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Bruine de Bruin, W and Ulqinaku, A orcid.org/0000-0003-3456-6451 (2021) Effect of mortality salience on charitable donations: Evidence from a national sample. Psychology and Aging, 36 (4). pp. 415-420. ISSN 0882-7974

https://doi.org/10.1037/pag0000478

Effect of mortality salience on charitable donations:

Evidence from a national sample

Wändi Bruine de Bruin

University of Southern California

Aulona Ulqinaku

University of Leeds

Author note: Wändi Bruine de Bruin, Sol Price School of Public Policy, Dornsife Department of Psychology, Schaeffer Center for Health Policy and Economics and Center for Economic and Social Research, University of Southern California, VPD-512, 635 Downey Way, Los Angeles CA 90089, United States. Email: wandibdb@usc.edu; Aulona Ulqinaku, Marketing Division, Leeds University Business School, University of Leeds, Leeds LS2 9JT, United Kingdom. E-mail: A.Ulqinaku@leeds.ac.uk

Preregistration can be accessed at https://osf.io/a5mb4. The data and the materials are available as part of study #180 at the University of Southern California's Understanding America Study archive (https://uasdata.usc.edu/index.php). Additional requests for the data or materials can be sent via email to the lead author at wandibdb@usc.edu.

Data collection was funded by the University of Southern California's Center for Economic and Social Research. Wändi Bruine de Bruin was supported by the Swedish Foundation for the Humanities and Social Sciences (Riksbanken Jubileumsfond) Program on Science and Proven Experience. These funders had no role in study design, data collection, data analysis and interpretation, writing the report, or the decision to submit the report for publication. No financial disclosures were reported by the authors of this paper.

An earlier version of this paper was presented at the 2020 Annual Meeting of Current Innovations in Probability-based Household Internet Panel Research (CIPHER) organized by the University of Southern California's Center for Economic and Social Research in Washington DC.

Please address correspondence to Wändi Bruine de Bruin, University of Southern California, VPD-512, 635 Downey Way, Los Angeles CA 90089, United States (wandibdb@usc.edu)

ABSTRACT

Mortality salience refers to being reminded of death, which increases self-reported prosociality in student samples. Here, we examined effects of mortality salience on actual donations, in a national life-span sample (*N*=5,376). In the mortality-salience (vs. control) condition, participants donated on average 25 cents more to charity, out of their $5 budget. This finding was unaffected by adult age or charity type, suggesting its generalizability. Yet, older adults donated more than younger adults. Auxiliary analyses suggested that fear of death was likely not the main mechanism underlying our findings. We discuss implications for literatures on mortality salience, aging, and charitable giving.

Keywords: donations, mortality salience, national sample, aging, prosocial behavior

Effect of mortality salience on charitable donations: Evidence from a national sample

Prosocial behavior refers to acts that benefit others, including charitable giving (Mayr & Freund, 2020). Americans gave a total of $427.71 billion to charity in 2018 (Giving USA, 2019). According to Terror Management Theory, prosocial behavior makes people feel like they have cemented a meaningful place in their society, and helps to regulate their fear of death when their mortality is made salient (Brandstädter, Rothermund, Kranz, & Kùhn, 2010; Hirschberger, 2010; Hirschberger, Ein-Dor, & Almakias, 2008; Joireman & Duell, 2005; Jonas, Schimel, Greenberg, & Pyszczynski, 2002; Pyszczynski, Greenberg, & Solomon, 1997). Similarly, Socio-Emotional Selectivity Theory posits that motivations to create positive-emotional experiences are stronger when recognizing life as finite -- which is more likely in older adults (Carstensen, 2006) as well as among younger adults who are reminded of their mortality (Strough, Schlosnagle, Karns, LeMaster, & Pichayayothin, 2014).

Mortality salience refers to awareness of death, which induces fear of death, and is activated when receiving survey questions about fear of death (Brandstädter et al., 2010; Florian & Mikulincer, 1997; Maxfield et al., 2007; Zaleskiewicz, Gasiorowska, & Kesebir, 2015), standing near a funeral home (Jonas et al., 2002), or receiving other death reminders (Burke, Martens, & Faucher, 2010). A meta-analysis has suggested that different strategies for inducing mortality salience have similar effect sizes (Burke et al., 2010). Effect sizes have also been unaffected by whether control groups received no treatment or focused on negative experiences unrelated to mortality, such as dental pain or social rejection (Burke et al., 2010).

One main limitation is that studies of mortality-salience effects on prosociality have mostly recruited college students. The aforementioned meta-analysis of mortality-salience inductions suggests that findings are less strong in non-student samples (Burke et al., 2010).

Possibly, participants who are relatively older show less responsiveness to mortality salience, because their relative nearness to death is already salient to them (Carstensen, 2006).

Older adults tend to donate more to charity than younger adults, though the curve may flatten at age 65 or later (Mayr & Freund, 2020; Midlarsky & Hannah, 1989; Wiepking & James, 2013). Age differences in making donations could reflect age-related variations in preferences for prosocial causes (such as helping the next generation), emotions experienced when helping others, as well as financial resources and religiosity (Bekkers & Wiepking, 2011; Bjälkebring, Västfjäll, Dickert, & Slovic, 2016; Hubbard, Harbaugh, Srivastava, Degras, & Mayr, 2016; Mayr & Freund, 2020; Wiepking & James, 2013). In one study that examined age differences in effects of mortality salience on prosociality, mortality salience increased self-reported 'generative concern' or desire to promote well-being for the next generation among retirees (ages 62-92) but not among undergraduate students (ages 17-22) (Maxfield et al., 2014). Although other prosocial concerns were not assessed, these findings may reflect age-related preferences for whom to help, when seeking to overcome fear of death. Because younger adults were students and older adults were retirees, generalizability is limited, and age was likely confounded with income and other demographic factors that contribute to prosocial behavior (Mayr & Freund, 2020).

Another main limitation of studies about effects of mortality salience on prosociality is that dependent variables have predominantly included self-reported attitudes and intentions rather than actual behaviors. That limitation is common in psychology and undermines psychologists' ability to understand and predict real-world behaviors (Baumeister, Vohs, & Funder, 2007). Prosocial attitudes may not translate into actual donations, for example when financial resources are limited (Mayr & Freund, 2020). Fortunately, effect sizes have been unaffected by whether studies examined the effect of mortality salience on actual behaviors or on attitudes and intentions (Burke et al., 2010).

Those few studies that have examined the effect of mortality salience on actual donations used only student samples, precluding analyses of adult age differences. Mortality salience increased students' preferences for donating to national charities rather than international charities, presumably because their fear of death decreased when benefiting their own community rather than a far-away community (Jonas et al., 2002; Jonas, Sullivan, & Greenberg, 2013). Students chose between donating to a national or international charity, out of $1.50 they earned in the experiment (Jonas et al., 2002; Study 2). Both charities were considered simultaneously, which may have made their national vs. international focus more salient than it would have been if either charity had been presented on its own (Hsee, 1996). The latter may be more representative of how actual donations are typically made.

Here, we present the first study to test the effect of mortality salience on actual donations in a large national life-span sample. Participants indicated, out of $5 provided to them, how much they wanted to keep or donate to a randomly assigned charity with a focus that was national or international, and on the next generation or not. We hypothesized that, across charities, donations would be larger with (1) the mortality salience induction (vs. control), and (2) older adult age, though with (3) relatively younger adults responding more strongly to mortality salience. Our design also allowed for auxiliary analyses examining whether fear of death was lower after (vs. before) the donation opportunity, and associated with the donated amount.

METHOD

Participants

Our survey was approved as part of the University of Southern California's Understanding America Study (UAS) online panel. Participants were 5,376 of 7,149 (75%) invited UAS members, who answered questions relevant to our analyses. Figure S1 shows participation and attrition by condition. Aiming for a nationally representative sample, UAS

members were recruited from randomly selected US addresses, sampling probabilities were adjusted for underrepresented populations, and internet-connected tablets were provided to interested individuals if needed (Alattar, Messel, & Rogofsky, 2018; UAS Recruitment Protocol, 2019). Address-recruited online panels tend to be better than opt-in online panels at achieving national representativeness (Tourangeau, Conrad, & Couper, 2013) and high-quality data (Kennedy et al., 2020). A sample size of 3,142 would have been sufficient to discover an effect size of at least .1 in a two-sided *t*-test with statistical power at .8 and α at .05.

Our sample covered the adult life span (range=18-100, M= 51.11, SD=15.64). Overall, 21% was aged 65^{+}, 43% male, 80% white, 39% college-educated, 70% affiliated with a religion, and median household income was $50,000 to $59,999. By comparison, 16% of the US population is aged 65^{+}, with 49% male, 77% white, 32% college-educated (if aged 25^{+}), 77% religion-affiliated, and a median household income of $60,293 (US Census, 2018; Pew Research Center, 2014). There were no significant differences between invitees who completed our survey and those who did not, regarding gender, college education, religiosity, and median household income (all p>.05; Table S1). However, invitees who completed our survey were somewhat older (M=51.11, SD=15.64 vs. M=46.38, SD=15.79), $t(7137)=11.00$, p<.001 and slightly more likely to be white (80% vs. 77%), $\chi(1)=9.76$, p<.01 than those who did not complete it. There were no significant correlations between demographic characteristics and experimental conditions, suggesting our randomizations were successful (all p>.05; Table S2). Older age in our sample was associated with being male (r=.14, p<.001), white (r=.13, p<.001), and religious (r=.16, p<.001). Controlling for these age-

related differences did not affect conclusions about the relationships between age and dependent variables (Table 1 vs. Table S2).

Procedure

Our survey was online from April 15th through May 16th of 2019. As in most UAS surveys, it involved multiple studies. Our study was presented first. Its mortality salience induction and donation opportunity were presented as if they were separate studies. Data and materials are available from the UAS (https://uasdata.usc.edu/index.php; survey #180). Participants received $20 for approximately every 30 minutes of survey time.

Mortality salience vs. control. Participants were randomly assigned to the mortality-salience or control condition. Following previous research (Brandstädter et al., 2010; Florian & Mikulincer, 1997; Maxfield et al., 2007; Zaleskiewicz et al., 2015), mortality salience was induced by questions about fear of death before the donation opportunity. The control group received no treatment before the donation opportunity but answered the fear-of-death questions afterwards (following Brandstädter et al., 2010; Florian & Mikulincer, 1997). As noted, a meta-analysis confirmed that effects of mortality salience typically hold independent of whether the control group received no treatment or focused on other negative experiences, such as dental pain or social rejection (Burke et al., 2010). Because the fear-of-death questions were asked before the donation opportunity in the mortality-salience condition, and after the donation question in the no-treatment control condition, it was possible to conduct auxiliary analyses to examine the effect of the donation opportunity on fear of death.

Fear of death. Three items stated "death scares me because of" (1) "the severance of ties with loved ones"; (2) "the sorrow it will cause to relatives and friends"; (3) "the uncertainty of what to expect." We selected those items because they elicited the highest ratings in a pilot study we conducted on Amazon Mechanical Turk (N=100), with Florian and

Kravetz' (1983) 31-item fear-of-death scale. Internal consistency was sufficient to warrant averaging responses (α=.78).

Charity. To examine the robustness of our hypotheses, participants were randomly assigned to one of four charities, which targeted the next generation specifically or not (Maxfield et al., 2014) and were national or international (Jonas et al., 2002, 2013). The national and international charities targeting the next generation were, respectively, The Boys and Girls Club of America and UNICEF, described as improving "the well-being of children across [this country/the world] through education and health programs." The national and international charities that did not specifically target the next generation were the American Red Cross and Red Cross International, which were described as providing "disaster relief, food, and shelter to people across [this country/the world]."

Donations. The donation opportunity appeared after the fear-of-death questions (in the mortality-salience condition) or before (in the control condition), as if it were a separate study. Participants learned that, upon completion of the study, 100 individuals would be randomly selected to receive $5 to donate. All indicated how much of $5 they would donate or keep for themselves, if they were selected (Barasch, Levine, Berman, & Small, 2014). After the closing date of the study, we randomly selected 100 individuals and implemented their choices.

Demographics. Demographic information was already on record at UAS.

RESULTS

Donations.

Initial analyses. As expected, mortality salience increased donations: participants in the mortality-salience condition donated on average 25 cents more (out of their $5 budget) than control participants (M=\$3.65, SD=1.98 vs. M=\$3.40, SD=2.08), $t(5374)$=-4.55, Cohen's d=.12 (95% CI=.07-.18), p<.001. We also found the expected positive correlation between

older adult age and donations (r=.14, p<.001). Participants who were younger than age 30 (n=498) contributed the least, on average $2.82 ($SD$=2.12), while participants aged 70 and older (n=693) donated the most, on average $3.81 ($SD$=1.96), t(1189)=-8.28, Cohen's d=.47 (95% CI=.36-.58), p<.001, which is nearly a dollar more out of the provided $5. Table S2 shows correlations between key variables.

Regressions. We conducted linear regressions on donations to examine the effect of mortality salience (vs. control) and adult age, charity type (targeting next generation vs. not; national vs. international), and demographic control variables (Table 1; Model 1). Adult age was continuous and mean-centered, with a quadratic term included.

Figure 1 shows that participants in the mortality salience (vs. control) condition and those who were relatively older donated more (Table 1; Model 1). Relationships between age and donations were slightly weaker for relatively older participants, as seen in a small significantly negative term for quadratic age (Table 1; Model 1). Participants of all ages donated more to the Boys and Girls Club of America, the national charity focused on the next generation (Table 1; Model 1). On average, this charity received M=$3.73 ($SD$=1.92), while the others received less (M=$3.42, SD=2.09 for UNICEF; M=$3.50, SD=2.05 for International Red Cross; M=$3.47, SD=2.08 for American Red Cross).

There were no additional significant second-order or higher-order interactions between key predictor variables, suggesting that effects of mortality salience held independent of linear and quadratic age, and that effects of mortality and age held across charities (all p>.05; Table S3; Model 1).

Fear of death.

Initial analyses. Fear of death was significantly lower after the donation opportunity (in the control condition) compared to before (in the mortality-salience condition) (M=3.31, SD=1.15 vs. M=3.38, SD=1.12), t(5374)=2.24, Cohen's d=.06 (95% CI=.01-.11), p=.03.

Across conditions, age was correlated to lower fear of death (r=-.21, p<.001). Table S2 shows the correlation matrix for key variables.

Regressions. Reported correlations of fear of death with mortality salience and age held in linear regressions on fear of death that were analogous to those on donations (Table 1; Model 2). There was no effect of whether or not charities focused on the next generation, national causes, or both (Table 1, Model 2). There were no significant two-way interactions (all p>.05; Table S3, Model 2).[1]

Adding fear of death to the regression models predicting donations did not affect the relationships of mortality salience and age with donations (Table S4). Although donated amounts were not significantly correlated to fear of death (r=.00, p=.81), regression analysis did suggest that donated amounts were slightly higher among individuals reporting greater fear of death when taking into account other predictors and demographic control variables (Table S4). The relationship did not significantly vary with the order in which the donation opportunity and fear-of-death questions were presented in the different (mortality salience vs. control) conditions (Table S4).

DISCUSSION

As is common in psychology, effects of mortality salience on prosociality have predominantly been studied in undergraduate students, and mostly included self-reported rather than actual behaviors (Baumeister et al., 2007; Burke et al., 2010). There have been concerns that effects of mortality salience on prosociality may not generalize well to non-student samples (Burke et al., 2010), and that psychological research has focused too much on self-reported attitudes and intentions rather than actual behavior (Baumeister et al., 2007). However, in a large national life-span sample, we found that mortality salience did increase donations to actual charities, out of a provided $5 budget, compared to a no-treatment control

condition. Overall, the effect size of mortality salience on donations was relatively small, as is typical for non-student samples (Burke et al., 2010).

Donations increased with older adult age reaching asymptote in midlife, possibly reflecting older adults' motivation to create positive experiences in the limited time they perceive to have left (Carstensen, 2006). Previous research with a convenience sample also found that older adults donated more to an actual charity than younger adults, when given a budget (Freund & Blanchard-Fields, 2014). The effect size of our finding appeared relatively small, when treating age as a continuous variable reflecting years across the adult life span. However, when comparing the youngest participants (below age 30) with the oldest participants (aged 70 and over), the difference in the amount donated was nearly $1, suggesting a medium effect size. The relationship between older age and donation size held when controlling for household income, religious affiliation, and other demographic variables.

Overall, older adults were no less susceptible than younger adults to our mortality salience induction, which included questions about fear of death. Possibly, fear-of-death questions can increase mortality salience even among older adults who may already be relatively aware of their mortality. Our participants were recruited from the UAS panel, which tends to focus on financial decisions and outcomes. As a result, questions about fear of death may have been unexpected -- and made mortality more salient than usual even among older adults.

Although participants of all ages donated the most to the national charity helping the next generation, effects of mortality salience and age on donations were not moderated by charity type. This finding may seem to contradict a previous study that had found that mortality salience increased retirees' but not college students' concern for the well-being of the next generation (Maxfield et al., 2014). However, generative concern may not be the

only predictor of actual donations made to charities that focus on the next generation. Charities devoted to child well-being, and donation appeals that use images of children, tend to generally elicit more donations – perhaps because children are often perceived as innocent and most deserving of help (Zagefka & James, 2015). Additionally, college students and retirees may not be representative of their age groups.

Another study had suggested that mortality salience increased college students' preferences for donating to national charities rather than international ones, when they were given a direct choice about where to donate (Jonas et al., 2002, 2013). Our findings suggest that such differences may not occur when opportunities to donate occur separately, perhaps because the national/international dimension was less salient. Such preference reversals in joint vs. separate evaluation have previously been documented in decision-making research (Hsee, 1996).

As suggested by Terror Management Theory, auxiliary analyses suggested that fear of death was lower after the donation opportunity (in the control condition) than before (in the mortality-salience condition). While that finding was not moderated by age, older adults reported somewhat lower fear of death. Effects of mortality salience and age on donations held after accounting for fear of death, suggesting that another mechanism was responsible for our main findings.

A main limitation of our work is that it lacks the additional measures that might help to explain why mortality salience and older age were associated with donating more. One potential explanation is that mortality salience and older age limit future time perspective, which, according to Socioemotional Selectivity Theory, increases motivations to maximize emotional experiences in the time that remains (Carstensen, 2006). Donations may provide positive experiences, including "warm glow" (Imas, 2014), and "ego-transcendence" (Brandstädter et al., 2010). Furthermore, mortality salience and older age may reduce the

perceived need of saving money, which is associated with larger donations (Mayr & Freund, 2020).

Another limitation is that our control group received no treatment. As a result, we are not able to disentangle effects of mortality salience with other negative experiences. However, a previous meta-analysis has suggested that the effect size of mortality salience inductions is unaffected by whether the control group involves no treatment or a focus on a negative experience such as dental pain or social rejection (Burke et al., 2010). We were also unable to determine whether mortality salience differs from salience of life-stage endings, such as college graduation, divorce, or moving across the country, which also motivate prioritizing meaningful social relationships (Fredrickson, 1995; Fredrickson & Carstensen, 1990), and, possibly, prosocial behavior. Studies that compared mortality salience with other endings have suggested that college students may respond more strongly to mortality salience than to graduation or to social rejection (Schimel et al., 1999; Strough et al., 2014), but relative effects on prosocial behavior have not yet been examined.

A third limitation is that the national and international charities that did not specifically focus on the next generation were, respectively, the American Red Cross and the International Red Cross. The Red Cross had been receiving negative press after the 2016 Haitian earthquake (NPR, 2016), perhaps making participants hesitant to donate. However, donated amounts were similar for these Red Cross charities and UNICEF, the international charity focused on the next generation. The most was donated to the Boys and Girls Club of America, the national charity that focused on the next generation. Most importantly, we found no evidence that our main findings, or the effects of mortality salience and age on donations, were affected by charity type.

Yet, a strength of our study is the size and quality of the sample. Even though our study had more than enough statistical power to discover the necessary interactions, we found

that effects of our mortality salience induction on donations were seemingly unaffected by participants' ages, or the types of charities to which donations could be made. Thus, we conclude that effects of mortality salience on prosociality are generalizable to non-student samples and actual behaviors.

Even though our effect sizes and donation amounts were relatively small, our research has implications for charities. Especially when reaching out to large numbers of potential donors, even small differences in donated amounts may add up. Our finding that donations were higher among older participants and in the face of mortality salience suggests advertising strategies for charity organizations seeking donations. One recommendation for increasing donations might be to target older audiences. Another could be to increase donations by manipulating mortality salience in advertisements, though the ethics of doing so may be questioned. However, mortality salience may only increase donations to charities that do not directly remind people of death and dying (Hirschberger et al., 2008). Based on our findings, a better recommendation may therefore be for charities to advertise for donations during times at which mortality salience is greater, and with audiences that are older. This advice should be effective for charities of different types, whether their focus is on the next generation or not, and national or international. Regardless, research into motivations for making charitable donations brings the promise of helping charities.

FOOTNOTE

[1] We did find significant three-way interactions that suggested small variations in fear-of-death responses after (vs. before) the donation opportunity by age and type of charity (Table S3, Model 2; Figure S2-S3), with older adults reporting slightly lower fear of death after (vs. before) the donation opportunity when charities focused on the next generation (vs. not) and national (vs. international) causes.

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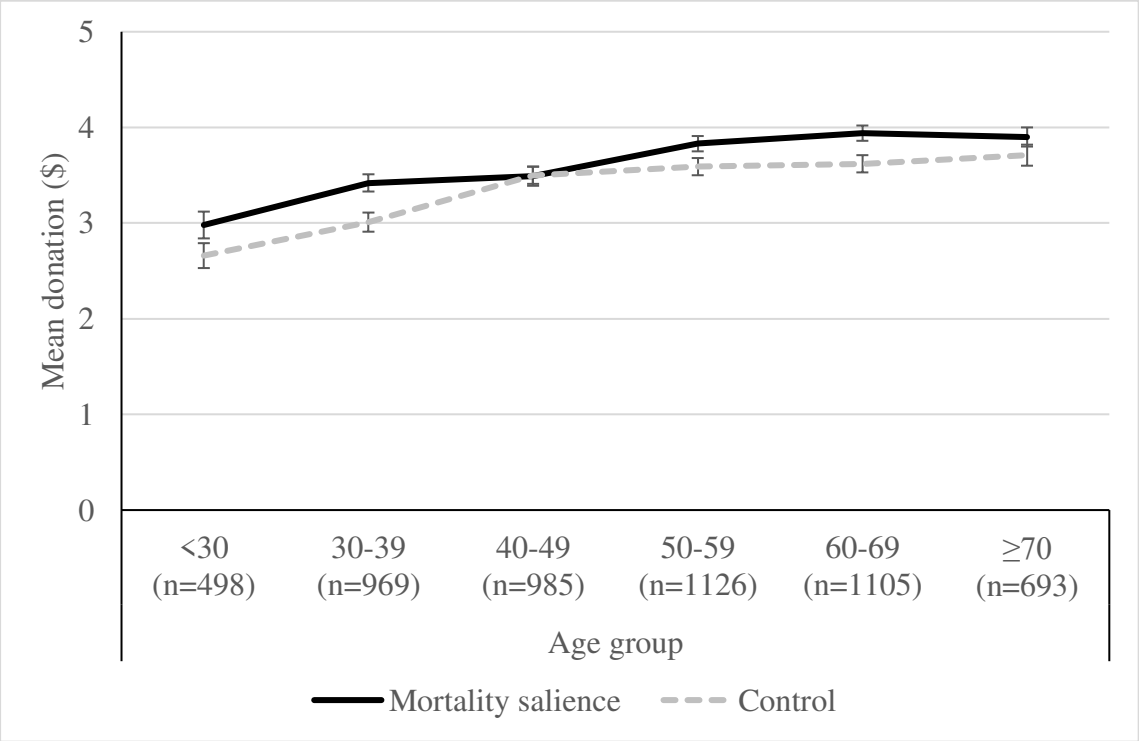
Table 1: Linear regression models predicting donations and fear of death.

	Model 1: Donations		Model 2: Fear of death	
	B (se)	*β*	*B (se)*	*B*
Predictor variables				
Mortality-salience condition (vs. control)[a]	.25*** (.05)	.06***	.07* (.03)	.03*
Age (linear)	.02*** .00	.13***	-.01*** (.00)	-.20***
Age (quadratic)	.00*** [b] (.00)	-.05***	.00 (.00)	-.01
Charity for next generation (vs. not)	-.06 (.08)	-.01	.04 (.04)	.02
National charity (vs. international)	-.08 (.08)	-.02	.01 (.04)	.01
Charity for next generation (vs. not) x National charity (vs. international)	.35** (.11)	.07**	-.05 (.06)	-.02
Demographic control variables				
Male (vs. female)	-.04 (.06)	-.01	-.21*** (.03)	-.09***
White (vs. non-white)	.22** (.07)	.04**	.08* (.04)	.03*
College degree (vs. not)	.21** (.07)	.05**	-.16*** (.03)	-.07***
Affiliated with religion (vs. not)	-.05 (.06)	-.01	-.09** (.03)	-.04**
Household income $25k-$49,999 (vs. <$25k)	.24** (.08)	.05**	.03 (.05)	.01
Household income $50k-$74,999 (vs. <$25k)	.53*** (.09)	.10***	.03 (.05)	.01
Household income $75k-$149,999 (vs. <$25k)	.67*** (.09)	.15***	.03 (.05)	.01
Household income >$150k (vs. <$25k)	.70*** (.11)	.11***	.09 (.06)	.02

* $p<.05$; ** $p<.01$; *** $p<.001$; [a] Fear of death questions were answered before the donation questions in the mortality-salience condition and after the donation questions in the control condition; [b] Quadratic age was $B=-.0004$ and $se=.0001$.

Note: Unstandardized estimates (*B),* standard errors *(se),* and standardized estimates (*β*) are presented for each model. Mortality salience and charity type were randomized conditions. Age was mean-centered. Charities were Boys and Girls Club of America (next generation, national), UNICEF (next generation, international), American Red Cross (not next generation, national), International Red Cross (not next generation, international). Interactions are shown in Table S3.

Figure 1: Mean donations by mortality salience (vs. control) and age.



Note: Age was treated as a continuous variable in all reported statistical analyses. Donations increased with mortality salience (β=.06, p<.001) and linear age (β=.13, p<.001), and quadratic age (β=-.05, p<.001) (Table 1). There were no significant interactions of mortality salience with linear age (β=.01, p=.46) or quadratic age (β=.00, p=.85) (Table S3). Error bars reflect +/- 1 standard error.

SUPPLEMENTAL MATERIALS

Table S1: Demographic characteristics of responders, non-responders, and US population.

Demographic characteristic	Responders (*N*=5,376)	Non-responders (*N*=1,771)	Test of difference
Mean (SD) age	51.11 (15.64)	46.38 (15.79)	$t(7137)=11.00$, $p<.001$
Percent male	43%	42%	$\chi(1)=.25$, $p=.62$
Percent white	80%	77%	$\chi(1)=9.76$, $p<.01$
Percent college degree	39%	38%	$\chi(1)=.43$, $p=.51$
Percent affiliated with religion	70%	71%[a]	$\chi(1)=.78$, $p<.38$
Median household income	$50,000-$59,999	$50,000-$59,999	MW $z=.72$, $p=.47$

MW=Mann-Whitney test.

Table S2: Correlation matrix.

	1. Mortality-salience condition	2. Age	3. Dona-tion	4. Fear of death	5. Charity for next generation	6. National charity	7. Male	8. White	9. Col-lege	10. Reli-gion
1. Mortality-salience condition (vs. control)	-									
2. Age	.01	-								
3. Donation	.06***	.14***	-							
4. Fear of death	.03*	-.21***	.00	-						
5. Charity for next generation (vs. not)	.01	.02	.03*	.00	-					
6. National charity (vs. international)	.01	-.02	.02	.00	.01	-				
Demographic control variables										
7. Male (vs. female)	-.01	.14***	.03*	-.12**	.01	-.01	-			
8. White (vs. non-white)	.00	.13***	.08***	-.01	.00	.01	.05***	-		
9. College-educated (vs. not)	.00	.02	.11***	-.07***	.02	.01	.07***	.06***	-	
10. Affiliated with religion (vs. not)	.02	.16***	.03*	-.07***	.00	.01	-.03*	.05**	.06***	-
11. Household income	-.01	.01	.16***	-.02	.02	.01	.15***	.15***	.42***	.06***

Note: Mortality salience (vs. control), charity for next generation (vs. not), and national (vs. international) charity were randomized conditions. Charities were Boys and Girls Club of America (next generation, national), UNICEF (next generation, international), American Red Cross (not next generation, national), International Red Cross (not next generation, international). Household income was divided into five categories (Table 1).

Table S3: Linear regression models predicting donations and fear of death: interactions.

	Model 1: Donations		Model 2: Fear of death	
	B (se)	β	*B (se)*	β
Two-way interactions				
Mortality salience x Age (linear)	-.01 (.02)	-.10	.01 (.01)	.16
Mortality salience x Age (quadratic)	.00 (.00)	.04	.00 (.00)	-.07
Mortality salience x Charity for next generation	.13 (.11)	.03	.03 (.06)	.01
Mortality salience x National charity	-.13 (.11)	-.03	.02 (.06)	.01
Age (linear) x Charity for next generation	-.02 (.02)	-.24	-.01 (.01)	-.20
Age (quadratic) x Charity for next generation	.00 (.00)	.17	.00 (.00)	.14
Age (linear) x National charity	.00 (.02)	.03	.00 (.02)	-.01
Age (quadratic) x National charity	.00 (.00)	-.03	.00 (.00)	.02
Three-way interactions				
Mortality salience x Age (linear) x Charity for next generation	.01 (.04)	.16	.05* (.02)	1.09*
Mortality salience x Age (quadratic) x Charity for next generation	.00 (.00)	-.14	.00* (.00)	.64*
Mortality salience x Age (linear) x National charity	-.01 (.04)	-.15	.06* (.02)	1.21*
Mortality salience x Age (quadratic) x National charity	.00 (.00)	.11	.00* (.00)	-.69*
Mortality salience x Charity for next generation x National charity	-.04 (.22)	-.01	.08 (.12)	.02
Age (linear) x Charity for next generation x National charity	.06 (.04)	.66	.02 (.02)	.39
Age (quadratic) x Charity for next generation x National charity	.00 (.00)	-.43	.00 (.00)	.29
Four-way interactions				
Mortality salience x Age (linear) x Charity for next generation x National charity	.02 (.09)	.16	.00 (.04)	-.02
Mortality salience x Age (quadratic) x Charity for next generation x National charity	.00 (.00)	.07	.00 (.00)	-.06

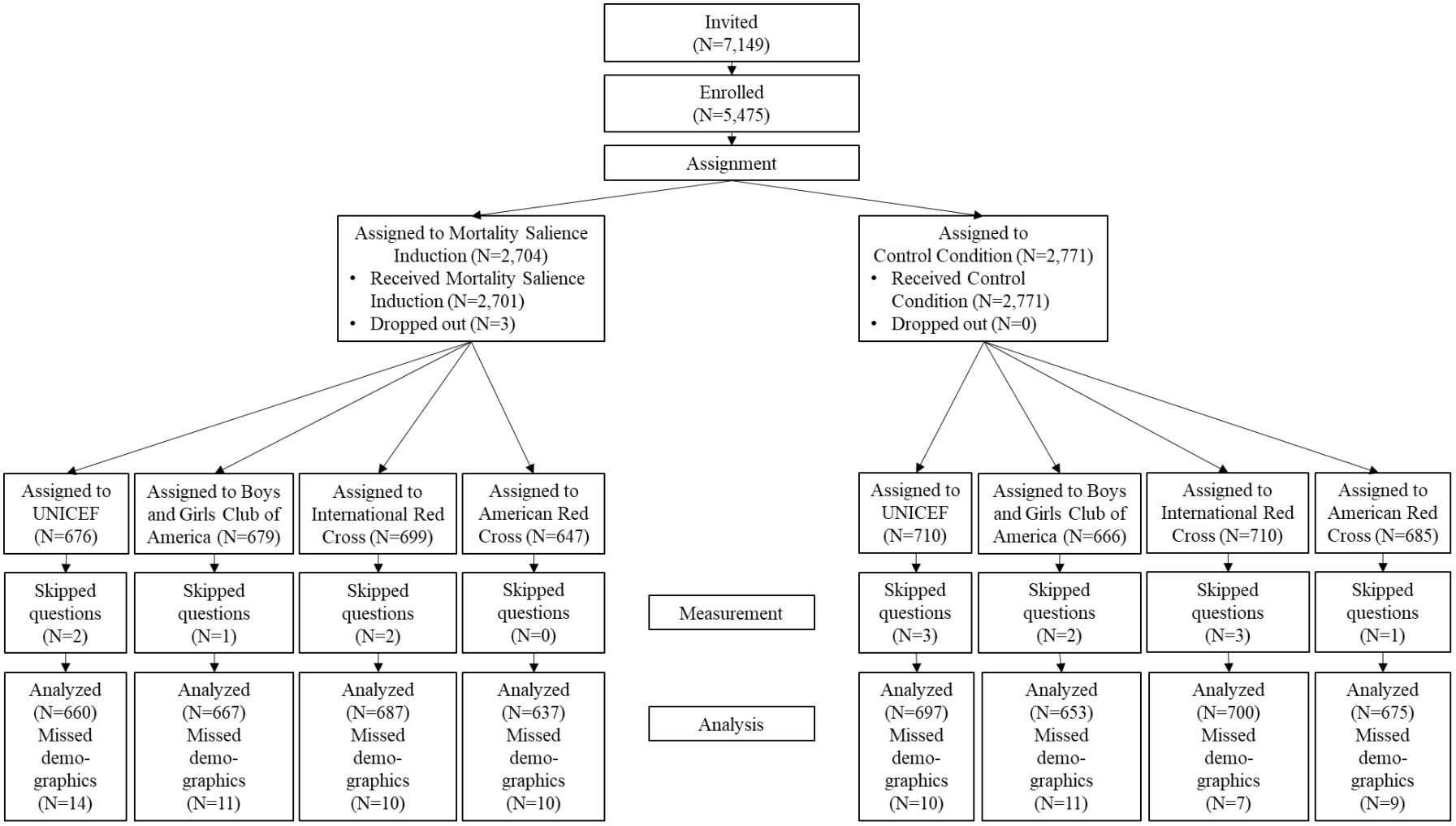
Note: Two-way interactions were added in a regression step conducted after the models presented in Table 1, and three-way interactions were added in a subsequent regression step.

Table S4: Linear regression models predicting donations: role of fear of death.

	B (se)	*β*
Predictor variables		
Donations	.07**	.04**
	(.02)	
Mortality-salience condition (vs. control)	.24***	.06***
	(.05)	
Age (linear)	.02***	.14***
	(.00)	
Age (quadratic)	.00	-.05
	(.00)	
Charity for next generation (vs. not)	-.06	-.02
	(.08)	
National charity (vs. international)	-.08	-.02
	(.08)	
Charity for next generation (vs. not) x National charity (vs. international)	.35***	.07***
	(.11)	
Demographic control variables		
Male (vs. female)	-.03	-.01
	(.06)	
White (vs. non-white)	.22**	.04**
	(.07)	
College degree (vs. not)	.22**	.05**
	(.06)	
Affiliated with religion (vs. not)	-.04	-.01
	(.06)	
Household income $25k-$49,999 (vs. <$25k)	.23***	.05***
	(.08)	
Household income $50k-$74,999 (vs. <$25k)	.52***	.10***
	(.09)	
Household income $75k-$149,999 (vs. <$25k)	.67***	.15***
	(.09)	
Household income >$150k (vs. <$25k)	.70***	.11***
	(.11)	

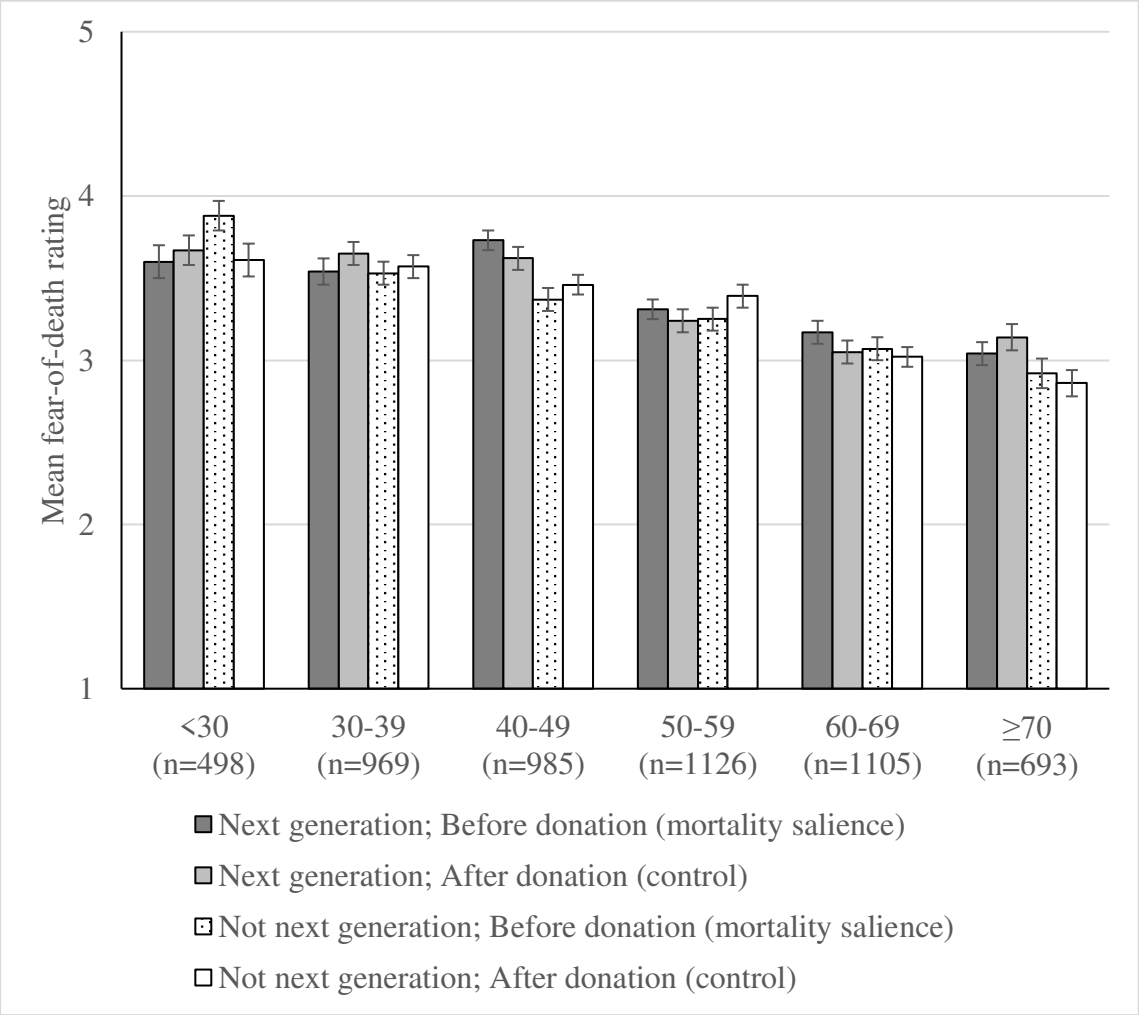
[a] Fear of death questions were answered before the donation questions in the mortality-salience condition and after the donation questions in the control condition.
[b] Quadratic age was B=-.0004 and se=.0001.
Note: Unstandardized estimates (B), standard errors (se), and standardized estimates (β) are presented for each model. Mortality salience and charity type were randomized conditions. Age was mean-centered. Charities were Boys and Girls Club of America (national, next generation), UNICEF (international, next generation), American Red Cross (national, not next generation), International Red Cross (international, not next generation). Adding any second-order and higher-level interactions of linear age or quadratic age, mortality salience, type of charity, and their combination yielded no significant results (p>.05). Adding donations x mortality salience interaction revealed no significant (B=.03, se=.04, β=.01, p=.50).

Figure S1: Flow of participants through each stage of the experiment.



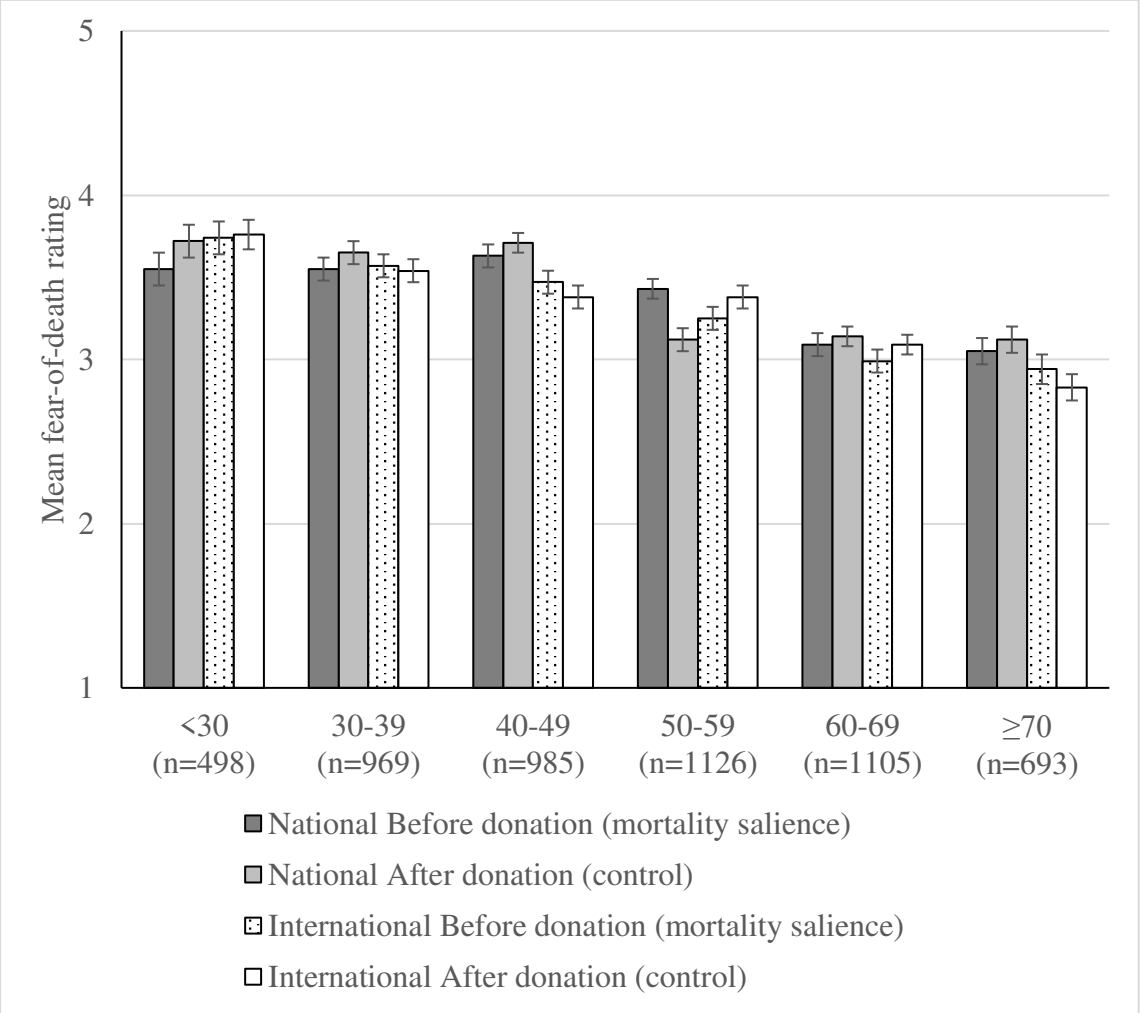
Note: In the mortality salience induction, questions asked about fear of death and donations. In the control condition, the same questions were asked in the opposite order. Demographics were answered separately and merged with our data in the analysis phase

Figure S2: Fear of death by age, mortality salience and charity focused on the next generation vs. not.



Note: Charities were Boys and Girls Club of America (national, next generation), UNICEF (international, next generation), American Red Cross (national, not next generation), International Red Cross (international, not next generation).

Figure S3: Fear of death by age, mortality salience and national vs. international charity.



Note: Charities were Boys and Girls Club of America (national, next generation), UNICEF (international, next generation), American Red Cross (national, not next generation), International Red Cross (international, not next generation).