

Public Opinion on Organ Conscription and Free Riding: Results from a Norwegian Survey

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Shortage of organs for transplantation leads to reduced quality of life and premature deaths among patients on waiting lists. One proposed policy response is the conscription of cadaveric organs, whereby all suitable organs are retrieved after death. Another proposal is to restrict access to transplantation for patients who have not themselves consented to donate. The ethical acceptability of both policies remains contested, and empirical evidence on public opinion is limited. Previous surveys suggest low support for conscription. We conducted a national survey of adults in Norway (N = 1000) to investigate public attitudes towards the badness of death (reported elsewhere), the conscription of organs for transplantation, and reciprocity, understood as the acceptance to be a potential donor as necessary for being a potential recipient of organs if in need. This last question did not elicit conclusive responses. It did, however, show a correlation between responses supportive of reciprocity (i.e., against free riding) and those supportive of conscription. The results suggest a slight majority in favor of conscription in Norway. Our survey shows that belief in an afterlife corresponds negatively with acceptance of conscription, but no other demographic data are influential.

Keywords: Conscription of organs; Free riding; Public opinion; Reciprocity; Solidarity.

Introduction

Organ transplantation is an effective and widely accepted health intervention. Still, the scarcity of organs means limited availability for those in need. Two possible

approaches for procuring more organs for transplantation are either to *conscript* cadaveric organs without antemortem consent from the donor¹ or postmortem consent from next-of-kin, or to prioritize registered donors as recipients of organs, which means a system of *reciprocity*.² There are generally two systems in use today with regard to organs for transplantation: an opt-in or an opt-out system. An *opt-in system* requires the explicit consent of the potential donor, which may be obtained by registering as a potential donor in a register, by declaring such willingness in writing, or by declaration to one's family.

An *opt-out model* requires the absence of an explicit reservation. Such a reservation may be given in writing or communicated more informally to one's family. In Europe, the most common system is opt-out, whereas opt-in is most frequent outside of Europe (Morla-González, Moya-Guillem, Delgado, et al., 2021).

Some also employ a system of mandatory choice, in which one must register one's choice to be, or not to be, a potential donor. This is, for instance, the case in New Zealand, where one is requested to register one's acceptance or refusal to be a potential donor when getting one's driver's license.

There is an ongoing debate on the use of conscription for procuring more organs. Supporters typically argue from a mainly consequentialist position, whereas opponents also tend to rely on deontological concerns, and, especially, the importance of voluntariness, consent, and autonomy (Alexander & Moore, 2025; Hooker, 2023; Lamont & Favor, 2017).³

When it comes to the use of the deceased's organs for transplantation, the legal role of the family differs across countries. However, no country grants the family an explicit right to veto the will of the deceased (Morla-González, Moya-Guillem, Delgado, et al., 2021, 26). The procurement of organs in Norway (personal communication) and most other countries is reported, however, to always require consent from next-of-kin (Albertsen, 2020; Wilkinson, 2011; Zambrano, 2017). Organs are not harvested if the next-of-kin opposes this, even when the deceased has provided their antemortem consent. Thus, in clinical practice, a veto from next-of-kin may overrule legal regulation if the clinician finds it justified under the circumstances. While there are ongoing debates among scholars, there is little empirical data on the public's attitudes to conscripting cadaveric organs for transplantation. We have found only four surveys addressing conscription, all of which show a majority against implementing conscription as a policy (Decker et al., 2008; Morla-González, Moya-Guillem, Rodríguez-Arias, et al., 2021; Spital, 2005).⁴

Norway (population ~5.5 million) is a relatively secular country. Furthermore, only a small proportion of the Norwegian population believes in an afterlife, merely 23% as reported in our survey. Most Norwegians favor organ donation, and 70–80% consent to donating their own organs, as do the families of deceased potential donors (Stiftelsen Organdonasjon, n.d.). However, when the transplantation legislation was drafted, a Norwegian public white paper stated that conscription would be too controversial (Ministry of Health, 2011, p. 125),⁵ and an opt-out system was chosen as the general policy. One motivation behind this survey was to empirically investigate this undocumented assertion.

Based on results of other investigations we were also motivated to investigate whether the Norwegian public, with its high acceptance of donation, would show the same results that have been found elsewhere when it comes to framing sensitivity (Johnson & Goldstein, 2003; Tversky & Kahneman, 1981), belief in an

afterlife (Karataş & Balas, 2025; Radecki & Jaccard, 1997; Schroeder-Gess, Jarilyn and Klenow, Daniel J, n.d.), and level of education (Alghalyini et al., 2024; Wakefield et al., 2010). Thus, we decided to test, on the Norwegian public, the following four hypotheses:⁶

1. A majority of the Norwegian general population is against conscription.
2. Support for conscription is subject to a framing effect.
3. Belief in an afterlife is associated with reduced support for conscription.
4. Education is positively associated with acceptance of conscription.

Additionally, we wanted to investigate the Norwegian public's response to a question about reciprocity. When some people refuse to be donors, a principle of *reciprocity* would exclude them as potential recipients of organs. Conscription, however, would imply that everyone would be a potential donor (Fleck, 2022). In several studies, reciprocity has been shown to correlate with attitudes towards conscription (Christopher Robertson, 2007; Schweda et al., 2009; Sharp and Randhawa, 2014; Han and Wibrall, 2020).

Methods

Inspired by a public survey on conscription conducted in the USA in 2003 (Spital 2005), we developed two introductions – one slightly more supportive of conscription than the other – to test whether attitudes toward conscription could be framing sensitive. However, in the more neutral introduction, an opt-out option on religious grounds was mistakenly included, which compromises our intended evaluation of framing effects. Although the intended differences between the two introductions were compromised, the quite different introductions showed no statistically significant framing effect, which is interesting by itself.

The data collection was performed in 2025 by NORSTAT, a commercial survey company with a panel of over 120,000 active respondents. Background variables included gender, age, belief in an afterlife, religion or other worldview, education, and region (Statistics Norway benchmarks).⁷ The sample was quota-targeted to achieve representativeness⁸ by age, gender, and region (five-region variable) to approximate the national population.

Translated from Norwegian to English, the two introductory texts were as follows:⁹

The introduction with the unintended last sentence, with an opt-out possibility

Organ transplantation is a treatment option for persons with failing organs. Most organs are procured from recently deceased persons. There are not enough organs for all that need one, amongst other reasons because some families refuse permitting the harvesting of organs from the deceased. Several schemes have been considered with the aim of increasing the number of available organs. One of these schemes is to permit hospitals to harvest and use organs from deceased persons without obtaining permission when the deceased has not expressed reservation against organ donation on religious grounds.

The supportive introduction

Despite efforts from the organisation “Organdonasjon”, and encouragement from the authorities, for example the Health Minister Jan Christian Vestre (himself a registered donor via a mobile app), there are

long waiting lists for receiving organs. In 2023 there were 584 persons on the waiting lists, and 34 who died while waiting. Many people rarely offer organ donation much thought and therefore have not notified their relatives even when they would agree to organ donation. In such cases, in Norway, the family will decide. Most families do consent, but about one in four families refuse (about 20–30%). This entails that organs that could have been used to help people on a waiting list live better and longer lives, instead are buried or burned.

The respondents were randomized to be presented with one of the two introductions, and all respondents were next presented with the following question:

How much do you agree or disagree with introducing a rule that allows hospitals to routinely remove organs from deceased individuals without seeking permission?

Their responses were indicated on a Likert scale with the following options: ‘fully agree’, ‘somewhat agree’, ‘neither agree nor disagree’, ‘somewhat disagree’, or ‘fully disagree’; a ‘no opinion’-option was also available.

The respondents were then presented with one additional question, designed to gauge their attitude towards reciprocity:

Some people do not want organs from their own body, or from family members, to be used for transplantation after death. What do you think about a rule stating that such individuals would not be entitled to receive organs from others if they needed one?

This final question, with identical Likert options, was included to determine whether respondents’ attitudes toward conscription could be associated with their attitudes toward reciprocity. In a conscription model, the question of reciprocity is not relevant, and free riding would be eliminated, as organs could be taken from suitable dead persons where such removal was possible, and thus, all would be potential donors.¹⁰

Results

Invitations were sent to 4,817 panel participants, resulting in 1,000 complete responses (response-to-invitation rate of 20.7%). 1,083 initiated the survey (response rate = 22.5%), and among these, 1,000 participants completed all items (completion rate = 92.3%). The demographics of the 1,000 respondents are shown below on **Table 1**.

Hypothesis 1: A Majority is Against Conscription

The hypothesis was rejected. In the full sample of completed survey responses, 2.1% answered no-opinion, and 53.3% either somewhat (25.2%) or fully (28.1%) agreed to support a policy of conscription. “Neither agree nor disagree” was indicated by 8.6% of the respondents, while 36.0% disagreed, either somewhat (15.6%) or completely (20.4%).

A liberal definition of “a majority that disagrees” could be the share of *those expressing an opinion* that disagrees. Omitting no opinion and the neutral stance leaves 893 respondents, out of which 40.3% disagreed either somewhat or fully. The binomial 99% confidence interval for this proportion is 38%–44%, rejecting the hypothesis that a majority is against conscription.

In fact, a strict definition of “a majority is in favor of conscription,” not discounting answers not explicitly in favor of conscription, yields a point estimate of 53.3% with a 95% CI of (50.1%–56.4%), allowing a conclusion of a slight majority in favor. Using the R-package “survey” to obtain a weighted estimate strengthened this result to 53.5% (50.2%–56.7%).

Table 1. Demographic Characteristics of Respondents (N = 1000)

Variable	Categories [sample shares (%)]
Gender	Male [50%], Female [50%]
Age Group	18–35 [25%], 36–55 [36%], 56–75 [32%], 76+ [7%]
Belief in afterlife	Yes [23%], No [50%], No opinion [27%]
Education level ^a	Lower [41%], Higher [59%]
Worldview ^b	Abrahamic [43%], non-religious [36%], Other [13%], Undisclosed [7%]
Marital status ^c	Partnered [64%], Single [36%]
Region	Eastern [30%], Western [20%], Middle [14%], Northern [9%], Southern [14%], Capital [13%]

^a **Education level** was dichotomized into ‘**Higher**’ (comprising ‘≤ 3 years university’ [30%] and ‘≥ 4 years university’ [29%],) and ‘**Lower**’ (subsuming ‘Primary’ [4%], ‘Upper secondary’ [18%], ‘Vocational’ [18%], ‘Other’ [1%], and ‘Undisclosed’ [2%].)

^b **Worldview** is the recoding into ‘**Abrahamic**’ (comprising ‘Christian’ [42%], ‘Muslim’ [1%], and ‘Jewish’ [0%],) ‘**Non-religious**’ (comprising ‘Humanist’ [12%] and ‘Atheist’ [24%],) ‘**Other**’ (comprising ‘Buddhist’ [1%], ‘Other religion’ [2%], ‘Agnostic’ [11%],) and ‘**Undisclosed**’ [7%].

^c **Marital status**, was dichotomized into ‘**Partnered**’ (comprising ‘Married’ [40%] and ‘With partner’ [24%],) and ‘**Single**’ [36%].

Table 1. This table shows the demographic characteristics of respondents across gender, age group, belief in the afterlife, educational level, worldview, marital status, and geographic region in Norway.

Hypothesis 2: There is a Framing Effect

The hypothesis was rejected. The intended neutral introduction was compromised by the addition of an opt-out possibility, which may have made this alternative more acceptable. However, we found no statistically significant difference between the two alternatives.

Respondents who read the introduction with an opt-out possibility showed 55% agreement and 35% disagreement, while 11% had no opinion or neither agreed nor disagreed. Of those who received the Supportive Introduction without the opt-out option, 52% agreed, and 38% disagreed, while 10% had no opinion or neither agreed nor disagreed. Thus, there was no statistical difference in the response distribution on the organ conscription item between the two arms; Fisher’s exact test indicated an odds ratio of 0.99 ($p = 1.00$), rejecting any effect of the randomized introduction’s effect on responses. To rule out any unintended self-selection effects, we also diagnosed whether there were any other discrepancies between respondents in the two arms. None were discovered; Fisher’s exact tests between arm and other variables (sex, age, religious characteristics, etc.) consistently failed to reject a null hypothesis of equal distribution. In conclusion, the response data contains no effect on the response to the conscription item and a framing effect from the two different introductions.

Hypothesis 3: Belief in an Afterlife is Associated with Reduced Support for Conscription

This hypothesis was confirmed. With the introduction of an opt-out option (55% agree and 35% disagree), 41% of the supporters were believers and 61% were non-

believers. Among the non-supporters, 50% were believers and 31% were non-believers. With the positive text (52% agree and 38% disagree), the believers agreed with 41% and disagreed with 50%. The non-believers agreed with 58% and disagreed with 31%.

Table 2. Distributions of Answers by Key Covariates

Covariate	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Fully agree	No opinion
All	204	156	86	252	281	21
Gender	$p = 0.038$					
Female	112	90	45	123	121	12
Male	92	66	41	129	160	9
Education	$p = 0.117$					
Lower	91	64	41	100	103	13
Higher	113	92	45	152	178	8
Afterlife	$p = 0.000$					
Yes	69	36	20	49	47	2
No opinion	60	43	27	78	65	10
No	75	77	39	125	169	9
Introduction	$p = 0.863$					
Neutral + Opt-out	94	77	43	129	146	11
Positive	110	79	43	123	135	10

Table 2. This table shows the distribution of answers on a five-point scale for the full sample and by key background variables (gender, education, belief in an afterlife, and type of introduction). The p -values are from χ^2 -test for equality of distribution: higher p -values indicate non-distinguishable distributions, lower p -values indicate more notable differences.

Hypothesis 4. Education is Positively Associated with Acceptance of Conscription

This hypothesis was rejected in our survey. As already mentioned, we additionally investigated whether support for the reciprocity item was associated with support for conscription. Please see **Table 2** above.

Regression Analysis

Hypotheses 3 and 4, and the reciprocity item, were analyzed separately with univariate cross-tables of counts with χ^2 -tests, and jointly with a linear regression model with the Likert-score as the dependent variable (coded as “Completely disagree” = 0–4 = “Fully agree”; omitting the 2.1% that responded ‘no opinion’), while adjusting for the available respondent covariates.

There was strong evidence for a negative association between a belief in an afterlife and support for organ conscription (see the regression table). In all models, there was a consistent estimate of about a 0.25-point decrease in support between believers in an afterlife and agnostics, and between agnostics and non-believers in an afterlife.

Table 3. Regression Analysis

Dependent variable: support for conscription on (0–4 scale)						
Demographic variables only			Demographic variables + FSS		Demographic variables + FSS + Reciprocity	
Variable	Est.	p-value (99%CI)	Est.	p-value (99%CI)	Est.	p-value (99%CI)
Afterlife ^a	-0.258**	<0.001 (-0.436, -0.081)	-0.242**	<0.001 (-0.420, -0.065)	-0.235**	<0.001 (-0.410, -0.059)
Education ^b (ref. = <i>higher</i>)		0.193		0.148		0.163
<i>Medium</i>	-0.240	0.073 (-0.584, 0.105)	-0.265	0.051 (-0.615, 0.085)	-0.254	0.059 (-0.601, 0.092)
<i>Low</i>	-0.023	0.846 (-0.333, 0.287)	-0.058	0.631 (-0.372, 0.255)	-0.034	0.776 (-0.345, 0.276)
Gender (ref. = <i>Female</i>)	0.218'	0.029 (-0.039, 0.476)	0.201'	0.048 (-0.061, 0.463)	0.169	0.095 (-0.092, 0.429)
Fully agree to reciprocity	NA	NA	NA	NA	0.536***	<0.001 (0.215, 0.856)
Absolute Badness FSS	NA	NA	0.031	0.563 (-0.108, 0.171)	0.041	0.441 (-0.097, 0.180)
Epicurean FSS	NA	NA	0.102'	0.032 (-0.021, 0.225)	0.095'	0.045 (-0.027, 0.216)
Deprivationist FSS	NA	NA	0.113	0.174 (-0.101, 0.327)	0.071	0.392 (-0.143, 0.285)
Age	0.005	0.076 (-0.002, 0.013)	0.004	0.184 (-0.004, 0.012)	0.005	0.078 (-0.002, 0.013)
Partnered (ref. = <i>Yes</i>)	-0.164	0.104 (-0.423, 0.096)	-0.191	0.061 (-0.454, 0.072)	-0.048	0.656 (-0.327, 0.231)
Religion ^b (ref. = <i>Abrahamic</i>)		0.072		0.082		0.116
<i>Non-religious</i>	0.174	0.160 (-0.145, 0.494)	0.170	0.172 (-0.151, 0.491)	0.141	0.253 (-0.177, 0.460)
<i>Other</i>	0.035	0.821 (-0.369, 0.440)	0.032	0.838 (-0.374, 0.439)	0.012	0.940 (-0.391, 0.415)
<i>Undisclosed</i>	-0.337	0.089 (-0.849, 0.175)	-0.341	0.092 (-0.862, 0.181)	-0.340	0.089 (-0.857, 0.176)
(Intercept)	2.140***	<0.001 (1.597, 2.683)	1.670***	<0.001 (0.740, 2.600)	1.642***	<0.001 (0.720, 2.564)
Num.Obs.	962		954		954	
R ²	0.051		0.056		0.075	
R ² Adj.	0.042		0.044		0.062	
AIC	3516.1		3488.4		3471.7	
Log.Lik.	-1747.047		-1730.220		-1720.858	
RMSE	1.49		1.48		1.47	

Table 3. This table shows a regression analysis of support for conscription on a 0–4 scale. Please note that: ' $p < 0.05$, * $p < 0.01$, ** $p < 0.001$, *** $p < 1e-04$.

^a Afterlife was coded as 0 = express disbelief, 1 = agnostic stance, 2 = express belief.

^b Categorical variables' p -values (Education level and Religion) are from anova's F-statistic.

In contrast to other studies, however, our data did not provide evidence of an association between education level and support for organ conscription. Furthermore, there was a weak association between male gender and support for

conscription. This association was weakened in models including attitudes toward sanctioning free riders, which better explained support for organ conscription. We observed a significant ($p < 0.001$) 0.5-point increase in support associated with fully agreeing with sanctioning free riders by restricting their access to needed organs.

In summary, our hypothesis of a negative association between a positive belief in an afterlife and acceptance of organ conscription was supported. In contrast, the hypothesis about an association between education level and acceptance of organ conscription was rejected. To our last question concerning reciprocity, as mentioned above, 39% agreed, 33% disagreed, 19% neither agreed nor disagreed, and 9% had no opinion. We also found that acceptance of sanctioning free riders was strongly associated with acceptance of conscription.

Discussion

There is already strong support for organ donation in Norway, with an acceptance rate varying between 70–80% of those asked to be donors themselves or to agree to use organs from deceased next-of-kins. We were interested in investigating whether the Norwegian population would also support conscription. Such a policy would increase the number of organs available for transplantation. Politicians, however, have been reluctant to legalize conscription, deeming it too controversial. If the Norwegian population supports conscription, it could motivate politicians to consider a revision of the existing legal regulation.

Another efficient way to increase the availability of organs would be to prioritize those who have declared their willingness to be donors. This would possibly remove some from the waiting lists and add others to the list of potential donors. Our survey shows, for the first time (as far as we know) a national majority support for conscription. Moreover, the study also adds to existing empirical evidence from surveys and laboratory experiments indicating that people agreeing that a system of conscription would be acceptable are also more likely to share the intuition that free riding should be avoided (Christopher Robertson, 2007; Fang et al., 2026; Gubernatis, 1997; Han & Wibrall, 2020; Hartogh, 2011; Schweda et al., 2009; Sharp & Randhawa, 2014).

A notable finding in our data is the lack of strong demographic or philosophical predictors of support for organ conscription. Although attitudes toward organ donation often correlate with factors such as age, education, and religious belief, our results suggest that conscription is viewed in ways not readily captured by standard sociodemographic patterns, except, as already mentioned, belief in an afterlife. Further studies are needed to investigate why demographics are less important for attitudes towards conscription than for donation.

Comparison with Other Surveys

There are a few surveys on the public's attitudes towards conscription. Below, we mention the four surveys we have found. These surveys are not directly comparable to ours, as the design, context, and questions differ. Yet, we include them here since they motivated our survey, are the only surveys on conscription we have found, and because they show what may be the intuitive negative position towards conscription, as opposed to our Norwegian survey.

In 2003, a telephone survey of the general public was conducted in the USA. A total of 1,014 adults in the USA, all aged 18 or older, were interviewed (response

rate not reported). The introductory text they were presented was quite supportive of conscription. This text was followed by a question of whether the respondent would agree to conscription in the USA.¹¹ Participants could choose from the following possible responses: 'yes', 'probably yes', 'probably no', 'no', 'don't know', or 'refuse to answer.' 31% of the respondents would likely accept conscription – 19% answered 'yes', and 12% 'probably yes.' However, 66% would *not* accept conscription: 53% answered 'no' and 13% 'probably no' (Spital, 2005).

In 2005, another representative survey on organ transplants was carried out in Germany. 1000 Germans were interviewed by telephone regarding their attitudes toward different transplant regulations. The participants were asked which of the current models for organ removal after death they would approve of, the opt-in (the current German model) or the opt-out. A majority (87%) consented to the existing opt-in model. However, the opt-out model, with an additional requirement of the next-of-kin's consent for organ removal, also found widespread acceptance with 72%. Models where an enforced decision was required (on your 18th birthday, for instance, by an entry being made in the ID card of your decision for or against organ donation) would be supported by a small majority (total: 59%). A general policy to perform postmortal organ removal regardless of consent was accepted by a considerable minority (38%) of the population, attesting to the generally high acceptance of organ donation. There were no significant gender differences in the attitudes toward the different forms of legislation (Decker et al., 2008, pp. 251–253).

In 2018, an unpublished study from Spain reported 26% agreement among 812 respondents to a question about whether they agreed or disagreed with accepting a model in which organs are mandatorily removed, regardless of the individual's preferences when alive.

In another 2018 study from Spain, 800 respondents were asked if they agreed with a model in which organs from the deceased could be removed without individuals' or families' consent, or even against their preferences. In this study, 46% were positive. Moreover, 52% of the respondents agreed, and 48% disagreed, with "the removal of organs from the deceased for transplantation, without allowing them or their families to oppose." The addition of the condition 'for transplantation' thus appeared to increase support for conscription among a majority in that survey (Morla-González, Moya-Guillem, Rodríguez-Arias, et al., 2021).¹²

Strengths and Limitations

To the best of our knowledge, this is the first public survey to show no majority against conscription. The survey, which used NORSTAT's quota-designed panel to be representative of the Norwegian population, should therefore be of interest to all those involved in transplantation activities in Norway and internationally.

One weakness may be that the results on attitudes towards conscription reported here are based on only one question, although with two different introductions. As it turned out, the introduction did not affect the responses; both groups had very similar distributions of Likert responses.

Moreover, the response patterns might have changed if more facts were included in the surveys, such as the fact that a considerable number of dead donors have abrupt hemorrhage or traumatic brain injuries. Moreover, the DCD (Donation after Cardiac Death) death criterion is controversial (White, 2019; Zheng et al.,

2022). There is also the possibility that answers to a hypothetical situation differ from those in an actual situation.

Conclusion

Our data suggest that organ conscription is a controversial issue, with attitudes strongly grouped for or against a policy of conscription, and with few undecided or neutral respondents. A slight majority supported conscription in Norway. This contrasts with other published surveys conducted in the USA (2003), Germany (2008), and Spain (2018) mentioned above. We found that males and those who do not believe in an afterlife were more positive about conscription. Our results were consistent with other research showing a correlation between support for reciprocity and conscription. Our survey could be used to initiate political discussions on revising the legal regulation of transplantation activity in Norway. The fact that procuring more organs for transplantation would save lives and increase the well-being of those on waiting lists should motivate such a revision.

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Notes

¹ In this paper, conscription is understood as the taking of organs postmortem, regardless of the wish of the antemortem person and their next-of-kin.

² Xenotransplantation and the use of organoids may help solve the problem of organ supply over time.

³ Scholars who have argued for conscription include Fabre (2006), Hester (2006), Howard (2006), Spital (2005), and Spital & Erin (2002). Scholars opposing include Hamer (2003), Hilary Young (2013), McGovern, (2002), and Sperling (2010).

⁴ See Discussion for further details.

⁵ Interestingly, our survey confirms that conscription is a *controversial* issue as the responses concentrate on the two opposing views, with fewer in the middle. Unlike the concept of *polarization*, which “can be said without qualification to increase only when opinion distributions become more (1) dispersed, (2) flat or bimodal, (3) closely associated, and (4) closely linked to salient social identities.” (DiMaggio et al., 1996, 693). We found no salient social identities associated with opposition or support for conscription. Instead, we find a bimodal, highly dispersed distribution across the whole sample and within sub-groups. We tentatively call this phenomenon “controversy”.

⁶ The hypotheses and the two questions discussed in this article were developed by the three authors and colleagues and were inspired by existing literature on the subject.

⁷ With NORSTAT’s auto sampling, the net sample in the surveys is so precise in relation to the true population distribution that the weighting factors deviate to a modest extent from 1. When sampling, it is decided which age groups are to be sampled, as well as how detailed the sampling will be, based on geography, usually on a five-part county variable. These groups are set up according to the size of the

total sample – the more respondents, the smaller the age range/geography. Each defined group's response rate is automatically calculated based on the group's response rate last month. This calculation is used to estimate how many invitations are needed. In this way, NORSTAT's autosampler hits a representative sample based on gender, age, and geography with great accuracy, in all counties. When the data collection is finished, the results are weighted to smooth out any inaccuracies in the sample. The data is then weighted to the correct national distribution of gender, age, and geography (part of the country) based on Statistics Norway's population statistics.

⁸ The survey included questions on the public's attitudes towards the value of death and the timing of death (reported in a forthcoming manuscript), and the two questions on attitudes towards conscription and towards reciprocity/free riding discussed in this manuscript.

⁹ The original Norwegian texts are as follows: The intended more neutral introduction:

«Transplantasjon er behandling for personer med sviktende organer. De fleste organer kommer fra nylig døde personer. Det er ikke nok organer til alle som trenger det, blant annet fordi noen familier sier nei til at organer kan tas fra den døde. Flere planer har vært vurdert for å øke antall organer til transplantasjon. En av disse er å tillate at sykehuset bruker organer fra døde uten å spørre om tillatelse hvis den døde ikke har reservert seg mot dette av religiøse grunner».

«Hvor enig eller uenig er du i at det innføres en regel om at sykehuset rutinemessig kan fjerne organer fra døde uten å spørre om tillatelse?»

The more positive introduction:

«Til tross for innsats fra stiftelsen Organdonasjon, og oppfordringer fra myndighetene, for eksempel Helse- og omsorgsminister Jan Christian Vestre (som selv har donorkort på sin mobiltelefon), er det en lang venteliste for organer. I 2023 var det 584 på venteliste, og 34 som døde mens de ventet. Mange har sjelden tenkt på organdonasjon, og derfor heller ikke gitt beskjed om de er enige i at deres organer kan brukes til transplantasjon. I slike tilfeller er det i Norge familien som avgjør. De fleste familier aksepterer det, men omtrent en fjerdedel sier nei (ca. 20–30%). Dette innebærer at organer som kunne ha vært brukt til å hjelpe personer på venteliste til et bedre og lengre liv, i stedet begravnes eller brennes.

Hvor enig eller uenig er du i at det innføres en regel om at sykehuset rutinemessig kan fjerne organer fra døde uten å spørre om tillatelse?»

Question on reciprocity:

«Noen ønsker ikke at det skal brukes organer fra egen kropp, eller fra familiemedlemmer, til transplantasjon etter at man er død.

Hva tenker du om en regel som sier at disse ikke vil ha krav på å få organer fra andre hvis de trenger det?»

¹⁰ The question addressed, whether persons refusing to be donors should also be refused to be receivers of organs, is meant to capture attitudes towards reciprocity and fairness. Refusal to be a donor may be seen as benefiting from the system without contributing, a practice often referred to as *free riding*. If the survey shows a connection between negative attitudes towards free riding, a more positive

attitude towards conscription might be expected, since conscription would, at least in principle, eliminate free riding. See also Fleck's discussion on reciprocity (Fleck, 2022).

¹¹ We used this as inspiration for our own introduction and items, but adapted it to a Norwegian cultural context. The introductory text in the US (2003) study was as follows:

“Introduction: Transplantation is a highly successful lifesaving treatment for people with failing organs. Most transplanted organs come from people who have just died. Unfortunately, there are not enough of these organs for all who need them, in part because many families say no when asked for permission to take organs from a loved one who has just died. Several plans have been suggested in the hope of making more organs available. One of these [...] is to allow hospitals to remove organs from people who have died without asking for permission. Like a military draft, this would be a draft of organs after death except for people who objected on religious grounds. What do you think about these ideas? As you answer, please keep in mind that the doctors who determine that someone has died are not the same doctors that remove organs for transplantation.” **Question:** In view of the tremendous shortage of lifesaving organs, would you be willing to accept a policy that allows trustworthy medical teams to remove organs from people who have died without asking for permission unless they had objected on religious grounds?” (Spital 2005).

¹² Morla-Gonzales et al. argue that the survey shows that those who reject an automatic organ procurement model mainly appeal to deontological justifications for this rejection – a duty to respect the individual's autonomy – whereas those in favor of the model are more often motivated by consequentialist reasons (Morla-González, Moya-Guillem, Rodríguez-Arias, et al., 2021, p. 285)

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