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Mine, Theirs or Ours? A Multi-Country Experiment on Citizens' Motivations to Invest in Mental Health

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ABSTRACT

Mine, Theirs or Ours? A Multi-Country Experiment on Citizens' Motivations to Invest in Mental Health

Mental health is vital for well-being and productivity, yet investment remains chronically low. We study how different framings of mental health investment affect cooperation and donations using a pre-registered online experiment across five European countries (N = 8,312). Participants were randomly assigned to receive information emphasizing either individual benefits (Private Perspective), collective benefits (Public Perspective), or prevalence data (Neutral Perspective). All treatments significantly increase cooperation in a Public Goods Game and donations in a Charity Dictator Game, suggesting intrinsic motivation drives behavior. Only the Private Perspective increases personal normative expectations, while empirical expectations remain unaffected—suggesting that interventions influence moral beliefs more than beliefs about others' actions. All treatments reduce self-reported mental health stigma, consistent with evidence from a list experiment, suggesting stigma reduction as a key mechanism. Heterogeneity analyses show stronger treatment effects among individuals with lived experience or prior concern, and reduced contributions under collective framings when public provision is perceived as adequate—consistent with a substitution effect between public and private action. Donations also decline in post-communist countries, aligning with historically lower institutional trust and weaker norms of private giving. These findings highlight how individual perceptions and institutional legacies shape behavioural responses, and suggest that perceived adequacy of public provision can backfire by discouraging private engagement—potentially trapping societies in a bad equilibrium of persistent underinvestment in mental health.

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1   Introduction

The WHO estimates that over 125 million people in Europe suffered from mental health conditions in 2019, with a staggering 119,000 recorded suicides [42]. Public knowledge about recognition, management, and prevention of mental health conditions remains low [24, 36], suggesting that underinvestment may stem partly from an information gap, as noted in the WHO European Framework for Action on Mental Health (2021–2025) [42]. Since mental health affects others beyond the individual [4, 21, 12, 22, 13, 56, 5, 53], low investment may also reflect the incomplete appropriability of its broader social returns, similar to human capital.

Our study aims to inform policies aiming to increase mental health investments, and focuses on information provision and raising awareness of the private and public returns, influencing both individual and collective behaviours. Using a representative online survey experiment across seven European countries (N=8,312) –i.e. France, Germany, Italy, Latvia, Slovakia, Spain and Sweden– selected to reflect distinct historical and institutional trajectories (i.e., Western, post-communist, and Nordic), we examine whether exposure to different framings of mental health—emphasizing its benefits as either private or public—affects both willingness to engage in collective action and to invest privately.

Our experiment consists of three treatment conditions: (i) Private Perspective, which frames mental health as a personal issue by emphasizing individual investment benefits; (ii) Public Perspective, which highlights the societal benefits of collective investment in mental health; and (iii) Neutral Perspective, which provides only prevalence information. A Control Condition, serving as a benchmark, presents unrelated, neutral information.

To assess the behavioural effects of these treatments, we observe two money-incentivised outcomes: (i) donation decisions in a Charity Dictator Game (CDG) and (ii) contributions in an unframed Public Goods Game (PGG). In the CDG, participants allocate donations across multiple causes—including cancer research, ocean conservation, social justice, and mental health—allowing us to measure their willingness to prioritise mental health investments at personal cost. The PGG, by contrast, captures cooperative behaviour in a collective setting where contributions benefit all, but are made under strategic uncertainty about others' willingness to contribute. Importantly, the PGG is unframed with respect to mental health to mitigate experimenter demand effects, while still enabling us to observe how informational treatments influence prosocial behaviour in contexts that require trust and coordination.

Analysing these two outcomes together allows to assess whether and how mental health preferences are shaped by different information framings, distinguishing between private investment behaviour and cooperative behaviour in a collective setting, where individual decisions may generate negative social externalities.Additionally, we investigate the mechanisms underlying behavioural responses. Given that contributions to public goods are often shaped by beliefs about others' behaviour [27, 19, 26, 9, 15], we elicit both empirical expectations (how much participants believe others *will* contribute) and personal normative expectations (how much participants believe others *should* contribute). This allows us to identify which type of expectation is most responsive to our treatments and most predictive of individual behaviour.

Second, we examine whether our results are driven by reductions in mental health stigma. Persistent stigma can undermine both awareness and individuals' willingness to support or invest in mental health solutions [5, 18, 53, 8, 50, 48]. To assess this channel, we measure stigma using two complementary approaches. First, we include a

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direct post-experimental question on the perceived acceptability of being absent from work for mental health reasons, which serves as a self-reported proxy. Second, we implement a pre-experimental list experiment to capture more implicit attitudes and to benchmark the extent to which responses to the direct question may be affected by social desirability bias—an important concern when addressing sensitive issues like mental health.

Finally, we elicit participants' prior beliefs about the severity of the mental health crisis and assess their own mental well-being. These measures allow us to conduct additional heterogeneity analyses, examining whether individuals' initial perceptions of mental health issues and their personal experiences influence their responses to the informational treatments.

Our results show that all treatments significantly increase cooperation in the PGG and donations in the CDG, indicating that cost-effective informational interventions can promote mental health awareness and support for related investment. Despite the theoretical differences between these two contexts—one requiring strategic coordination, the other an individual decision—we observe remarkably similar behavioural responses across games. This suggests that the effects of our informational treatments are not strongly mediated by the strategic structure of the decision, but instead reflect a broader shift in individual motivation.

Notably, the Private Perspective is the only condition that significantly increases personal normative expectations, while empirical expectations remain unchanged across conditions—indicating that behaviour is driven more by intrinsic concern or moral commitment than by beliefs about others' actions.

These findings have two main implications. First, providing information about mental health trends and prompting individuals to reflect on the issue—regardless of

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whether the framing emphasizes private or public investment—is sufficient to increase willingness to make costly donations and to cooperate in support of a public good. Second, individuals' willingness to contribute to mental health initiatives appears to be rooted in personal motivation rather than conditional cooperation, with the Private Perspective framing being particularly effective in reinforcing normative beliefs about individual responsibility. Together, these results highlight the potential of low-cost informational interventions to foster intrinsically motivated engagement with public health issues across diverse decision-making contexts.

As a potential psychological mechanism behind our treatment effects, we find that all informational framings reduce mental health stigma: participants are less likely to consider being absent from work for depression unacceptable. Importantly, this effect is not fully attributable to social desirability bias, as this mechanism only activates in donations when exposed to the public narrative. If social desirability were to explain these results, it would apply uniformly across incentivized games and treatments.

We find evidence of heterogeneity in treatment effects. Participants who report experiencing mental health issues themselves or who express strong prior concern about the severity of the problem are more responsive to the informational treatments, particularly in terms of contributions. This suggests that individuals who perceive mental health as personally relevant are more motivated to support investment. Conversely, it may also help understand why others are less responsive or willing to contribute: if individuals do not see mental health as a pressing or personally relevant issue, they may not feel compelled to act, even when presented with compelling information. Hence, broad public support may be difficult to achieve without addressing the psychological distance many people feel from the issue.

At the same time, we observe a substitution effect between private and public

investment: participants exposed to the Public Perspective contribute less in the PGG when they perceive mental health services in their country as adequate—and when they believe others hold the same view. This implies that emphasizing collective responsibility may crowd out personal willingness to invest when individuals assume the state is already fulfilling that role. Crucially, this perception—whether accurate or not—can act as a barrier to broader engagement with mental health funding. If individuals and communities reduce their efforts based on an overestimation of public provision, this could discourage both personal and collective investments, potentially locking the country into a 'bad equilibrium' of underinvestment and unmet needs.

Finally, we consider the different geopolitical context that characterize groups of countries, based on their historical and institutional legacies. We find no heterogeneity in treatment effects for cooperation, while donations are significantly reduced by Public and No Perspective treatments in post-soviet countries, where historical legacies of state dominance and authoritarian rule have contributed to lower levels of institutional trust, skepticism toward public narratives, and relatively weaker norms of private charitable giving [6, 1, 40].

2 Mental health

The American Psychiatric Association defines mental disorders as behavioural or psychological syndromes or patterns that occurs in an individual reflecting an underlying psychobiological dysfunction and leading to clinically significant distresses or disabilities that are not merely an expected response to common stressors and losses, or a culturally sanctioned response to a particular event [2].

Mental health represents an integral part of an individual's capacity to think,

emote, interact with others, earn a living and enjoy life (WHO European Framework for Action on Mental Health 2021-2025 [42]).

The WHO European Framework for Action on Mental Health (EFAMH, 2021-2025) key priorities for action include increasing mental health literacy and investment in mental health to meet unmet needs, addressing fragmented or uncoordinated service delivery, inadequate governance and information systems that lead to widespread reliance on psychiatric hospitals or social care institutions at the expense of more effective community care institutions, which are often understaffed and underfunded [42]. In addition to low mental health literacy, other potential motivations for chronic underfunding of mental health include deep-rooted stigma and discrimination against people with mental health conditions and psychosocial disabilities.

Low mental health literacy is associated with low service utilization ([35, 38, 49]) higher rates of depression, anxiety, stress, and internalized stigma. In particular, adults with mental health literacy display lower mental health stigma and aversion to help-seeking [28].

A related important issue thus regards the potentially contentious nature of feelings towards mental health, which is often stigmatized by individuals leading to under-reporting of their own problems ([48, 8]) but also by health care practitioners who are less likely to refer to a specialist or refill prescriptions for patients when they endorse stigmatizing characteristics of the patient([18]) and medical school students [50].

Low Mental health literacy and stigma are also connected to higher caregiver burden ([51]) that is effects that spillover from sufferers to those around them.

The problem is not only affecting individuals: in a similar vein to spillovers in physical health ([14, 32, 34, 54]), mental health spillovers have recently been documented, both within families ([4, 21, 12]), among college roommates ([25]) but also

more widely to caregivers ([22]), in migrant communities ([13]) and communities more generally ([56, 5, 55, 53]).

Our study investigates the relative importance of all these factors in underinvestment in mental health making use of an incentivized online survey experiment as done to study other health related investments, for example in the context of incentives for vaccinations ([44, 20]). The next section details the experimental design.

3 Methods

The experiment was pre-registered with the American Economic Association's Registry for Randomized Controlled Trials (AEARCTR) under the ID AEARCTR-0014956. The design integrates a list experiment, two behavioural tasks, informationtreatments, and the measure of key outcome variables. Participants first complete a list experiment measuring their stigma about mental health. They are then randomly assigned to one of four narratives – three related to mental health (framed from a private, public, or neutral perspective) and one control narrative unrelated to mental health. This is followed by two incentivized tasks: a public goods game and a charity dictator game, whose order is randomized. Finally, participants complete a post-experimental survey collecting both information on their beliefs, explicit mental health stigma, and socio-demographic characteristics. Figure A1 presents graphically the detailed experimental structure.

The following subsections describe the information treatments (Section 3.1), the outcome variables (Section 3.2), the stigma measurement strategy (Section 3.3), and further components including data quality, collection procedures, and our estimation approach.

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3.1 Treatments

Participants are randomly exposed to one of four different narratives with the same probability. The three treatment narratives are about mental health, whereas the last one is a control narrative about mountains on Earth and in the solar system.

All treatment narratives are composed of two parts, one common to all, and one specific for each treatment, and are illustrated with a related cartoon that supports the text with a visual illustration of the mental health problem and its possible solutions. The common part aims to introduce the topic and the characters of the cartoon that will help visualize the treatment. The text describes a situation of a character having difficulties to cross the street due to unspecified mental health issues, which could plausibly be thought as anxiety-related, and read as follows:

People with mental health issues often **struggle** *to do simple things such as* **not being able to cross the street***.*

This instead may seem effortless for other people.

We emphasize two parts with bold fonts to make the relevant elements salient for participants. The illustration is a direct representation of this situation (Figure 1). We use animals as characters as a way to discourage participants from forming any kind of stereotypical associations between mental health issues and specific socio-demographic groups.

Participants then move to the specific part of their assigned narrative. The first narrative (Figure 2a) emphasizes the private dimension of mental health problems by highlighting the private return of a private investment in mental health:

Personal investments in mental health can lead to **significant individual**
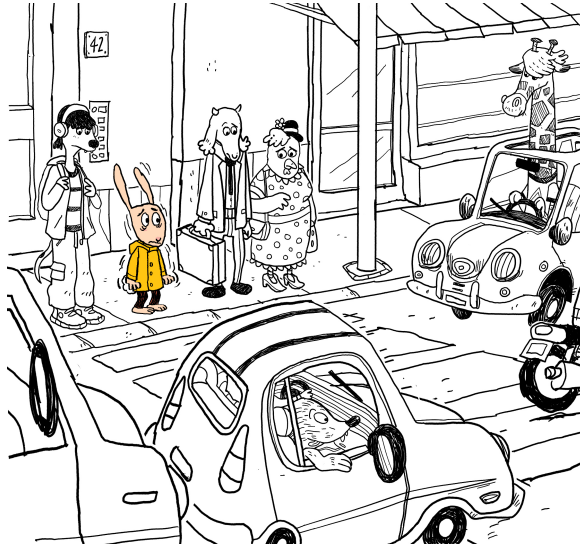
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Figure 1: Common picture of the treatment narratives

*benefits: by focusing on mental health, individuals can achieve greater emotional stability, resilience, and well-being, ultimately **making their life healthier and more productive**.*

The second narrative (Figure 2b) underlines the public dimension by pointing out the collective benefits from a collective investment in mental health:

*When **society invests** in mental health, **everyone benefits**: by collectively focusing on mental health, we can **all** achieve greater emotional stability, resilience, and well-being, ultimately leading to a **healthier and more productive society**.*

The third narrative (Figure 2c) takes a neutral perspective on the problem and presents the consequences when no investment in mental health takes place:

*When no one invests in mental health, people may still get by, yet with **unsatisfactory outcomes**, such as waiting, **even late at night**, until everybody leaves to cross the street.*

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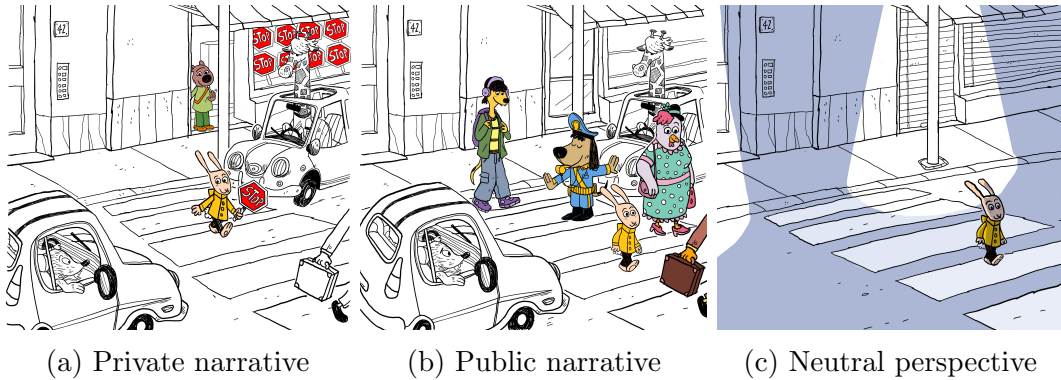| (a) Private narrative | (b) Public narrative | (c) Neutral perspective |

Figure 2: Specific pictures of the treatment narratives

The control narrative refers to the worldwide distribution of mountains informing about the number of peaks exceeding a certain height, and is provided to furnish an equivalent, yet unrelated, task to the control group.

3.2 Outcomes

3.2.1 Public goods game

In this simple version of the PGG, participants are told that they will be randomly matched ex-post with three other participants, forming groups of four. Each participant is endowed with 100 tokens, which are later converted into euros (or krones for Sweden). These tokens can be freely allocated between a private account (kept for oneself) and a group account (a generic, unspecified public good).

The total amount contributed to the group account by all members is doubled and then equally divided among all four participants, regardless of individual contribution levels.

The group size and the 2x multiplier are chosen to render the computation of

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payoffs clearer for participants to understand. Before the game, participants are shown one of three illustrative examples and asked a comprehension question to ensure understanding[1].

3.2.2 Charity dictator game

In the charity dictator game, participants are again endowed with 100 tokens. They are invited to allocate this endowment between themselves and a set of four charitable organizations, one of which focuses on mental health. Participants indicate how much they wish to donate to each organization, with the constraint that total donations cannot exceed their 100-token endowment.

The game is framed as a real charitable decision, and participants are informed that one of the two games they played (PGG or CDG) will be randomly selected to determine their actual payment. The donation options include: Mental Health Europe, CARE International, The Ocean Cleanup, and The European Cancer Community Foundation. Clicking on each organization reveals a short description, ensuring participants are aware of the causes they are supporting.

This setup allows us to measure individual willingness to financially support mental health initiatives in a non-strategic context, as opposed to the strategic group decision required in the PGG.

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[1]Participants are randomly assigned one of three comprehension questions to assess their understanding of the PGG: (1) calculating the reward when no one contributes; (2) when the participant contributes 100 tokens and the others contribute 300 tokens in total; and (3) when the participant contributes 50 tokens while the others contribute nothing. Examples also varied across participants, illustrating: (1) zero contribution by the participant and 50 tokens by each of the others; (2) full contribution by the participant and none by others; or (3) equal contributions of 50 tokens by all group members.

3.3 Stigma as a mechanism

Stigma toward mental health issues remains widespread. Depressive symptoms and other mental illnesses are regularly viewed poorly and affected people are often discriminated against. In this experiment, we first want to establish the extent of stigma, and the extent to which it may be affected by our treatments, using a list experiment and direct question.

List experiments, first introduced in the mid-1980s [39, 23], are designed to estimate prevalence rates of sensitive behaviours, free of misreporting biases (e.g. induced by social desirability). Instead of asking respondents directly about their own propensity to adopt the sensitive behaviour, respondents are assigned to randomly selected lists of behaviours and have to report how many of them they adopt, not which ones. The two lists are similar except that the treatment list will contain the sensitive behaviour whereas the control list will not. Provided that respondents do not report the maximum or minimum number of behaviours, researchers have no way to know whether an individual in particular has adopted the sensitive behaviour or not. However, by comparing the average reported number of behaviours in the treatment and control lists, it is possible to recover an unbiased estimate of the prevalence of the sensitive behaviour.

We employ a double list experiment setup [23, 31, 37, 16] where all respondents see two lists – one control and one treatment – instead of only one of the two. This allows us to increase the precision of the estimate and perform diagnostic tests of the list design [10, 16]. On the downside, creating two valid lists is at least twice as challenging due to the need to validate assumptions for both lists and ensure that the

two lists work together as well.[2]

As mental disorders cover a very wide spectrum of conditions, often not even visible, we decided to focus on depression, which is the most visible and prevalent mental disorder in Europe. Following standard practices [31], we decided to frame all the behaviours on the lists in the same context of reasons to be absent from work, as it avoids the sensitive behaviour to stand out compared to the rest of the list. In addition, we need to ensure that privacy is guaranteed by avoiding any floor (no behaviour is selected) or ceiling (all behaviours are selected) effects. To do so, the other behaviours on the lists includes reasons that are both acceptable and unacceptable, making them negatively correlated. Moreover, some of these behaviours are supposedly very high or very low prevalence to further mitigate these concerns. The control and treatment lists have respectively four and five behaviours to balance the need to have short enough lists to keep things simple for respondents, though not too short to avoid a breach of privacy. Then, the two sets of control behaviours were constituted such that each behaviour in the first set has a counterpart of equivalent prevalence and tone in the second set to make the two lists positively correlated [31]. Last, we randomize the position of each item in every list.

We also randomly assign participants to one of two versions of the control group: a pure control group with four behaviours, and a control group including a placebo

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[2]Common assumptions are referred as *No design effect* and *No liars* [10]. The *No design effect* assumption refers to the fact that introducing the sensitive behaviour in the list should not change how respondents select other items. The *No liars* assumption requires that respondents report truthfully on the sensitive behaviour. Together, they imply that the sensitive behaviour should be independent of the other behaviours in the list and that answers to the other behaviours do not matter as long as they are picked similarly across groups. [16] also recently suggest that the participants' propensity to report the sensitive behaviour may depends on the control behaviours around. They propose to leverage the inclusion of the sensitive behaviour in two different sets of control behaviours to test for the consistency of the estimated prevalence across both sets of lists as a way to assess this design issue. We provide evidence for the absence of such effects [10, 16] in Figure A3.

Table 1: Lists design

Here is a list of reasons that sometimes people invoke to justify their absence from work, which some of us may find **unacceptable** and some may not:

Treatment A	**Control A**	**Placebo A**
to take part in software professional training	to take part in software professional training	to take part in software professional training
to catch up on professional emails	to catch up on professional emails	to catch up on professional emails
for parental leave	for parental leave	for parental leave
for a headache	for a headache	for a headache
for depression		for being hospitalized after a car accident

Treatment B	**Control B**	**Placebo B**
to take part in networking professional session	to take part in networking professional session	to take part in networking professional session
to catch up on professional backlog	to catch up on professional backlog	to catch up on professional backlog
for elder care leave	for elder care leave	for elder care leave
for a stomachache	for a stomachache	for a stomachache
for depression		for being hospitalized after a car accident

HOW MANY of them do you find **unacceptable**? Please provide **honest** answers. We don't want to know which ones, just **HOW MANY**.

behaviour as the fifth behaviour [45]. In this context, a placebo behaviour is a behaviour that respondents are certain to reject with respect to the situation considered such that its inclusion does not affect the reported total number of behaviours. This allows to check whether the number of behaviours reported depends on the number of items in the list. Table 1 reports the final set of lists used in the experiment. Each respondent views two lists, one from each set (A and B) and one treatment and one control (either control or placebo), conditional on what list has been seen in the first set.

To establish a reliable baseline, we place the list experiment first and, after the behavioural games, we measure directly stigma, by asking the direct question "Would you find unacceptable to be absent from work for depression?". Direct questions about sensitive behaviours is standard practice in list experiments [31], as it allows to compare the difference of prevalence estimated in the list and the direct question. Any difference between the two would be attributed to social desirability bias.

We decided to place the direct question at the end of the post-experiment survey, just before the socio-demographics section, for two reasons. First, it reduces the risk that participants associate the direct question to the earlier list experiment. Secondly,

we prefer to proceed with the behavioural games first, as the effects of information treatments are often short-lived. While this ordering prioritizes the treatments' effect on the behavioural games, the stigma estimate may be underestimated.

To assess the relevance of stigma about mental health as a mechanism, we first test whether the treatment has an effect on stigma (measured with the direct question) using a logistic regression. Then, we estimate the effect of stigma on the behavioural outcomes from the PGG and CDG.

3.4   Post-experimental survey

After completing the behavioural tasks, participants answered a structured post-experimental survey collecting, beyond the socio-demographic information, a set of variables relevant to treatment heterogeneity and underlying mechanisms. Specifically, the survey included:

- *Perceived adequacy of public mental health services*, ranging from 0 to 10, with higher scores reflecting a more favorable perception.

- *Beliefs about others' evaluation of public mental health services*, with higher values indicating more favorable evaluations attributed to others.

- *Self-reported mental well-being*, measured through a composite index derived from a principal component analysis (PCA) of multiple mental health–related survey items (e.g., emotional stability, mood, perceived stress), as in WHO5 ([41]). The resulting score is then dichotomized, identifying respondents below the sample median as having lower well-being. This variable is used to examine personal vulnerability or lived experience with mental health issues. The use

of self-reported well-being as a proxy for mental health is grounded in a robust literature. It has been shown to correlate strongly with professional assessments and to predict a wide range of life outcomes—including life expectancy, morbidity, marriage duration, and labour market performance. Specifically, lower well-being is associated with lower productivity, lower wages, higher absenteeism, greater job instability, and longer unemployment spells [29, 11, 17, 30, 43].

3.5 Data collection and quality

The data were collected by Dynata through the Qualtrics platform. Participants were selected through quota-based sampling by gender, age, and education to ensure representativeness within each country.

To ensure data quality, several validation procedures were implemented. Three attention checks were embedded throughout the survey. Individuals who failed these checks or completed the survey in implausibly short durations were excluded from the analytical sample. Moreover, participants were required to answer comprehension questions correctly in order to demonstrate understanding of the payoff structure in the public goods game. These comprehension questions were not used as exclusion criteria, but they are considered as part of the robustness checks reported in the following sections.

Only respondents who passed all quality filters and completed the entire survey were retained in the final sample. This results in 8,312 valid observations, distributed as follows: 1,328 in France, 1,328 in Germany, 1,330 in Italy, 1,326 in Spain, 1,001 in Latvia, 1,002 in Slovakia, and 997 in Sweden.

3.6 Specification

We test whether the treatments we designed are effective in both the public good game and the donation game, by comparing each to the pure control group. The specification is the following:

$$Y_i = \beta_0 + \sum_{k=1}^{3} \beta_k \times D_{ki} + \gamma \times X_i + \epsilon_i \tag{1}$$

This specification allows us to analyze the effect of each treatment on a set of outcome variables Y_i. For the public good game, we examine the impact on individual contributions to the game, beliefs about others' contributions, and beliefs about how much others should contribute. For the charity dictator game, we analyze the effect on individual donations to the mental health-related project, as well as total donations regardless of the project topic.

Moreover, D_{1i} equals 1 if individual i received the Public narrative, D_{2i} equals 1 if assigned to the Private narrative, and D_{3i} equals 1 if assigned to the No Perspective narrative. Each of these variables takes the value 0 otherwise. The coefficients of interest are β_1, β_2, and β_3, which represent the average change in the outcome variable Y_i, measured in the number of tokens, associated with each of the three treatments relative to the pure control group.

We include a set of control variables X_i to account for sociodemographic characteristics, including age, income, education level, marital status, and employment status. β_0 and ϵ_i are the constant and the error terms respectively.

Lastly, we examine the plausible mechanisms underlying our main findings. To do so, we estimate the following specification. As in Equation 1, we use the pure control group as a common baseline across treatments, but we now include the variable we

identify as a potential mechanism and interact it with the treatment dummies:

$$Y_i = \beta_0 + \sum_{k=1}^{3} \delta_k \times D_{ki} \times Z_i + \sum_{k=1}^{3} \beta_k \times D_{ki} + \tau \times Z_i + \gamma \times X_i + \epsilon_i \qquad (2)$$

Z_i refers to the individual-level variable we investigate as a potential mechanism. In this specification, the coefficients of interest are δ_1, δ_2, and δ_3, which capture how the effect of Z_i on the outcome Y_i varies depending on the treatment condition. Each D_{ki} is a dummy variable that equals 1 if individual i received treatment k (Public, Private, or No Perspective narrative, respectively), and 0 otherwise. The variables Y_i, X_i, β_0, and ϵ_i have the same interpretation as in Equation 1.

4 Results

4.1 Cooperation and donations

Figure 8 displays the treatment effects of three informational framings—Public, Private, and No Perspective—on participants' behaviour and expectations in the Public Good Game (PGG) and the Charitable Giving Dictator Game (CDG).

All three treatments (Public, Private, No Perspective) significantly increase contributions to the public good relative to the control group. However, the pairwise p-values between treatments are all above 0.6, indicating no significant differences across the three framings. This suggests that simply prompting participants to reflect on mental health—regardless of whether the message emphasizes public or private responsibility—is sufficient to increase cooperation.

Panel (b) shows the treatment effects on subjective normative expectations, i.e., how much participants believe others should contribute to the public good. Only

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the Private Perspective treatment yields a statistically significant increase in this belief relative to the control group. Neither the Public nor the No Perspective treatments differ significantly from control, and pairwise p-values confirm that the Private Perspective is uniquely effective in raising subjective normative expectations. This suggests that framing mental health investment as a personal responsibility enhances individuals' sense of what others ought to do—likely reinforcing mental health as a matter of private moral obligation.

Panel (c) presents the effects on empirical expectations—that is, beliefs about what others will do. While point estimates for all treatments are positive, confidence intervals are wide and include zero, and no treatment differs significantly from the control. Pairwise comparisons also show no significant differences between the treatments. Thus, while exposure to mental health messaging does not significantly shift empirical expectations, the direction of effects is consistent with increased anticipated cooperation.

All three treatments lead to a statistically significant increase in charitable donations relative to the control. The Private and No Perspective treatments yield very similar effects, while the Public treatment appears slightly lower, though not significantly so (pairwise p-values > 0.5). This mirrors the pattern in the PGG and supports the conclusion that prompting reflection on mental health—regardless of framing—effectively increases willingness to make costly contributions to mental health initiatives.

Across both strategic (PGG) and non-strategic (CDG) contexts, all three treatments increase prosocial behaviour relative to the control. However, their psychological mechanisms differ. While general salience appears sufficient to boost behaviour, only the Private Perspective treatment increases subjective normative expectations,

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reinforcing the idea that mental health investment is a personal duty. This differential effect on beliefs suggests that narrative framing can shape not just actions, but the underlying motivations, particularly through personal moral appeals.

Taken together, these results suggest that behavioural responses (contributions and donations) are robust across framings, while beliefs exhibit more differentiated patterns. Specifically, only the Private Perspective increases normative expectations, and none of the treatments shift empirical expectations.

A possible explanation is that individuals may engage in a hierarchical process in the formation of cooperation norms: they first internalize the importance of private commitment, especially when the issue is framed as personally relevant and beneficial. This may lay the groundwork for broader expectations about collective responsibility. In this context, the Private Perspective activates a sense of individual moral duty, which shapes beliefs about what others should do, even if it doesn't affect beliefs about what others will do.

Moreover, the fact that all treatments increase cooperation and donations despite no change in empirical expectations suggests that individuals are not conditioning their actions on others' behaviour. Instead, they appear to act on the intrinsic importance they assign to the issue of mental health. This interpretation is supported by the similarity in behavioural responses across all three narratives. In short, participants are willing to invest in mental health—both financially and through cooperation—not because they expect others to do the same, but because they value the issue in and of itself.
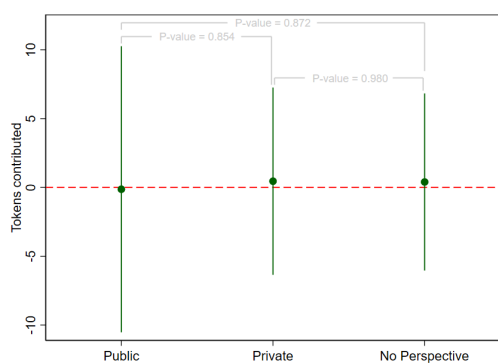
Figure 3: Treatment effects on contributions and donations from the Public Good Game and Charitable Giving Dictator game.
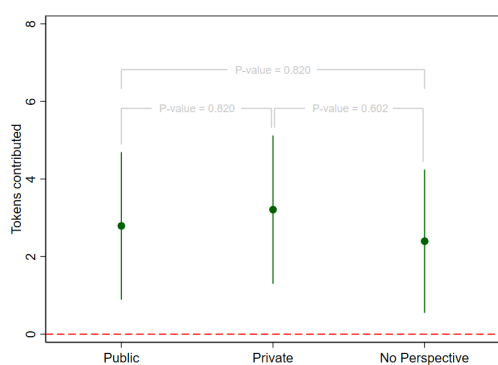
(a) Contributions (PGG)
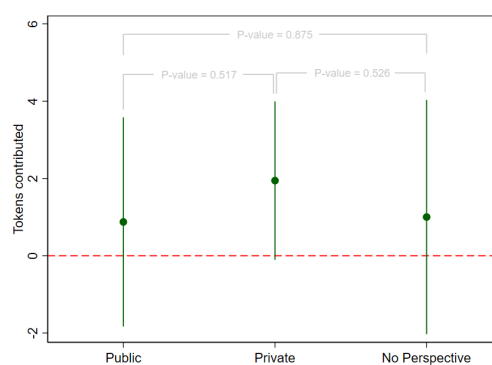
(b) Others *should* contribute (PGG)

(c) Other *will* contribute (PGG)
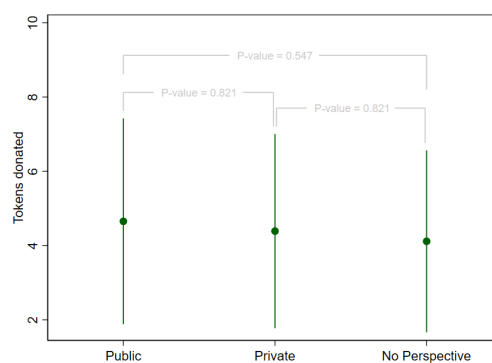
(d) Donations to MH project

Notes: The figures refer to the estimates reported in the Table A1. All p-values are adjusted for multiple hypotheses testing using the Romano-Wolf correction [46, 47]. Vertical confidence intervals provide treatment effects relative to the control group while brackets over two treatment effects provide p-values for the comparison of the two linked estimates. All estimates include a set of control variables accounting for individual characteristics (i.e., gender, age, income, ethnicity, education level, employment status, marital status, number of children), as well as country fixed effects and individual well-being.

4.2 Stigma

4.2.1 Prevalence of stigmatization of mental health issues

In this section, we report the results of the list experiment. Figure 4 presents first estimates of the prevalence of mental health stigma from the list experiments excluding participants having received the placebo.[3] We report separately the prevalence estimated using both lists together (red estimates labelled combined) and the estimated prevalence in each list (green and blue estimates for List A and List B respectively) to address potential design issues [16].[4] The next set of reported estimates is the prevalence estimated using the direct question. Again, we split these estimates between the same samples used to compute the different lists estimates. Last, we provide estimates of the difference between the list estimates and the direct reporting for the corresponding samples, which are traditionally interpreted as evidence of social desirability.
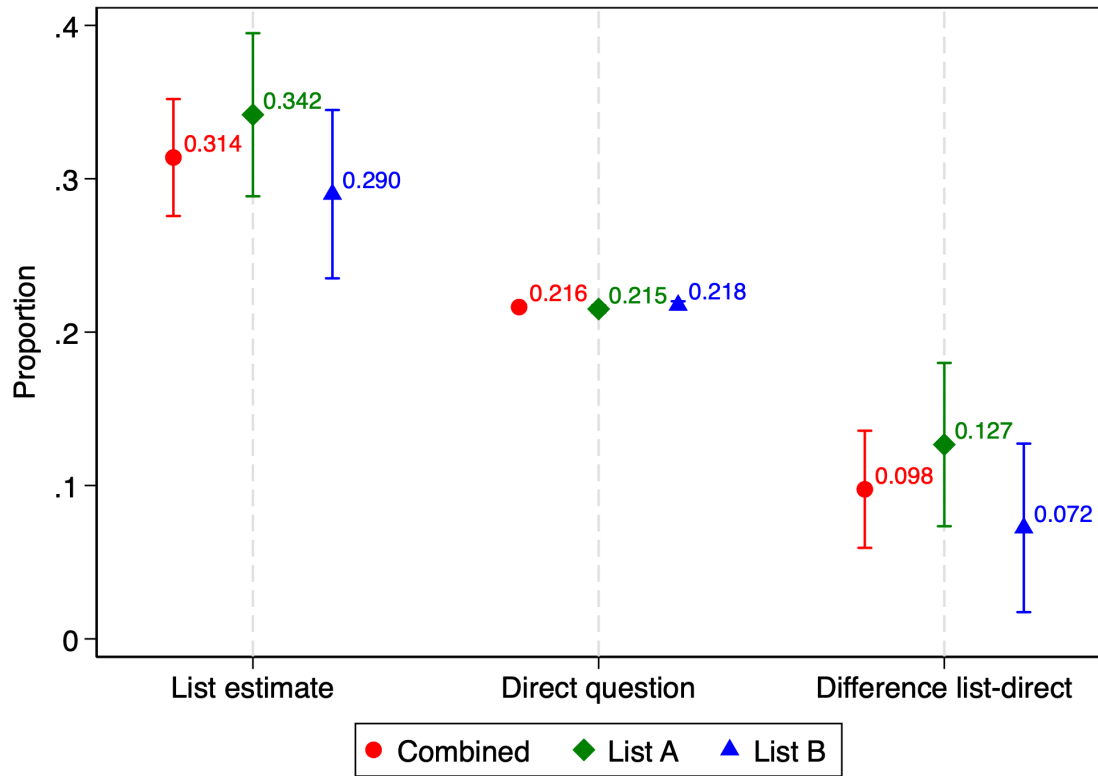
The leftmost panel shows that the list estimates (proportion of respondents endorsing the sensitive item) are consistently higher than the corresponding direct question estimates in the centre panel, with prevalence estimated around 31%. However, when

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[3]We report the prevalence obtained when using the placebo instead of the treatment in Figure A3. However, when comparing the prevalence estimates in List A and List B [16], we can see a clear statistically significant difference, which indicates that the probability to select the placebo changed with the set of behaviours around it. This indicates that the placebo did not work as intended and was probably evaluated on a similar basis as the other behaviours as any artificial inflation that would occur because of the number of the length of the list should apply equally irrespective of the composition of the lists. For the sake of completeness, we also report results for prevalence estimated using the full sample and pooling together the control and placebo lists in Figure A2. This shows that the list estimates are even statistically significantly lower than the direct question estimates (combined and List A), which should not be possible as individuals reporting the sensitive behaviour openly in the direct question should also report it under greater privacy in the list experiment. Hence, the direct question should constitute a lower bound of the prevalence of the sensitive behaviour.

[4]As the prevalence estimated in the first list A and the second list B are not statistically different from each other, the sensitive behaviour does not seem to be picked differently depending on the control behaviours around.

asked directly, participants reveal a considerably lower prevalence of stigma of around 21%. The rightmost panel shows that the difference between the list and direct question is positive and statistically significant in all conditions, with the Combined group showing a gap of almost 10 percentage points. All these estimates confirm the high prevalence of stigma against mental health issues and a relatively strong tendency to hide it.

Figure 4: Estimates of the prevalence of mental health stigma

Notes: The figure reports the prevalence of mental health stigma estimated through the list experiment and direct questioning. The left panel shows the estimated proportion of respondents endorsing the sensitive item based on the list experiment, separately for the Combined sample (red circle), List A (green diamond), and List B (blue triangle). The central panel presents direct question estimates for the same subgroups, while the right panel displays the difference between the list and direct estimates. All estimates include a set of control variables capturing individual characteristics (i.e., gender, age, income, ethnicity, education level, employment status, marital status, number of children), as well as country fixed effects. For all proportions, 95% confidence intervals are represented by vertical bars.

4.2.2 Stigmatization as a mechanism

We report evidence of stigmatization acting as a mechanism in two steps. First, we establish that the treatment has an effect on reported stigma. Then, we estimate the effect of stigma on the outcome. Figure 5 presents the odds ratios for the three treatment arms relative to the control group on the probability to report stigma openly, while the complete regression results are presented in Appendix Table A3. All odds ratios fall below 1, indicating that exposure to the treatment, regardless of narrative framing, reduces the likelihood of finding being absent from work for depression unacceptable, i.e., reduces stigma. While confidence intervals are wide and effects do not differ significantly across treatments, the directionality is consistent and suggests that making mental health salient can weaken stigmatizing attitudes.

We now report the effect of stigma on the outcome. Figure 6 presents the how stigma mediates the effect of the treatment. Complete related regression results are available in Appendix Table A4. In this analysis, the parameter of interest is the coefficient of the interaction between the different narratives and reported stigma. The only statistically significant coefficient concerns donations to a mental health project when exposed to the public narrative. This negative interaction indicates that participants holding stigma against mental health donated significantly less than their counterparts not holding stigma when exposed to the public narrative relative to the control group, or, alternatively, that participants not holding stigma were donating significantly more than those not holding stigma. For the other narratives, stigma does not seem to explain why the treatment was effective on donations, although the effect of the private narrative goes in the same direction.

Overall, it suggests that part of the reason why the public narrative managed to

Figure 5: Perceived unacceptability of being absent from work for depression
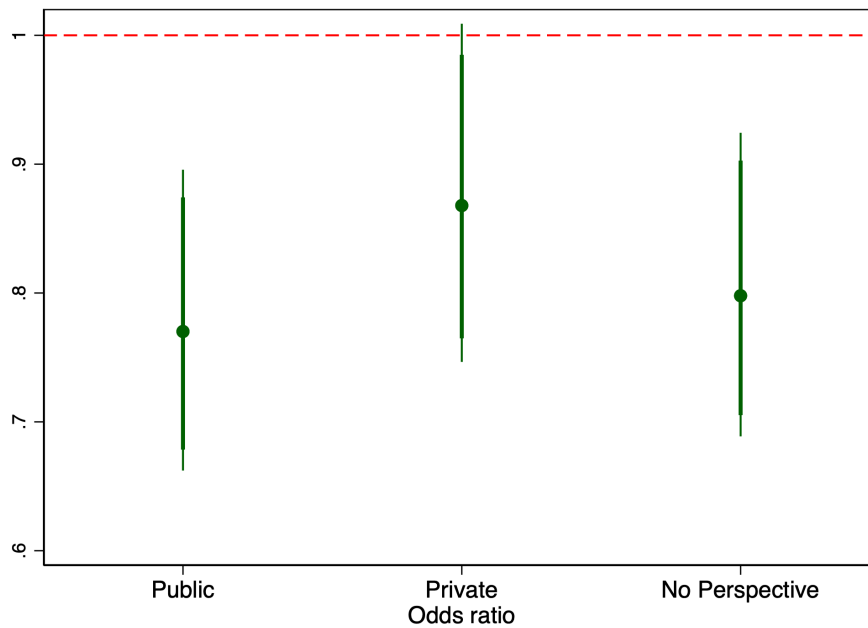
Notes: The figure refers to the estimates reported in Table A3. The coefficients are derived from a logistic regression, where the outcome variable is a binary indicator equal to one if the respondent considers it unacceptable to be absent from work due to depression. The y-axis displays the odds ratios. Vertical confidence intervals represent treatment effects relative to the control group, both at 95% and 90% levels. All estimates include a set of control variables capturing individual characteristics (i.e., gender, age, income, ethnicity, education level, employment status, marital status, number of children), as well as country fixed effects.

increase donations to mental health is because of its reducing effect on stigma (Figure
5). Coupled with the absence of effects in the PGG, it shows that this mechanism is
sensitive to the context as the CDG does not encompass strategic dimensions.

Figure 6: Stigmatization mechanism
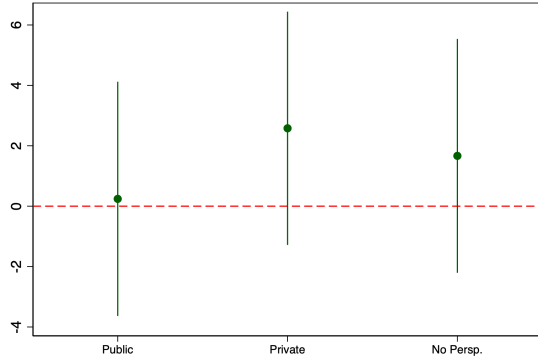
(a) Contributions (PGG)
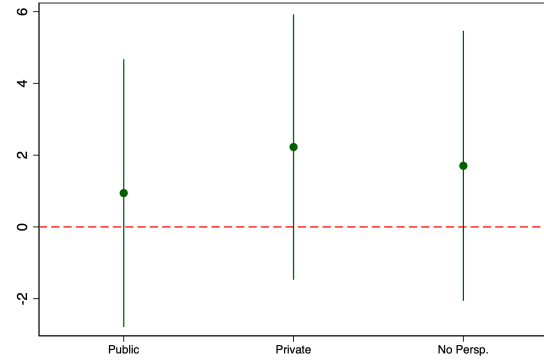
(b) Others *should* contribute (PGG)
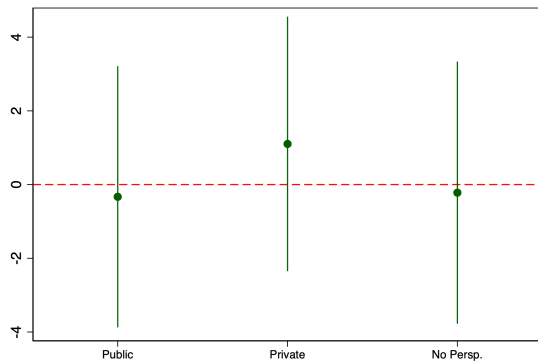
(c) Others *will* contribute (PGG)
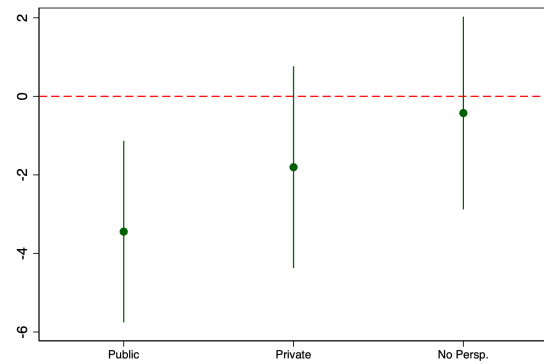
(d) Donations to MH project

Notes: Figures 6a to 6d refer to the estimates reported in Table A4, which display the interaction between the narratives and individuals' report of finding unacceptable to be absent from work for depression for the four behavioural outcomes (the participants' own contribution (PGG), personal normative expectations (PGG), empirical expectations (PGG), and donations to a mental health project). Vertical confidence intervals provide treatment effects relative to the control group at 95% confidence levels. All estimates include a set of control variables accounting for individual characteristics (i.e., gender, age, income, ethnicity, education level, employment status, marital status, number of children), as well as country fixed effects.

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5 Treatment heterogeneity

Figures 7a to 7h and Table A2 in Appendix explore heterogeneous treatment effects, shedding light on the mechanisms that shape cooperation and charitable giving in response to mental health framings. Consistent with our expectations, the effects are stronger among individuals who are more sensitive to the issue, particularly those who overestimate the prevalence of mental health problems (Figures 7e and 7f) or who report lower levels of mental well-being (Figures 7g and 7h). These individuals may perceive mental health as personally relevant, which makes them more receptive to treatments—especially those emphasizing private responsibility (Table A2, Panels C and D in Appendix).

By contrast, among participants who perceive public mental health services as adequate—either personally (Figures 7a and 7b) or as believed by others (Figures 7c and 7d)—we observe a pattern consistent with a substitution mechanism. In these groups, especially under the Public Perspective treatment, contributions and personal normative expectations tend to decrease (Table A2, Panels A and B, in Appendix). This suggests that when people believe institutions are already addressing the issue, they feel less personal urgency to act and believe others should do the same, especially when the framing reinforces collective responsibility.

Together, these results suggest that people are more likely to contribute, and believe others should do the same, when they see mental health as personally relevant—either because they believe the issue is widespread or because they have experienced poor mental well-being themselves. Across treatments, these individuals tend to respond more strongly, indicating that personal concern makes people more receptive to appeals for investment in mental health, regardless of the narrative used.

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This supports the idea that engagement often starts with individual recognition and commitment, which may serve as the first step toward broader social cooperation.

In contrast, individuals who believe that public services are already adequate tend to contribute less and think others ought to do the same—particularly when exposed to the Public Perspective treatment. This pattern points to a possible crowding-out effect, where the perception that institutions are already fulfilling their role reduces individuals' willingness to step in personally.

Figure 7: Heterogeneous treatment effects
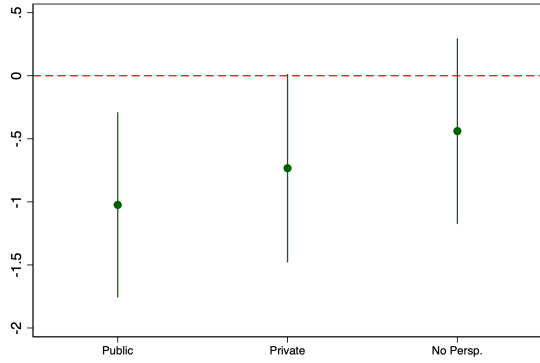
(a) Contributions (PGG) - Perceived Adequacy of Public Mental Health Services
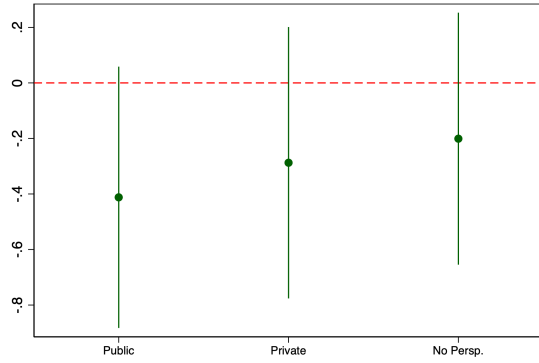
(b) Donations to MH project - Perceived Adequacy of Public Mental Health Services
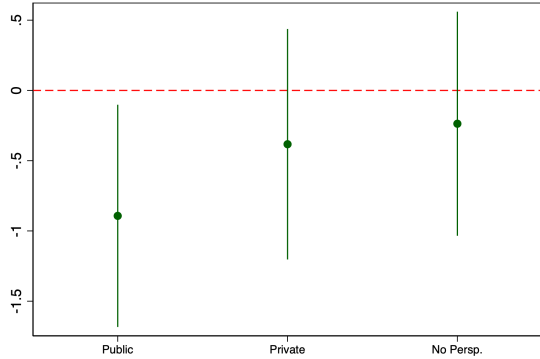
(c) Contributions (PGG) - Belief About Others' Evaluation of Public Mental Health Services
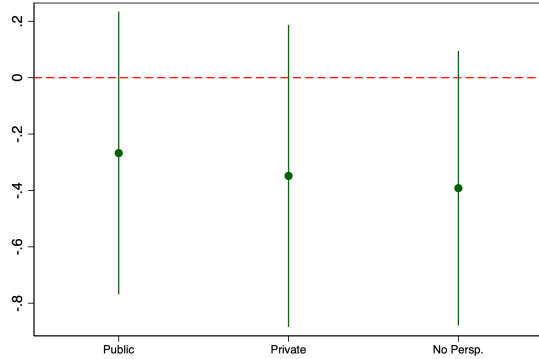
(d) Donations to MH project - Belief About Others' Evaluation of Public Mental Health Services
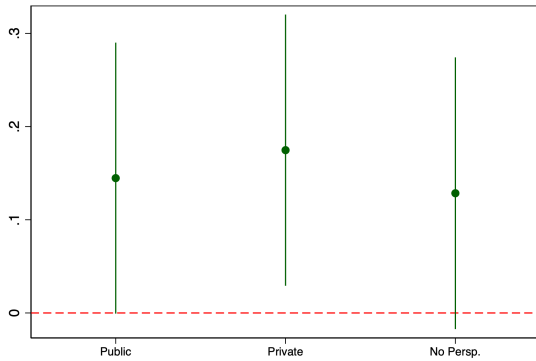
(e) Contributions (PGG) - Perceived Trend in Mental Health Prevalence Since 2016
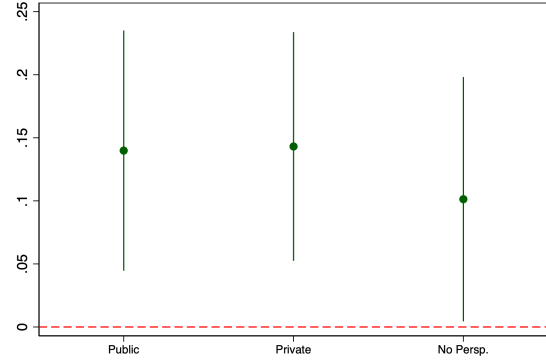
(f) Donations to MH project - Perceived Trend in Mental Health Prevalence Since 2016
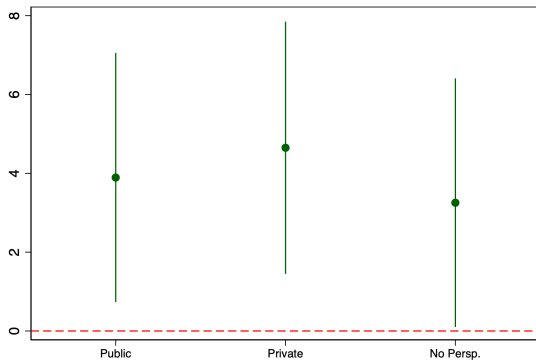
(g) Contributions (PGG) - Individual Mental Well-being
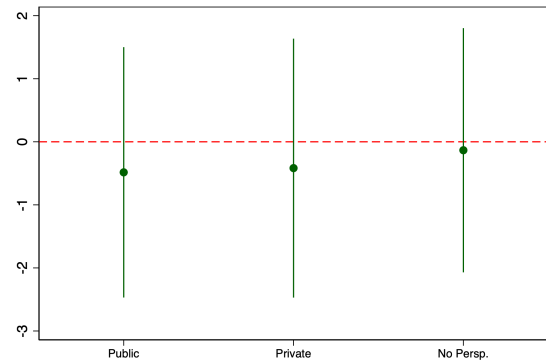
(h) Donations to MH project - Individual Mental Well-being

Notes: Figures 7a and 7b refer to the estimates reported in Table A2, Panel A, which displays the interaction between the narratives and individuals' own perception of the adequacy of public mental health services, measured on a continuous scale from 0 to 10. Figures 7c and 7d correspond to Table A2, Panel B, and show the interaction between the narratives and individuals' beliefs about how others evaluate those services, also measured on a 0–10 scale. Figures 7e and 7f relate to Table A2, Panel C, where the interacting variable is the perceived trend in mental health prevalence since 2016, captured by a continuous variable ranging from –30 to +30. Finally, Figures 7g and 7h refer to Table A2, Panel D, which considers individual mental well-being, operationalized as a binary variable derived from a principal component analysis (PCA); it equals 1 if the individual's PCA score is below the median, indicating lower well-being. Vertical confidence intervals provide treatment effects relative to the control group. All estimates include a set of control variables accounting for individual characteristics (i.e., gender, age, income, ethnicity, education level, employment status, marital status, number of children), as well as country fixed effects.

5.1 Country heterogeneity

We further explore whether treatment effects vary across geopolitical contexts. Countries are grouped into three regional clusters—Western (France, Germany, Italy, Spain), Post-Communist (Latvia, Slovakia), and Nordic (Sweden, omitted category)—to reflect different historical and institutional legacies that may shape how individuals respond to the narrative.

Figures 8a and 8b report results separately for the two main outcome of interest.

For contributions (Figure 8a), none of the interaction effects by region reach statistical significance. Point estimates suggest a negative effect of the Public Perspective in both Western and post-communist countries, while the Private and No Perspective treatments show slightly positive (though imprecisely estimated) effects in post-communist settings. These results suggest that narratives have limited influence on cooperative behaviour when the context is unframed and collective, regardless of geopolitical background.

In contrast, donations to the mental health project (Figure 8b) reveal clear geographic heterogeneity: in post-communist countries, both the Public and No Perspective treatments significantly reduce donations compared to the control group. A smaller, marginally significant decline is also observed in Western countries under the Public Perspective. This pattern is consistent with existing literature on cross-European differences in charitable giving [6].

6 Robustness checks

To assess the robustness of our main findings, we conduct a series of checks controlling for different dimensions of data quality and survey engagement. These checks include:

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Figure 8: Heterogeneous treatment effects by country geographical aggregation.

(a) Contributions (PGG)

(b) Donations to MH project
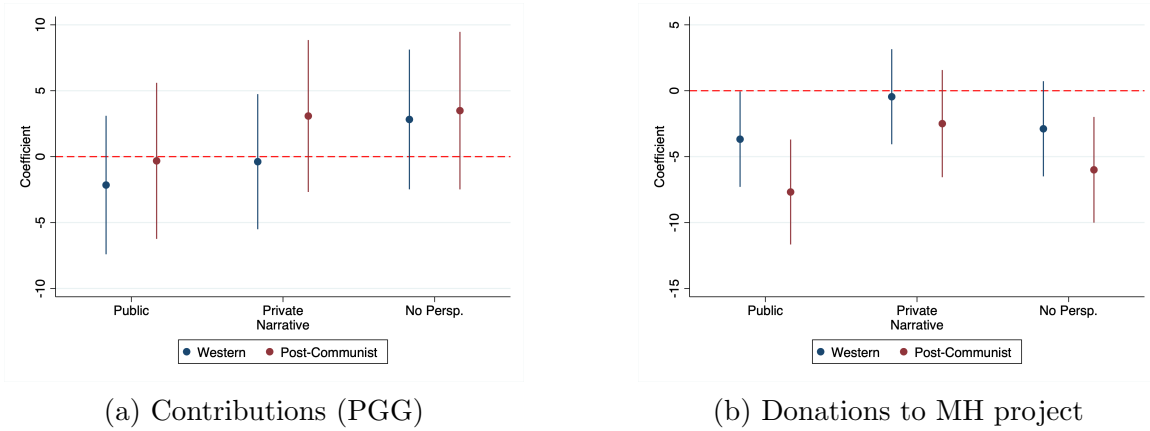
Notes: Figures refer to the Table A5. Vertical confidence intervals provide treatment effects relative to the control group. All estimates include a set of control variables accounting for individual characteristics (i.e., gender, age, income, ethnicity, education level, employment status, marital status, number of children), as well as country fixed effects.

(i) the type of comprehension question received in the Public Goods Game (PGG); (ii) whether respondents answered that comprehension question correctly; and (iii) the specific example presented to illustrate the payoff structure of the game. Table A6 summarizes the results of these robustness analyses.

Across all model specifications, we find that the estimated treatment effects are consistent with the main findings across the different outcomes. Specifically, all three informational narratives (Public, Private, and No Perspective) continue to significantly increase contributions in the PGG and donations to the mental health charity relative to the pure control condition. These effects persist when controlling for the type of comprehension question participants faced (columns 2, 6, 10, and 14), whether they answered it correctly (columns 3, 7, 11, and 15), and which illustrative example they received (columns 4, 8, 12, and 16).

This consistency reinforces the validity of our main results and mitigates con-

cerns that the observed treatment effects could be driven by misunderstanding of instructions or framing of the games.

7   Discussion

To better understand why the Private Perspective uniquely affects normative beliefs, we turn to potential psychological and social mechanisms underlying the formation of cooperation norms. A possible explanation is that individuals may adopt a hierarchical process in the formation of cooperation norms. In the early stages of norm emergence, private investment with personal benefits may be seen as a prerequisite for broader collective action. This suggests that individual commitment plays a foundational role in fostering cooperative norms. Accordingly, framing mental health investment as a private responsibility may be particularly effective in reinforcing normative beliefs about how much others *should* contribute.

The similarity in treatment effects across the CDG and PGG suggests that the impact of our informational interventions is not contingent on the strategic context. Whether individuals faced a decision requiring coordination with others (PGG) or an independent donation (CDG), they responded similarly across all framings. This convergence implies that our treatments enhanced pro-mental health behaviour regardless of whether others were expected to contribute. In line with the absence of significant shifts in empirical expectations, this pattern suggests that participants were not primarily motivated by beliefs about others' behaviour. Instead, the treatments—particularly the Private Perspective—appeared to trigger a sense of personal responsibility, reflected in an increase in normative expectations. In this sense, individuals may perceive investment in mental health as a personal imperative, not

dependent on the actions of others. This highlights the potential of low-cost informational nudges to foster intrinsically motivated engagement with public health goals, even in domains where coordination problems typically undermine cooperative action.

As a potential channel behind our results, we also provide evidence that our informational treatments reduce stigma toward mental health issues. Participants exposed to any of the treatments are less likely to consider being absent from work for depression as unacceptable. Importantly, this mechanism activates only for donations when exposed to the public narrative—suggesting that the effect is not entirely driven by social desirability bias.

Heterogeneity analyses offer additional insights into the mechanisms driving our main results. First, we document a perceived substitution effect between public and private investment. Participants exposed to the Public Perspective contribute less in the PGG when they perceive mental health services in their country as adequate—and especially so when they believe others hold the same view. This pattern suggests that emphasizing collective responsibility for mental health may reduce individuals' willingness to invest personally when they believe the public provision is adequate. This aligns with the broader literature on the crowding-out of private contributions by public provision in charitable contexts [52, 3, 7].

A key implication, however, is that perceived adequacy of public investment—whether accurate or not—can act as a barrier to broader engagement. If individuals reduce their efforts based on an overestimation of state provision, both personal and collective investment may decline, potentially locking the country into a "bad equilibrium" of underprovision and unmet mental health needs.

Second, we find that treatment effects on contributions are more pronounced among individuals who report having experienced mental health challenges or who

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already view the issue as a serious public concern. This reinforces the idea that investment in mental health follows a sequential process: people must first recognize the issue as personally relevant and be willing to take individual action before broader norms of cooperation can take root. In this sense, private commitment acts as a catalyst for the formation of shared social norms around collective action. The stronger behavioural response among those directly affected by mental health issues provides compelling evidence for this mechanism.

This heterogeneity also helps explain why some individuals remain unresponsive to informational interventions: when mental health is not perceived as salient or personally relevant, even well-designed messages may fail to trigger action. This insight suggests that public communication strategies could be more effective if they reduce psychological distance, for example by using narratives or frames that foster empathy or highlight shared vulnerability.

Finally, we observe geographic heterogeneity in response to our treatments. While cooperation outcomes show no significant variation across regions, donations to the mental health project exhibit sizeable differences. In post-communist countries, both the Public and No Perspective treatments significantly reduce donations compared to the control group. A smaller, marginally significant decline is also observed in Western countries under the Public Perspective. This pattern is consistent with prior findings on cross-country differences in charitable behavior [6], which attribute lower giving in post-Soviet regions to the legacy of organized and, at times, compulsory volunteering during the Soviet era. Moreover, historical legacies of state dominance and authoritarian rule in these countries have been linked to lower trust in institutions and weaker norms of civic engagement and private philanthropy [1, 33, 40]. These legacies may make individuals more skeptical of collective appeals and less responsive

to public narratives, thereby reducing their willingness to contribute when mental health is framed as a shared or public responsibility. The implication is that interventions invoking public or collective responsibility may backfire in contexts where citizens are more skeptical of institutional narratives or less used to voluntary private giving.

8   Conclusion

The World Health Organization European Framework for Action on Mental Health (EFAMH, 2021-2025) [42] highlights the urgent need to increase investments in mental health prevention, a widespread health problem with important negative consequences for individuals and for society as a whole. The report in particular highlights the need to increase funding and investment in mental health services, address stigma and discrimination. It also stresses that methods should be tailored to specific cultural contexts through the participation of mental health grass-roots organizations and local champions, as well as monitor public attitudes towards mental health and people with mental health conditions.

Our study contributes to understanding how better to incentivise European citizens to invest in mental health prevention, accounting for their own understanding of the nature of mental health, their beliefs about the extent of the problem and about what other citizens are willing to do about it as well as any possible stigma held against individuals with mental health conditions, controlling for a range of sociodemographics as well as their own self reported wellbeing and geopolitical setting in which they live.

Our survey experiment presents different narratives about mental health empha-

sising different levels of spillovers of mental health and reveals that prompting individuals to reflect on mental health is sufficient to boost both cooperation in public investments in mental health prevention and donations to charities that invest in mental health. In terms of beliefs, we find that it is only the narrative that emphasises mental health as a private issue that significantly increases personal normative expectations (what I believe others *should* do), and that none of our narratives significantly alter empirical expectations (what I believe others *will* do).

We also find that treatments reduce self-reported mental health stigma and that these effects are not explained solely by social desirability, as evidenced by consistency with results from a list experiment. Finally, heterogeneity analyses reveal that treatment effects are stronger among those with lived experience or concern about mental health, that collective framings may reduce personal contributions when public provision is perceived as adequate, and that different geopolitical settings matter to donations, highlighting the importance of tailoring public health messaging to local institutional settings. These findings underscore the need for targeted and context-sensitive interventions, recognizing that personal relevance is key to mobilizing action, and that perceived adequacy of public provision may backfire, leading to collective inaction and a 'bad equilibrium' of underinvestment in mental health.

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Appendix

Table A1: Baseline Results

Outcome Var.:	Contributions (PGG)		Personal normative expectations (PGG)		Empirical expectations (PGG)		Donations to MH project (DG)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Public	2.756***	2.787***	0.906	0.860	-0.114	-0.146	4.739***	4.645***
	(0.811)	(0.805)	(0.795)	(0.782)	(0.730)	(0.723)	(0.513)	(0.502)
Private	3.254***	3.210***	2.039**	1.934**	0.438	0.443	4.492***	4.385***
	(0.822)	(0.815)	(0.808)	(0.793)	(0.733)	(0.727)	(0.527)	(0.521)
No Perspective	2.271***	2.385***	0.875	0.991	0.360	0.383	4.043***	4.109***
	(0.807)	(0.802)	(0.790)	(0.779)	(0.729)	(0.725)	(0.500)	(0.492)
Romano-Wolf correction:								
Public vs Control	2.756***	2.787***	0.906	0.860	-0.114	-0.146	4.739***	4.645***
Std. Err.	(0.957)	(0.968)	(1.308)	(1.354)	(7.588)	(5.838)	(1.440)	(1.411)
Private vs Control	3.254***	3.210***	2.039*	1.934*	0.438	0.443	4.492***	4.385***
Std. Err.	(0.989)	(0.976)	(1.054)	(1.048)	(3.487)	(3.496)	(1.365)	(1.333)
No perspective vs Control	2.271**	2.385**	0.875	0.991	0.360	0.383	4.043***	4.109***
Std. Err.	(0.924)	(0.938)	(1.263)	(1.506)	(4.707)	(3.728)	(1.228)	(1.249)
Public vs Private	-0.498	-0.423	-1.133	-1.074	-0.552	-0.589	0.247	0.260
Std. Err.	(1.698)	(1.790)	(1.482)	(1.632)	(3.511)	(3.207)	(0.564)	(1.092)
Private vs No perspective	-0.983	-0.825	-1.165	-0.943	-0.078	-0.060	-0.450	-0.276
Std. Err.	(1.338)	(1.558)	(1.523)	(1.485)	(5.182)	(2.392)	(0.892)	(1.164)
Public vs No perspective	0.485	0.402	0.032	-0.131	-0.474	-0.530	0.697	0.536
Std. Err.	(1.653)	(1.702)	(0.741)	(0.802)	(3.774)	(3.290)	(0.806)	(0.889)
Individual Cov.	No	Yes	No	Yes	No	Yes	No	Yes
Individual FE	No	Yes	No	Yes	No	Yes	No	Yes
Country FE	No	Yes	No	Yes	No	Yes	No	Yes
Obs.	8312	8312	8312	8312	8312	8312	8312	8312

Notes: The table includes one column for each of the outcomes considered: Contributions (PGG), Personal Normative Expectations (PGG), Empirical Expectations (PGG), and Donations to the Mental Health Project (DG). It is structured into two panels, each reporting effects of narratives with respect to one another. The top panel reports the unadjusted results for the treatment effects of the three treatment narratives relative to the control narrative. The bottom panel reports all possible pairwise comparisons of treatments adjusted for multiple hypotheses tests using the Romano-Wolf correction [46, 47]. Results are reported at the standard 1%, 5%, and 10% significance levels, which are respectively indicated by $***$, $**$ and $*$.

Outcome Var:	Contributions (PGG) (1)	Personal normative expectations (PGG) (2)	Empirical expectations (PGG) (3)	Donations to MH project (DG) (4)
Panel A				
Z Var.: Perceived Adequacy of Public MH Services (Continuous Var.)				
Public × Z	-1.020***	-0.851**	-0.369	-0.410*
	(0.375)	(0.368)	(0.344)	(0.240)
Private × Z	-0.729*	-0.406	-0.421	-0.290
	(0.381)	(0.371)	(0.343)	(0.249)
No Perspective × Z	-0.436	-0.181	-0.275	-0.201
	(0.375)	(0.367)	(0.338)	(0.231)
Panel B				
Z Var.: Belief About Others' Evaluation of Public MH Services (Continuous Var.)				
Public × Z	-0.891**	-1.016**	-0.432	-0.265
	(0.403)	(0.397)	(0.373)	(0.256)
Private × Z	-0.381	-0.408	-0.254	-0.352
	(0.418)	(0.409)	(0.381)	(0.273)
No Perspective × Z	-0.236	-0.123	-0.155	-0.392
	(0.407)	(0.397)	(0.374)	(0.248)
Panel C				
Z Var.: Perceived Trend in MH Prevalence Since 2016 (Continuous Var.)				
Public × Z	0.146**	0.177**	0.011	0.140***
	(0.074)	(0.071)	(0.067)	(0.049)
Private × Z	0.175**	0.162**	0.052	0.143***
	(0.074)	(0.070)	(0.065)	(0.046)
No Perspective × Z	0.127*	0.111	0.073	0.102**
	(0.074)	(0.071)	(0.067)	(0.049)
Panel D				
Z Var.: Mental Well-being (Dummy Var)				
Public × Z	3.938**	1.908	2.411*	-0.492
	(1.611)	(1.567)	(1.450)	(1.013)
Private × Z	4.675***	2.772*	2.234	-0.439
	(1.631)	(1.589)	(1.455)	(1.047)
No Perspective × Z	3.265**	2.213	1.765	-0.118
	(1.608)	(1.562)	(1.453)	(0.988)
Individual Cov.	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Obs.	8312	8312	8312	8312

Notes: The table includes one column for each of the outcomes considered: Contributions (PGG), Personal Normative Expectations (PGG), Empirical Expectations (PGG), and Donations to the Mental Health Project (DG). It is structured into four panels, each reporting only the interaction between the narratives and a specific Z variable, which varies across panels. Panel A presents the interaction between the narratives and individuals' perceived adequacy of mental health services in their country, measured on a continuous scale from 0 to 10, where higher values indicate a more positive perception. Panel B shows the interaction with individuals' beliefs about how others evaluate mental health services, also measured on a 0 to 10 scale. Panel C examines the interaction between the narratives and the perceived trend in mental health prevalence since 2016, represented by a continuous variable ranging from –30 to +30. Finally, Panel D reports the interaction between the narratives and individual mental well-being, captured by a binary variable derived from a principal component analysis (PCA). This variable equals 1 if the PCA score is below the median. In addition to the variables used in the interactions, all estimates include a set of control variables accounting for individual characteristics (i.e., gender, age, income, ethnicity, education level, employment status, marital status, number of children), as well as country fixed effects. ***, ** and * indicate significance at 1%, 5%, and 10% levels, respectively.

Table A3: Treatment effect - Stigma

	(1)
Public	-0.260***
	(0.077)
Private	-0.141
	(0.077)
No Perspective	-0.225**
	(0.075)
Individual Covariates	Yes
Individual FE	Yes
Country FE	Yes
Observations	8312

Notes: The coefficients are derived from a logistic regression, where the outcome variable is a binary indicator equal to one if the respondent considers it unacceptable to be absent from work due to depression. The coefficients reports the odds ratio and represent treatment effects relative to the control group. All estimates include a set of control variables capturing individual characteristics (i.e., gender, age, income, ethnicity, education level, employment status, marital status, number of children), as well as country fixed effects. $***$, $**$ and $*$ indicate significance at 1%, 5%, and 10% levels, respectively.

Table A4: Mechanisms - Stigma

Outcome Var.:	Contributions (PGG)	Personal normative expectations (PGG)	Empirical expectations (PGG)	Donations to MH project (DG)
	(1)	(2)	(3)	(4)
Public $\times$ Stigma	0.242	0.943	-0.332	-3.444**
	(1.979)	(1.904)	(1.808)	(1.179)
Private $\times$ Stigma	2.579	2.227	1.103	-1.804
	(1.970)	(1.887)	(1.761)	(1.311)
No Perspective $\times$ Stigma	1.666	1.704	-0.220	-0.425
	(1.975)	(1.920)	(1.814)	(1.252)
Individual Cov.	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Obs.	8312	8312	8312	8312

Notes: The table includes one column for each of the outcomes considered: Contributions (PGG), Personal Normative Expectations (PGG), Empirical Expectations (PGG), and Donations to the Mental Health Project (DG). Only the interaction term of the treatment with stigma is reported where stigma is measured with a dummy variable taking the value 1 if individuals reported finding unacceptable to be absent from work for depression. All estimates include a set of control variables capturing individual characteristics (i.e., gender, age, income, ethnicity, education level, employment status, marital status, number of children), as well as country fixed effects. $***$, $**$ and $*$ indicate significance at 1%, 5%, and 10% levels, respectively.

Table A5: Heterogeneity by countries' aggregation

Outcome Var.:	Contributions (PGG)	Donations to MH project (DG)
	(1)	(2)
Public × Western	-2.153	-3.675*
	(2.680)	(1.846)
Public × Post-Communist	-0.319	-7.681***
	(3.020)	(2.031)
Private × Western	-0.382	-0.454
	(2.614)	(1.840)
Private × Post-Communist	3.083	-2.495
	(2.940)	(2.074)
No Perspective × Western	2.822	-2.886
	(2.704)	(1.842)
No Perspective × Post-Communist	3.491	-5.999**
	(3.048)	(2.046)
Individual Cov.	Yes	Yes
Individual FE	Yes	Yes
Country FE	Yes	Yes
Obs.	8312	8312

Notes: In the table, countries are grouped according to their geographical location. The *Western* group includes France, Germany, Italy, and Spain, while the *Post-Communist* group comprises Latvia and Slovakia. The reference category is the Nordic country, i.e., Sweden, beyond the control narrative. All estimates include a set of control variables capturing individual characteristics (i.e., gender, age, income, ethnicity, education level, employment status, marital status, number of children), as well as country fixed effects. ∗∗∗, ∗∗ and ∗ indicate significance at 1%, 5%, and 10% levels, respectively.

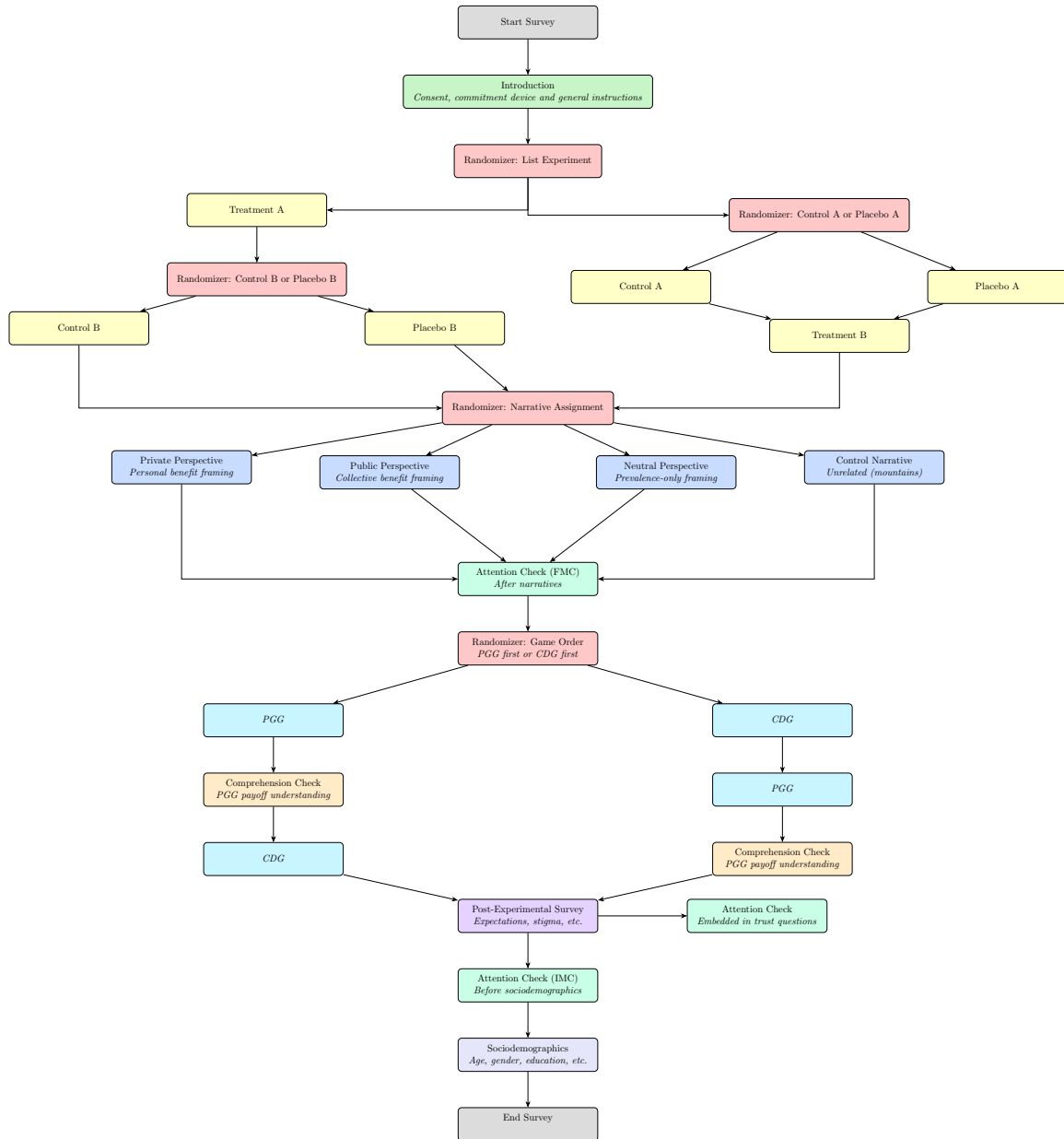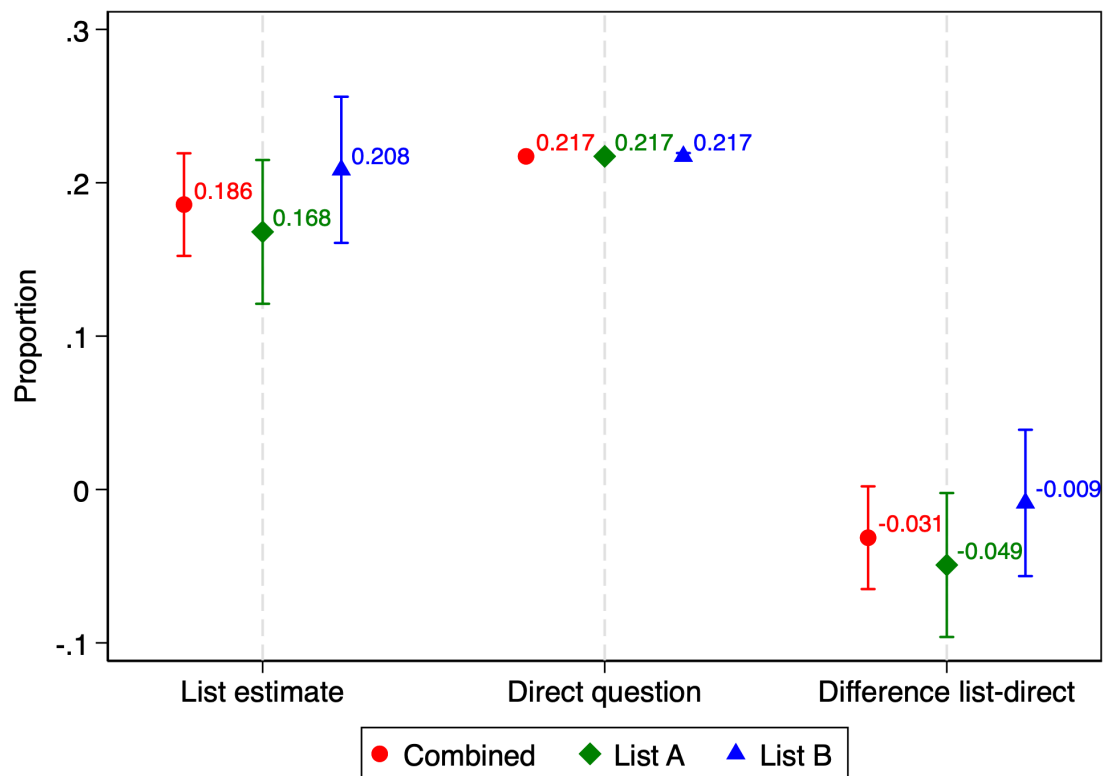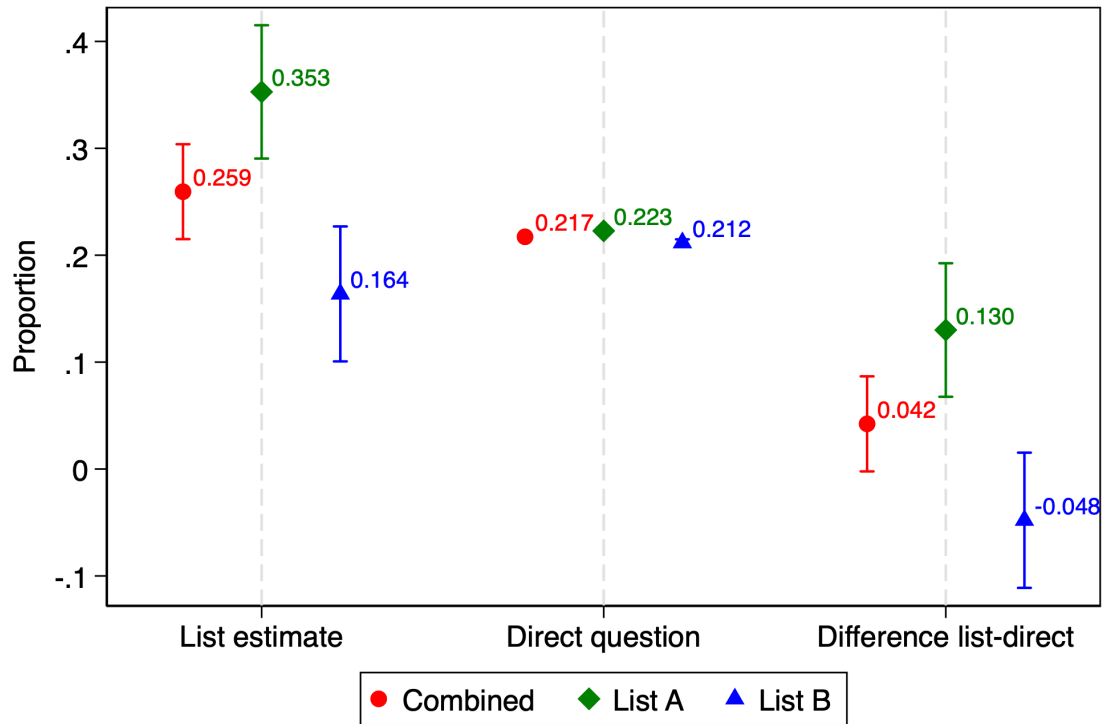Figure A1: Structure of the Experimental Design

Figure A2: Estimates of the prevalence of mental health stigma: all lists included

Notes: The figure reports the prevalence of mental health stigma estimated through the list experiment and direct questioning. The left panel shows the estimated proportion of respondents endorsing the sensitive item based on the list experiment, separately for the Combined sample (red circle), List A (green diamond), and List B (blue triangle). The central panel presents direct question estimates for the same subgroups, while the right panel displays the difference between the list and direct estimates. All estimates include a set of control variables capturing individual characteristics (i.e., gender, age, income, ethnicity, education level, employment status, marital status, number of children), as well as country fixed effects. For all proportions, 95% confidence intervals are represented by vertical bars.

Figure A3: Estimates of the prevalence of mental health stigma: Placebo vs Control lists

Notes: The figure reports the prevalence of mental health stigma estimated through the list experiment and direct questioning. The left panel shows the estimated proportion of respondents endorsing the sensitive item based on the list experiment, separately for the Combined sample (red circle), List A (green diamond), and List B (blue triangle). The central panel presents direct question estimates for the same subgroups, while the right panel displays the difference between the list and direct estimates. All estimates include a set of control variables capturing individual characteristics (i.e., gender, age, income, ethnicity, education level, employment status, marital status, number of children), as well as country fixed effects. For all proportions, 95% confidence intervals are represented by vertical bars.

Table A6: Robustness checks for comprehension questions, correct answer and examples.

	Contributions (PGG)				Personal normative expectations (PGG)				Empirical expectations (PGG)				Donations to MH project (DG)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Public	2.799***	3.017***	2.972***	2.833***	0.874	1.115	1.068	0.893	-0.126	0.175	0.146	-0.133	4.659***	4.651***	4.674***	4.663***
	(0.805)	(0.793)	(0.793)	(0.804)	(0.782)	(0.768)	(0.767)	(0.782)	(0.723)	(0.700)	(0.700)	(0.723)	(0.502)	(0.502)	(0.501)	(0.502)
Private	3.215***	3.106***	3.049***	3.211***	1.941*	1.829*	1.779*	1.940*	0.458	0.327	0.285	0.472	4.394***	4.384***	4.406***	4.393***
	(0.815)	(0.806)	(0.805)	(0.813)	(0.793)	(0.782)	(0.782)	(0.793)	(0.727)	(0.707)	(0.707)	(0.726)	(0.521)	(0.521)	(0.521)	(0.521)
No Perspective	2.402**	2.399**	2.413**	2.421**	1.007	1.008	1.028	1.019	0.405	0.413	0.417	0.418	4.123***	4.115***	4.103***	4.124***
	(0.802)	(0.789)	(0.787)	(0.799)	(0.779)	(0.764)	(0.762)	(0.778)	(0.725)	(0.700)	(0.699)	(0.724)	(0.492)	(0.492)	(0.492)	(0.492)
Comprehansion Q.2=1		8.729***				9.584***				11.894***				-0.193		
		(0.725)				(0.699)				(0.643)				(0.449)		
Comprehansion Q.3=1		-1.616*				-1.298*				-1.125				-0.782		
		(0.681)				(0.657)				(0.582)				(0.453)		
Correct Answer Q.2=1			-10.699***				-11.246***				-13.387***				0.859	
			(0.884)				(0.855)				(0.784)				(0.533)	
Correct Answer Q.3=1			0.029				-0.579				0.320				1.821**	
			(0.912)				(0.875)				(0.772)				(0.567)	
Example N.2				3.990***				2.428***				0.823				0.306
				(0.718)				(0.699)				(0.644)				(0.453)
Example N.3				3.757***				2.456***				2.772***				0.088
				(0.695)				(0.672)				(0.618)				(0.447)
Individual Cov.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	8312	8312	8312	8312	8312	8312	8312	8312	8312	8312	8312	8312	8312	8312	8312	8312

Notes: Columns (1), (5), (9), and (13) report the baseline results for the main outcomes, including a set of control variables (as in Table A1) that capture individual characteristics (i.e., gender, age, income, ethnicity, education level, employment status, marital status, number of children), as well as country fixed effects. In Columns (2), (6), (10), and (14), we additionally control for the comprehension task (three possible tasks) faced by participants in the PGG. Columns (3), (7), (11), and (15) further control for whether participants successfully completed the task to which they were assigned. Finally, Columns (4), (8), (12), and (16) control for the example (three possible examples) used to illustrate the PGG. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.