

# PERCEPTIONS OF EFFICACY, MORALITY, AND POLITICS OF POTENTIAL CADAVERIC ORGAN- TRANSPLANTATION REFORMS

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## I

### INTRODUCTION

In this empirical research project, we sought to explore the political feasibility of potential policy reforms to address the shortage of cadaveric organs for transplantation in America. We recruited 730 human subjects from an online population and assigned them to writing tasks that experimentally manipulated the salience of moral and posthumous risks. Subjects read ninety-five-word descriptions of six proposed policy reforms, rating efficacy, morality, and overall support for each. We created weighted estimates of the overall potential support for each reform (WEOS), correcting for the skew in our study population to very roughly approximate the political affiliations of the American public.

Our data suggest that cultural cognition and perceptions of risk do not drive policy choices about organ reform. Qualitatively, the writing tasks revealed some ambivalence about the risk of having life-saving organs harvested without consent, and they revealed tangible frustration about the risk of a loved one dying for lack of a needed organ.

We found that Democrats were generally more supportive of reforms, whereas Independents were less supportive, and Republicans were middling in

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their support. In particular, we found support for the proposal to make the deceased person's own organ choices controlling and not deferential to next of kin (WEOS: 54%, with Democrat and Republican levels of support indistinguishable). Respondents did not see personal choice as particularly efficacious for resolving the shortage, but nonetheless morally important. In contrast, respondents perceived opt-out to be highly effective, but morally disconcerting. Nearly two-thirds of Democrats supported opt-out, and nearly half of Republicans did so—a significant difference. However, two-thirds of Independents were opposed, which drew the WEOS down to 46%.

We found an even clearer, broad consensus that a regulated market for organs could be effective but would be deeply problematic morally (WEOS: 16%, with no detectable political split). On the other hand, another incentive, the payment of vouchers for funeral expenses, enjoyed stronger support (WEOS: 51%, with a majority of both Democrats and Republicans supporting the proposal, but with the former even more so, given the 14% split). The voucher assuages moral objections about the market while maintaining apparent efficacy.

Our study also suggests that a package of reforms—including reciprocal preferences, opt-out, and elimination of the family veto—may be feasible politically (WEOS: 53%, and no political split detectable). This package of reforms neutralizes moral objections to a reform based on reciprocal preferences alone (WEOS: 41%, with a significant 10% split along party lines).

This study is best understood as a pilot for a future study with a demographically valid sample. Nonetheless, the richness of the data suggests that Americans make nuanced policy distinctions, which depend on how proposals are packaged. We identify certain reforms that may enjoy broad-based support from across the political spectrum.

## II BACKGROUND

The shortage of cadaveric organs for transplantation is well-known, and the philosophical, legal, and economic arguments about potential policy reforms have been well-aired for decades. Yet organ policy in the United States remains unchanged. The transplantation waiting lists grow, as do the numbers of those who die while waiting.

Given the fractured political climate of 2014, the outlook for reform is grim. As Ronald Dworkin wrote only seven years ago, “We are no longer partners in self-government; our politics are rather a form of war.”<sup>1</sup> Dworkin warned of an “unbridgeable gulf” where there may be “no common ground to be found and no genuine argument to be had.”<sup>2</sup> It is, of course, an empirical question as to

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1. RONALD DWORGIN, IS DEMOCRACY POSSIBLE HERE? PRINCIPLES FOR A NEW POLITICAL DEBATE 1 (2006).

2. *Id.*; see also Imer B. Flores, *The Problem of Democracy in Contexts of Polarization* 3–4 (Georgetown Pub. Law & Legal Theory Research, Paper No. 13-017, 2013), available at

whether there may be common ground on the particular questions of organ-transplantation policy. If any reform is to become actual policy in a democratic polity, it must reflect the political and cultural values of that polity, values that may not be subject to precise conceptual distinctions used by philosophers and lawyers. In this spirit, Dan Callahan has written that “[a] communitarian bioethics would be one that sought to blend cultural judgment and personal judgment.”<sup>3</sup>

It is possible that the elite members of the academic intelligentsia and the medical-transplant professionals, who have until now led the debate about organ-transplantation policy, may have quite different political and cultural commitments than do members of the American public or their elected and appointed policymakers.<sup>4</sup> Thus, for those serious about implementing life-saving organ-policy reforms in the real world—one soaked in politics and culture—the political and cultural feasibility of competing reforms demands closer study. In this article, we broach that topic empirically.

According to a 2005 Gallup poll, Americans overwhelmingly support organ donation.<sup>5</sup> Furthermore, about three-quarters of Americans polled said they are likely to have their organs donated upon death, and over half have actually registered as donors.<sup>6</sup> Of course, personal willingness to donate and support for policy reform are distinct questions. As to the latter, one limitation of prior research is that it has failed to attend to the likelihood that competing potential reforms have divergent, or polarizing, cultural and political salience.<sup>7</sup>

Opt-out systems (also known as presumed-consent or default-rule systems) have been used successfully in Europe,<sup>8</sup> and they have been endorsed by many scholars in the United States.<sup>9</sup> Yet Gallup reported that, as of 2005, Americans did not widely support reform predicated upon opting out or presumed

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<http://ssrn.com/abstract=2211018>.

3. Daniel Callahan, *Bioethics: Private Choice and Common Good*, 24 HASTINGS CENTER REP. 28, 31 (1994).

4. See Christopher F. Cardiff & Daniel B. Klein, *Faculty Partisan Affiliations In All Disciplines: A Voter-Registration Study*, 17 CRITICAL REV. 237, 239 (2005) (showing a five-to-one skew in philosophy departments); John O. McGinnis et al., *The Patterns and Implications of Political Contributions by Elite Law School Faculty*, 93 GEO. L.J. 1167, 1176 (2005) (showing a five-to-one skew among politically active law professors towards Democrats).

5. THE GALLUP ORG., NATIONAL SURVEY OF ORGAN AND TISSUE DONATION ATTITUDES AND BEHAVIORS 5 (2005).

6. *Id.* Outside the United States, there is also a literature on attitudes towards organ transplantation. See, e.g., Catalina Conesa et al., *Psychological Profile in Favor of Organ Donation*, 35 TRANSPLANTATION PROC. 1276 (2003).

7. See Dan M. Kahan et al., *Cultural Cognition of the Risks and Benefits of Nanotechnology*, 4 NATURE NANOTECHNOLOGY 87 (2009) [hereinafter Kahan et al., *Nanotechnology*]; see also Flores, *supra* note 2, at 13–16.

8. Laura A. Siminoff & Mary Beth Mercer, *Public Policy, Public Opinion, and Consent for Organ Donation*, 10 CAMBRIDGE Q. HEALTHCARE ETHICS 377, 381 (2001).

9. See, e.g., Michael B. Gill, *Presumed Consent, Autonomy, and Organ Donation*, 29 J. MED. & PHIL. 37 (2004).

consent.<sup>10</sup> Less than half of the population supported such a reform.<sup>11</sup> In a 2001 study, Siminoff and Mercer also found that presumed consent was not viewed favorably among the 600 individuals they studied.<sup>12</sup> The authors also listed objections to this system.<sup>13</sup> One is that people who may have otherwise donated their organs will distrust medical authorities and opt not to donate, and another is that minorities—who are less likely to want to donate—would not be able to take the necessary steps to *not* donate.<sup>14</sup> Such a system has not been implemented here, in part because it faces political opposition by some individualists, who view it as an instance of “big government,” intruding into the body conceived as a personal, rather than as a collective, resource.

Alternatively, some have proposed incentive-based models, including payments of money or other material benefits for the giving of cadaveric organs (either in a regulated free market or in a more limited system, such as one that provides a voucher for funeral expenses). Gallup reports that less than one-fifth of Americans say that a financial incentive would increase their likelihood of donating their own or a family member’s organs.<sup>15</sup> Siminoff and Mercer also found that about one-quarter of their study participants would be offended at a financial incentive to donate their family members’ organs upon death, one-quarter would not be offended, and one-fifth would appreciate it.<sup>16</sup> To some egalitarians, the thought of a financial incentive for organs may evoke the worst of capitalism, in which the human body is commoditized and the rich exploit the poor. A 2003 study by Mehmet and colleagues of surgeons and other transplantation professionals distinguished between “indirect” forms of compensation (such as payment of funeral expenses), which seventy percent of the study’s participants supported, and “direct” forms of compensation (for example, a tax credit or life-insurance benefit), which about as many within the study opposed.<sup>17</sup> Thus, it appears that the framing and the details of the incentive scheme matter.

The cultural significance of reciprocity-based models—like those tried in Israel<sup>18</sup> and Singapore,<sup>19</sup> in which registered organ donors receive priority access to available organs—are less obvious. Such proposals may be attractive to individualists who emphasize personal responsibility (because, in such a

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10. THE GALLUP ORGANIZATION, *supra* note 5, at 20–21.

11. *Id.*

12. Siminoff & Mercer, *supra* note 8, at 382.

13. *Id.* at 381.

14. *Id.*

15. THE GALLUP ORGANIZATION, *supra* note 5, at 23–24.

16. Siminoff & Mercer, *supra* note 8, at 382.

17. Mehmet C. Oz et al., *How to Improve Organ Donation: Results of the ISHLT/FACT Poll*, 22 J. HEART & LUNG TRANSPLANTATION 389 (2003).

18. See, e.g., Jacob Lavee & Avraham Stoler, *Reciprocal Altruism—The Impact of Resurrecting an Old Moral Imperative on the National Organ Donation Rate in Israel*, 77 LAW & CONTEMP. PROBS., no. 3, 2014, at 323.

19. See Alireza Bagheri, *Organ Transplantation Laws in Asian Countries: A Comparative Study*, 37 TRANSPLANTATION PROCEEDINGS 4159, 4160–61 (2005).

reciprocity-based system, the choice not to give has consequences). Haidt has argued that liberals and conservatives differ on their conceptions of fairness, with the former emphasizing notions of equality and the latter emphasizing “proportionality” (perhaps an Aristotelian notion of justice as desert).<sup>20</sup> On this latter notion, reciprocity-based models might be more attractive to conservatives. Or perhaps liberals might also see them as attractive to the extent that all who join the social contract are treated equally.

Finally, regardless of the policy regime, the ultimate question about transplantation might be decided by next-of-kin after death, and a law might resolve whether the family should have final “veto power” over the individual’s own choice or lack thereof. This policy also might have political and cultural valence, with individualists perhaps seeing the organ choice as personal, and communitarians seeing it as more familial. In the survey of transplantation professionals, most favored consulting the family unless the decedent had himself signed a donation card.<sup>21</sup>

These policy choices implicitly raise questions about how to weigh relative risk, questions that have motivated scholars and might motivate the public and policymakers as well.<sup>22</sup> On the one hand, there is the risk that someone might need an organ transplantation but fail to secure such a transplantation because of the severe shortage. On the other hand, there is the risk that someone might prefer not to have his or her cadaveric organs transplanted, but might nonetheless have his or her organs removed after death. It might be that individuals differently perceive the relative probability and severity of these risks in ways that inform their policy preferences.

Kahan has found that cultural cognition can result in polarization about policy choices when individuals are given balanced information about a particular risk, even when individuals did not have any opinions about the topic before being asked about it.<sup>23</sup> It is their “cultural predisposition toward risk” that leads individuals to “construe or assimilate information, whatever its provenance, in opposing ways that reinforce the risk perceptions they are predisposed to form. As a result, individuals end up in a state of cultural conflict—not over values, but over facts . . . .”<sup>24</sup> Furthermore, individuals are more likely to recall information that supports their cultural worldview and are more likely to attribute credibility to experts they view as sharing their values.<sup>25</sup>

Aside from cultural salience, each of these policy choices can be evaluated along multiple dimensions. One reform proposal might be highly effective in

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20. JONATHAN HAIDT, *THE RIGHTEOUS MIND: WHY GOOD PEOPLE ARE DIVIDED BY POLITICS AND RELIGION* 161 (2013).

21. Mehmet C. Oz et al., *supra* note 17, at 391.

22. See, e.g., Gill, *supra* note 9, at 52–55.

23. Kahan et al., *Nanotechnology*, *supra* note 7, at 88.

24. Dan M. Kahan, *Cultural Cognition as a Conception of the Cultural Theory of Risk*, in *HANDBOOK OF RISK THEORY* 725, 746 (S. Roeser et al. eds., 2012).

25. Dan M. Kahan et al., *Cultural Cognition of Scientific Consensus*, 14 *J. RISK RES.* 147, 166–67 (2011).

reducing the organ shortage, but deeply objectionable from a moral point of view. Another reform proposal might have the opposite profile. Still other reform proposals might shine in terms of both perceived efficacy and morality, but prove lacking in other aspects. Further, it remains to be seen whether people are more driven by efficacy or morality in making choices about organ-transplantation reform. Of course, efficacy and morality overlap to the extent that reducing the organ shortage saves lives and reduces suffering, but there are also other moral concerns of autonomy and justice, which might function more like side constraints.

We approached these questions empirically, using the cultural-cognition scale and measures of political identity to explore the heterogeneity of responses to each of these policy reform proposals. Through systematic experimental manipulation, we also tried to make the competing risks more salient for respondents. Finally, we teased apart efficacy, morality, and overall preferences for each policy reform, using separate questions. Aside from revealing which proposals enjoy the most support, this approach revealed whether some proposals might be more polarizing than others, a factor that might be important in settings governed by nonmajoritarian decision rules (such as the U.S. Senate).<sup>26</sup> If the study reveals cultural heterogeneity in policy preferences, they may be mapped onto geographic variations across the United States, which might also suggest that a decentralized (federalist) approach to policy reform might be more effective than national efforts that might be stymied by a lack of cultural consensus favoring reform.

We hypothesized that a hybrid policy-reform package—which includes elements of default rules, the social norm of reciprocity, and elimination of the post hoc family veto—might enjoy more political and cultural feasibility.<sup>27</sup> This type of coherent hybrid of such policies might be more achievable than any one reform in isolation.

### III METHODS

In this section we discuss our methods, including a description of the stimuli (the materials to which our participants responded) and the instrument (our means of recording those responses), along with the demographics of our participants. Other details appear in the appendix to this article. The appendix provides the text of our stimuli in particular.

#### A. Stimulus and Instrument

First, we collected demographic information (sex, ethnicity, year of birth, education, and zip code). In order to prepare the subjects for the task, and to

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26. See Delia Baldassarri & Peter Bearman, *Dynamics of Political Polarization*, 72 AM. SOC. REV. 784, 801–04 (2007); Flores, *supra* note 2, at 9–10.

27. See Christopher Tarver Robertson, *From Free Riders to Fairness: A Cooperative System for Organ Transplantation*, 48 JURIMETRICS 1, 26–40 (2007) (proposing one such hybrid proposal).

focus them upon the questions at hand, we presented all of them with a 286-word passage that provided neutral background information about cadaveric organ-transplantation and the shortage of organs.<sup>28</sup>

Next, subjects were randomized to one of three conditions (a three-by-one design) to make the competing risks of the organ-transplantation system more salient. In the “Need” condition, subjects were asked to imagine themselves in a situation in which someone they love needs an organ but is unable to get one, and to write about what they would experience and feel in that situation. In the “Taken” condition, subjects were asked to imagine themselves in a situation in which someone they love dies and has cadaveric organs harvested without his or her consent, and to write about what they would experience and feel in that situation. In the control condition, there was no writing task.

Next, subjects were given instructions and then sequentially shown six pairs of organ policies in a within-subjects design. These sets of policies consisted of counterpoised descriptions of the status quo organ policy in the United States (first) versus a proposed reform (second). The policy sets each had a concise title describing the policy choice at issue: “Opt-In vs. Opt-Out,” “Family Choice vs. Personal Choice,” “Altruistic Donations vs. Regulated Market,” “Voluntarism Alone vs. Funeral Vouchers,” “Open Eligibility vs. Reciprocal Preference,” and “Current Package vs. Reform Package.” We designed the policy descriptions to minimize jargon and complex language, to be neutral in valence, and to be consistent in tone and length (each approximated ninety-five words). We pilot-tested the policies with a class of law students and undergraduate students to assess the policies’ clarity, as well as the potential for bias, and we made revisions. The first five sets of policies consisted of individual policy reforms and were shown in random order. The sixth policy pair consisted of a package of reforms, consisting of three of the individual reforms previously considered (opt-out, personal choice, and reciprocal preference). Each pair of policies was shown on a separate page, followed by three questions about each, and participants were not allowed to go back to previous policies.

Below each policy pair, we asked the following three questions. First, “Which system will produce more organs for transplantation?” We coded this answer as “efficacy.” Second, “Which system is more acceptable from a moral point of view?” We coded this answer as “morality.” Third, “Overall, which system do you prefer?” We coded this answer as “overall preference.” Respondents answered each question on a bidirectional nine-point Likert scale (shown in the appendix) with each anchor naming the alternatives (for example, opt-in and opt-out).

After answering for each of the six policy sets, we administered the cultural-cognition scale (short version), including a second attention check therein. We asked about political affiliation on a six-level scale (ranging from strong

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28. See *infra* Methodological Appendix.

democrat to strong republican, with two leaning independent levels in the middle), which we collapsed to three levels for analyses. Finally, subjects were allowed to provide open-ended responses concerning “any thoughts or comments about organ donation policy in the United States,” if they chose to do so.

## B. Participants and Randomization

We applied for and received “exempt” approval by the Human Subjects Protection Program at the University of Arizona. Inclusion criteria required that subjects be within the United States geographically, over the age of eighteen, and able to read and write English. We focused on those within the United States because we were particularly interested in reforms that could be politically and culturally feasible for that particular polity. The study makes no claim to universality.<sup>29</sup>

We conducted the study online, recruiting human subjects from Amazon Mechanical Turk (Mturk).<sup>30</sup> Our final dataset for analysis included 730 responses.<sup>31</sup> As shown in table 1, our study population was similar to the demographics of the United States census in terms of gender. However, it did not include many subjects who lack a high school diploma or GED. Our sample also severely underrepresents those over the age of sixty. It also consisted of a somewhat larger proportion of whites than the national population.

Randomization succeeded in distributing subjects across conditions. Regression analyses (not shown) found that these demographic factors are not significantly correlated with our dependent variables, so we proceed with discussions of central tendencies and proportions.

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29. See Jeffrey J. Arnett, *The Neglected 95%: Why American Psychology Needs to Become Less American*, 63 AM. PSYCHOLOGIST 602, 607–09 (2008); Joseph Henrich et al., *The Weirdest People in the World?*, 33 BEHAV. & BRAIN SCI. 61, 63 (2010).

30. Mturk, a human-subject population associated with Amazon.com, is increasingly utilized for social science research. See Adam J. Berinsky et al., *Evaluating Online Labor Markets for Experimental Research: Amazon.com's Mechanical Turk*, 20 POL. ANALYSIS 351, 351 (2012); Gabriele Paolacci et al., *Running Experiments on Amazon Mechanical Turk*, 5 JUDGMENT & DECISION MAKING 411, 411 (2010); Danielle N. Shapiro et al., *Using Mechanical Turk to Study Clinical Populations*, 1 CLINICAL PSYCHOL. SCI. 213, 213 (2012).

31. Recruitment and data cleaning procedures are described in the Methodological Appendix.



Table 1: Demographic Data by Experimental Condition and Compared to U.S. Census<sup>32</sup>

Legend: Frequency (Percentage)

	<b>Control (n = 282)</b>	<b>Need Prime (n = 214)</b>	<b>Taken Prime (n = 234)</b>	<b>Total Subjects (N = 730)</b>	<b>U.S. Census<sup>33</sup></b>
<b>Education</b>					
< HS Diploma or GED	1 (0%)	1 (0%)	1 (0%)	3 (0%)	15%
HS Diploma or GED	34 (12%)	15 (7%)	26 (11%)	75 (10%)	30%
Some College or Assoc.	100 (35%)	100 (47%)	80 (34%)	280 (38%)	28%
College Grad	112 (39%)	74 (35%)	89 (38%)	275 (38%)	18%
Graduate Degree	35 (12%)	24 (11%)	38 (16%)	97 (13%)	9%
<b>Gender</b>					
Male	141 (50%)	98 (46%)	107 (46%)	346 (47%)	49%
Female	141 (50%)	116 (54%)	127 (54%)	384 (53%)	51%
<b>Age Groups</b>					
18–24	54 (19%)	34 (16%)	40 (17%)	128 (18%)	13%
25–34	115 (41%)	86 (40%)	89 (38%)	290 (40%)	18%
35–44	50 (18%)	46 (22%)	42 (18%)	138 (19%)	19%
45–59	45 (16%)	37 (17%)	47 (20%)	129 (18%)	27%
60+	18 (6%)	11 (5%)	16 (9%)	45 (6%)	23%
<b>Race</b>					
White	239 (85%)	183 (86%)	203 (87%)	625 (86%)	74%
Nonwhite	43 (15%)	31 (14%)	31 (13%)	105 (14%)	26%
<b>Political Affiliation<sup>34</sup></b>					
Democrat	111 (39%)	74 (35%)	79 (33%)	264 (36%)	31%
Independent	134 (48%)	109 (51%)	122 (52%)	365 (50%)	39%
Republican	37 (13%)	31 (15%)	33 (14%)	101 (14%)	24%

#### IV RESULTS

We provide specifics and analyses below, distinguishing by the respondents'

32. Due to rounding, sets of percentages might not add to one-hundred percent.

33. U.S. CENSUS BUREAU, EDUCATIONAL ATTAINMENT IN THE UNITED STATES (2012), available at <http://www.census.gov/hhes/socdemo/education/data/cps/2012/tables.html>.

34. Pew political distribution in taken from a national phone survey conducted April 4, 2012 in which five percent of the respondents indicated “don’t know” or “no preference,” options that were not available in our online instrument. THE PEW RESEARCH CTR. FOR THE PEOPLE & THE PRESS, TRENDS IN AMERICAN VALUES: 1987–2012, PARTISAN POLARIZATION SURGES IN BUSH, OBAMA YEARS 141 (2012) [hereinafter PEW, AMERICAN VALUES], available at <http://www.people-press.org/files/legacy-pdf/06-04-12%20Values%20Release.pdf>. Political affiliations from our study are collapsed from six-level scale used in the instrument to three levels, to be comparable to the Pew results.

perceptions of efficacy, morality, and overall preference, and splitting the respondents by political affiliations. In short, our data suggest that cultural cognition and perceptions of risk do not drive policy choices about organ reform. Qualitatively, the writing tasks revealed some ambivalence about the risk of having life-saving organs harvested without consent and revealed tangible frustration about the risk of a loved one dying for lack of a needed organ. Quantitatively, we found that Democrats were generally more supportive of reforms, while Independents were less supportive, and Republicans were middling in their support. Across the various reform proposals, we found strengths and weaknesses, but we found broad consensus that a regulated market for organs could be effective but would be deeply problematic morally. On the other hand, another incentive, the payment of vouchers for funeral expenses, enjoyed stronger support, as it assuages moral objections. We found that a package of reforms—including reciprocal preferences, opt-out, and elimination of the family veto—may be feasible politically. This package of reforms neutralizes moral objections to a reform based on reciprocal preferences alone.

#### A. Efficacy, Morality, and Overall Preferences for Reforms

Respondents evaluated each proposed reform in terms of its efficacy in increasing the number of organs available for transplantation, its morality, and its overall attractiveness. These results are compiled in table 2. Figure 1 plots probability-density estimates, which are essentially smoothed histograms. We found that respondents did make such distinctions, sometimes making diametrically opposite evaluations as to morality and efficacy, with overall support sometimes tracking efficacy (for the opt-out) and sometimes tracking morality (for the regulated market).

Overall, we found the greatest support for removing the “family veto” (a term not used in the stimulus) and instead for enforcing the deceased person’s personal organ choice. As one participant stated in an open-ended response, “Personal choice is a must regarding the donation of organs.” Also enjoying strong support were the “funeral recognition” proposal to create a voucher to pay for the deceased organ donor’s burial expenses, and the proposal to move towards an opt-out system, where organ sharing would become the default rule. All three of these policy proposals scored medians of seven on the nine-point scale for overall preferences.

In contrast, the proposal to use financial incentives more directly, by moving towards a regulated market for organs, was the least attractive, with a median of three on the overall preference scale. It is informative that the two methods of financial incentives—regulated market and funeral vouchers—had diametrically opposite evaluations.

In terms of efficacy, on the median, respondents thought that all of the proposed reforms would tend towards increasing the supply of organs for transplantation compared to the status quo (medians greater than five), except

for the elimination of the family veto, in which respondents were evenly split as to efficacy. The move to an opt-out system and creation of a funeral-voucher system were thought to be most efficacious (medians of nine and eight respectively). Regarding the optional open-ended questions at the end of the survey, the dominant response was that the best policy change would be to an opt-out system. Two typical responses are as follows:

I think everything should remain the same except the opt-in/opt-out feature. I think all too often people forget to sign up to be an organ donor but would like to. Having the opt-out feature, the people that are passionate about NOT donating will be more willing to fill out the paperwork required to keep their organs. If someone has a reason they don't want to donate their organs, they will make sure they are signed up to avoid donation because it will actually be important to them.

I'm personally not signed up, and to be honest, I think Opt-Out is definitely the way it should be. A lot of people probably don't ever Opt-In because it's simply . . . nothing that ever crosses their mind!

In terms of moral evaluation, respondents reported greater variation across proposals. The creation of a regulated market for organs was viewed as most problematic from a moral perspective (median of two), followed by the granting of reciprocal preferences for those giving and receiving organs (median of three). As one respondent wrote regarding reciprocal preferences,

I do not think that the reciprocal preference is [sic] a good idea. As was mentioned earlier, most people just never think to make the decision of whether they want to be an organ donor. Just because someone is not already registered does not mean they are unwilling to be. Giving preference to registered organ donors is grossly unfair when it is a matter of life and death.

And another stated, "It'd feel 'icky' to deny non-organ donors a transplant, or rather, put them further down the list, because of their choice."

The median respondent scored a five, thereby expressing no moral preference between, on the one hand, the opt-out and funeral-voucher proposals, and, on the other hand, the corresponding elements of the status quo. The median respondent was more supportive of the morality of reforming the status quo by enforcing individual choices, rather than choices of next-of-kin (median of seven).

Synthesizing these results, one can see that the regulated-market proposal was perplexing for respondents. It was viewed as one of the most efficacious (median of seven) but least moral (median of two) solutions. The respondents' overall evaluation of the regulated-market proposal (median of three) tracked more closely to respondents' moral positions than to their perceptions of efficacy. Comparing the market to the funeral-vouchers proposal (both on the middle row of figure 1), we were interested to find that the two methods utilizing financial incentives had diametrically opposite evaluations. As we tease morality concerns (the light dotted line) apart from efficacy concerns (the dark dotted line), we find that, although the modal respondent has deep moral objections to the market proposal, he or she is ambivalent about the voucher program, perhaps because the voucher program does not raise such severe concerns about commodification and equity. As for efficacy concerns in

isolation, the subjects concede the efficacy of both the market and the voucher solutions, although they view the voucher as even more effective, perhaps because they view the crowding-out problem as neutralized. The aforementioned moral gap between the voucher and market proposal is enough to lead to different overall evaluations (bold solid line) of each.

The reciprocal-preferences proposal also had opposite valences with regard to efficacy (median of seven) versus morality (median of three). However, for this proposal, the overall evaluations tracked more closely with the efficacy score, and it enjoyed an overall positive valence of support (median of six).

We also assessed a particular package of reforms, which included reciprocal preference, opt-out, and personal choice. This package proposal was perceived as being highly effective (median of eight), morally neutral (median of five), and overall rather positive (median of seven). The package itself, when evaluated alongside its component reforms by comparing its efficacy, morality, and efficacy means to the mean of the individual reforms' means (not shown in Table 2) was viewed as somewhat more efficacious (mean of 7.01 compared to 6.51), slightly less moral (mean of 4.74 compared to 5.07), and slightly better overall (mean of 5.93 compared to 5.79). As one respondent wrote of the reform package,

Overall, I think the best package would be the one you proposed, with opt-out, personal choice, and reciprocating. I don't think that anyone, such as businesses, should be able to profit by selling organs, but I do think it's fair to give priority to those who are willing to give organs themselves. And this choice should never involve[] the family's wishes unless the patient who passes hasn't specified (even though I'd still prefer the opt-out option to family's making the decisions).

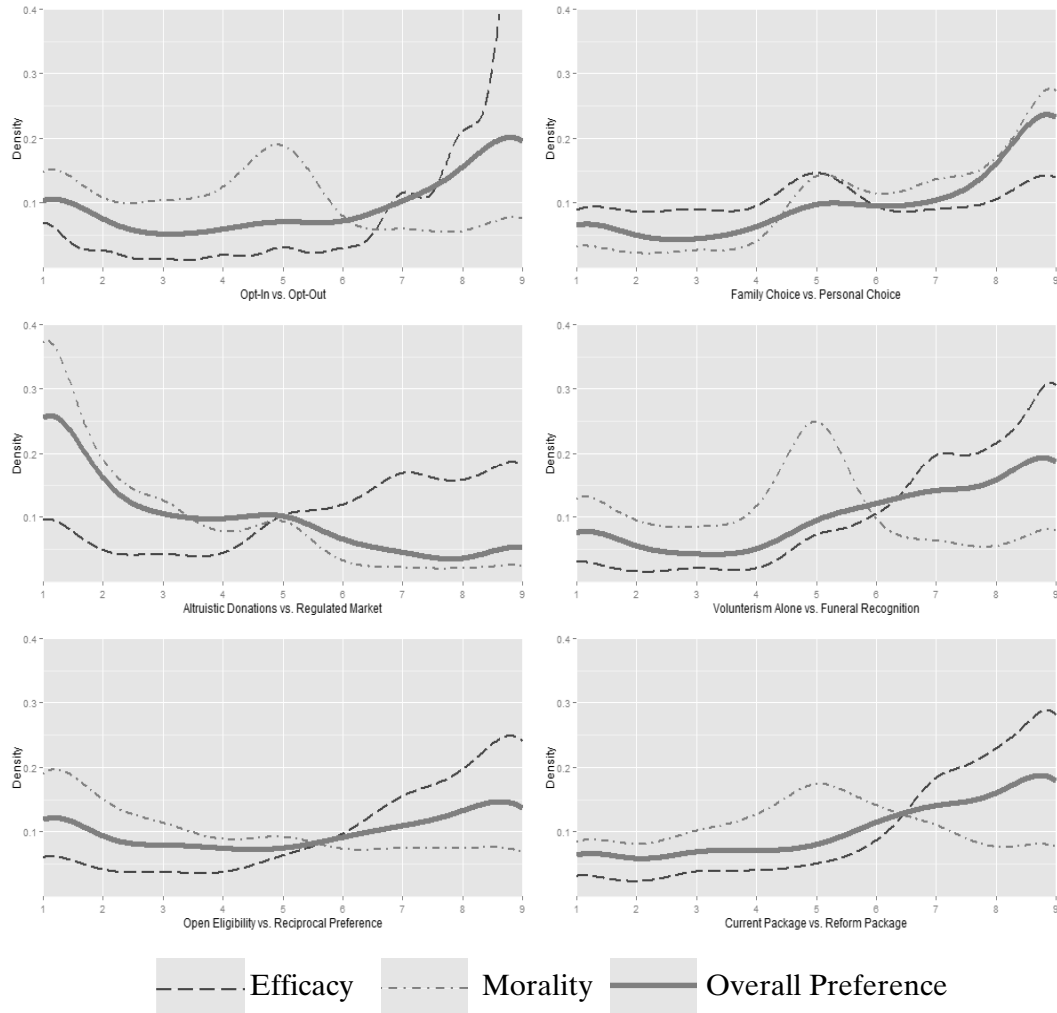
Notably, the reciprocal-preferences proposal suffered from a negative moral evaluation, compared to "open eligibility." But when that reform was paired with opt-out and with personal choice, the moral valence shifted toward neutrality. This finding illustrates the possibility that a packaging of reforms might in some ways rectify the problems perceived with individual parts. In other words, the package was not judged by its weakest link.

*Table 2: Efficacy, Morality, and Overall Evaluation of Reforms in Control Condition*

<i>criterion</i>	<i>mean</i>	<i>sd</i>	<i>median</i>	<i>se</i>
<b>Altruistic donations vs. regulated market</b>				
Efficacy	5.94	2.68	7	0.16
Morality	2.67	2.12	2	0.13
Overall	3.48	2.62	3	0.16
<b>Family choice vs. personal choice</b>				
Efficacy	5.29	2.69	5	0.16
Morality	6.78	2.2	7	0.13
Overall	6.31	2.78	7	0.17
<b>Open eligibility vs. reciprocal preference</b>				
Efficacy	6.53	2.65	7	0.16
Morality	4.04	2.68	3	0.16
Overall	5.16	2.97	6	0.18
<b>Opt-in vs. opt-out</b>				
Efficacy	7.71	2.21	9	0.13
Morality	4.4	2.39	5	0.14
Overall	5.9	2.98	7	0.18
<b>Voluntarism alone vs. funeral recognition</b>				
Efficacy	7.3	1.99	8	0.12
Morality	4.64	2.32	5	0.14
Overall	6.21	2.66	7	0.16
<b>Current package vs. new package</b>				
Efficacy	7.01	2.15	8	0.13
Morality	4.74	2.28	5	0.14
Overall	5.93	2.72	7	0.16

*Legend: n = 282. Scores were on nine-point bidirectional scales, with higher scores (above 5.0) indicating support for the policy reform (always listed second in the pairing, with the status quo listed first).*

*Figure 1: Probability-Density Plots of Overall Preferences in Policy Choice Pairs, with Perceptions of Efficacy and Morality*



*Legend:*  $n = 730$ . All subjects are plotted.

## B. Variation by Political Affiliations and Cultural Cognition

Individuals' self-reported political affiliations were correlated with their organ-policy preferences, but respondents were not strongly polarized along political lines. And there are many instances of consensus.

Political affiliation was measured on a six-level scale, from strong Democrat to strong Republican, with two levels of leaning independents in the middle. For purposes of figure 2, these six levels are collapsed to three levels to reflect a simplified political valence, and the nine-level scale measuring support for one of the policies versus the other is collapsed into a binary choice of support

versus not-support. We coded those in the middle level of five as not supporting the reform, which makes the apparent levels of support lower than they otherwise might be (about ten to fifteen percent of respondents were in this middle position).

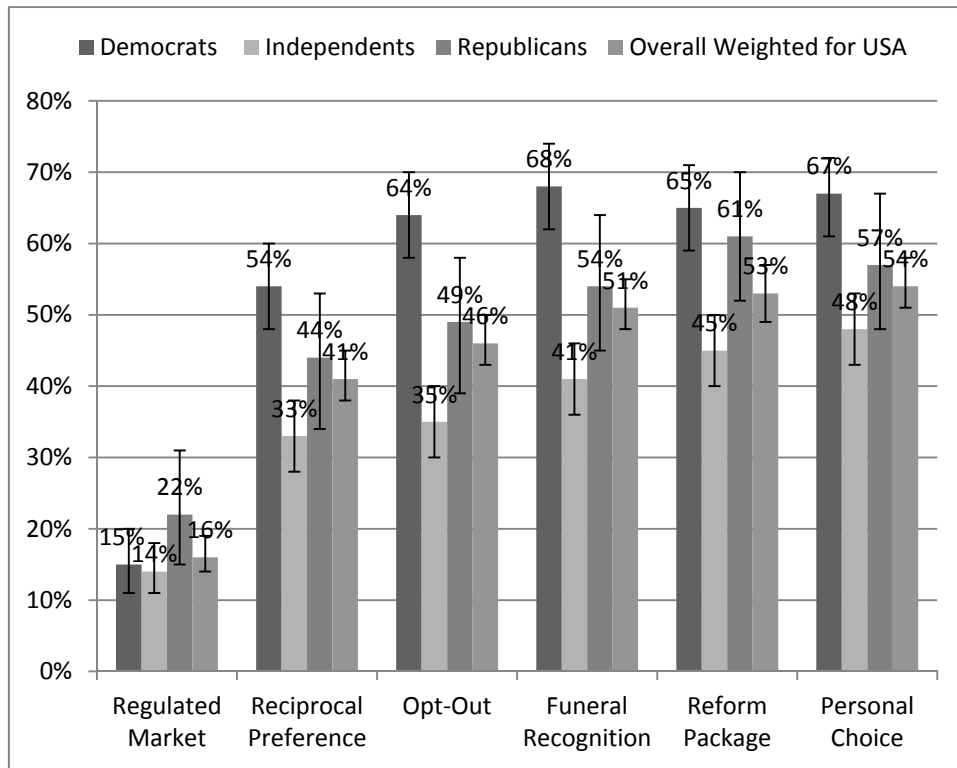
This analysis reveals that the political affiliations might be associated with differences of opinion on organ policy, with Democrats tending to favor the proposed reforms more often, with independents less motivated for reform overall, and with Republicans in the middle. Compared to Republicans, Democrats were particularly strong in their relative support for three reforms: opt-out (a sixteen-percent gap,  $p = 0.01$ ), funeral recognition (a fourteen-percent gap,  $p = 0.02$ ), and reciprocal preference (a ten-percent gap,  $p = 0.05$ ). Interestingly, the funeral-recognition proposal—a type of financial incentive—enjoys more support from Democrats than Republicans, while the more direct proposal for a regulated market trends in the opposite direction.

Although Republicans are often associated with free-market reforms, we find less than five percent of them scoring the regulated-market reform as having the strongest level of support (nine), a rate that is indistinguishable from the Democrats in the sample. Democrats and Republicans alike favored staying with the altruistic system of the status quo compared with the free-market reform option.

As shown in figure 2, we also created weighted estimates of overall support for each reform proposal, which correct for the political skew in our study population by weighting according to the Pew's recent measurement of the national distribution of Democrats, Republicans, and independents<sup>35</sup>, and thereby roughly simulate the potential level of support from the American public. In comparison, we observed that the Mturk population exhibits a leftward skew, with 2.3 times as many subjects identifying as Democrats (including strong Democrat, Democrat, or independent lean Democrat such that  $n = 512$ ), compared to those identifying as Republicans (including all three levels such that  $n = 218$ ). Although this reweighting does not dramatically change our raw estimates (a difference of two percentage points at the maximum), it still requires a particular note of caution. It is likely that our Republicans might still be unlike the broader American population of Republicans in ways that are not observable in our sample (and likewise for the independents and Democrats). As we emphasize further in the limitations section below, our study is no substitute for a demographically valid survey of the American population.

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35. PEW, AMERICAN VALUES, *supra* note 34, at 147; *see supra* Table 1.

Figure 2<sup>36</sup>

The cultural-cognition framework also provided insight on our data, though the effects were few and small. Building from the work of Widavsky and Douglas on the one hand and Dake on the other, Kahan has created reliable attitudinal scales meant to measure the extent to which a person is hierarchical or egalitarian and to measure the extent to which a person is an individualist or a communitarian.<sup>37</sup> Individualism refers to a weak orientation toward group life, whereas communitarian refers to a strong orientation to group life.<sup>38</sup> Hierarchical refers to a strong social stratification on the basis of status characteristics, whereas egalitarianism refers to a weak social stratification on

36. *Legend*: Sorted by overall weighted support, 95% confidence intervals shown. Support for reform is based on top four levels of nine-point scale; an additional 10%–15% were neutral. Each political affiliation shown here consists of two levels on the six-level scale. Compared to Republicans, Democrats were stronger in their support for three reforms: opt-out (a 16% gap,  $p = 0.01$ ), funeral recognition (a 14% gap,  $p = 0.02$ ), and reciprocal preference (a 10% gap,  $p = 0.05$ ).

37. Kahan et al., *Nanotechnology*, *supra* note 7, at 87; see MARY DOUGLAS & ADAM WILDAVSKY, *RISK AND CULTURE: AN ESSAY ON THE SELECTION OF TECHNICAL AND ENVIRONMENTAL DANGERS* 121–22 (1982); Karl Dake, *Orienting Dispositions in the Perception of Risk: An Analysis of Contemporary Worldviews and Cultural Biases*, 22 *J. CROSS-CULTURAL PSYCHOL.* 61, 62 (1991).

38. Kahan et al., *Nanotechnology*, *supra* note 7, at 87.



the basis of status characteristics.<sup>39</sup>

We predicted that respondents would be polarized depending on their cultural preferences. We did find differences in opinions for two of the policy proposals, namely, opt-out and regulated market. In particular, hierarchical-individualists were about half as likely to overall prefer the opt-out reform as were egalitarian-communitarians ( $p < 0.001$ ). Egalitarians tended to support the reform towards opt-out, regardless of whether they were communitarians or individualists.

Additionally, egalitarian-communitarians were significantly more likely than all other cultural-cognition groups to perceive a market for organ transplantation as morally objectionable ( $p < 0.01$ ). They were also less likely overall to prefer the reform compared to hierarchical-communitarians ( $p < 0.05$ ) and hierarchical individualists ( $p < 0.01$ ). Of the egalitarian-communitarians, nearly thirty percent indicated the strongest preference possible for maintaining the status quo of altruistic donations. However, it bears emphasis that all four cultural-cognition types were generally opposed to the regulated-market proposal.

### C. Responses to Manipulated Risk-Saliency Writing Tasks

As explained in our Methods section, we randomly assigned subjects to one of three different experimental conditions, in which we sought to manipulate the saliency of the competing perceptions of risk concerning organ-transplantation policy.<sup>40</sup> Prior research has shown that these sorts of writing tasks can increase the saliency of emotional and other contextual factors in decision making. For example, Tiedens and Linton demonstrated an effectual priming of emotional states,<sup>41</sup> and Kvaran, Nichols, and Sanfey primed an analytic mode of thought.<sup>42</sup> Also, Sieck and Yates demonstrated that exposition reduces the framing effect (a heuristic for decision making).<sup>43</sup>

In our study, the writing tasks had the effect of increasing attrition in the two treatment conditions. This raised a concern that self-selection might defeat

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39. *Id.*

40. See discussion *supra* Part II.A. In the “Need” condition, subjects performed a writing task in which they imagined that someone that they loved desperately needed an organ transplantation, but did not receive one due to the severe organ shortage. In the “Taken” condition, subjects performed a writing task in which they imagined that someone they loved had a strong preference to be buried with his or her body intact, but instead died and had his or her cadaveric organs removed against his or her will. In the control condition, there was no writing task.

41. Larissa Z. Tiedens & Susan Linton, *Judgment Under Emotional Certainty and Uncertainty: The Effects of Specific Emotions on Information Processing*, 81 J. PERSONALITY & SOC. PSYCHOL. 973, 983–85 (2001).

42. Trevor Kvaran, Shaun Nichols & Alan Sanfey, *The Effect of Analytic and Experiential Modes of Thought on Moral Judgment*, in PROGRESS IN BRAIN RESEARCH 187, 192–94 (V.S. Chandrasekhar Pammi & Narayanan Srinivasan eds., 2013).

43. Winston Sieck & J. Frank Yates, *Exposition Effects on Decision Making: Choice and Confidence in Choice*, 70 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 207, 214–18 (1997).

our random assignment (that assignment being our ‘intention to treat’). On our dependent variables, however, we found few important effects across experimental conditions. In eighteen logistic regressions (for three dependent variables of efficacy, morality, and overall support for all six policies), we found only two significant ( $p < .05$ ) effects of experimental condition, each pertaining to the reform package: The taken prime increases the likelihood of perceiving the reform package as efficacious ( $\beta = .49$ ; odds ratio = 1.63), while the need prime increases the likelihood of perceiving the reform package as morally acceptable ( $\beta = .40$ ; odds ratio = 1.49).<sup>44</sup> These findings might be artifacts of having made so many statistical comparisons.<sup>45</sup>

Although the writing tasks did not seem to impact the respondents’ support for various policy reforms, the responses themselves yield interesting insights about how people think about the competing risks of dying for lack of an organ versus having an organ harvested without consent. We used an inductive coding methodology to analyze qualitatively the responses provided by subjects in each experimental condition (“need” vs. “taken”). Overall, we found that the need condition evoked feelings of sadness, devastation, and hopelessness, along with both blame and resentment of those who decline to transplant organs along with the system that produces a shortage. Overall, although some people felt very angry about the nonconsensual harvesting, we found that the dominant response in the taken condition was one of ambivalence. The excerpts exhibited below have been edited for length and style.

#### D. Need Condition

Asking people to imagine that a loved one is suffering from liver failure and needs a transplant in order to live, but is unable to get one in time, resulted in highly emotional responses from participants. In fact, one participant stated that the exercise was “relatively taxing for the amount to be paid” because the imagination task required them to actually feel sad. Words like “devastating,” “heartbreaking,” “angry,” “helpless,” and “hopeless” dominated the responses. The following response is paradigmatic.

I would feel completely grief-stricken. I would already begin to feel the loss of my loved one even though they are still alive. I would feel hopeless and morose, cursing the unfairness of life, irrationally jealous and angry at other people who have received

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44. One potential explanation for our null results is that our experimental manipulation might have worn off as respondents proceeded through the six policy-reform choices. Although the individual policies were presented in random order, the reform package was always presented last. Because significant differences were only observed in the package, the wear-off hypothesis is not supported.

45. We also expected that our experimental manipulations would cause the cultural relevance of the organ shortage and potential reform proposals to become more pronounced and perhaps thereby increase polarization on the cultural-cognition scale. This hypothesis was not strongly supported, though some effect was observed. The “Taken” prime—which raised concerns about organs being removed without consent—made no difference for the hierarchical individualists, but made the egalitarian-individualists much *more* supportive of the opt-in reform. Those respondents apparently realized that the risk of having organs removed after death was really not a concern worth having, and thus increased their resolve towards an opt-out system.

liver transplants in time.

Many participants highlighted their frustration with the organ shortage, argued that more people should donate their organs, and offered suggestions about how to increase organ donation. Ironically, some of these participants were not themselves organ donors, but stated that thinking about this situation made them seriously consider becoming an organ donor.

The strong negative emotions felt by participants in reaction to the writing prompt also led some of them to blame nondonors' beliefs for the organ shortage. One participant called beliefs against organ donation "superstitious nonsense." Others noted that people are misinformed about organ donation and mistakenly believe that doctors will let them die so their organs can be transplanted to someone else.<sup>46</sup>

Surely, enough people die all the time to provide adequate organs to those who need them. I suspect that the reason that more organs are not available is because many people have bizarre religious beliefs which make them unnaturally attached to the dead bodies of their friends and families.

Regardless of whether nondonors' beliefs were attacked, often participants felt resentful of nondonors and attacked their decision not to donate. These critiques were often about how organs were of no use to the dead and would be better off helping the living. As one participant put it, "Not to be crude but people die every day and there have to be thousands of usable organs essentially being thrown away."

However, not everyone was angry at nondonors. For some, the primary focus of their distress was the suffering and pending death of their loved one.

Most distressing to me is the fact that she suffers each moment that she has to wait, due to the pain and stress on her body. I am not angry at "the system" per se, as anger in this case is pointless and that I am a faithful person and don't really measure everything in terms of what the world owes me or anyone I love. I am praying every chance I get now, with a faith that something good will come from this situation.

Other participants targeted American society and culture more broadly in their emotionally laden responses.

I would think that . . . the United States, which proclaims itself to be the best place in the world, wouldn't allow this to happen to anybody. After being grief stricken, I would feel enraged. Enraged that after all the taxes we pay, as an American, that this can't be resolved.

Some participants blamed healthcare providers and scientists for not being able to prevent the tragedy they were asked to imagine. Others suspected that persons with wealth, fame, or other forms of privilege have a greater chance of receiving an organ than the average person. When discussing the problem of organ shortages, one participant noted, "[t]here are ways to exploit the waiting list (typically money or political power) to bump your name closer to the top of the list. In my family's case, that would mean life and death." Another stated that, "It would be frustrating that people who were financially better-off would have more access to treatments than my friend would."

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46. This is a distinct form of risk that could be explored in future experimental manipulations.

Although the majority of responses to the prompt focused on the grief participants would feel in the imagined situation, some participants were reflective about the perversity of wishing for an available organ. They noted that an available organ would mean that someone else had to die, and that another family was feeling what they were feeling. They still hoped for an organ, however, but would feel sad, ashamed, or guilty if their loved one received one. Another common response to the writing prompt was for participants to become task-oriented and to focus less on what they would feel and more on what they would do in the situation. Although some participants said they would do everything they legally could to obtain a liver for their dying loved one, some admitted they would look on the black market for a liver.

A minority of participants responded that they would be at peace with the fact that their loved one was dying. Some argued that death was natural and that life should not be prolonged in the case of organ failure. Others made statements emphasizing that it was not “really anyone’s duty to die so that someone I know can live.” Others said it was up to God to determine when it is time for a person to die; thus they expressed neither anger toward non-donors nor frustration with the lack of available organs.

Several subjects suggested increasing public awareness of and discussion about the problem of organ shortage. The following are some of their suggestions for increasing awareness: public service announcements encouraging organ donation and emphasizing how donation helps others, “large informational media campaigns” explaining various reform proposals, “heavy marketing campaigns” meant to make altruism popular, and information for people on how to become donors. Of course, these are the core features of the status quo, which have so far proven insufficient.<sup>47</sup> Others focused on educating individuals about organ donation through the public-school system and allowing students the opportunity to register as donors in school. These participants also argued that engaging in a discussion about organ donation in an educational setting would mitigate the negative effects of the “sensationalized stories of people killed in Brazil for their organs.”

#### E. Taken Condition

Participants had a range of responses to the writing prompt that asked them to imagine that their loved one’s organs were transplanted upon death, despite their loved ones’ strong wishes not to be an organ donor, but that the transplantation saved the life of another.

The dominant response was one of feeling ambivalent. Many participants noted that, on the one hand, they were upset that their loved one’s wishes that their body be buried in its entirety were not followed. On the other hand, many stated that they would eventually come to peace with what had happened

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47. Amitai Etzioni, *Organ Donation: A Communitarian Approach*, 13 KENNEDY INST. ETHICS J. 1, 6–14 (2003).

because another's life was saved. Participants often used the phrases "feel conflicted" or "have mixed feelings" in order to express their reaction.

If this happened to someone very close to me, I would feel conflicted. On one hand, I would be saddened and disturbed that the wishes of this person were not recognized . . . . On the other hand, I would be happy and delighted for the person whose life was saved. I would be able to take solace in the fact that someone was helped.

Still, another common response to this situation was anger or even outrage that a loved one's body had been violated. As one participant put it, "That is a total disrespect toward the family just going in there acting like it's the pick n pull and a car junk yard and grabbing whatever part you need for the next car. We are talking about a human being here." Many used the words "outraged," "furious," "very upset," or "appalled."

Some participants framed their outrage in religious terms, while others framed their objections in terms of improper medical practice and theft of organs. Many reported a desire to sue the hospital.

God gave these organs to my loved one at birth and he should have "gone home" with these organs intact. Government and family members do not have the right to make a decision as serious as this when my loved one was adamant about his beliefs.

Some participants stated that they would never trust doctors again. As one participant noted, "Over time I think I would come to my senses and would be happy for the lady whose life was saved with the donation. Still I would always be distrusting the medical system and feel like they had taken advantage of me." Another compared it to a case they had heard about where dead bodies were "pillaged":

I would be aghast, and even appalled, that I w[as] not consulted about having her organs removed before it was done. It would remind me of the horrific case in New York/Philadelphia where dead bodies were pillaged for bone, skin, etc. without the family's consent.

A subset of participants, although acknowledging that a wrong had occurred—one which should be prevented if at all possible—were stoic about the problem.

I would not be at all upset about the event that just happened to my loved one if it was truly due to a miscommunication or an erroneous authorization. I do realize that in the confusing minutes surrounding an unexpected death, it is not always possible to verify every fact . . . however, perhaps new procedures should be put in place to prevent this from happening in the future.

The third common response was that the participant would not be upset at all because their loved one was dead, would no longer need their body, and something good had come from the situation. The following example is representative of the prompts in this category.

I know she asked to be buried with all parts of her body, but I fail to see the downsides of letting her organs be available for use. If she could witness what a blessing her organs were—as grim as it sounds—she wouldn't have any reservations about them being used to help others.

In fact, one participant even argued, "People shouldn't get a choice how their body parts are handled because they don't need them anymore. It's pretty

selfish.”

A subset of participants felt happy that the organs had been transplanted, even if they would have followed their loved one’s wishes had they been given the choice.

It may not be what my friend wished during his life, and I wouldn’t have chosen to act against his wishes, but things worked out for the best . . . . A person’s life was saved and she is no longer suffering. It seems as though it was meant to be. . . . I would accept this outcome peacefully and joyfully.

Some participants did not directly engage with the imaginative aspect of the prompt, but instead engaged in a philosophical discussion about the ethics of forced organ donation.

I am adamantly opposed to any forced organ donations and accidental donations are a step down the slippery slope. I have known a number of good people that have died awaiting organs and [I] am aware of a number of wealthy slime that have cut the line to be “rescued” numerous times (think Dick Cheney). We don’t want to be living on some organ farm for the privileged.

Respondents in this category often referenced a “slippery slope”—that is, an “accidental” organ donation could turn into forced organ donations.

## V

### LIMITATIONS

Our study was limited in several ways. First, it bears emphasis that this study merely explored perceptions and preferences with regard to organ-transplantation reform. This method is descriptive, not prescriptive. It does not purport to say what would actually be the most efficacious, most moral, or most overall preferable reform to organ-transplantation policy.

Second, our use of Mturk as a source of human subjects prevents us from making direct claims about the policy preferences of the American public as such.<sup>48</sup> Nonetheless, our sample is significantly more heterogeneous and representative than the undergraduate psychology students that are frequently used for social-science research.<sup>49</sup> Our weighted estimates more closely simulate the potential views of the American public, given their political identifications. Still, we cannot say whether the Republicans in our sample are similar to the Republicans nationwide (and likewise for Democrats and independents), and thus our study is no substitute for a national survey with a demographically valid sample.

A third limitation of our study concerns the way in which we presented the policy-reform choices. On the one hand, we did not present comprehensive analyses of each policy proposition, which could have included extensive evidence and arguments from advocates on both sides of the issue. That sort of

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48. See Berinsky et al., *supra* note 30, at 361; Paolacci et al., *supra* note 30, at 412–13; Shapiro et al., *supra* note 30, at 215–16.

49. Psychology undergraduates are used as subjects in two-thirds of the studies published by the premier journal in the social-psychology field. Arnett, *supra* note 29, at 604; Henrich et al., *supra* note 29, at 63.

extensive briefing, along with the potential for discourse and deliberation, would have been required for truly informed choices.<sup>50</sup> On the other hand, we did not elicit raw preferences from subjects, which would have better avoided any potential for the researchers biasing the results. Instead, we struck a balance between these poles by offering a general background of the organ shortage, and approximately 200-word explanations of each set of policy choices. The context of these choices might be comparable to the degree of information that a citizen gets from a newscast describing a proposed reform. It thus might have some relevance to real-world opinion formation.

Still, it should be emphasized that this experiment tested opinions about particular descriptions of policy reforms, rather than testing opinions about the policy reforms themselves. It is likely that different formulations of these ideas would yield different responses and that their political salience could be refined or otherwise manipulated by political actors.<sup>51</sup>

## VI

### CONCLUSIONS

Let us return to Ronald Dworkin's challenge that began the article:

Democracy can be healthy with no serious political argument if there is nevertheless a broad consensus about what is to be done. It can be healthy even if there is no consensus if it does have a culture of argument. But it cannot remain healthy with deep and bitter divisions and no real argument, because it then becomes only a tyranny of numbers.<sup>52</sup>

Our data provides some hope for reaching consensus on organ-policy reform. The data suggest that the issues of organ-transplantation policy might not be as politically or culturally polarizing as one might suppose. Further, we found that relative perceptions of mortal or posthumous risk do not drive policy choices to a large extent.<sup>53</sup> Our experimental manipulations as to the salience of risk had little or no impact.

Likewise, one might have expected that divergent cultural frames would have led subjects to become polarized after reading our balanced introductory material, as Kahan and colleagues have found.<sup>54</sup> Our subjects reported an open-mindedness to reform, while distinguishing between attractive reforms (such as moving to an opt-out system) and unattractive reforms (such as a regulated market), and also distinguishing within each reform between evaluations of morality and efficacy. Thus, we are not concerned that our human subjects were simply non-compliant or distracted.

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50. See James S. Fishkin, Robert Luskin & Roger Jowell, *Deliberative Polling and Public Consultation*, 53 PARLIAMENTARY AFF. 657, 660 (2000).

51. See generally JOHN HANSON, *IDEOLOGY, PSYCHOLOGY, AND LAW* (2012) (arguing that human decisions are driven more by situations than dispositions).

52. DWORKIN, *supra* note 1, at 6.

53. Cf. Kahan et al., *Nanotechnology*, *supra* note 7, at 87–88 (describing a “cultural predisposition toward risk”).

54. *Id.*

We did find broad consensus among both Democrats and Republicans that a market for organs could be effective in increasing supply, but that it was deeply problematic from a moral point of view, causing a lack of support overall. Alternatively, the payment of vouchers for funeral expenses enjoyed broad support. It is surprising that the two methods of financial incentives had such different evaluations, though these differences might be due to the way that the proposals are described in our stimuli. Teasing apart concerns about efficacy from morality, the voucher program appeared to alleviate the deep moral objections to a market, while nonetheless maintaining perceived efficacy.

Our study also suggests that a package of reforms, including reciprocal preferences, opt-out, and elimination of the family veto, might be politically feasible. This package of reforms likewise neutralizes moral objections to a reform of reciprocal preferences alone.

Overall, it appears that once Americans are informed about the basic aspects of the cadaveric organ shortage and given a chance to reflect upon potential reforms in a balanced way, they are able to reach pragmatic and coherent conclusions favoring certain reforms. Scholars should seek to exploit whatever consensus does exist and press toward political and legal implementation of sensible reforms. We should not be paralyzed by bugaboo concerns of a polarized, paralyzed, and irrational electorate.



## METHODOLOGICAL APPENDIX

### A. Background Information Shown to All Subjects.

Over 50 years ago, surgeons pioneered organ transplantation as a treatment for kidney failure. For many diseases – such as kidney, liver, heart, and lung failure – organ transplantation is now the best, and sometimes the only, treatment available for patients. In recent years, organ transplantation has become even more effective, because of advances in drugs and transplantation methods. Patients who receive transplanted organs are more likely to enjoy a full recovery and return to a normal way of life.

However, in the United States, there has long been a shortage of organs for transplantation. Currently, there are over 115,000 people on waiting lists to receive organs, and these people must wait several months or years, depending on which organs they need. Over 5,000 people die each year while waiting for an organ for transplantation, while many others suffer while waiting for an available organ.

It is possible, but very rare, to transplant some organs from living persons. Undergoing such a surgery is, however, dangerous. And most organs, such as hearts or lungs, are impossible to transplant from a live donor. Therefore, the vast majority of organs come from cadavers – the bodies of dead persons. These are called “cadaveric organs.”

Most people die in ways that make it impossible to use their organs for transplantation. When a person dies in a way that leaves a healthy organ, it is necessary to make a decision about its use shortly after death. Otherwise, if there is too much of a delay, the organ degrades and becomes unusable for transplantation. When organs are removed, the surgical procedure is performed in a way that leaves the cadaver intact for whatever funeral arrangements may be preferred, including the possibility of an open-casket funeral.

### B. Writing Task Manipulations

#### **Need Condition Stimulus**

Imagine that someone you love is suffering from progressive liver failure, due to a genetic disease known as hemochromatosis. The liver failure becomes fatal as it progresses, and your loved one needs an organ transplant or else he or she will eventually die. There is, however, a severe shortage of organs for transplantations. Your loved one waits on the list for several months. Unfortunately, the shortage is so severe that he or she is eventually informed that it will be impossible to find an available organ in time. Think deeply about how you would

#### **Taken Condition Stimulus**

Imagine that someone you love feels very strongly that his or her body be buried in its entirety, and thus your loved one adamantly opposes that his or her organs be taken for transplantation. Nonetheless, imagine that your loved one dies suddenly in a car accident, and when taken to the hospital, the transplant team removes some of his or her organs for transplantation. It is not clear exactly how this happened – whether it was because the family authorized the transplantation, or because some local law allowed transplantation without consulting

feel, and what you would think, when learning that there is no organ available for your loved one and that, as a result, he or she will soon die. Write, in the space below, your thoughts about this sequence of events; try to think about and deeply feel, and then write with enough detail so that the reader will think and even feel the same way.

[400-500 characters, please]

anyone's preferences, or just because of some miscommunication. Still, the transplanted organs were actually used to save the life of another person, a young woman who was suffering at a nearby hospital. Write, in the space below, your thoughts about this sequence of events; try to think about and deeply feel, and then write with enough detail so that the reader will think and even feel the same way.

[400-500 characters, please]

*Note:* The Control condition included no writing task.

### C. Proposed Policy-Reform Pairs

#### **Instructions**

Each country sets its own laws and policies about organ transplantation, and they have chosen different approaches. The following sections describe parts of the cadaveric organ transplantation policy used within the United States, as well as proposals for how to reform those parts in order to reduce the shortage of organs. Please carefully consider each of the parts and how they might remain the same or be reformed. You will later be asked to select which overall cadaveric organ transplantation policy you most prefer be used within the United States. You will do this by indicating, for each part, which position you most prefer.

#### **Opt-In vs. Opt-Out**

The United States currently uses an opt-in model: if a person wants to have his or her organs transplanted after death, then he or she must actively fill out paperwork signing up as a donor. If a person does not sign up as a donor, then his or her organs are usually not transplanted. Advocates of this system say that it embodies individual choice, because a person will not become a donor unless he or she actively decides to be one. Moreover, an emphasis on donation reflects the value of altruism (i.e., selflessly caring for others).

One proposal would change to an opt-out system: organs will be transplanted from the bodies of dead persons, unless those individuals had expressed a desire not to provide their organs. Advocates say that this system is already in use by several other countries as a way to reduce the organ shortage, recognizing that many people just never make a decision either way. Polls show that most people would want to have their organs transplanted, and the opt-out system reflects their preferences. Individuals who feel strongly opposed to having their organs transplanted could register that preference instead by filling out paperwork.

#### **Family Choice vs. Personal Choice**

Regardless of whether a person signs up to donate his or her organs, hospital staff often ask any surviving members of the family whether to transplant the organ. Advocates for this family choice practice say that family members are in the best

One proposal focuses on the deceased person's choice instead. This proposal would change the law to prohibit hospital staff from asking surviving family members whether to transplant organs of the deceased person. Instead, hospital

position to know what the deceased person would have wanted, regardless of any donation paperwork he or she may have filled out long ago. Moreover, the family members are the ones who have to live with the consequences of the choice to donate or not. It is fitting that the survivors get the final decision.

staff would rely only upon the registration status of the individual. Advocates of personal choice argue that family members should not be able to override the free choice of the deceased person. Moreover, the family members are likely to be very upset by their recent loss. The family may have clouded judgment and experience further discomfort if the hospital staff forces them to make this decision.

### **Altruistic Donations vs. Regulated Market**

Federal law currently prohibits the buying or selling of organs. Instead donations are given on a volunteer basis without any financial compensation. Advocates of keeping this law argue that it is necessary to prevent sales of body parts, which would degrade human beings. In addition, organ sales could worsen inequality, because the poor might feel more of an economic pressure to sell their organs than the rich. A further worry is that a market for selling organs could actually “crowd out” those who are now willing to donate altruistically, and thus reduce the number of organs available for transplantation.

One proposal would allow organs to be bought and sold in a regulated market, similar to how federal law currently allows payment for sperm, egg, blood serum, and bone marrow. The physicians and nurses that handle the transplant procedure are paid for their services, after all. Advocates of such a regulated market for organs argue that the current law prohibiting sales is a major cause of the shortage; we instead need to create an incentive that could increase the supply of organs. It is also fair to compensate people for their willingness to provide their organs, and fair to ask recipients of organs to pay for the benefit.

### **Voluntarism Alone vs. Funeral Recognition**

Currently, in the United States, there is no official recognition or reward for persons who agree to have their organs transplanted after they die.

Rather, donations are given on a volunteer basis. Advocates of keeping this law argue that it is necessary to reflect the value of pure altruism (i.e., selflessly caring for others). It would also be improper to cause people to make such an important decision on the basis of any other factor, which may cloud their judgment or degrade their human dignity. These advocates say that a system of voluntarism alone is best.

One proposal would recognize organ donors by allowing health insurers to cover their funeral expenses. This voucher would be limited to the average cost of a funeral. This voucher would go to the families of deceased persons whose organs are transplanted. Advocates of the funeral voucher argue that it could increase donations by those planning for their own estates, and the voucher expense could come from the recipient’s health insurance coverage. Also, since the amount of the voucher would be limited and could only be spent on funeral expenses, it would not be degrading nor would it worsen inequality.

### Open Eligibility vs. Reciprocal Preference

Presently, the systems for receiving and distributing cadaveric organs are completely separate. A patient is eligible to receive a transplanted organ even if he or she is not signed up as an organ donor himself or herself. Advocates of such open eligibility argue that allocation of organs should be based purely on medical criteria, and should not be made conditional on whether one has made the decision to become a donor. Moreover, the current policy preserves the value of altruism, because decisions to donate remain focused solely on helping another person, as opposed to receiving any personal benefit.

One proposal is to give people who agreed to provide their own organs upon death priority access to the organ waiting list, if they someday need an organ transplantation. Advocates of such a “reciprocal preference” argue that during this time of shortage, it is fair to give organs to those persons who are themselves willing to contribute to the pool of organs. Those refusing to contribute do not deserve to take from the pool. This proposal could increase the number of contributors, and could also reduce demand for organs, by excluding those who refuse to contribute themselves.

Finally, please consider a particular combination of some of the individual policy reforms discussed above. This combined proposal involves reciprocal preferences, an opt-out system, and personal choice, all in one package of reforms. To review these features:

- First, the “reciprocal preferences” reform would give people who agreed to provide their own organs upon death priority access, if they someday need an organ transplantation. Thus, even while alive, one would receive a benefit from their willingness to share.
- Second, under “opt-out” everyone would be in the organ system, with priority access to get organs and also registered to give organs upon death, unless they opted-out. Anyone would be free to opt-out from giving organs, thereby removing their priority access to receiving organs as well.
- Third, under “personal choice,” the registration status of the individual would control whether their organs are removed. The surviving members of the family would not be asked. Now please indicate your preference for whether to stay in our current system (on the left) or change to this combination of reforms (on the right). For this purpose, please assume that this is the only potential reform on the table.

#### Current Package

Open Eligibility  
Opt-In  
Family Choice

#### Reform Package

Reciprocal Preference  
Opt-Out  
Personal Choice

#### D. Scale

The bidirectional, anchored Likert-type scale that we used to collect data about efficacy, morality, and overall preferences is shown in figure 3. We converted the nonnumerical values to scores one through nine for analysis.

Figure 3



### E. Recruitment and Data Cleaning Procedures

We at first paid \$0.50 per completed response (receiving forty-five responses), and then to expedite data collection, raised the payment to \$0.75 per completed response (receiving 749 more). After four days of recruitment, we reached 800 subjects requesting payment, a target we had developed based on a prospective power analysis.

There were four duplicates, identified based on Mturk account numbers. We then removed thirty-six respondents who failed either or both of the attention questions, leaving 764. We examined a histogram showing survey completion times (without yet examining any other response data), and set a threshold to remove those that completed the survey in under 6.99 minutes or over 35.1 minutes. That screen removed thirty-four more respondents, leaving 730. We also visually inspected the responses to the mandatory writing prompts to determine if any had provided severely nonresponsive data, but found no such junk. Thus, the final count for analyses was  $n = 730$ .