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Understanding public support for eugenic policies: Results from survey data

L.J. Zigerell

Illinois State University, Schroeder Hall 401, Normal, IL 61790-4600, USA

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ABSTRACT

Little published empirical research has investigated public support for eugenic policies. To add to this literature, a survey on attitudes about eugenic policies was conducted of participants from Amazon Mechanical Turk who indicated residence in the United States (N > 400). Survey items assessed the levels and correlates of support for policies that, among other things, encourage lower levels of reproduction among the poor, the unintelligent, and people who have committed serious crimes and encourage higher levels of reproduction among the wealthy and the intelligent. Analyses of responses indicated nontrivial support for most of the eugenic policies asked about, such as at least 40% support for policies encouraging lower levels of reproduction among poor people, unintelligent people, and people who have committed serious crimes. Support for the eugenic policies often associated with feelings about the target group and with the perceived heritability of the distinguishing trait of the target group. To the extent that this latter association reflects a causal effect of perceived heritability, increased genetic attributions among the public might produce increased public support for eugenic policies and increase the probability that such policies are employed.

1. Introduction

Dating to at least Plato (Galton, 1998; Galanakis, 1999), the concept of eugenics concerns efforts to influence human reproduction to improve the human population. Eugenic plans have included efforts to increase reproduction among persons with perceived desirable traits to produce "men of a high type" (Galton, 1883, p. 44), such as Robert Graham's sperm bank with donations from "men of outstanding accomplishment, fine appearance, sound health, and exceptional freedom from genetic impairment" (quoted in Plotz, 2005, p. 172). But eugenic plans have also included efforts to decrease or eliminate reproduction among persons with perceived undesirable traits, such as the Nazis' forced sterilizations of persons deemed to possess hereditary diseases (Friedlander, 2000). Survey research with a cross-national sample of clinical geneticists (Wertz, 1998) indicated that "eugenic thinking survives, especially in Eastern Europe, India, China and other developing nations, as evidenced by the directively pessimistic construction of genetic counselling" that is biased toward encouraging the termination of pregnancies for which there has been a prenatal diagnosis of a genetic disorder such as cystic fibrosis (quotation from Wertz, 2002, p. 408). Little research has been published on eugenic thinking in the general public (see Wertz & Fletcher, 2004, for data from surveys of patients and the U.S. public); therefore, to contribute to this literature, this research note reports results from exploratory analyses of survey data from a general public nonprobability sample focusing on the extent to which support for eugenic encouragement

E-mail address: ljzigerell@ilstu.edu

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policies targeting a group associates with feelings about the group and with the perceived heritability of the distinguishing trait of the group.

2. Research design

Data are from a survey conducted on 12 June 2018 on the Qualtrics platform with participants drawn from Amazon Mechanical Turk (MTurk), limited to MTurkers with a location in the United States, 50 or more approved HITs (Human Intelligence Tasks that MTurkers agree to complete), and a HIT approval rate of 95% or higher. The study received approval from the author's Institutional Review Board. Data were recorded in Qualtrics for 509 cases, with 504 cases coded by Qualtrics as finishing the survey. MTurkers from whom a request for payment was received were paid 85 cents; median survey completion time for the 504 cases coded as finishing the survey was 196.5 s, for a median hourly rate of about $15. Due to concerns about MTurk quality (e.g., Bai, 2018) and evidence that some workers in MTurk studies limited to the United States have not been located in or from the United States (TurkPrime, 2018), the main reported analysis was limited to the 436 cases that were coded as finished by Qualtrics and did not share with any other case a value for MTurk ID, IP address, or latitude/longitude combination. The online appendix provides details on this sample, which was younger and more educated and had a higher percentage of men, relative to the U.S. population. Statistical analyses were conducted in Stata 15 (StataCorp, 2017). Data and code to reproduce the reported analyses will be at the author's Dataverse. The data collection plan and survey questionnaire were preregistered at the Open Science Framework (https://osf.io/jcvwy/?view_only=d884a5d896f04ec4ae0c90ddebe49d52).

Participants were asked in random order to rate on a five-point scale their feelings about five groups relative to people in general: poor people, wealthy people, unintelligent people, intelligent people, and people who have committed serious crimes; responses were coded with higher values indicating more positive feelings. Participants were then asked in random order to rate the extent to which, in the United States today, genes that a person inherits from their parents influence the probability that the person is poor, influence the person's level of intelligence, and influence the probability that the person commits a serious crime; responses were coded so that higher values indicated higher heritability ratings. Participants were next asked an item measuring their expectation of what human height evolution, if any, would occur if, in the future, shorter people have more children and grandchildren than taller people have; responses were coded with 1 indicating the response that humans would evolve to be shorter than they are now and 0 indicating any other response. This human height evolution item permits assessment of whether support for the eugenic policies asked about associates with the perception that humans would evolve with regard to the non-cognitive trait of height if future human reproductive success were associated with that non-cognitive trait. Participants were then asked an attention check item, which 435 of the 436 participants correctly completed.

Participants were then asked in random order items about eugenic encouragement policies targeting poor people, wealthy people, unintelligent people, intelligent people, and people who have committed serious crimes. For each item, participants could select an option indicating preference for the policy that these people be encouraged to have fewer children, select an option indicating preference for the policy that these people be encouraged to have more children, or select an option indicating a preference for neither policy; responses to these items were coded in five dichotomous variables in which 1 respectively indicated encouraging poor people to have fewer children, encouraging wealthy people to have more children, encouraging unintelligent people to have fewer children, encouraging intelligent people to have more children, and encouraging people who have committed serious crimes to have fewer children, with 0 for each item coded as any other response including the one non-response for the item about wealthy people.

These initial five policy items asked about support for a general policy that did not specify the type or source of encouragement to have more children or fewer children, and this lack of specificity helps ensure that the items measure generalized support for eugenic policies in a way that is not biased due to participants opposing only particular types or sources of eugenic encouragement. However, the five general eugenic policy items were followed by an item that did indicate the type and source of a potentially eugenic policy, based on reports about a Tennessee judge who offered to reduce jail sentences for male inmates who agreed to have a vasectomy and for female inmates who agreed to receive a birth control implant (Conte, 2017; Dwyer, 2017). For this more specific policy item, participants were asked to rate on a five-point scale their feeling about a government program that let prisoners reduce their prison sentence by 30 days in exchange for the prisoners having an operation to prevent them from having children, with responses coded so that the highest value is support strongly.

The final policy item was also specific and was also based on a real-world policy: "dollar-a-day" programs paying teenage girls to not become pregnant again (Lynn, 2001, pp. 189ff; Zaslowsky, 1989; see also Eisen, 2009). Participants were asked to rate on a five-point scale their feeling about a privately-funded program that gave teenage girls $1 per day to not get pregnant, with the experimental manipulation that participants were randomly assigned to receive either an item about teenage girls planning to go to college or an item about teenage girls who have dropped out of high school; responses were coded so that the highest value is support strongly. The experimental manipulation permits assessment of whether support for the dollar-a-day program differs based on the indicated academic trajectory of the teenage girls targeted by the program.

3. Results

Fig. 1 reports percentages of participants who supported each eugenic policy and mean responses for the

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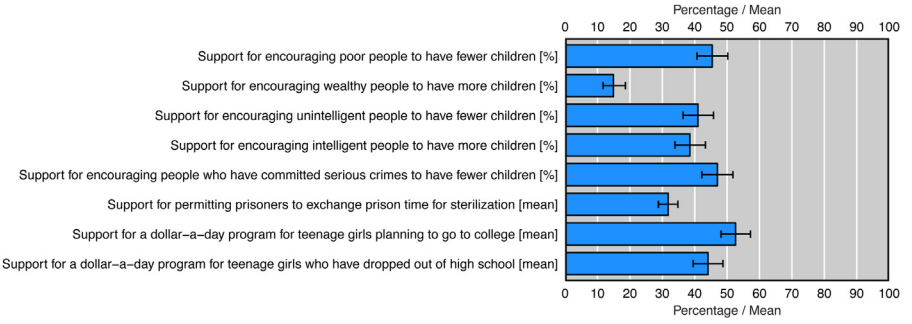

Fig. 1. Sample support for eugenic policies.
Note: the figure reports levels of support for the indicated policy, with error bars indicating 95% confidence intervals for the percentage or the mean. Results are in percentages for the top five items; results are mean responses for the bottom three items, with the five-point scale responses recoded onto a 0-to-100 scale. Most of the "support for encouraging" responses coded 0 were to not encourage more reproduction or less reproduction, with only 3% support for encouraging poor people to have more children, 9% support for encouraging wealthy people to have fewer children, 3% support for encouraging unintelligent people to have more children, 6% support for encouraging intelligent people to have fewer children, and 2% support for encouraging for persons who have committed serious crimes to have more children. The figure was produced in R (R Core Team, 2017) with ggplot2 (Wickham, 2016).

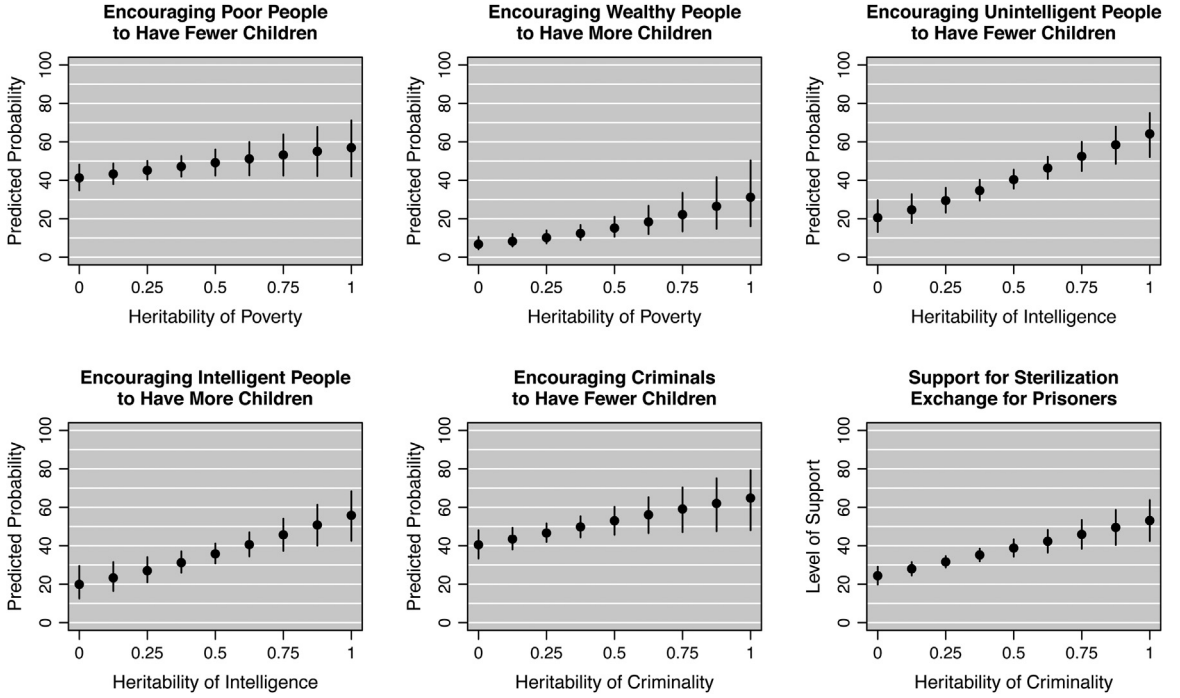

Fig. 2. Perceived heritability correlates of support for eugenic policies.
Note: the figure reports predicted probabilities or predicted means on a 0-to-100 scale for the level of support for the indicated policy, with error bars indicating 95% confidence intervals, based on a logistic regression (encouraging policies) or a linear regression (sterilization exchange), with controls for participant gender, race (White only, Black only, Latino only, and Asian only), education level, age group, partisan agreement, and ideology. The Latino only predictor perfectly predicted in the wealthy people model and was removed from that analysis. The figure was produced in R (R Core Team, 2017).

prisoner sterilization program and the dollar-a-day programs; results indicate nontrivial levels of support for most of these policies, such as at least 40% support for policies encouraging lower levels of reproduction among poor people, unintelligent people, and people who have committed serious crimes. Figs. 2 and 3 report predicted values of support for the eugenic encouragement policies and the prisoner sterilization program as a function of the values of the relevant perceived heritability predictor (Fig. 2) and as a function of the values of the relevant group feelings predictor (Fig. 3). Regressions for Figs. 2 and 3 included the relevant heritability ratings predictor, the relevant group feelings predictor, and controls for participant gender, race, education, age group, partisan agreement, and ideology to help eliminate variation in these control variables as alternate explanations for patterns in the figure; the online appendix reports results without the controls for partisan agreement and ideology, indicating that the substantive patterns in the figure remained the same. Predicted values for Figs. 2 and 3 were calculated with Clarify (King, Tomz, & Wittenberg, 2000; Tomz, Wittenberg, & King, 2001).

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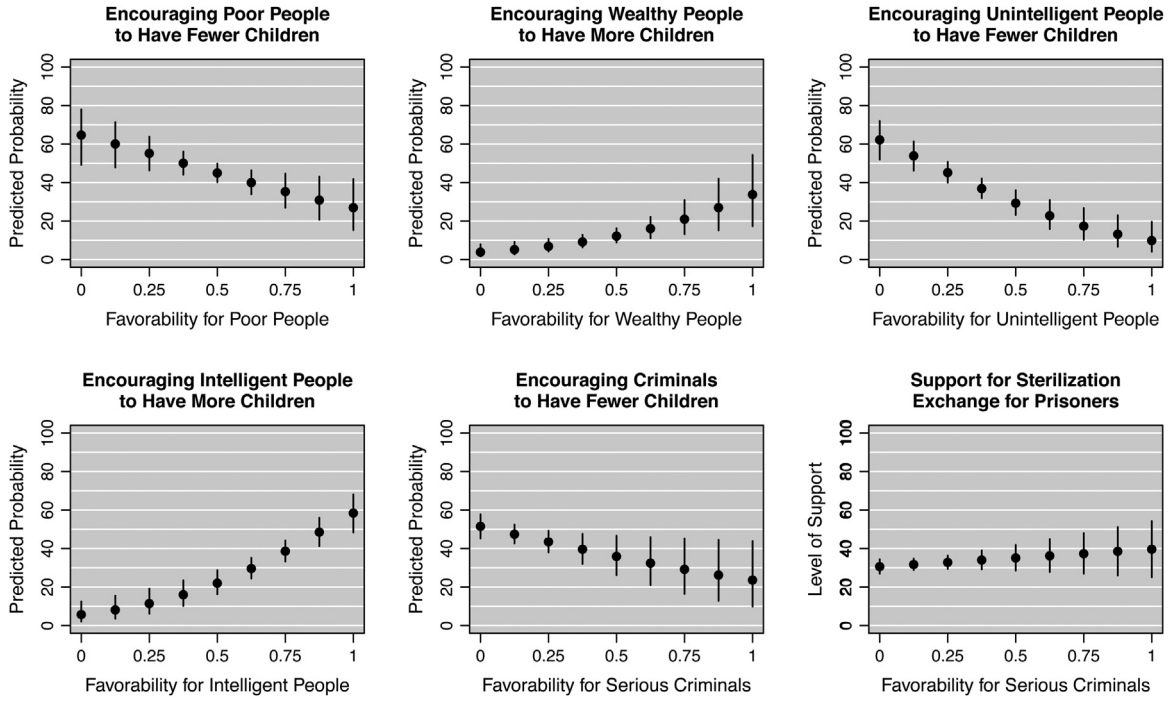

Fig. 3. Group favorability correlates of support for eugenic policies.
Note: the figure reports predicted probabilities or predicted means on a 0-to-100 scale for the level of support for the indicated policy, with error bars indicating 95% confidence intervals, based on a logistic regression (encouraging policies) or a linear regression (sterilization exchange), with controls for participant gender, race (White only, Black only, Latino only, and Asian only), education level, age group, partisan agreement, and ideology. The Latino only predictor perfectly predicted in the wealthy people model and was removed from that analysis. The figure was produced in R (R Core Team, 2017).

In Fig. 2, the relevant heritability predictor had a two-tailed p value less than .05 in all models except for the top left model for the association of the perceived heritability of poverty with eugenic encouragement for poor people to have fewer children ($p = .105$). For each other Fig. 2 model, patterns reflected a plausible association; for example, the top right panel indicates that, all other model variables equal and compared to participants who rated the heritability of intelligence low, participants who rated the heritability of intelligence high were more likely to report support for encouraging unintelligent people to have fewer children. In Fig. 3, the relevant group feelings predictor had a two-tailed p value less than .05 in all models except for the bottom right model for the association of feelings about serious criminals with support for the prisoner sterilization exchange ($p = .292$). For each other Fig. 3 model, patterns reflected a plausible association; for example, the top right panel indicates that, all other model variables equal and compared to participants who rated unintelligent people relatively more positively, participants who rated unintelligent people relatively more negatively were more likely to report support for encouraging unintelligent people to have fewer children.

Responses to the height evolution item were not a reliable predictor when added to the models in place of the heritability predictors; see the online appendix for more information. Levels of support for the dollar-a-day program paying teenage girls to not get pregnant were higher in the experimental condition that asked about teenage girls planning to go to college than in the experimental condition that asked about teenage girls who have dropped out of high school, with respective means of .53 and .44 ($p = .010$ for the difference in means between experimental conditions).

4. Discussion

Many participants in a nonprobability survey supported eugenic encouragement policies, and this support often associated with feelings about the group targeted in the policies and with the perceived heritability of the distinguishing trait of the targeted group. This latter pattern reflects the observation that "... once we frame genes as the cause of a problem, we are likely to also dwell on the notion that genes will represent the solution, and genetic engineering or eugenic policies may show an increase in their appeal" (Dar-Nimrod & Heine, 2011, p. 814). Support for eugenic policies might therefore increase with an increase in public awareness of evidence for the heritability of important human traits (e.g., Polderman et al., 2015) or of the predictive power of genome-wide polygenic scores (e.g., Plomin & von Stumm, 2018).

Moreover, research has indicated that higher levels of genetic attributions associate with higher levels of tolerance of historically stigmatized groups such as the mentally disabled (Schneider, Smith, & Hibbing, 2018), a pattern that is consistent with reduced perceived culpability for traits perceived to be genetically influenced (Suhay & Jayaratne, 2012, p. 514; but see Suhay & Garretson, 2018). However, this association between genetic attributions and toler-

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ance is complicated by results from the survey reported on above, in which heritability ratings positively associated with support for eugenic policies. If this association reflects a causal effect, then such increased genetic attributions can produce increased support for eugenic policies, which can in turn produce outcomes that can reasonably be perceived as negative, especially if this public support leads to the implementation of eugenic policies that target vulnerable populations such as prisoners and the poor.

5. Limitations

The study has limitations that can be addressed in future research. First, eugenics is a term for which there is "substantial variations in meaning" (American Society of Human Genetics, 1998) such that there is not agreement on whether certain policies are eugenic policies. The encouragement policies asked about in the survey are reasonably considered to be eugenic policies because the policies have the potential to increase the frequency of traits that are plausibly perceived to be socially desirable or to reduce the frequency of traits that are plausibly perceived to be socially undesirable; however, participant support for some of the policies might have been due to non-eugenic considerations, such as a participant preferring to discourage reproduction among serious criminals because of the participant's perception that serious criminals are likely to be bad parents. Second, none of the policies asked about in the survey would be implemented by force, so results do not indicate whether patterns would be similar for policies in which reproduction is mandated or prohibited. Third, the associational nature of the data does not permit strong inferences about the extent to which perceived heritability of traits and feelings about a target group have a causal effect on attitudes about the eugenic encouragement policies. Fourth, the set of controls was incomplete, omitting measures such as religious belief that might have important influences on eugenic support (cf. data on religion and attitudes about reproductive genetics in Evans & Hudson, 2007). Fifth, the survey sample was a convenience sample, so strong inferences should not be drawn about patterns in the population. Sixth, the sample was drawn from Amazon Mechanical Turk at a time about which concerns have been raised regarding the quality of some MTurk responses (e.g., Bai, 2018), so there would be value in replicating or extending this study using data from a more representative sample about which these concerns are not present.

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Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at https://doi.org/10.1016/j.soscij.2019.01.003.

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