine-Translated Texts

Notes: Co-occurrence network of the 40 most frequent tokens. Node label size (edge width) is proportional to the square root of token (co-occurrence) frequencies. Texts were translated by Google Translation API.



(a) Topic Prevalence



(b) Topic-Token Prevalence

Topic 3

NV: Little information and opportunities to contact Agent Orange victims, so not much understanding to assess the level of concern and worry for them.
NV: No discrimination, respect victims.
NV: Hope they have a better life.
NV: Hope Agent Orange victims will be healthier and have less illness.
NV: No cases of re−localization have been encountered so I have no idea.
IV: Sympathy for the victims. Hope they get better.
NV: Pity the victims hope they get better.
NV: Very sympathetic and loving to the victims of Agent Orange.
NV: Worry about the victim's future fate. When their parents die, they don't know where their fate will go.
NV: Sympathize with the plight of Agent Orange victims.
NV: I feel sorry for them, but it's their fate. I hope they try to overcome their fate and live optimistically.

Topic 1

NV: People who died from Agent Orange had very difficult lives.
DV: People affected by Agent Orange have long−term effects on their lives.
NV: People affected by Agent Orange have their bodies and lives affected for life.
NV: People affected by Agent Orange have their health and daily life affected.
NV: People affected by Agent Orange have a very difficult life in both daily life and work.
NV: People affected by Agent Orange have many lives affected.
NV: People exposed to Agent Orange suffer disadvantages in life.
NV: People affected by Agent Orange have many health problems.
NV: Because Agent Orange makes it difficult.
DV: Life is very difficult, affecting health a lot.
NV: People affected by Agent Orange have many lives affected.
NV: People affected by Agent Orange are disadvantaged and have difficulties in life.

Topic 2

IV: The family thanks the ward association for their care, encouragement, and gifts during the holidays.
IV: Can't send the child to school, hope to have a place to take care of the child, and support with financial support to take care of the child.
DV: State welfare standards are complete and timely. Monthly medicine is provided in full and on time.
DV: Currently I am not receiving the prescribed nursing care benefits.
IV: The family thanks the Party and neighbors for their care and help.
NV: Thanks to the government for additional living expenses support for those in difficult circumstances.
IV: Low income family, not enough to cover living expenses. Hope to receive additional financial support.
NV: I hope the Party and State will have many plans to support economically and spiritually those who have contributed to the Revolution.

Topic 4

DV: This is something no one wants. The negative psychology collapses when discovering the disease. Complications of the poison cause many different diseases.
NV: That is the terrible consequence of war. Lasting for generations. Extremely sad.
DV: It is a common effect caused by war so we accept to bear it.
DV: Agent Orange is a legacy of war. It causes many diseases that affect many generations. There are many tragic situations. In old age, many diseases arise. I hope that if war breaks out, toxic chemicals will not be used.
NV: There are many cases of infection, the third generation still has deformities. Some people did not participate in the resistance but lived in areas contaminated with toxic chemicals, so their children were still born with deformities. Very pitiful.
DV: No one wants it, but because of war, they have to suffer, affecting many generations, so it is extremely pitiful and miserable. Society needs to pay more attention.

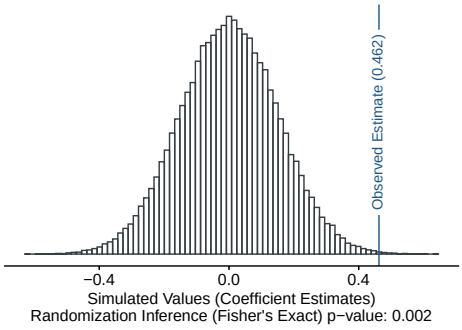
(c) Representative Responses

Figure C.5: Topics in the Open-Ended Survey Responses, with Machine-Translated Texts

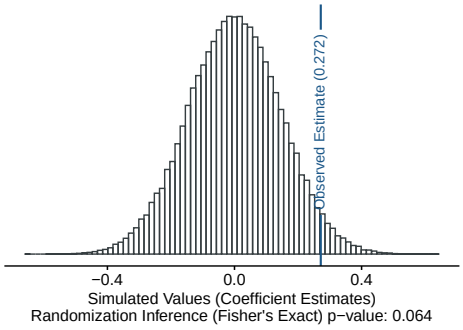
Notes: Structural Topic Model (STM, Roberts et al., 2013, 2014) estimates with machine-translated texts with Google Translation API. To facilitate inter-interpreter (human vs. machine) comparisons, the STM estimates are obtained with the number of topics $K = 4$ as in the baseline estimates reported in the main text. (a) Symbols and segments represent topic prevalence and the range of subsample prevalence, ordered by the full-sample topic prevalence. Solid circles (hollow symbols) indicate full sample (subsample) prevalence. Text labels display the five most frequent tokens in each topic. (b) Prevalence of the ten most frequent tokens in each topic. (c) Representative responses of each topic, with high proportions of tokens assigned to each topic. Two-letter labels preceding the example texts indicate the respondents' victimhood: DV = Direct Victims; ID = Indirect Victims; NV = Non-Victims. See Section 7 of the main text for details of the estimation procedure.

D Robustness Checks

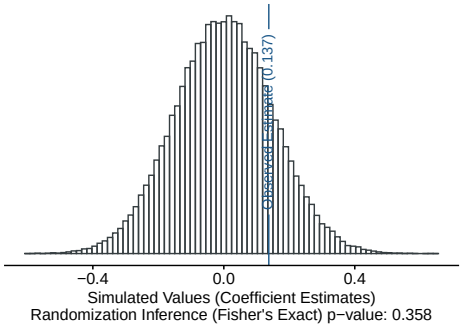
D.1 Design-Based Uncertainty: Randomization Inference



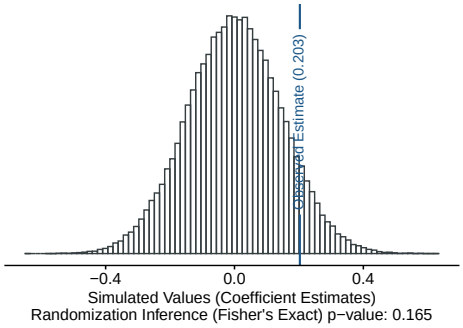
(a) γ: "My Pain" on Stated Empathy, without Controls



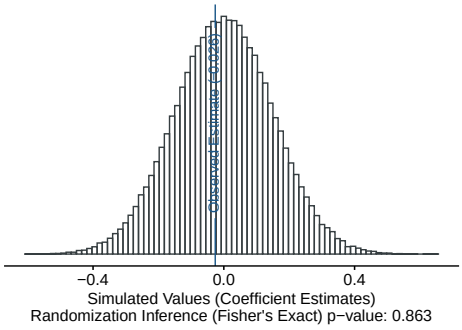
(b) γ: "My Pain" on Stated Empathy, with Controls



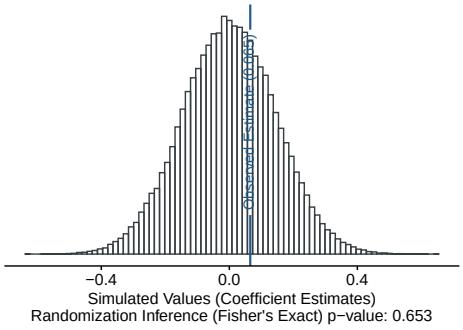
(c) τ: "Your Pain" on Stated Empathy, without Controls



(d) τ: "Your Pain" on Stated Empathy, with Controls



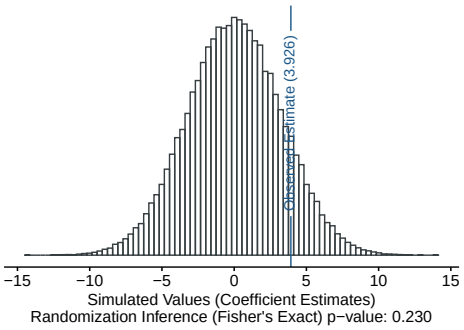
(e) η: Dictator Game Timing on Stated Empathy, without Controls



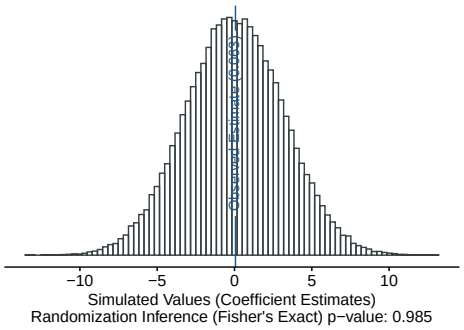
(f) η: Dictator Game Timing on Stated Empathy, with Controls

Figure D.1: Randomization Inference: Stated Empathy

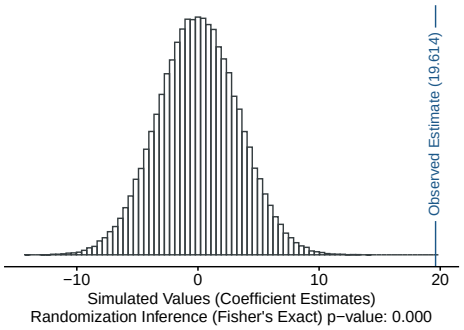
Notes: Histograms show the empirical distribution of the 100,000 placebo coefficient estimates with placebo assignments of the key variables in the figure labels. Vertical segments indicate the observed estimates. Panels (a), (c), and (e) correspond to the estimates of Model (1) of Table 2, whilst Panels (b), (d), and (f) correspond to Model (5).



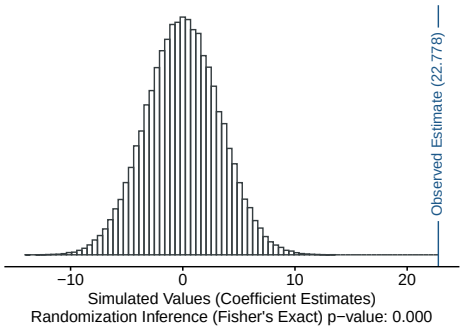
(a) γ: Main Effect of "My Pain" on Dictator Game Sharing, without Controls



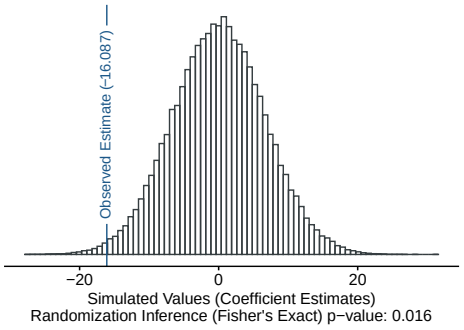
(b) γ: Main Effect of "My Pain" on Dictator Game Sharing, with Controls



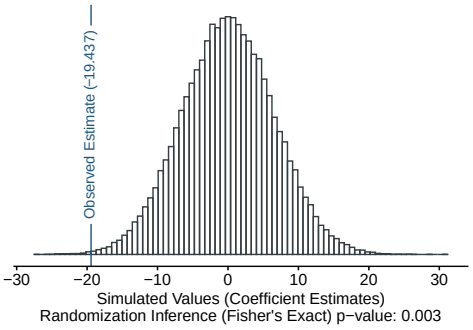
(c) τ: Main Effect of "Your Pain" on Dictator Game Sharing, without Controls



(d) τ: Main Effect of "Your Pain" on Dictator Game Sharing, with Controls



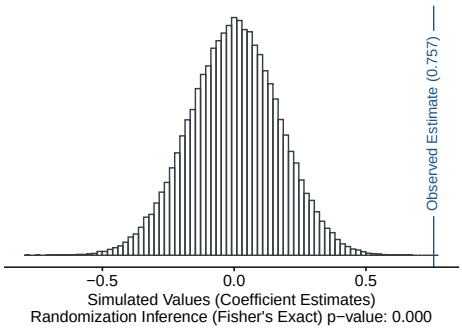
(e) δ: Interaction Effect, "My Pain" $\times$ "Your Pain," on Dictator Game Sharing, without Controls



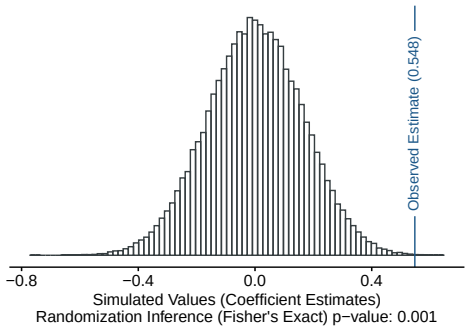
(f) δ: Interaction Effect, "My Pain" $\times$ "Your Pain," on Dictator Game Sharing, with Controls

Figure D.2: Randomization Inference: Dictator Game Sharing

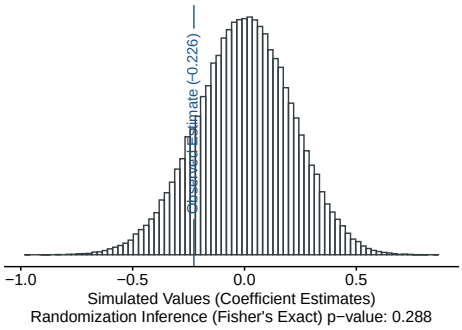
Notes: Histograms show the empirical distribution of the 100,000 placebo coefficient estimates with placebo assignments of the key variables in the figure labels. Vertical segments indicate the observed estimates. Panels (a) and (c) correspond to the estimates of Model (2) of Table 2, whilst Panels (b) and (d) correspond to Model (6).



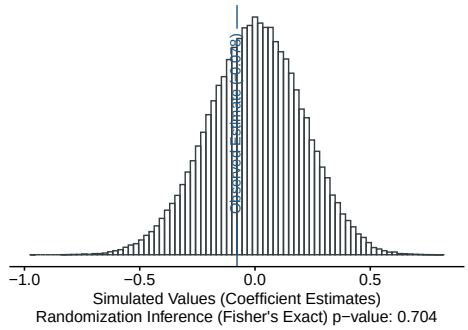
(a) γ_1: Direct Victim on Stated Empathy, without Controls



(b) γ_1: Direct Victim on Stated Empathy, with Controls



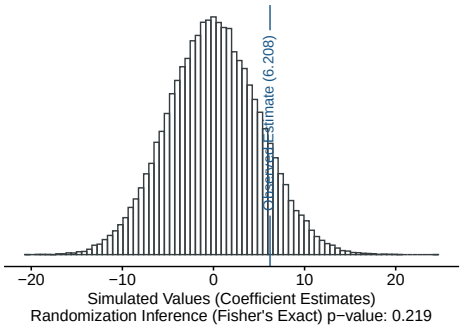
(c) γ_2: Indirect Victim on Stated Empathy, without Controls



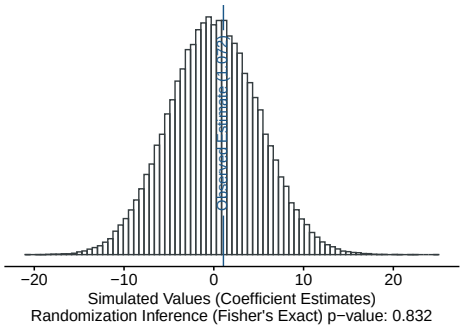
(d) γ_2: Indirect Victim on Stated Empathy, with Controls

Figure D.3: Randomization Inference: Stated Empathy, Disaggregated Victimhood

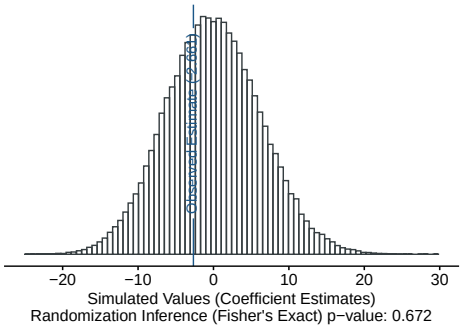
Notes: Histograms show the empirical distribution of the 100,000 placebo coefficient estimates with placebo assignments of the key variables in the figure labels. Vertical segments indicate the observed estimates. Panels (a) and (c) correspond to the estimates of Model (1) of Table 4, whilst Panels (b) and (d) correspond to Model (5).



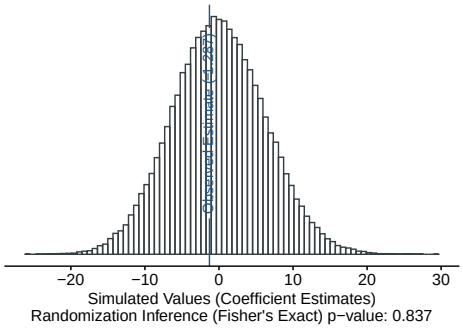
(a) γ_1: Main Effect of Direct Victim on Dictator Game Sharing, without Controls



(b) γ_1: Main Effect of Direct Victim on Dictator Game Sharing, with Controls

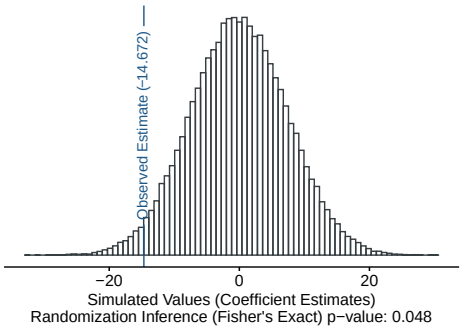


(c) γ_2: Main Effect of Indirect Victim on Dictator Game Sharing, without Controls

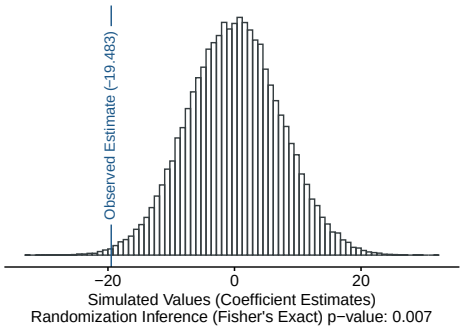


(d) γ_2: Main Effect of Indirect Victim on Dictator Game Sharing, with Controls

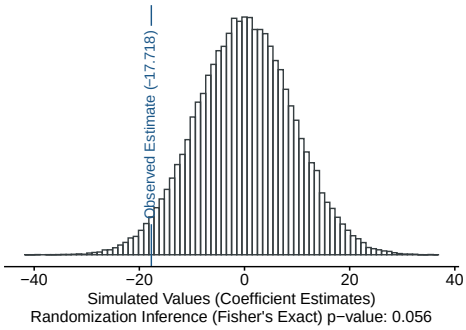
Figure D.4: Randomization Inference: Dictator Game Sharing, Disaggregated Victimhood



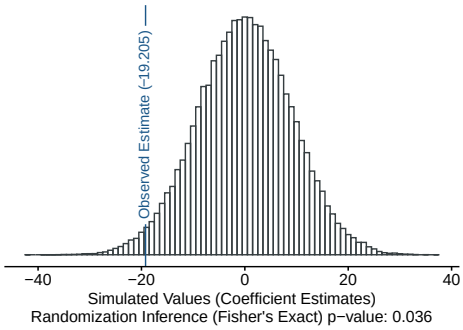
(e) δ_1: Interaction Effect, Direct Victim × "Your Pain," on Dictator Game Sharing, without Controls



(f) δ_1: Interaction Effect, Direct Victim × "Your Pain," on Dictator Game Sharing, with Controls



(g) δ_2: Interaction Effect, Indirect Victim × "Your Pain," on Dictator Game Sharing, without Controls



(h) δ_2: Interaction Effect, Indirect Victim × "Your Pain," on Dictator Game Sharing, with Controls

Figure D.4 (contd.): Randomization Inference: Dictator Game Sharing, Disaggregated Victimhood

Notes: Histograms show the empirical distribution of the 100,000 placebo coefficient estimates with placebo assignments of the key variables in the figure labels. Vertical segments indicate the observed estimates. Panels (a) to (g) correspond to the estimates of Model (2) of Table 4, whilst Panels (b) and (h) correspond to Model (6).

D.2 Heterogeneity Across Outcome Types: Triple-Difference Estimates

The analysis in the main text can be viewed as separate difference-in-differences models for attitudinal and behavioral outcomes, focusing on the interaction between past victimhood and the "your pain" treatment. To formally assess whether the treatment effect systematically differs across outcomes and past victimhood, we estimate a triple-difference (TD) or difference-in-difference-in-difference (DDD) model:

$$\begin{aligned} Y_{ik} = {} & \gamma \text{MyPain}_i + \tau \text{YourPain}_i + \eta \text{GameTiming}_i + \lambda \text{Behavioral}_{ik} \\ & + \delta_1^{\text{DD}} \text{MyPain}_i \times \text{YourPain}_i + \delta_2^{\text{DD}} \text{MyPain}_i \times \text{Behavioral}_{ik} \\ & + \delta_3^{\text{DD}} \text{YourPain}_i \times \text{Behavioral}_{ik} + \delta^{\text{TD}} \text{MyPain}_i \times \text{YourPain}_i \times \text{Behavioral}_{ik} \\ & + \boldsymbol{\beta}' \boldsymbol{X}_i^{\text{HH}} + \boldsymbol{\phi}' \boldsymbol{X}_i^{\text{R}} + \text{SurveyWeek}_{w(i)} + \epsilon_{ik}, \end{aligned} \tag{D.1}$$

where k indexes outcome types (attitudinal, stated empathy and behavioral, Dictator Game sharing). The TD specification pools standardized outcomes and introduces interaction terms with the outcome-type indicator, enabling a statistical test of effect heterogeneity across outcome types, or attitude-behavior inconsistencies. As the outcome is standardized, the coefficients measure the standard-deviation change in the outcome associated with a one-unit change in the predictors. To account for within-respondent correlation, we report standard errors clustered at the respondent level, along with wild cluster bootstrap p-values.

Table D.1 reports the TD estimates with and without adjustments for week fixed effects and covariates, uncovering supportive evidence for the attitude-behavior inconsistencies. First, the estimates confirm the attitude-behavior inconsistency across past victimhood. While victims exhibit significantly higher empathy than non-victims ($\gamma = 0.383$, $p_{\text{WCB}} = 0.007$; Model 4), the increased empathy does not translate into increased sharing in the Dictator Game, with a statistically insignificant difference of $\gamma + \delta_2^{\text{DD}} = -0.136$ ($p_{\text{WCB}} = 0.300$; joint Wald test). Second, the treatment effect of "your pain" varies sub-

Table D.1: Triple-Difference Estimates, Attitudinal and Behavioral Outcomes

	Outcome: Standardized Stated Empathy and Dictator Game Sharing			
	(1)	(2)	(3)	(4)
Main Effect				
γ: My Pain	0.512***	0.518***	0.334**	0.383***
	(0.136)	(0.142)	(0.143)	(0.140)
	[0.000]	[0.000]	[0.021]	[0.007]
τ: Your Pain	0.221	0.199	0.260*	0.246*
	(0.151)	(0.151)	(0.147)	(0.144)
	[0.145]	[0.189]	[0.078]	[0.092]
η: Game Timing	0.015	0.009	0.027	0.052
	(0.071)	(0.070)	(0.066)	(0.066)
	[0.829]	[0.900]	[0.681]	[0.442]
λ: Behavioral Outcome	0.130	0.130	0.130	0.130
	(0.135)	(0.135)	(0.136)	(0.137)
	[0.336]	[0.336]	[0.335]	[0.336]
Difference-in-Difference				
δ_1^{DD}: My Pain × Your Pain	−0.242	−0.218	−0.239	−0.227
	(0.185)	(0.184)	(0.181)	(0.179)
	[0.191]	[0.233]	[0.185]	[0.204]
δ_2^{DD}: My Pain × Behavioral Outcome	−0.519***	−0.519***	−0.519***	−0.519***
	(0.184)	(0.184)	(0.185)	(0.186)
	[0.005]	[0.005]	[0.005]	[0.005]
δ_3^{DD}: Your Pain × Behavioral Outcome	0.359**	0.359**	0.359**	0.359**
	(0.182)	(0.183)	(0.183)	(0.184)
	[0.049]	[0.049]	[0.050]	[0.049]
Triple Difference				
δ^{TD}: My Pain × Your Pain	−0.253	−0.253	−0.253	−0.253
× Behavioral Outcome	(0.252)	(0.252)	(0.253)	(0.255)
	[0.318]	[0.317]	[0.317]	[0.316]
Joint Wald Test				
$\gamma + \delta_2^{\text{DD}}$	−0.007	−0.002	−0.185	−0.136
	[0.956]	[0.990]	[0.161]	[0.300]
$\tau + \delta_3^{\text{DD}}$	0.579***	0.558***	0.619***	0.605***
	[0.000]	[0.000]	[0.000]	[0.000]
$\tau + \delta_1^{\text{DD}}$	−0.022	−0.019	0.021	0.019
	[0.841]	[0.861]	[0.845]	[0.863]
$\tau + \delta_1^{\text{DD}} + \delta_3^{\text{DD}} + \delta^{\text{TD}}$	0.084	0.087	0.128	0.125
	[0.518]	[0.505]	[0.329]	[0.345]
$\delta_3^{\text{DD}} + \delta^{\text{TD}}$	0.106	0.106	0.106	0.106
	[0.539]	[0.541]	[0.542]	[0.541]
Average outcome (standardized)	0.000	0.000	0.000	0.000
Adjusted R^2	0.044	0.053	0.103	0.123
Observations	872	872	872	872
N Respondents (Clusters)	436	436	436	436
Week FE		✓	✓	✓
Household-level covariates			✓	✓
Respondent-level covariates				✓

Notes: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$ (based on wild bootstrap cluster at the respondent level). Robust standard errors with respondent-level clustering in parentheses. p-values from wild bootstrap clustered at the respondent level (p_{WCB}) in square brackets. Attitudinal (stated empathy) and behavioral outcomes (Dictator Game sharing) are standardized within each category. Household-level covariates: Female household head, ln income, ln house size, family size, child family member, elderly family member, family member party membership, family member military service. Respondent-level covariates: Age, female, years of education, college education, party membership, military service, retired, unable to work, religious belief, birthplace Đà Nẵng.

stantially by both past victimhood and outcome types, highlighting the attitude-behavior inconsistency in the treatment effects among non-victim respondents. Among non-victims, the treatment effect is positive and statistically significant for behavioral outcome ($\tau+\delta_3^{\text{DD}} = 0.605$, $p_{\text{WCB}} = 0.000$), while the coefficient on the attitudinal outcome remains statistically insignificant or marginally significant depending on model specifications ($\tau = 0.246$, $p_{\text{WCB}} = 0.092$). Furthermore, the coefficient on "your pain" $\times$ behavioral outcome indicator, or the difference-in-differences, indicates a noticeable difference between the attitudinal and behavioral effects of the "your pain" treatment among non-victim respondents ($\delta_3^{\text{DD}} = 0.359$, $p_{\text{WCB}} = 0.049$). By contrast, as captured by the linear combination, $\delta_3^{\text{DD}} + \delta^{\text{TD}} = 0.106$ ($p_{\text{WCB}} = 0.541$), the difference between the attitudinal and behavioral effects of the "your pain" treatment also remains negligible among victims, both in magnitude and significance. Among victims, the "your pain" treatment has little effect on both attitudinal ($\tau+\delta_1^{\text{DD}} = 0.019$, $p_{\text{WCB}} = 0.863$) and behavioral outcomes ($\tau+\delta_1^{\text{DD}}+\delta_3^{\text{DD}}+\delta^{\text{TD}} = 0.125$, $p_{\text{WCB}} = 0.345$).

Table D.2 reports the TD estimates with the disaggregated victimization indicator, and Figure D.5 provides a visual summary of the estimates. First, while direct victims exhibit higher empathy (coefficient = 0.577, $p_{\text{WCB}} = 0.000$; with all controls), the attitudinal change is not paired with a behavioral change in the Dictator Game (-0.110, $p_{\text{WCB}} = 0.471$). In contrast, indirect victimization is not systematically associated with either attitudinal or behavioral outcome. Second, while the estimates reveal the attitude-behavior inconsistency in the effect of the "your pain" treatment among non-victim respondents, the attitude-behavior inconsistency is invisible among either direct or indirect victims. The difference between the attitudinal and behavioral effects of "your pain" remains substantively and statistically insignificant for both direct (0.261, $p_{\text{WCB}} = 0.202$) and indirect victims (-0.201, $p_{\text{WCB}} = 0.533$), with indeterminate attitudinal and behavioral effects.

Table D.2: Triple-Difference Estimates, Disaggregated Victimization

	Outcome: Standardized Stated Empathy and Dictator Game Sharing			
	(1)	(2)	(3)	(4)
Main Effect				
γ_1: Direct Victim	0.725^{***}	0.728^{***}	0.549^{***}	0.577^{***}
	(0.125)	(0.128)	(0.132)	(0.131)
	[0.000]	[0.000]	[0.000]	[0.000]
γ_2: Indirect Victim	0.093	0.029	−0.012	0.069
	(0.218)	(0.213)	(0.215)	(0.213)
	[0.672]	[0.893]	[0.957]	[0.748]
τ: Your Pain	0.220	0.201	0.255^{*}	0.242^{*}
	(0.151)	(0.152)	(0.148)	(0.145)
	[0.146]	[0.183]	[0.085]	[0.097]
η: Game Timing	0.014	0.006	0.026	0.049
	(0.070)	(0.069)	(0.066)	(0.066)
	[0.850]	[0.928]	[0.694]	[0.465]
λ: Behavioral Outcome	0.130	0.130	0.130	0.130
	(0.135)	(0.135)	(0.136)	(0.137)
	[0.333]	[0.334]	[0.335]	[0.337]
Difference-in-Difference				
δ_1^{DD}: Direct Victim × Your Pain	-0.320^{*}	−0.277	-0.354^{*}	-0.324^{*}
	(0.181)	(0.180)	(0.181)	(0.181)
	[0.078]	[0.125]	[0.050]	[0.072]
δ_2^{DD}: Indirect Victim × Your Pain	−0.062	−0.055	−0.005	−0.023
	(0.278)	(0.269)	(0.270)	(0.268)
	[0.824]	[0.837]	[0.985]	[0.930]
δ_3^{DD}: Direct Victim × Behavioral Outcome	-0.687^{***}	-0.687^{***}	-0.687^{***}	-0.687^{***}
	(0.191)	(0.191)	(0.192)	(0.193)
	[0.000]	[0.001]	[0.000]	[0.000]
δ_4^{DD}: Indirect Victim × Behavioral Outcome	−0.188	−0.188	−0.188	−0.188
	(0.284)	(0.284)	(0.286)	(0.287)
	[0.510]	[0.511]	[0.509]	[0.510]
δ_5^{DD}: Your Pain × Behavioral Outcome	0.359^{*}	0.359^{*}	0.359^{**}	0.359^{**}
	(0.183)	(0.183)	(0.184)	(0.185)
	[0.051]	[0.051]	[0.050]	[0.049]
Triple Difference				
δ_1^{TD}: Direct Victim × "Your Pain"	−0.098	−0.098	−0.098	−0.098
× Behavioral Outcome	(0.273)	(0.273)	(0.274)	(0.276)
	[0.718]	[0.719]	[0.717]	[0.720]
δ_2^{TD}: Indirect Victim × "Your Pain"	−0.560	−0.560	−0.560	−0.560
× Behavioral Outcome	(0.370)	(0.370)	(0.372)	(0.374)
	[0.132]	[0.134]	[0.134]	[0.134]

(*continued*)

Table D.2 (contd.): Triple-Difference Estimates with Attitudinal and Behavioral Outcomes

	Outcome: Standardized Stated Empathy and Dictator Game Sharing			
	(1)	(2)	(3)	(4)
Joint Wald Test				
$\gamma_1 + \delta_3^{\text{DD}} = 0$ (Direct Victim)	0.038	0.041	−0.138	−0.110
	[0.799]	[0.788]	[0.376]	[0.471]
$\delta_5^{\text{DD}} + \delta_1^{\text{TD}} = 0$ (Direct Victim)	0.261	0.261	0.261	0.261
	[0.200]	[0.198]	[0.199]	[0.202]
$\gamma_2 + \delta_4^{\text{DD}} = 0$ (Indirect Victim)	−0.096	−0.159	−0.200	−0.119
	[0.549]	[0.343]	[0.243]	[0.487]
$\delta_5^{\text{DD}} + \delta_2^{\text{TD}} = 0$ (Indirect Victim)	−0.201	−0.201	−0.201	−0.201
	[0.537]	[0.538]	[0.537]	[0.533]
$\tau + \delta_5^{\text{DD}} = 0$ (Non-Victims)	0.579***	0.560***	0.614***	0.601***
	[0.000]	[0.000]	[0.000]	[0.000]
Average outcome (standardized)	0.000	0.000	0.000	0.000
Adjusted R^2	0.057	0.072	0.108	0.126
Observations	872	872	872	872
Week FE		✓	✓	✓
Household-level covariates			✓	✓
Respondent-level covariates				✓

Notes: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors with respondent-level clustering in parentheses. p-values from wild bootstrap clustered at the respondent level (p_{WCB}) in square brackets. Attitudinal (stated empathy) and behavioral outcomes (Dictator Game sharing) are standardized within each category. Attitudinal (stated empathy) and behavioral outcomes (Dictator Game sharing) are standardized within each category. Household-level covariates: Female household head, ln income, ln house size, family size, child family member, elderly family member, family member party membership, family member military service. Respondent-level covariates: Age, female, years of education, college education, party membership, military service, retired, unable to work, religious belief, birthplace Đà Nẵng.

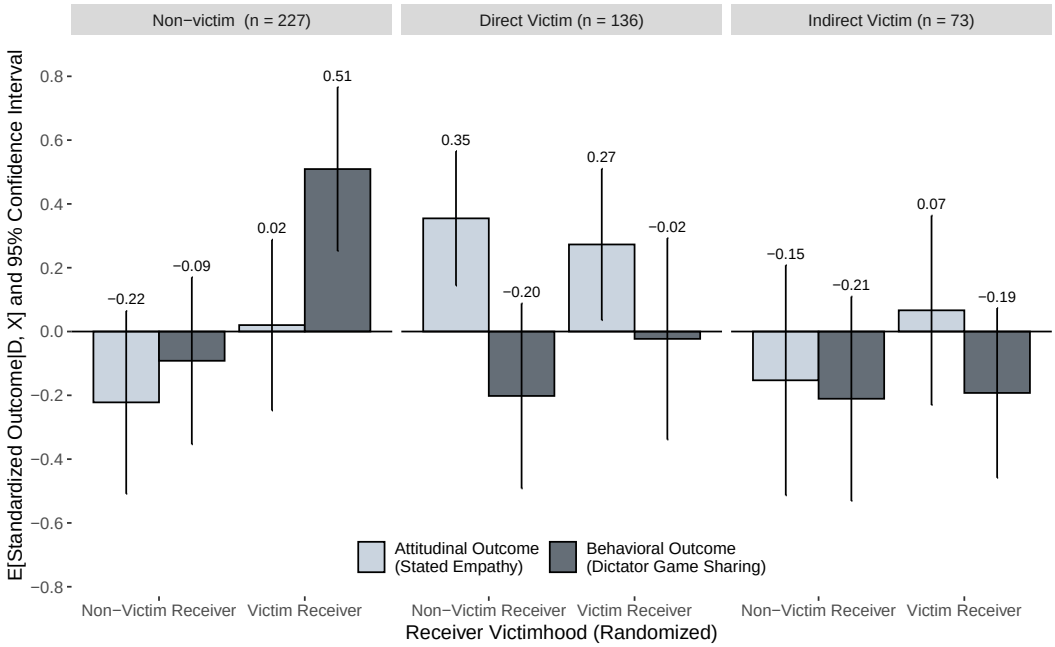


Figure D.5: Conditional Expectations, Triple Difference Estimates

Notes: Conditional expectations of attitudinal (stated empathy) and behavioral outcomes (Dictator Game sharing) given the "your pain" treatment and covariates. Vertical segments represent the 95% confidence intervals. Continuous (dichotomous) variables are held at mean (mode) values. The estimates are based on Model (4) in Appendix Table D.2.

D.3 Misspecification Bias: Fully-Moderated Model Estimates

Table D.3: Single-Interaction and Fully-Moderated Model Estimates

	Outcome: Dictator Game Sharing (in 1,000 VND)			
	"My Pain"		Disaggregated Victimhood	
	(1) Single-Interaction Model	(2) Fully-Moderated Model	(3) Single-Interaction Model	(4) Fully-Moderated Model
γ: My Pain	0.063	65.488		
	(5.048)	(40.774)		
γ_1: Direct Victim			1.072	88.605*
			(6.039)	(49.338)
γ_2: Indirect Victim			−1.287	30.504
			(6.403)	(73.879)
τ: Your Pain	22.778***	21.958***	22.732***	21.833***
	(4.520)	(4.768)	(4.520)	(4.767)
η: Game Timing	2.068	1.802	2.030	0.952
	(3.234)	(3.285)	(3.259)	(3.409)
δ: My Pain × Your Pain	−19.437***	−18.199***		
	(6.461)	(6.729)		
δ_1: Direct Victim × Your Pain			−19.483**	−16.722**
			(7.666)	(8.217)
δ_2: Indirect Victim × Your Pain			−19.205**	−23.122**
			(8.504)	(9.118)
Observations	436	436	436	436
Adjusted R^2	0.152	0.178	0.148	0.172
Household-level covariates	✓	✓	✓	✓
Respondent-level covariates	✓	✓	✓	✓
Week FE	✓	✓	✓	✓
Moderator × household-level covariates		✓		✓
Moderator × respondent-level covariates		✓		✓

Notes: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors in parentheses. Household-level covariates: Female household head, ln income, ln house size, family size, child family member, elderly family member, family member party membership, family member military service. Respondent-level covariates: Age, female, years of education, college education, party membership, military service, retired, unable to work, religious belief, birthplace Đà Nẵng. Following Blackwell and Olson (2022), Models (2) and (4) adjust for interaction terms between the moderator (past victimhood) and the covariates as well as the timing of the Dictator Game. Single-interaction model estimates in Models (1) and (3) correspond with Model (6) in Panels B of Tables 2 and 4 in the main text.

D.4 Functional Form Assumption: Tobit and Probit Estimates

Table D.4: Agent Orange Exposure, Stated Empathy, and Dictator Game Sharing, Tobit Marginal Effect Estimates

	Panel A: Stated Empathy (in 1–10 Scale)					
	(1)	(2)	(3)	(4)	(5)	(6)
γ: My Pain	0.288*	0.376**	0.099	0.183	0.133	0.184
	(0.158)	(0.187)	(0.143)	(0.176)	(0.121)	(0.143)
τ: Your Pain	0.079	0.177	0.172	0.247*	0.124	0.172
	(0.095)	(0.121)	(0.108)	(0.141)	(0.084)	(0.112)
η: Game Timing	−0.006	0.003	0.034	0.039	0.069	0.070
	(0.101)	(0.092)	(0.107)	(0.101)	(0.085)	(0.081)
δ: My Pain × Your Pain		−0.229		−0.186		−0.121
		(0.180)		(0.202)		(0.162)
Average outcome	8.794	8.794	8.794	8.794	8.794	8.794
Log likelihood	−675.315	−674.544	−652.653	−652.255	−640.706	−640.433
	Panel B: Dictator Game Sharing (in 1,000 VND)					
γ: My Pain	−2.825	6.188	−10.256**	1.006	−8.142*	3.476
	(4.066)	(5.297)	(4.622)	(5.813)	(4.508)	(5.584)
τ: Your Pain	12.624***	21.502***	15.057***	25.619***	15.064***	24.955***
	(3.688)	(5.077)	(3.721)	(4.755)	(3.697)	(4.764)
η: Game Timing	2.022	2.425	2.919	3.371	3.647	3.938
	(3.542)	(3.600)	(3.629)	(3.530)	(3.517)	(3.257)
δ: My Pain × Your Pain		−17.968**		−22.096***		−22.103***
		(7.158)		(6.877)		(6.442)
Average outcome	29.702	29.702	29.702	29.702	29.702	29.702
Log likelihood	−815.922	−812.757	−798.599	−793.852	−788.677	−783.281
Observations	436	436	436	436	436	436
Week FE	✓	✓	✓	✓	✓	✓
Household-level covariates			✓	✓	✓	✓
Respondent-level covariates					✓	✓

Notes: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors in parentheses. Household-level covariates: Female household head, ln income, ln house size, family size, child family member, elderly family member, family member party membership, family member military service. Respondent-level covariates: Age, female, years of education, college education, party membership, military service, retired, unable to work, religious belief, birthplace Đà Nẵng. To allow for comparisons with the baseline OLS estimates, the Tobit estimates report marginal effects and the corresponding standard errors rather than the coefficients of the latent variables, with continuous (dichotomous) variables are held at mean (mode) values. In Panel A, the outcome is assumed to be left-censored at one and right-censored at ten, while Panel B, the outcome is assumed to be left-censored at zero and right-censored at 80.

Table D.5: Disaggregated Agent Orange Exposure, Stated Empathy, and Dictator Game Sharing, Tobit Marginal Effect Estimates

	Panel A: Stated Empathy (in 1–10 Scale)					
	(1)	(2)	(3)	(4)	(5)	(6)
γ_1: Direct Victim	0.408**	0.439**	0.288*	0.378*	0.262*	0.297*
	(0.167)	(0.182)	(0.165)	(0.195)	(0.143)	(0.161)
γ_2: Indirect Victim	−0.150	−0.049	−0.143	−0.089	−0.052	−0.006
	(0.092)	(0.126)	(0.123)	(0.167)	(0.105)	(0.133)
τ: Your Pain	0.065	0.131	0.136	0.205*	0.098	0.138
	(0.072)	(0.089)	(0.094)	(0.124)	(0.073)	(0.096)
η: Game Timing	−0.006	0.0002	0.020	0.029	0.048	0.050
	(0.075)	(0.067)	(0.092)	(0.088)	(0.072)	(0.068)
δ_1: Direct Victim × Your Pain		−0.152		−0.206		−0.103
		(0.147)		(0.201)		(0.157)
δ_2: Indirect Victim × Your Pain		−0.178		−0.095		−0.090
		(0.171)		(0.232)		(0.178)
Average outcome	8.794	8.794	8.794	8.794	8.794	8.794
Log likelihood	−664.722	−663.982	−649.192	−648.699	−638.135	−637.881
	Panel B: Dictator Game Sharing (in 1,000 VND)					
γ_1: Direct Victim	−1.026	6.784	−11.479*	−0.258	−10.798*	0.905
	(4.668)	(6.547)	(5.870)	(7.279)	(5.952)	(6.990)
γ_2: Indirect Victim	−6.491	3.828	−8.980*	2.351	−5.671	6.245
	(5.020)	(6.271)	(5.273)	(6.706)	(5.331)	(6.668)
τ: Your Pain	12.779***	21.514***	15.157***	25.770***	15.370***	25.566***
	(3.679)	(4.961)	(3.736)	(4.810)	(3.738)	(4.941)
η: Game Timing	1.987	2.235	2.987	3.423	3.831	4.136
	(3.556)	(3.606)	(3.638)	(3.565)	(3.564)	(3.345)
δ_1: Direct Victim × Your Pain		−16.082*		−21.909**		−22.285***
		(8.685)		(8.637)		(8.463)
δ_2: Indirect Victim × Your Pain		−20.935**		−22.563***		−23.019***
		(8.634)		(8.705)		(8.126)
Average outcome	29.702	29.702	29.702	29.702	29.702	29.702
Log likelihood	−815.426	−812.183	−798.520	−793.779	−788.397	−782.975
Observations	436	436	436	436	436	436
Week FE	✓	✓	✓	✓	✓	✓
Household-level covariates			✓	✓	✓	✓
Respondent-level covariates					✓	✓

Notes: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors in parentheses. Household-level covariates: Female household head, ln income, ln house size, family size, child family member, elderly family member, family member party membership, family member military service. Respondent-level covariates: Age, female, years of education, college education, party membership, military service, retired, unable to work, religious belief, birthplace Đà Nẵng. To allow for comparisons with the baseline OLS estimates, the Tobit estimates report marginal effects and the corresponding standard errors rather than the coefficients of the latent variables, with continuous (dichotomous) variables are held at mean (mode) values. In Panel A, the outcome is assumed to be left-censored at one and right-censored at ten, while Panel B, the outcome is assumed to be left-censored at zero and right-censored at 80.

Table D.6: Agent Orange Exposure and Logged Dictator Game Sharing, ln(1 + DG Sharing), Tobit Marginal Effect Estimates

	Panel A: ln(1 + **DG Sharing**), **"My Pain" Indicator**					
	(1)	(2)	(3)	(4)	(5)	(6)
γ: My Pain	−0.125	0.362	−0.495**	0.107	−0.374	0.236
	(0.225)	(0.293)	(0.251)	(0.316)	(0.245)	(0.302)
τ: Your Pain	0.685***	1.160***	0.793***	1.349***	0.779***	1.294***
	(0.202)	(0.272)	(0.202)	(0.256)	(0.200)	(0.259)
η: Game Timing	0.135	0.156	0.180	0.202	0.217	0.229
	(0.196)	(0.198)	(0.198)	(0.191)	(0.190)	(0.174)
δ: My Pain × Your Pain		−0.970**		−1.176***		−1.162***
		(0.390)		(0.373)		(0.350)
Average outcome	1.984	1.984	1.984	1.984	1.984	1.984
Log likelihood	−566.016	−562.955	−549.748	−545.173	−539.995	−534.789
	Panel B: ln(1 + **DG Sharing**), **Direct and Indirect Victimization**					
γ_1: Direct Victim	−0.074	0.347	−0.629**	−0.027	−0.597*	0.028
	(0.257)	(0.360)	(0.319)	(0.395)	(0.323)	(0.378)
γ_2: Indirect Victim	−0.228	0.330	−0.358	0.249	−0.168	0.464
	(0.280)	(0.350)	(0.293)	(0.372)	(0.300)	(0.371)
τ: Your Pain	0.688***	1.158***	0.805***	1.370***	0.807***	1.349***
	(0.201)	(0.268)	(0.204)	(0.261)	(0.203)	(0.269)
η: Game Timing	0.134	0.147	0.188	0.210	0.234	0.247
	(0.196)	(0.198)	(0.200)	(0.194)	(0.194)	(0.181)
δ_1: Direct Victim × Your Pain		−0.870*		−1.172**		−1.186**
		(0.475)		(0.471)		(0.462)
δ_2: Indirect Victim × Your Pain		−1.126**		−1.209**		−1.236***
		(0.481)		(0.482)		(0.449)
Average outcome	1.984	1.984	1.984	1.984	1.984	1.984
Log likelihood	−565.886	−562.747	−549.435	−544.869	−539.336	−534.080
Observations	436	436	436	436	436	436
Week FE	✓	✓	✓	✓	✓	✓
Household-level covariates			✓	✓	✓	✓
Respondent-level covariates					✓	✓

Notes: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors in parentheses. Household-level covariates: Female household head, ln income, ln house size, family size, child family member, elderly family member, family member party membership, family member military service. Respondent-level covariates: Age, female, years of education, college education, party membership, military service, retired, unable to work, religious belief, birthplace Đà Nẵng. To allow for comparisons with the baseline OLS estimates, the Tobit estimates report marginal effects and the corresponding standard errors rather than the coefficients of the latent variables, with continuous (dichotomous) variables are held at mean (mode) values. In both panels, the outcome is assumed to be left-censored at zero and right-censored at $\ln(1 + 80) = 4.394$.

Table D.7: Agent Orange Exposure and Binary Dictator Game Sharing, $\mathbb{1}$[DG Sharing > 0], Probit Estimates

	Panel A: "My Pain" Indicator					
	(1)	(2)	(3)	(4)	(5)	(6)
γ: My Pain	−0.018	0.236	−0.164	0.159	−0.112	0.232
	(0.145)	(0.190)	(0.172)	(0.216)	(0.184)	(0.229)
τ: Your Pain	0.370***	0.621***	0.398***	0.728***	0.401***	0.755***
	(0.126)	(0.172)	(0.133)	(0.179)	(0.138)	(0.187)
η: Game Timing	0.127	0.137	0.136	0.152	0.160	0.177
	(0.126)	(0.128)	(0.132)	(0.134)	(0.138)	(0.141)
δ: My Pain × Your Pain		−0.511**		−0.655**		−0.698**
		(0.251)		(0.267)		(0.280)
Average outcome	0.502	0.502	0.502	0.502	0.502	0.502
Log likelihood	−288.829	−286.670	−275.895	−272.600	−267.642	−264.030
	Panel B: Direct and Indirect Victimization					
γ_1: Direct Victim	−0.082	0.145	−0.350*	−0.030	−0.379*	−0.046
	(0.158)	(0.217)	(0.199)	(0.251)	(0.216)	(0.265)
γ_2: Indirect Victim	0.127	0.426	0.057	0.395	0.182	0.557*
	(0.207)	(0.268)	(0.223)	(0.293)	(0.246)	(0.319)
τ: Your Pain	0.366***	0.619***	0.410***	0.745***	0.416***	0.777***
	(0.126)	(0.172)	(0.134)	(0.180)	(0.139)	(0.187)
η: Game Timing	0.129	0.136	0.149	0.165	0.178	0.195
	(0.127)	(0.128)	(0.133)	(0.136)	(0.139)	(0.141)
δ_1: Direct Victim × Your Pain		−0.472		−0.658**		−0.698**
		(0.290)		(0.306)		(0.319)
δ_2: Indirect Victim × Your Pain		−0.599		−0.675*		−0.749*
		(0.366)		(0.395)		(0.425)
Average outcome	0.502	0.502	0.502	0.502	0.502	0.502
Log likelihood	−288.239	−285.978	−274.147	−270.779	−265.046	−261.276
Observations	436	436	436	436	436	436
Week FE	✓	✓	✓	✓	✓	✓
Household-level covariates			✓	✓	✓	✓
Respondent-level covariates					✓	✓

Notes: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors in parentheses. Household-level covariates: Female household head, ln income, ln house size, family size, child family member, elderly family member, family member party membership, family member military service. Respondent-level covariates: Age, female, years of education, college education, party membership, military service, retired, unable to work, religious belief, birthplace Đà Nẵng.

D.5 Covariate Balance: Preprocessing via Cardinality Matching

Table D.8: Covariate Balance Across Observed Victimhood, with Cardinality Matching

	Panel A: "My Pain," Matched					
	Non-Victim ($N^{\mathrm{C}} = 112$)		Victim ($N^{\mathrm{T}} = 113$)		Balance Statistics	
	$\mathrm{Mean}^{\mathrm{C}}$	SD^{C}	$\mathrm{Mean}^{\mathrm{T}}$	SD^{T}	ASMD	KS
Household-Level Covariates						
Female Household Head	0.411	0.492	0.416	0.493	0.011	0.005
ln Wage Income (in million VND)	4.555	1.935	4.466	1.768	0.053	0.191
ln House Size (in m^2)	4.501	0.509	4.516	0.499	0.030	0.110
Family Size	3.732	1.698	3.823	1.997	0.050	0.052
Children Family Member	0.366	0.482	0.398	0.490	0.066	0.032
Elderly Family Member	0.688	0.464	0.699	0.459	0.026	0.012
Family Member Military Service	0.348	0.476	0.372	0.483	0.055	0.023
Family Member Party Membership	0.232	0.422	0.257	0.437	0.056	0.024
Respondent-Level Covariates						
Age	60.795	11.818	60.885	13.755	0.007	0.139
Female	0.509	0.500	0.487	0.500	0.045	0.022
Years of Education	9.080	3.814	8.929	4.253	0.037	0.070
College Education	0.125	0.331	0.150	0.358	0.064	0.025
Party Membership	0.196	0.397	0.204	0.403	0.017	0.007
Military Service	0.304	0.460	0.319	0.466	0.035	0.015
Retired	0.357	0.479	0.372	0.483	0.032	0.015
Unable to Work	0.143	0.350	0.133	0.339	0.035	0.010
Religious Belief	0.107	0.309	0.097	0.296	0.037	0.010
Birthplace Đà Nẵng	0.580	0.494	0.549	0.498	0.064	0.032
	Panel B: Direct Victim, Matched					
	Non-Direct Victim ($N^{\mathrm{C}} = 73$)		Direct Victim ($N^{\mathrm{T}} = 74$)		Balance Statistics	
	$\mathrm{Mean}^{\mathrm{C}}$	SD^{C}	$\mathrm{Mean}^{\mathrm{T}}$	SD^{T}	ASMD	KS
Household-Level Covariates						
Female Household Head	0.329	0.470	0.365	0.481	0.074	0.036
ln Wage Income (in million VND)	4.581	1.896	4.421	2.018	0.090	0.130
ln House Sizee (in m^2)	4.581	0.418	4.597	0.478	0.033	0.113
Family Size	3.808	1.713	3.689	1.937	0.067	0.094
Children Family Member	0.384	0.486	0.392	0.488	0.017	0.008
Elderly Family Member	0.795	0.404	0.784	0.412	0.026	0.011
Family Member Military Service	0.712	0.453	0.703	0.457	0.025	0.010
Family Member Party Membership	0.397	0.489	0.378	0.485	0.042	0.019
Respondent-Level Covariates						
Age	64.452	10.376	64.284	11.880	0.014	0.183
Female	0.384	0.486	0.419	0.493	0.071	0.035
Years of Education	9.493	3.790	9.189	4.341	0.072	0.077
College Education	0.178	0.383	0.189	0.392	0.029	0.011
Party Membership	0.315	0.465	0.338	0.473	0.053	0.023
Military Service	0.630	0.483	0.649	0.477	0.049	0.019
Retired	0.603	0.489	0.622	0.485	0.044	0.019
Unable to Work	0.123	0.329	0.149	0.356	0.085	0.025
Religious Belief	0.041	0.199	0.041	0.197	0.002	0.001
Birthplace Đà Nẵng	0.452	0.498	0.486	0.500	0.069	0.034

Table D.8 (contd.): Covariate Balance Across Observed Victimhood, with Cardinality Matching

	Panel C: Indirect Victim, Matched					
	Non-Indirect Victim ($N^{\mathrm{C}} = 70$)		Indirect Victim ($N^{\mathrm{T}} = 73$)		Balance Statistics	
	$\mathrm{Mean}^{\mathrm{C}}$	SD^{C}	$\mathrm{Mean}^{\mathrm{T}}$	SD^{T}	ASMD	KS
Household-Level Covariates						
Female Household Head	0.443	0.497	0.479	0.500	0.074	0.037
ln Wage Income (in million VND)	4.772	1.843	4.685	1.464	0.054	0.258
ln House Size (in m^2)	4.459	0.484	4.484	0.477	0.053	0.096
Family Size	4.329	1.816	4.425	2.041	0.051	0.081
Children Family Member	0.443	0.497	0.425	0.494	0.037	0.018
Elderly Family Member	0.729	0.445	0.753	0.431	0.055	0.025
Family Member Military Service	0.314	0.464	0.329	0.470	0.030	0.014
Family Member Party Membership	0.243	0.429	0.274	0.446	0.069	0.031
Respondent-Level Covariates						
Age	58.657	13.648	58.370	13.115	0.021	0.050
Female	0.586	0.493	0.589	0.492	0.007	0.003
Years of Education	9.229	4.247	9.274	3.856	0.011	0.088
College Education	0.157	0.364	0.178	0.383	0.053	0.021
Party Membership	0.129	0.335	0.123	0.329	0.014	0.005
Military Service	0.186	0.389	0.164	0.371	0.049	0.021
Retired	0.243	0.429	0.260	0.439	0.037	0.017
Unable to Work	0.100	0.300	0.096	0.294	0.014	0.004
Religious Belief	0.186	0.389	0.192	0.394	0.019	0.006
Birthplace Đà Nẵng	0.529	0.499	0.507	0.500	0.043	0.022

Notes: SD = Standard Deviation; ASMD = Absolute Standardized Mean Difference; ASMD = $\frac{|\bar{X}_T - \bar{X}_C|}{\sqrt{(s_T^2(X) + s_C^2(X))/2}}$ for continuous variables, and $\frac{|\bar{X}_T - \bar{X}_C|}{\sqrt{(\bar{X}_T(1-\bar{X}_T) + \bar{X}_C(1-\bar{X}_C))/2}}$ for dichotomous variables, where $\bar{X}_T$ and $\bar{X}_C$ are, respectively, subsample mean in the treatment group and the control group, and $s_T^2(X)$ and $s_C^2(X)$ are subsample variance; KS = Kolmogorov-Smirnov statistics.

Table D.9: Regression Estimates with Matched Data, "My Pain"

	Panel A: Stated Empathy (in 1-10 Scale)					
	(1)	(2)	(3)	(4)	(5)	(6)
γ: My Pain	0.278	0.582*	0.157	0.395	0.139	0.388
	(0.240)	(0.329)	(0.240)	(0.324)	(0.240)	(0.330)
τ: Your Pain	0.324	0.666*	0.433*	0.699*	0.380	0.660*
	(0.220)	(0.348)	(0.235)	(0.362)	(0.242)	(0.361)
η: Game Timing	0.189	0.204	0.207	0.220	0.366*	0.377*
	(0.223)	(0.221)	(0.217)	(0.216)	(0.221)	(0.221)
δ: My Pain × Your Pain		−0.687		−0.540		−0.566
		(0.431)		(0.452)		(0.456)
Average outcome	8.760	8.760	8.760	8.760	8.760	8.760
Adjusted R^2	0.031	0.038	0.100	0.103	0.150	0.154
	Panel B: Dictator Game Sharing (in 1,000 VND)					
γ: My Pain	−4.522	5.299	−6.829	2.939	−5.259	4.850
	(4.901)	(6.121)	(4.660)	(6.116)	(4.879)	(6.020)
τ: Your Pain	12.644***	23.685***	13.237***	24.159***	12.696***	24.064***
	(4.586)	(6.452)	(4.388)	(6.154)	(4.720)	(6.495)
η: Game Timing	6.085	6.554	6.840	7.373*	8.300*	8.745**
	(4.424)	(4.386)	(4.332)	(4.256)	(4.458)	(4.369)
δ: My Pain × Your Pain		−22.195**		−22.132**		−22.960**
		(9.021)		(8.735)		(9.013)
Average outcome	26.800	26.800	26.800	26.800	26.800	26.800
Adjusted R^2	0.085	0.107	0.205	0.227	0.204	0.229
Observations	225	225	225	225	225	225
Week FE	✓	✓	✓	✓	✓	✓
Household-level covariates			✓	✓	✓	✓
Respondent-level covariates					✓	✓

Notes: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors in parentheses. Household-level covariates: Female household head, ln income, ln house size, family size, child family member, elderly family member, family member party membership, family member military service. Respondent-level covariates: Age, female, years of education, college education, party membership, military service, retired, unable to work, religious belief, birthplace Đà Nẵng.

Table D.10: Regression Estimates with Matched Data, Direct Victim

	Panel A: Stated Empathy					
	(1)	(2)	(3)	(4)	(5)	(6)
γ_1: Direct Victim	0.546**	0.851**	0.509**	0.777**	0.514**	0.707**
	(0.251)	(0.371)	(0.229)	(0.339)	(0.235)	(0.348)
γ_2: Indirect Victim	−0.771*	−0.793	−0.715	−0.739	−0.477	−0.667
	(0.454)	(0.616)	(0.461)	(0.611)	(0.570)	(0.715)
τ: Your Pain	−0.010	0.242	0.040	0.258	0.039	0.107
	(0.220)	(0.463)	(0.210)	(0.429)	(0.223)	(0.426)
η: Game Timing	0.346	0.391*	0.433*	0.473**	0.457*	0.518**
	(0.221)	(0.223)	(0.233)	(0.228)	(0.258)	(0.254)
δ_1: Direct Victim × Your Pain		−0.573		−0.500		−0.331
		(0.530)		(0.509)		(0.488)
δ_2: Indirect Victim × Your Pain		0.168		0.156		0.593
		(0.941)		(0.966)		(1.178)
F-test for $\gamma_1 = \gamma_2$	10.964***	9.833***	8.437***	7.829***	3.890*	4.848**
F-test for $\delta_1 = \delta_2$		0.790		0.583		0.715
F-test for $\delta_1 = \delta_2 = 0$		1.171		0.963		0.460
Average outcome	9.048	9.048	9.048	9.048	9.048	9.048
Adjusted R^2	0.105	0.104	0.180	0.177	0.216	0.215
	Panel B: Dictator Game Sharing					
γ_1: Direct Victim	−16.695**	−1.765	−17.436**	−0.666	−14.037*	2.186
	(6.762)	(9.236)	(6.819)	(9.664)	(7.461)	(10.140)
γ_2: Indirect Victim	−20.273**	−11.371	−22.177**	−11.671	−10.388	−0.943
	(8.286)	(11.060)	(8.670)	(12.119)	(9.784)	(12.769)
τ: Your Pain	7.091	23.927**	5.322	24.406**	5.221	23.491**
	(6.062)	(9.639)	(5.991)	(9.629)	(6.168)	(10.600)
η: Game Timing	6.168	7.019	4.191	4.938	4.641	5.339
	(5.701)	(5.724)	(6.126)	(6.137)	(6.212)	(6.307)
δ_1: Direct Victim × Your Pain		−29.635**		−33.272***		−32.060**
		(12.906)		(12.702)		(13.555)
δ_2: Indirect Victim × Your Pain		−16.571		−20.315		−18.091
		(17.440)		(18.245)		(19.743)
F-test for $\gamma_1 = \gamma_2$	0.226	0.878	0.367	0.878	0.197	0.065
F-test for $\delta_1 = \delta_2$		0.593		0.500		0.510
F-test for $\delta_1 = \delta_2 = 0$		5.273**		6.861***		5.594**
Average outcome	26.599	26.599	26.599	26.599	26.599	26.599
Adjusted R^2	0.097	0.121	0.152	0.188	0.173	0.207
Observations	147	147	147	147	147	147
Week FE	✓	✓	✓	✓	✓	✓
Household-level covariates			✓	✓	✓	✓
Respondent-level covariates					✓	✓

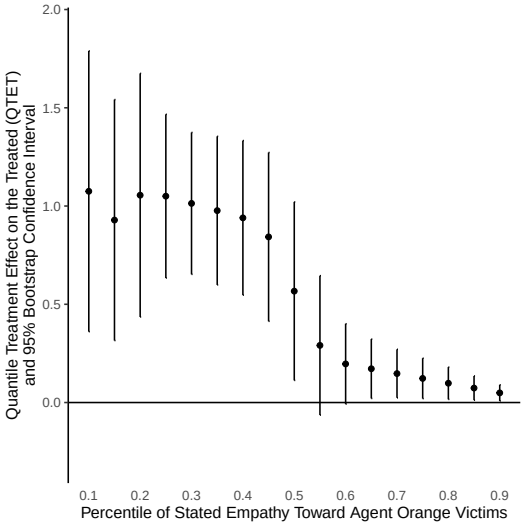
Notes: $^*p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$. Robust standard errors in parentheses. Household-level covariates: Female household head, ln income, ln house size, family size, child family member, elderly family member, family member party membership, family member military service. Respondent-level covariates: Age, female, years of education, college education, party membership, military service, retired, unable to work, religious belief, birthplace Đà Nẵng.

Table D.11: Regression Estimates with Matched Data, Indirect Victim

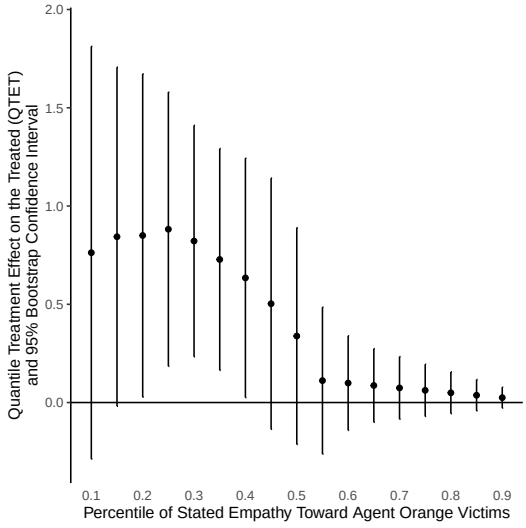
	Panel A: Stated Empathy					
	(1)	(2)	(3)	(4)	(5)	(6)
γ_1: Direct Victim	0.716*	1.420***	0.498	1.112*	0.707	1.335**
	(0.396)	(0.488)	(0.456)	(0.570)	(0.549)	(0.617)
γ_2: Indirect Victim	−0.030	0.527	−0.124	0.325	−0.100	0.325
	(0.351)	(0.515)	(0.359)	(0.535)	(0.402)	(0.577)
τ: Your Pain	0.206	0.977*	0.196	0.813	0.233	0.850
	(0.272)	(0.509)	(0.282)	(0.542)	(0.311)	(0.589)
η: Game Timing	−0.309	−0.332	−0.221	−0.241	−0.214	−0.251
	(0.256)	(0.258)	(0.260)	(0.262)	(0.276)	(0.281)
δ_1: Direct Victim × Your Pain		−1.680**		−1.387		−1.481
		(0.696)		(0.846)		(0.988)
δ_2: Indirect Victim × Your Pain		−1.156*		−0.920		−0.895
		(0.623)		(0.687)		(0.744)
F-test for $\gamma_1 = \gamma_2$	6.039**	6.096**	3.183*	3.453*	4.070**	4.458**
F-test for $\delta_1 = \delta_2$		0.819		0.368		0.391
F-test for $\delta_1 = \delta_2 = 0$		5.830**		2.687		2.248
Average outcome	8.524	8.524	8.524	8.524	8.524	8.524
Adjusted R^2	0.132	0.158	0.164	0.175	0.128	0.140
	Panel B: Dictator Game Sharing					
γ_1: Direct Victim	−1.936	9.584	−6.278	11.936	−0.802	15.879
	(9.373)	(12.845)	(10.650)	(13.929)	(12.163)	(14.962)
γ_2: Indirect Victim	−5.222	4.238	−6.845	5.249	−4.299	7.980
	(6.264)	(7.781)	(6.410)	(8.346)	(7.233)	(9.202)
τ: Your Pain	7.093	20.078**	6.745	23.906**	7.378	24.637**
	(5.394)	(9.188)	(5.768)	(9.573)	(6.177)	(10.180)
η: Game Timing	0.353	−0.063	−0.008	−0.449	1.381	0.272
	(5.098)	(5.225)	(5.215)	(5.270)	(5.969)	(5.979)
δ_1: Direct Victim × Your Pain		−27.494		−41.559**		−38.900**
		(18.388)		(17.415)		(19.368)
δ_2: Indirect Victim × Your Pain		−19.665*		−24.755*		−25.764*
		(11.416)		(12.748)		(13.622)
F-test for $\gamma_1 = \gamma_2$	0.135	0.181	0.004	0.249	0.117	0.330
F-test for $\delta_1 = \delta_2$		0.201		0.889		0.437
F-test for $\delta_1 = \delta_2 = 0$		2.236		5.695**		4.034**
Average outcome	22.657	22.657	22.657	22.657	22.657	22.657
Adjusted R^2	0.003	0.020	0.046	0.088	0.028	0.069
Observations	143	143	143	143	143	143
Week FE	✓	✓	✓	✓	✓	✓
Household-level covariates			✓	✓	✓	✓
Respondent-level covariates					✓	✓

Notes: *$p < 0.1$; **$p < 0.05$; ***$p < 0.01$. Robust standard errors in parentheses. Household-level covariates: Female household head, ln income, ln house size, family size, child family member, elderly family member, family member party membership, family member military service. Respondent-level covariates: Age, female, years of education, college education, party membership, military service, retired, unable to work, religious belief, birthplace Đà Nẵng.

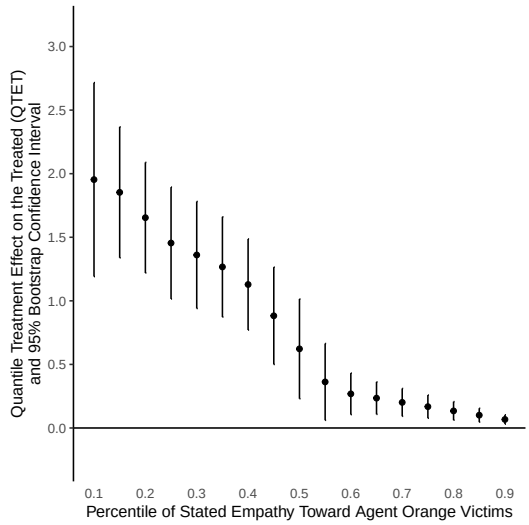
D.6 Heterogeneity Along Outcome Distribution: Quantile Treatment Effect Estimates



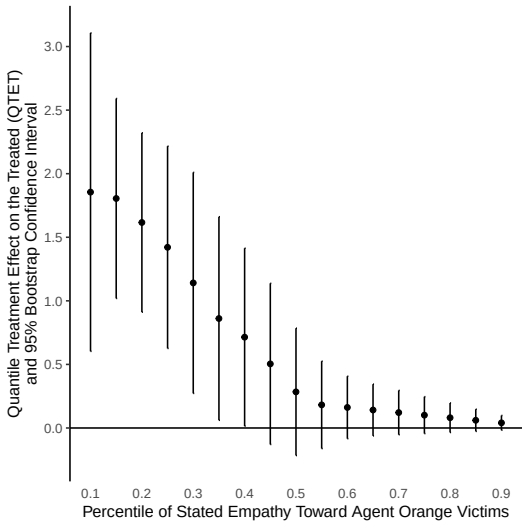
(a) "My Pain" and Stated Empathy, Raw Data ($N = 436$)



(b) "My Pain" and Stated Empathy, Matched Data ($N^{\text{Matched}} = 225$)

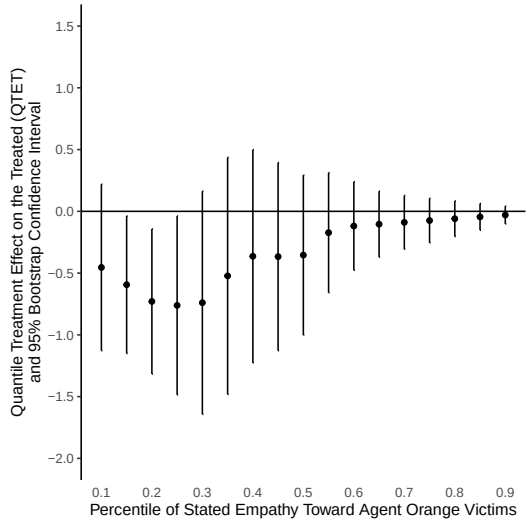


(c) Direct Victimhood and Stated Empathy, Raw Data ($N = 436$)

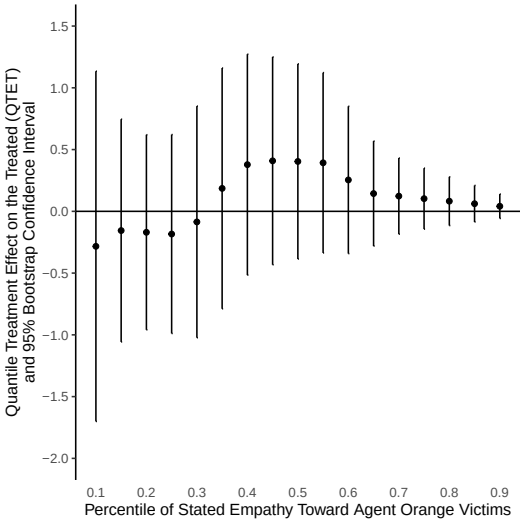


(d) Direct Victimhood and Stated Empathy, Matched Data ($N^{\text{Matched}} = 147$)

Figure D.6: Quantile Treatment Effect on the Treated Estimates, Observed Victimhood and Stated Empathy Toward Agent Orange Victims



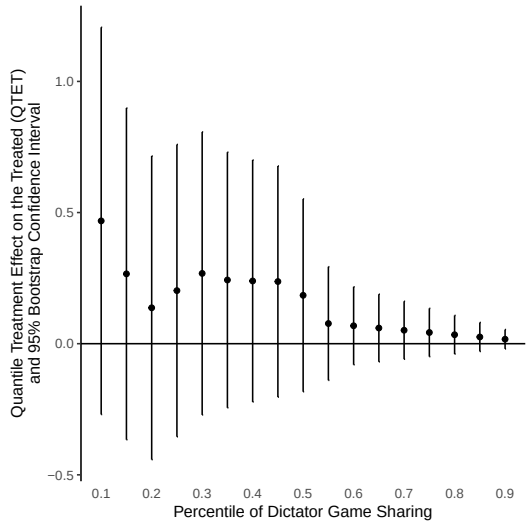
(e) Indirect Victimhood and Stated Empathy, Raw Data ($N = 436$)



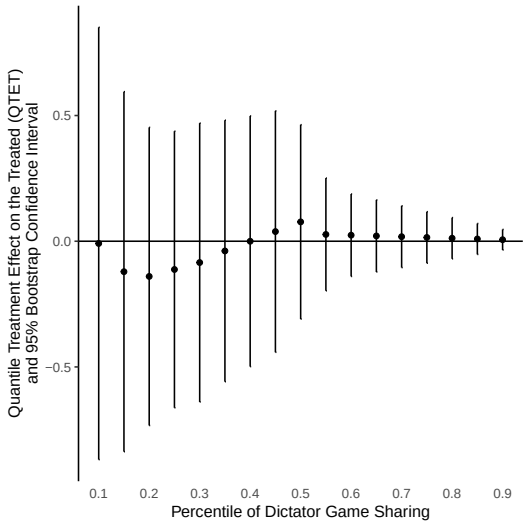
(f) Indirect Victimhood and Stated Empathy, Matched Data ($N^{\text{Matched}} = 143$)

Figure D.6 (contd.): Quantile Treatment Effect on the Treated Estimates, Observed Victimhood and Stated Empathy Toward Agent Orange Victims

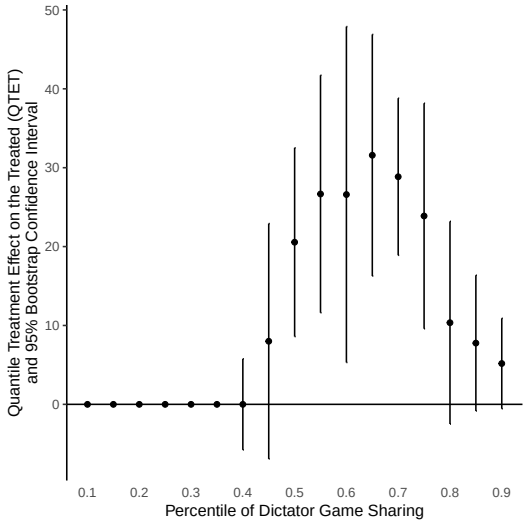
Notes: Quantile treatment effect on the treated (QTET) estimates with raw data ((a), (c), (e)) and matched data ((b), (d), (f)). Panels (a) and (b) display QTET estimates for "My Pain," Panels (c) and (d) show the estimates for direct victimhood, and Panels (e) and (f) show the estimates for indirect victimhood, using the estimator of Firpo (2007). Matched samples are obtained by cardinality matching (Zubizarreta, 2012; Zubizarreta, Paredes and Rosenbaum, 2014), as reported in Table D.8. Horizontal axis represents the outcome percentiles. Dots and vertical segments indicate the QTET estimates and the corresponding 95% bootstrap confidence intervals.



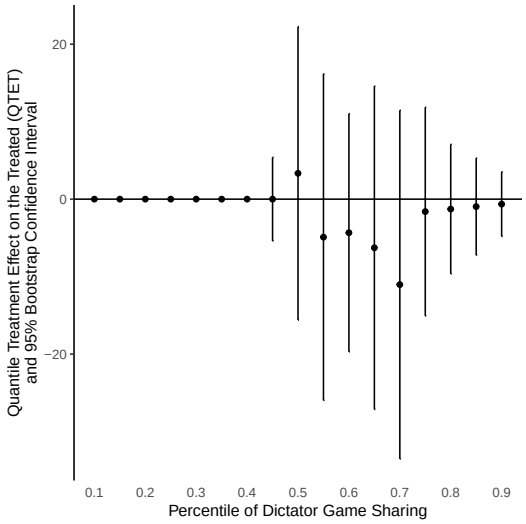
(a) "Your Pain" and Stated Empathy



(b) Dictator Game Timing and Stated Empathy



(c) "Your Pain" and Dictator Game Sharing



(d) Dictator Game Timing and Dictator Game Sharing

Figure D.7: Quantile Treatment Effect Estimates, Experimental Treatments on Stated Empathy Toward Agent Orange Victims and Dictator Game Sharing

Notes: Quantile treatment effect on the treated (QTET) estimates for randomized treatments, "your pain" and the timing of the Dictator Game on (a), (b) stated empathy toward Agent Orange victims and (c), (d) Dictator Game sharing. QTET estimates are obtained using the estimator of Firpo (2007). Horizontal axis represents the outcome percentiles. Dots and vertical segments indicate the QTET estimates and the corresponding 95% bootstrap confidence intervals.

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