

Empathy, deservingness, and preferences for welfare assistance: A large-scale online perspective-taking experiment

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Abstract

Online perspective-taking experiments have demonstrated great potential in reducing prejudice towards disadvantaged groups such as refugees or the Roma. These studies trigger the psychological process of empathy and evoke feelings of compassion. Meanwhile, a growing literature argues that compassion towards the poor is an important predictor of support for social welfare. This paper bridges these two literatures and predicts that perspective-taking with the poor could increase support for welfare assistance. This hypothesis is tested with a pre-registered experiment conducted on a large and diverse online sample of US citizens (N=3,431). Our results suggest that participants engaged with the perspective-taking exercise, wrote eloquent, often emotional essays. Nevertheless, perspective-taking had no meaningful causal effect on social welfare attitudes; we can confidently rule out effects exceeding 2 points on a 100 points scale. These results cast serious doubt on perspective-taking as a viable online tool to create compassion towards the poor.

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A large and growing body of research in social psychology argues that empathy is a strong determinant of inter-group attitudes (Batson, Early and Salvarani 1997). Seeing the world through the eyes of a member of an ethnic minority or other disadvantaged groups can reduce prejudice towards these groups (Galinsky and Moskowitz 2000). Accordingly, the intuition that more empathy would make the world a better place seems to be widely held (Bloom 2016). Senator Barack Obama famously stated in a commencement speech that he is more concerned about the “empathy deficit” than about the federal deficit (Obama 2006).

Recently, a number of carefully executed experimental studies in political science have successfully deployed perspective-taking interventions in order to reduce prejudice against members of the Roma minority in Hungary (Simonovits, Kézdi and Kardos 2018), refugees in the U.S. (Adida, Lo and Platas 2018) and transgender individuals (Broockman 2016). The positive – and in some cases long-lasting – effect of these interventions is all the more surprising given that they were based on brief stimuli and, in some cases, without any personal contact with a member of an out-group.

In this manuscript, we report the results of a large-scale, pre-registered online experiment that we designed to probe the scope conditions of perspective-taking as an antidote to exclusionary attitudes. In particular, we hypothesized that if attitudes towards welfare assistance are at least partly driven by a lack of empathy towards the poor (Feldman et al. 2019; van Oorschot 2002), then an intervention that prompts subjects to take the perspective of a poor individual could shift attitudes towards redistribution. For this reason, our experiment seeks to 1) expand the domain of research on perspective-taking, which has so far mostly focused on minorities and 2) to test if preferences about redistribution – which have proven quite rigid in the literature (see e.g. Kuziemko et al. 2015) – can be influenced through enhancing empathy towards the poor.

Our experiment followed the footsteps of classic research on perspective-taking (e.g. Batson, Early and Salvarani 1997). Subjects in our treatment group were provided with a short vignette describing the story of a person facing extreme financial hardship, were instructed to think of how they themselves would cope with the situation facing the person described in the vignette, and finally, were asked to write a short piece of text describing their feelings. The perspective-taking task was designed to evoke empathy and compassion and was developed through a series

of pilot studies. We evaluated the effect of this stimulus using a large online survey experiment deployed to a diverse sample of American adults.

Our findings can be characterized as precisely estimated null results. Using a composite index of redistributive attitudes as an outcome variable, we can confidently rule out effects exceeding 2 points on a 100-point scale. In additional analyses, we show that these null results are not due to the shortcomings of the stimulus: Through an analysis of the corpora of treated and control essays, we show that subjects indeed engaged with the task. The mean lexical diversity of the essays is on par with US presidents' inaugural speeches, and a dictionary-based sentiment analysis shows large differences between the experimental groups on expressed anxiety, sadness, and concern for money and health. Self-reported measures of emotions also show that the task evoked feelings of anxiety and compassion. At the same time, we observe small and inconsistent effects of the treatment on stereotyping and general affect towards the poor. This suggests that affective and cognitive reactions to the hypothetical person depicted in the vignette did not generalize to the group that the target represented.

Overall, our results point to potential limitations of either perspective-taking as a silver bullet assumed to reduce group stereotypes or a commonly used implementation thereof. Contrary to recent high-quality research that has demonstrated how brief interventions can lead to opinion change towards marginalized out-groups (Adida, Lo and Platas 2018; Simonovits, Kézdi and Kardos 2018), our findings provide a counterexample to the power of this paradigm. More generally, similarly to Kuziemko et al. (2015), we provide evidence on the rigidity of preferences towards redistribution even in the face of seemingly powerful interventions.

This study makes several contributions to the literature. First, we contribute to the literature on perspective-taking by investigating the effect of perspective-taking with the poor, a large and relevant social group that has not previously been investigated in this framework. We are pushing the literature further by investigating the effect of perspective-taking on policy attitudes. We are also continuing the methodological exploration for implementing perspective-taking exercises in online surveys. Second, we also contribute to the literature on welfare attitudes by running a rigorous large-scale experiment in a field dominated by observational data (but see Sands (2017)), and by linking the deservingness heuristics with policy attitudes, while most of the literature stops at more proximate outcomes. Third, although multiple recent studies

explored the effects of dispositional empathy on welfare attitudes and polarization (Feldman et al. 2019; Simas, Clifford and Kirkland 2020), these individual differences are likely to be stable over time. Instead, we focus on emphatic concern, which is a psychological *process* experienced by all healthy humans regularly (albeit with different frequency and towards different groups).

Theory

What determines attitudes towards redistribution?

For decades, citizens and scholars alike have been preoccupied with finding the determinants of social welfare attitudes (Campbell et al. 1960). This is hardly surprising given that economic redistribution is a major part of the function of advanced democracies. Most citizens are directly affected by this, first as tax-payers and then, later in life, as recipients of various welfare benefits from health care to old-age pension. Welfare attitudes have been at the epicenter of debates concerning to what extent citizens' policy positions are serving their self-interest. Some accounts argue that citizens' self-interest is at best a very weak predictor of attitudes (Bartels 2005; Fong 2001); others show that strong associations could be found by looking at temporal effects of external shocks (Margalit 2013) or by broadening the definition of self-interest (Weeden and Kurzban 2017). However, it is hardly debatable that self-interest leaves plenty of room for other factors to influence these attitudes. Accordingly, cultural norms and historical trajectories (Alesina and Giuliano 2011), party cues (Bartels 2016), ethnic and racial attitudes (Harell, Soroka and Iyengar 2016) or the microenvironment (Sands 2017) all shape attitudes towards redistribution.

More recently, increasing attention has been paid to the psychological foundations of forming welfare attitudes: How does our mind make the decision to support or oppose (more) welfare spending? To answer this question, it is helpful to consider the experiences of our ancestors. Although social welfare may seem as a modern invention, humans have maintained an intricate system of resource sharing for much of our evolutionary history (Gurven and Jaeggi 2015). Helping the needy has been an important strategy to accumulate favors necessary to increase the chances of survival in times of personal misfortune. However, maintaining these cooperative relationships and avoiding exploitation from free-riders require a sophisticated psychological machinery (Cosmides and Tooby 2016). Accordingly, human sharing decisions are driven by

the deservingness heuristic. Unlucky individuals elicit feelings of compassion and receive help; individuals who are responsible for their own misery elicit feelings of anger or disgust and receive no help (Petersen 2012).

A growing literature argues that powerful intuitions associated with this ancestral cognitive calculus feed into modern-day decisions on welfare attitudes across cultures (Sznycer et al. 2017). Indeed, political scientists building on these insights have demonstrated that news stories containing negative deservingness cues have long-lasting effects on welfare attitudes in both the US and Denmark (Laustsen et al. 2017). Despite large cultural differences between these two countries and a substantial gap in baseline support for welfare, Americans and Danes agree on which needy individuals deserve help and which do not (Aarøe and Petersen 2014). The ancestral logic of resource sharing also helps to explain large and cross-cultural differences between the support for various forms of welfare benefits. Most people consider poor health to be less of a consequence of individual decisions, tag ill people as deserving and, therefore, strongly support public health care. Meanwhile, many people associate unemployment with laziness and tag the unemployed as undeserving, leading to considerably lower public support for unemployment benefits (Jensen and Petersen 2017). There is evidence that stories with epistemic frames employing deservingness cues – accounts focusing on a single needy individual and containing information about whether they are unlucky or lazy – are particularly persuasive and very likely to be transmitted in interpersonal communication (Aarøe and Petersen 2018). This is particularly important for our endeavor as exploiting strong reactions to vivid and intimate details of a single individual’s experiences has been at the core of the perspective-taking literature, too. We consider this area next.

Empathy and perspective-taking experiments

People are prone to automatically and involuntarily take the perspective of other individuals in their environment (Stotland 1969). This should not come as a surprise to anyone who ever winced in pain witnessing a friend (or a cartoon character) smashing their finger with a hammer. While this comes naturally to most of us, it requires a feast of mental computations, including the cognitive ability to predict the internal states of others – “this person feels pain” – and the affective response of experiencing appropriate emotions – “I feel the pain” (Baron-Cohen and

Wheelwright 2004). We refer to this psychological process as *empathy*. Empathy is crucial for navigating social interactions (Baron-Cohen, Leslie and Frith 1985) and plays a significant role in moral reasoning (Kohlberg 1976).

Naturally, empathy do not turn humans into unconditional altruists. While it is an important prerequisite of altruism, it is inhibited in situations of conflict (Batson 1991). Indeed, there is growing evidence that people routinely regulate their empathic response (Decety 2011; Feldman et al. 2019). Yet, given the right conditions, such as a needy and deserving individual, empathy facilitates strong feelings of *compassion*, defined as an emotion “that arises in witnessing another’s suffering and that motivates a subsequent desire to help” (Goetz, Keltner and Simon-Thomas 2010, 351).¹

Social psychologists have long realized that empathy could be triggered in perspective-taking interventions seeking to reduce prejudice. Typically, in lab-based studies, participants were asked to imagine themselves in the shoes of a disadvantaged individual. Early studies focused on the interpersonal relationship between the participant and a target individual and found that perspective-taking often led to an improvement in these relationships (Batson, Early and Salvarani 1997).² Accordingly, a perspective-taking exercise contributes to pro-social emotions and frequently induces a helping behavior towards the target individual. Galinsky and Moskowitz (2000) have pushed this argument further by demonstrating that these beneficial effects do not stop at the individual and could spill over to stereotypes about the target’s group. According to their argument, perspective-taking creates a “self-other overlap” thereby decreasing negative stereotyping and increasing the association of positive traits with the target out-group.

These findings have propelled more recent studies to employ perspective-taking to improve attitudes towards disadvantaged groups outside of the laboratory. Broockman (2016) demonstrated experimentally that canvassers could induce a large and long-lasting reduction in trans-

¹Note that classical works in the perspective-taking literature (e.g. Batson, Early and Salvarani 1997), define empathy analogous to what we call compassion (for a discussion see Goetz, Keltner and Simon-Thomas 2010). We find it more fruitful to define empathy broadly, as feeling others’ feelings which may include compassion, but also anger or sadness. We reserve compassion for feelings inducing a motivation to help.

²Interestingly, the first famous perspective-taking study relied on a heavy dose of deservingness cues upon describing their target individual, Katie Banks, who “was desperately trying to take care of her surviving younger brother and sister while she finished her last year of college ... [after her] parents and a sister had recently been killed in an automobile crash” (Batson, Early and Salvarani 1997, 753)

phobia by asking people to recall an event when they were negatively judged for being different and then to find links between this personal experience and the every-day experiences of trans people. Simonovits, Kézdi and Kardos (2018) facilitated perspective-taking by implementing a role-playing game with realistic scenarios from a Roma adolescent’s life in an online experiment in Hungary. This intervention reduced anti-Roma prejudice and decreased vote intention for the racist far-right party, Jobbik. Finally, in a study most similar to previous lab studies and our own effort, Adida, Lo and Platas (2018) have asked online participants to write short essays taking the perspective of a Syrian refugee. They found that this minimalist, non-intrusive intervention had a positive effect on inclusionary behavior but, interestingly, not on attitudes.

Perspective-taking with the poor

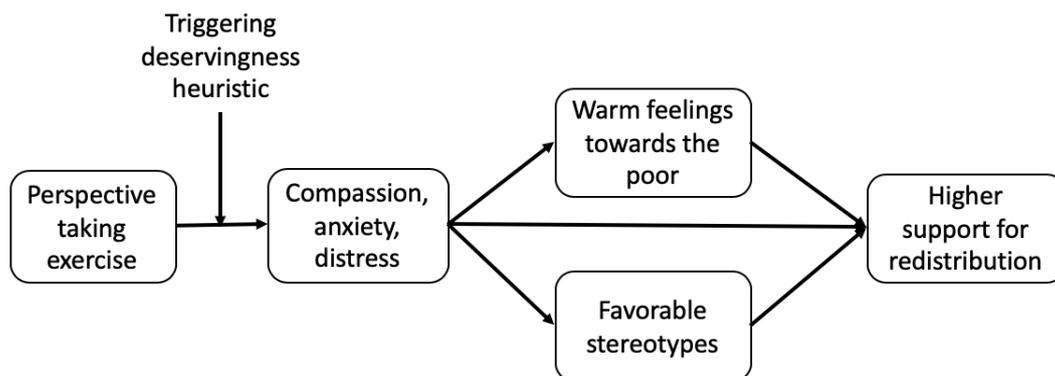
In the UK, the first Cameron government’s Chancellor, George Osborne – the person responsible for cutting welfare benefits – received harsh criticism for his “lack of empathy with the poor”. The head of the UK’s largest provider of food banks proclaimed that Osborne should “try and put [himself] in other peoples shoes” to get a deeper understanding of the causes of poverty (Hasan 2012). Could perspective-taking with the poor really influence preferences for welfare assistance?

To the best of our knowledge, no previous research has investigated if perspective-taking with the poor has a causal effect on welfare attitudes. However, there is evidence that individual differences in empathy play an important role in forming social welfare attitudes. Feldman and Steenbergen (2002, 659) noted that empathy correlates with humanitarianism, “the belief that people have responsibilities toward their fellow human beings and should come to the assistance of others in need”, which, in turn, is an important value underlying welfare attitudes (Hansen 2019). More recently, Gross and Wronski (2019) showed that people higher on empathetic ability (as measured with the “Reading the Mind in the Eyes test) donate slightly more when exposed to a story about a deserving homeless individual. Finally, focusing on individual differences in empathic ability, (Feldman et al. 2019) showed that more empathetic individuals support more help for needy individuals but warned that the effect of empathy on social welfare attitudes is conditional on people’s beliefs in individualism. Among those who strongly believe that people can and should get ahead on their own, higher empathy yields to higher support

for (private) charitable assistance, whereas among those who do not share these views, high empathy yields to high support for social welfare. Below, we report robust correlations between multiple measures of social welfare attitudes and a psychometrically validated multidimensional measure of individual-level differences in empathy utilizing data from the 2008-9 ANES Panel Study.

We organize the discussion of our predictions into three groups: 1) immediate emotional responses, 2) intermediate attitudinal effects, and 3) the effects on social welfare attitudes. A schematic representation of the proposed psychological process is displayed in Figure 1 below. We outlined these expectations in our pre-analysis plan, which was pre-registered at the e-gap website under no. 20190129AB.

Figure 1: Schematic representation of hypothesised psychological process



It is among the most well-established effects of perspective-taking that participants' empathic reactions propel them to experience emotions appropriate to the situation of the target individual, most frequently compassion and personal distress (Batson, Early and Salvarani 1997). Combing these insights with the firm finding that deserving individuals elicit feelings of compassion (Petersen 2012), we predict that participants in the treatment group will experience more help-inducing emotions (compassion, anxiety, and distress).

Next, we expect these emotions to spill over to group-specific attitudes. Again, in line with a large literature on perspective-taking (Batson, Early and Salvarani 1997; Dovidio et al. 2004;

Vescio, Sechrist and Paolucci 2003), we believe that by considering the experiences of a poor individual, participants in the treatment group will rate poor people higher on thermometer ratings. More specifically, we also expect positive changes in the stereotypes most relevant for social welfare attitudes: whether poor people are in general competent or incompetent, whether they are making an effort to change their situation or not, and finally, whether a lack of effort or circumstances beyond their control are to blame for a person's poverty.

Finally, and most importantly, we predict that compassionate emotional reactions along with the positive changes in group-specific attitudes will feed into a positive change in social welfare attitudes. Previous research has demonstrated that simple exposure to episodic frames with deserving individuals affects social welfare attitudes (Aarøe and Petersen 2018). Given the firm evidence that instructions for perspective-taking magnify the emotional impact of others' experience compared to mere observing (Batson, Early and Salvarani 1997), it is reasonable to expect that participants in the treatment group will exhibit higher support for redistributive policies. We define this as our first main hypothesis.

H1. Perspective-taking with people in poverty increases support for redistributive policies.

Yet, we believe that the effect of perspective-taking is not going to be uniform across our entire sample. One reason for the relatively low support for redistributive policies in the US is that large parts of society rarely consider the experiences of poor people. It is reasonable to assume that the less likely a participant was to take the perspective of poor people before the experiment, the larger the effects of the perspective-taking intervention will be. Accordingly, our intervention may prove to be most effective among people who (1) are more affluent (2) do not consider themselves as poor, and (3) have limited contact with poor people. In the limiting case, we clearly do not expect the treatment to have an impact on people who are experiencing economic hardship themselves.³ Given that affluent people traditionally show low support for redistribution, finding a larger treatment effect among them is of particular substantive relevance. We define this as our second main hypothesis.

H2. The marginal effect of perspective-taking with people in poverty on redistribu-

³This is analogous to perspective taking studies targeting prejudice against an ethnic minority only studying members of the ethnic majority.

tive policies is larger among more affluent participants than among less affluent participants.

Data and methods⁴

Exploratory analysis

While our main ambition is to offer an experimental test of the effects of perspective-taking on welfare attitudes, we began our investigation with an exploratory analysis of observational data. Our objective here is to test whether (dispositional) individual differences in empathy are associated with social welfare attitudes in a relatively large, high-quality representative sample of Americans. Although all healthy humans are capable of empathy, a large body of research documents substantial and stable individual differences with regard to how frequently people employ empathy and how strong their emotional reactions are to the misfortunes of other people (Davis 1980).

We rely on data from the 2008-09 American National Election Study Panel Study.⁵ The study interviewed a representative sample of 2,665 US citizens over the internet from January 2008 until September 2009 in 22 waves. We combine data from waves 1 (demographics, party ID, welfare attitudes), 9 (party ID), 10 (party ID, welfare attitudes), 11, 17, 19 (party ID), and 22 (empathy). For variables with multiple measurements, we simply average over all observed values.

Our dependent variable – social welfare attitudes – consists of responses to three policy proposals, each measured twice: 1) attitudes towards “increasing taxes for people who make more than \$200,000 per year”, 2) attitudes towards government “paying for all of the cost of prescription drugs for senior citizens who are living on very little income”, and 3) attitudes towards the government “paying for all necessary medical care for all Americans”. Participants first answered whether they favor or oppose the proposal or neither of the two, and then indicated the strength of their opinion. We recoded these answers into a standard 7-point scale and averaged all answers to obtain a social welfare attitude measure on a 0-1 scale (Cronbach’s

⁴Our pre-registered pre-analysis plan, and all materials necessary for reproducing and replicating our analysis are deposited at https://osf.io/qdvpz/?view_only=84635ec0967341789cd4d67268e2a3d3.

⁵Our pre-analysis plan mistakenly makes one reference (p3) to a trait empathy scale being included in our own survey. We have omitted this battery because of time constraints from the final version of the survey and therefore rely on ANES data here.

alpha = 0.81).

Our key independent variable is based on three facets of Davis’s (1980) classic Interpersonal Reactivity Index (IRI). The IRI measures individual differences in empathy by tapping into 1) people’s “ability and proclivity to shift perspectives ... when dealing with other people”, that is perspective-taking, 2) “the degree to which the respondent experiences feelings of warmth, compassion and concern for the observed individual”, that is empathic concern, and 3) “the individual’s own feelings of fear, apprehension and discomfort at witnessing the negative experiences of others”, that is personal distress (Davis 1980, 11-12). Each of these facets is measured with seven items. We combine all 21 items into a simple additive index of empathy scaled from 0 to 1 (Cronbach’s alpha = 0.74).

As demographic covariates, we include in our models age (in years), gender (dummy for females), education (dummy for having a Bachelor’s degree or higher), race (dummies for black and Hispanic respondents), income (median split), and partisan identity. We run simple OLS models regressing social welfare attitudes on the IRI and demographic covariates. We also report raw correlations between the two indices and their constituent facets or items in Table OA1 in the online appendix.

Table 1: Dispositional empathy is positively associated with social welfare attitudes

	<i>Dependent variable:</i>
	Social welfare attitudes
Empathy index	0.08** (0.04)
Party ID	−0.43*** (0.02)
Age	−0.001*** (0.0004)
Hispanic	0.003 (0.03)
Black	−0.06*** (0.02)
Higher educated	−0.07*** (0.01)
Higher income	−0.06*** (0.01)
Female	0.03*** (0.01)
Constant	0.90*** (0.03)
Observations	1,586
Adjusted R ²	0.36

Note: *p<0.1; **p<0.05; ***p<0.01
Unstandardized regression coefficients with standard errors in parentheses

Our models show that there is a small but meaningful association between individual-level empathy and support for welfare policies; those at the maximum of the empathy scale display

an eight percentage points higher support for welfare policies than those at the minimum of the scale (95% CI 0.002, 0.17). This difference corresponds to a third of a standard deviation in the dependent variable. This is notable given that we adjust for partisan identity (also associated with empathy) and measure our variables several months apart.

Experimental procedure

This study employs a between-subjects design in which treated participants are asked to write a series of short essays about a fictional person described in a vignette. We match the gender of the target with the gender of the participant to make it easier to imagine their situation. The vignette depicts a single parent of two, who has been a victim of a workplace accident and laid off from work. The female version of the stimulus read:

Kate is 35 years old and she has lived alone with her son Tim and daughter Lily since her ex-husband left her a few years ago. Kate always had a regular job, but she has recently been the victim of a serious work-related injury and was subsequently laid off. She is very motivated to get back to work again but her injury and the anxiety she suffers from makes it very difficult for her to find a job. Despite receiving some assistance from the government, Kate struggles to cover daily expenses such as food, bills, and medication and simply does not have enough money to pay her ever-increasing rents. Her landlord now said that they need to move out at the end of the month unless she pays the two months rent she owes. Kate is often worried about the future of her family and blames herself for not being able to provide for her children the life and opportunities they deserve.

Participants are first asked to imagine “a day in the life of this individual as if you were that person, looking at the world through his/her eyes and walking through the world in his/her shoes” (Galinsky and Moskowitz 2000, 711). Then, they receive three essay writing prompts asking to explain “how [they] would feel if [they] were in this situation”, “what ... [they] would be most stressed or anxious about in this situation” and “what [they] would tell [their] children if they said that it was unfair that their life is so much harder than their friends’ at school”.

Previous research has demonstrated that similar essay writing tasks are effective tools to facilitate perspective-taking both in laboratory and online environments (Adida, Lo and Platas

2018; Batson, Early and Salvarani 1997; Galinsky and Moskowitz 2000). Subjects in the control group are asked to write about a movie they watched recently. Following the essay writing task, participants received a task unrelated to the experiment as a distractor and proceeded to answer the outcome measures afterwards.

Dependent measures

Our main outcome of interest is based on a comprehensive battery of 10 items based on and extending established measures in the literature (Broockman 2016; Brown-Iannuzzi et al. 2015). The questions span several fundamental issues of social welfare from health care and affordable housing through income tax to universal basic income. Our items focus primarily on policies concerning redistribution *to* needy individuals (as opposed to taxing the rich), which are most influenced by other-oriented concerns (Cavaillé and Trump 2015). Therefore, these items let us investigate whether a perspective-taking exercise is a viable tool for increasing support for redistributive policies.

To probe the possible mechanism of an effect, we also measured a set of potential mechanisms. We asked participants a series of questions related to their feelings about and attitudes towards the poor. In particular, we asked them a set of questions probing their stereotypes about the poor (e.g. competence, making an effort) as well as a feeling thermometer asking them their general affect towards poor people along with a set of other groups (e.g. old people, African Americans) deployed as placebos. To get at possible affective mechanisms, we also asked a series of questions tapping the general emotional state of subjects.

Last, while this set of analyses was not declared in the pre-analysis plan, we also constructed measures of emotional engagement based on the essays themselves. For this, we conducted a sentiment analysis relying on the relevant dimensions from the Linguistic Inquiry and Word Count (LIWC) dictionary. Specifically, we expected the treatment essays to score higher on negative emotions (and anxiety, sadness, and anger in particular), money, health, risk, work, and home. Meanwhile, we expected the control essays to score higher on positive emotions, leisure, and seeing.

Participants

We recruited 3,431 US citizens (mean age = 45 years, 51% female, 72% white) through Lucid, a large marketplace for online survey panels (Coppock and McClellan 2018). Lucid is an attractive alternative to more established convenience samples (e.g. MTurk) for two reasons. First, it applies quota sampling, which means that the marginal distribution of various demographic characteristics (age, gender, education, race, and region) mirrors population distributions. Second, it has a much larger and thus much less experienced subject pool than most alternatives.

We report summary statistics for the sample in Table 2; which also presents evidence of balance across experimental conditions. Standard deviations are reported in parentheses along the group means. Our sample is diverse in terms of age, gender, race, and education but leans slightly towards the Democrats. The table also demonstrates that the randomization procedure leads to experimental groups that are similar to each other with respect to these demographic characteristics.

Table 2: Sample characteristics by treatment group

	variable	control	perspective
1	age	44.67 (16.95)	44.64 (16.58)
2	female	0.51 (0.5)	0.52 (0.5)
3	white	0.72 (0.45)	0.73 (0.44)
4	highered	0.4 (0.49)	0.4 (0.49)
5	democrat	0.48 (0.5)	0.47 (0.5)
6	republican	0.36 (0.48)	0.37 (0.48)
7	N	1781	1650

Analysis

We estimate the effect of the perspective-taking exercise on stereotypes about the poor and redistributive preferences by comparing the responses of participants across the treatment and the control group. All outcome measures are recoded to a 0-100 scale. The models are simple OLS regressions that include a binary variable for being in the treatment group and adjust for partisan identity, age, having completed higher education, being female, and identifying as white. These covariates were declared in our pre-analysis plan.

Our design seeks to maximize the treatment effects, and thus, any positive findings could be considered upper-bounds for the impact of a more realistic intervention. First, by depicting the target as an unlucky person who cannot work but would like to, we trigger the deservingness heuristic. Deserving individuals elicit compassion and motivate sharing and higher support for welfare redistribution across cultures and party lines (Aarøe and Petersen 2014; Delton et al. 2018; Petersen 2012). Second, although we include a brief distractor task, we measure the outcome a few minutes after exposure to the treatment. Accordingly, this study could detect treatment effects even if they decayed quickly.

Results

Overall, the perspective-taking exercise had very little effect on the outcome measures. All estimates are substantively small, and most of them are not statistically significant despite our large sample size. We briefly report the main substantive findings here with all pre-registered models reported in detail in the online appendix.

Most importantly, we failed to find any effect of the perspective-taking class on policy preferences. Participants' support for more welfare was the same irrespective of whether they wrote an essay about a poor person or about a movie ($\beta = 0.9$, $se = 0.6$, $t = 1.5$, n.s. see also Table OA5). Put differently, we can reject with very high confidence ($t = -3.33$, $p < 0.001$) that our treatment effect is smaller than 1.5 points (7% of a standard deviation in the dependent variable), which is the smallest effect we could have detected with 80 percent power given our sample size (Lakens 2017). In the rest of our empirical analyses, we seek to provide at least some suggestive explanation for the lack of meaningful effects.

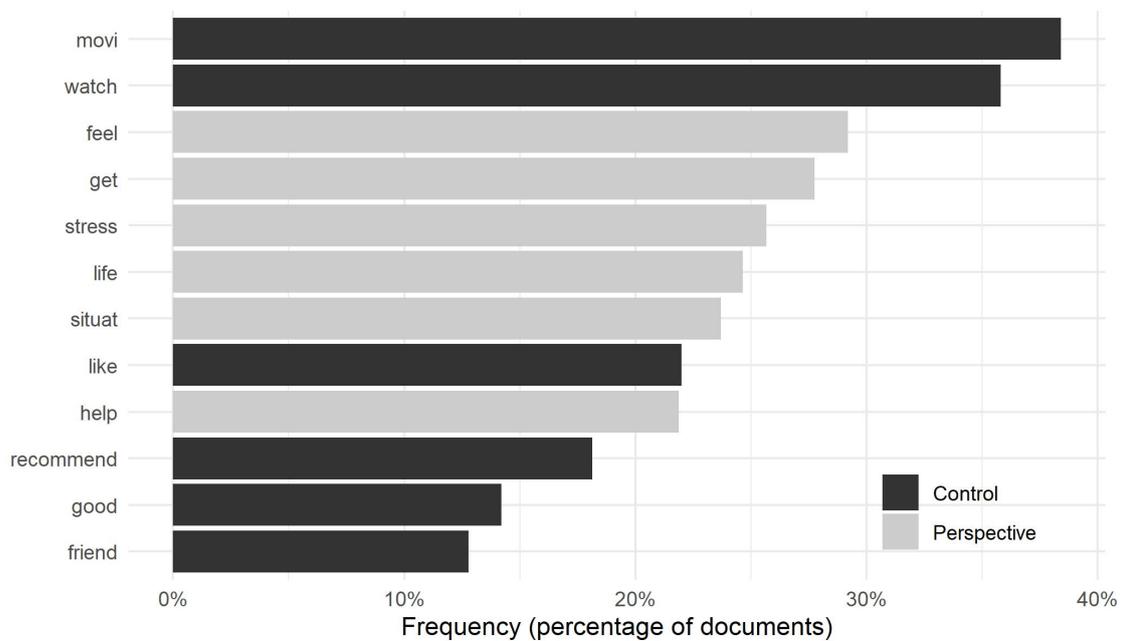
First, using quantitative text analyses we analyzed essays written by subjects in both groups in order to check if these tasks were taken seriously and whether the content of the essays written by treated subjects is consistent with our predictions. We do so by calculating the lexical diversity of the essays, by comparing the most frequent words in the two groups, and by conducting an exploratory sentiment analysis.

Our analyses of the corpora of essays were reassuring. First, we found that most respondents took the task seriously and wrote essays of adequate lengths. Participants in the control conditions wrote five sentences (78 words) on average. Meanwhile, participants in the treatment

(receiving three prompts asking for three sentences each) wrote eight sentences (144 words) on average. Relying on Type-Token Ratio as a simple measure of lexical diversity, we find a mean of $m = 0.67$ ($SD = 0.12$). To put this number in perspective, post-World War II US presidents' inaugural speeches had an identical lexical diversity, when we adjust for mean essay length with the Moving-Average Type-Token Ratio measure (Covington and McFall 2010).

Second, as demonstrated by Figure 2, an analysis of the most frequent words by conditions reveals that participants in the control indeed wrote about a *movie* they *watched*, *liked*, or would *recommend*, presumably because they found it *good*. Meanwhile participants in the treatment group wrote about how they *feel* and how they would *get stressed* if they were living the *life* or were in the same *situation* as the target in need of *help*.

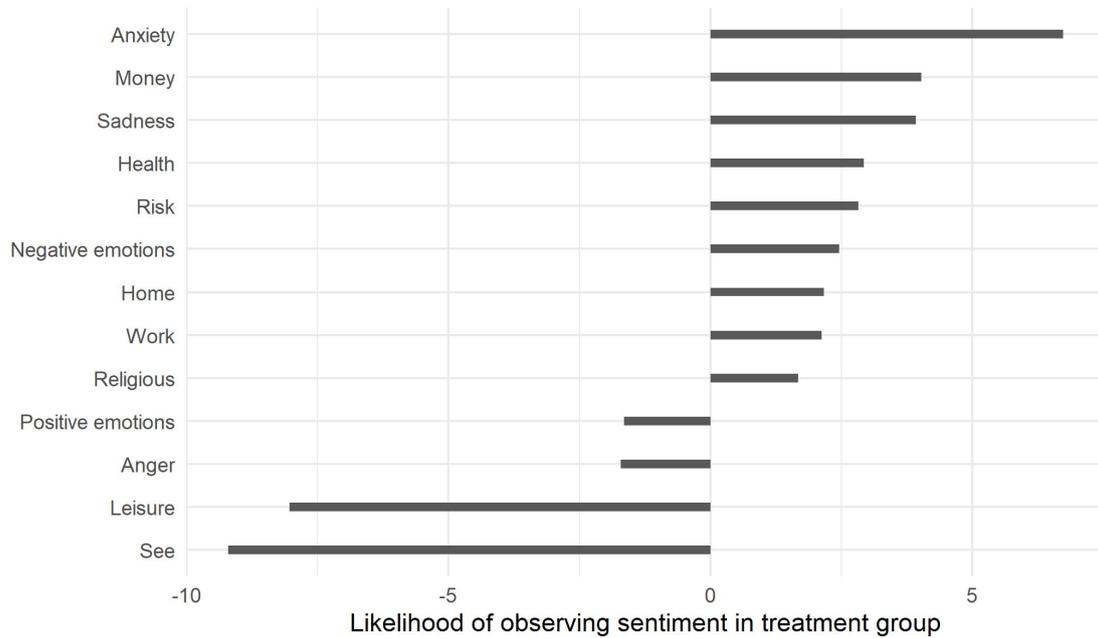
Figure 2: The most frequent word-stems in the control and treatment groups



More importantly, an exploratory sentiment analysis also gives a very strong impression that participants took the essay writing task seriously (see Figure 3). People in the treatment used almost seven times as many words related to anxiety, four times as many words related to money and sadness, around 3 time as many words related to health, and risk, and twice as many words related to negative emotions, home, work, and religion. Meanwhile, participants in the control group used words related to seeing almost ten times more often, words related to leisure eight times more often, and words related to positive emotions almost twice more often.

Somewhat surprisingly, we found that participants in the control wrote almost twice as many words related to anger.

Figure 3: Sentiment analysis of essays in the treatment and control groups



Given the apparent success of our experiment in eliciting eloquent, often emotional essays, we sought to assess the more proximate effects implied by existing research on perspective-taking. First, taking the perspective of a deserving, poor individual had a minor effect on subjective emotions (see Table OA2). Although we find a small positive (5-7%) effect on emotions inducing helping behavior (compassion, anxiety, and being upset), similar effects are found for emotions inhibiting help (disgust, anger). We find a small (-2%) negative effect on boredom.

Second, the treatment had a small (1%) positive effect on stereotypes about the poor as measured by a feeling thermometer (see Table OA3) and perceptions of making an effort. Both of these effects are significant at the 0.1 threshold. There were no effects on our other stereotype measures, competence and the individual responsibility in being poor (see Table OA4). Given these findings, it is perhaps not surprising that we fail to reject the null when it comes to redistributive preferences.

It is noteworthy that we find no evidence for conditional effects either. Section C in the online appendix tests our pre-registered hypothesis that the marginal effect is larger among more affluent respondents. Meanwhile, Section D in the online appendix presents a post-hoc

analysis exploring whether the marginal effect of the treatment is larger among Democrats. While the latter proposal would be consistent with a recent theory by Feldman et al. (2019), our models show no support for it, as the marginal effects are consistently close to zero.

Discussion

In this paper, we have tested whether perspective-taking is a viable tool for increasing support for welfare redistribution. Relying on an original, carefully designed, well-powered, and pre-registered survey experiment fielded to a representative sample of US citizens, we found that it is not. Similarly to successful interventions, we tested the impact of a particular stimulus, describing the experiences of a single target and emphasizing a particular set of challenges that poor people in the US face (unemployment, health problems, housing problems, single parenthood). Thus, our conclusions about the possible effectiveness of perspective-taking intervention are necessarily limited: We have no way of knowing if large or even small changes in the stimulus used here could have led to a more effective intervention.

This leads to the question of the extent to which these null findings advance our understanding of either the class of interventions or the substantive target attitude that we study. This issue should be understood in the broader context of how the published experimental literature characterizes the effect of a different class of interventions. There is ample evidence that published research over-represents successful interventions compared to the universe of social science experiments (Franco, Malhotra and Simonovits 2014; 2016). For a more complete understanding of how a given class of interventions – such as perspective-taking – works, one also needs to consider unsuccessful examples.

That said, it is also important to emphasize why we think that our null results are *surprising*. First, our experimental design relied on a heavy dose of deservingness cues, which, according to previous research, has a large and sometimes long-lasting effect on support for redistribution. We expected the perspective taking exercise to amplify the effects of these deservingness cues but found that it nullified it.

Second, our findings are surprising considering a growing line of research employing perspective taking to reduce prejudice against various groups from refugees to transgender individuals. Our results suggest that prejudice against the poor and attitudes towards government help for

the poor may be more difficult to shape than attitudes towards these other marginalized groups.

Third, our experimental design likely constitutes a liberal test of our hypothesis. Besides relying heavily on deservingness cues, we measure the dependent variable with a composite index of ten items after a distractor task lasting a few minutes. For this reason, the experiment should be able to pick up even small, fleeting effects. Finally, it is noteworthy that the analysis of the essays reveals that participants have been very attentive and engaged in the exercise. We have no reason to believe that if we had conducted our experiment in the lab, we would see different results.

At the same time, the literature also offers some explanations for our failure to bring about attitude change using our perspective-taking intervention. On the one hand, our treatment might have proven too weak in the sense that even though subjects felt empathy towards the individual depicted in the vignette, these emotions did not spill over to people in need in general, perhaps because subjects viewed the vignette as an “exception” to some deeply held stereotypes about poor people.

On the other hand, intense exposure to a story about a person in need might have led to emotional reactions moving counter to our hypothesized effect. For instance, as argued by Sands (2017) exposure to poverty might have provoked anxiety in subjects about their own relative status, suppressing their support for policies helping others. Similarly, as pointed out by Simas, Clifford and Kirkland (2020), heightened empathy might exacerbate in-group bias, leading to hostile attitudes towards members of an out-group.

Conclusion and Implications

We believe that our findings have relevant implications for theory and practice. For students of the deservingness heuristic, our paper raises the interesting possibility that deliberation provides an opportunity for people to overcome the grip of deservingness cues and revert to their baseline attitudes. While being engaged in the perspective-taking task, participants’ partisan motivations had ample opportunity to hijack the more intuitive responses propelled by deservingness cues. It is an important task for future research to more carefully examine the boundary conditions for the causal effect of deservingness heuristics.

Meanwhile, the reader interested in perspective-taking is reminded that not all disadvan-

tagged groups are created equal. In particular, it is noteworthy that most previous studies focus on out-groups, which the participant had little risk of joining. Few people in rich Western democracies become a refugee, a Roma, or a transgender individual through a series of unfortunate events. In this sense, being poor is a markedly different experience, and consequently, our mind is likely to represent the poor differently. Exploring these differences in more detail could aid our understanding of the surprising results in this study.

Finally, and perhaps most importantly, this paper reminds practitioners, political parties and NGOs that changing attitudes towards redistribution are a tremendous challenge. Even if these actors can convince citizens to engage in a perspective taking task – securing their attention for at least ten minutes and engaging them sufficiently so they would write short essays – they may fail to shape their attitudes towards the poor, and consequently, may be ineffective in propelling action. Our study is a reminder that despite a series of promising and highly publicized recent findings, perspective-taking is not a silver bullet; inter-group prejudice is likely to remain a source of social tension for the years to come.

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Online Appendix

A ANES Descriptives and correlation matrix

Table OA1: Raw correlations between welfare attitudes, empathy and their components

	names	mean	sd	1	2	3	4	5	6	7	8
1	Empathy index (IRI)	0.52	0.14	1	0.77	0.45	0.68	0.16	0.12	0.12	0.14
2	Empathic concern	0.67	0.19	0.77	1	-0.04	0.53	0.12	0.08	0.08	0.13
3	Personal distress	0.36	0.18	0.45	-0.04	1	-0.19	0.13	0.10	0.13	0.08
4	Perspective-taking	0.65	0.16	0.68	0.53	-0.19	1	0.03	0.03	0.01	0.04
5	Welfare attitude index	0.64	0.27	0.16	0.12	0.13	0.03	1	0.77	0.84	0.75
6	Taxing the rich	0.65	0.35	0.12	0.08	0.10	0.03	0.77	1	0.43	0.36
7	Government healthcare	0.50	0.39	0.12	0.08	0.13	0.01	0.84	0.43	1	0.49
8	Government drugs	0.77	0.29	0.14	0.13	0.08	0.04	0.75	0.36	0.49	1

B Estimates accompanying the analysis of our experiment

The following four tables provide estimates briefly reported in the main text concerning the sample average treatment effect on 1) perceived emotions, 2) thermometers, 3) stereotypes and 4) redistributive preferences. In every table, the first line called “perspective-taking” reports the estimated difference between the control and treatment groups. All tables report unstandardized regression coefficients with standard errors in parentheses.

Table OA2: Sample average treatment effects on emotions

	<i>Dependent variable:</i>					
	Compassionate	Anxious	Upset	Disgusted	Angry	Bored
	(1)	(2)	(3)	(4)	(5)	(6)
Perspective taking	5.3*** (1.1)	5.2*** (1.1)	6.7*** (1.0)	4.8*** (1.0)	4.2*** (1.0)	-2.2** (1.0)
Republican	3.6** (1.6)	-0.7 (1.7)	-1.0 (1.6)	0.6 (1.5)	-0.5 (1.5)	-1.8 (1.6)
Democrat	5.2*** (1.6)	0.3 (1.7)	-0.3 (1.5)	0.6 (1.4)	-0.1 (1.5)	-0.5 (1.5)
Higher Education	1.2 (1.1)	-1.0 (1.2)	0.7 (1.1)	1.2 (1.0)	1.0 (1.0)	-1.7 (1.1)
White	0.3 (1.3)	-0.2 (1.3)	1.5 (1.2)	-1.7 (1.2)	0.3 (1.2)	1.6 (1.2)
Age	-0.1*** (0.03)	-0.6*** (0.03)	-0.5*** (0.03)	-0.5*** (0.03)	-0.4*** (0.03)	-0.6*** (0.03)
Female	5.9*** (1.1)	-1.1 (1.1)	-3.7*** (1.0)	-5.5*** (1.0)	-5.7*** (1.0)	-3.2*** (1.0)
Constant	59.0*** (2.1)	63.4*** (2.3)	43.1*** (2.1)	32.5*** (2.0)	37.7*** (2.0)	57.5*** (2.1)
Observations	3,402	3,400	3,394	3,384	3,383	3,391
Adjusted R ²	0.02	0.1	0.1	0.05	0.1	0.1

Note:

*p<0.1; **p<0.05; ***p<0.01

Table OA3: Sample average treatment effects on group thermometers

	<i>Dependent variable:</i>			
	Poor	Black	Disabled	Old
	(1)	(2)	(3)	(4)
Perspective taking	1.3* (0.8)	-1.0 (0.8)	-0.1 (0.7)	-0.1 (0.7)
Republican	-1.4 (1.2)	-2.9** (1.3)	1.9* (1.1)	2.7*** (1.0)
Democrat	5.8*** (1.1)	7.6*** (1.2)	3.7*** (1.0)	3.1*** (1.0)
Higher Education	-0.6 (0.8)	0.1 (0.8)	-1.6** (0.7)	-1.1 (0.7)
White	1.7* (0.9)	-4.3*** (1.0)	0.8 (0.8)	1.0 (0.8)
Age	0.1*** (0.02)	0.1*** (0.02)	0.2*** (0.02)	0.3*** (0.02)
Female	4.2*** (0.8)	4.3*** (0.8)	4.8*** (0.7)	4.4*** (0.7)
Constant	65.3*** (1.6)	68.1*** (1.6)	67.3*** (1.4)	64.8*** (1.3)
Observations	3,423	3,423	3,423	3,423
Adjusted R ²	0.04	0.1	0.04	0.1

Note:

*p<0.1; **p<0.05; ***p<0.01

Table OA4: Sample average treatment effects on stereotypes

	<i>Dependent variable:</i>		
	Make an effort	Competent	Circumstances
	(1)	(2)	(3)
Perspective taking	1.6* (0.9)	0.6 (0.8)	-0.6 (0.8)
Republican	-6.3*** (1.4)	2.1* (1.2)	-2.1* (1.2)
Democrat	5.9*** (1.3)	5.8*** (1.2)	-5.8*** (1.2)
Higher Education	2.5*** (0.9)	1.0 (0.8)	-1.0 (0.8)
White	-2.2** (1.1)	-0.8 (0.9)	0.8 (0.9)
Age	-0.2*** (0.03)	-0.1*** (0.02)	0.1*** (0.02)
Female	-0.6 (0.9)	0.3 (0.8)	-0.3 (0.8)
Constant	69.8*** (1.8)	65.6*** (1.6)	34.4*** (1.6)
Observations	3,423	3,423	3,423
Adjusted R ²	0.1	0.01	0.01

Note:

*p<0.1; **p<0.05; ***p<0.01

Table OA5: Sample average treatment effects on redistributive preferences

	<i>Dependent variable:</i> Redistributive preferences
Perspective taking	1.0 (0.6)
Republican	-11.6*** (0.9)
Democrat	6.9*** (0.9)
Higher Education	-1.5** (0.6)
White	1.6** (0.7)
Age	0.1*** (0.02)
Female	4.1*** (0.6)
Constant	61.3*** (1.2)
Observations	3,423
Adjusted R ²	0.2

Note:

*p<0.1; **p<0.05; ***p<0.01

Unstandardized regression coefficients with standard errors in parentheses

C Moderation by income

In our pre-analysis plan, we proposed a theory suggesting that one reason for the relatively low support for redistributive policies in the US is that large parts of society rarely consider the experiences of poor people. Accordingly, we expected that the less likely a participant was to take the perspective of poor people before the experiment, the larger the effects of the intervention will be. Therefore, our intervention may prove to be more effective among people who (1) are more affluent (2) do not consider themselves as poor, and (3) have limited contact with poor people. In the limiting case, we clearly do not expect the treatment to have an impact on people who are experiencing economic hardship themselves. The latter stipulation is analogous to perspective-taking studies targeting prejudice against an ethnic minority by only studying members of the ethnic majority. Given that affluent people traditionally show low support for redistribution, finding a larger treatment effect among them is of particular substantive relevance.

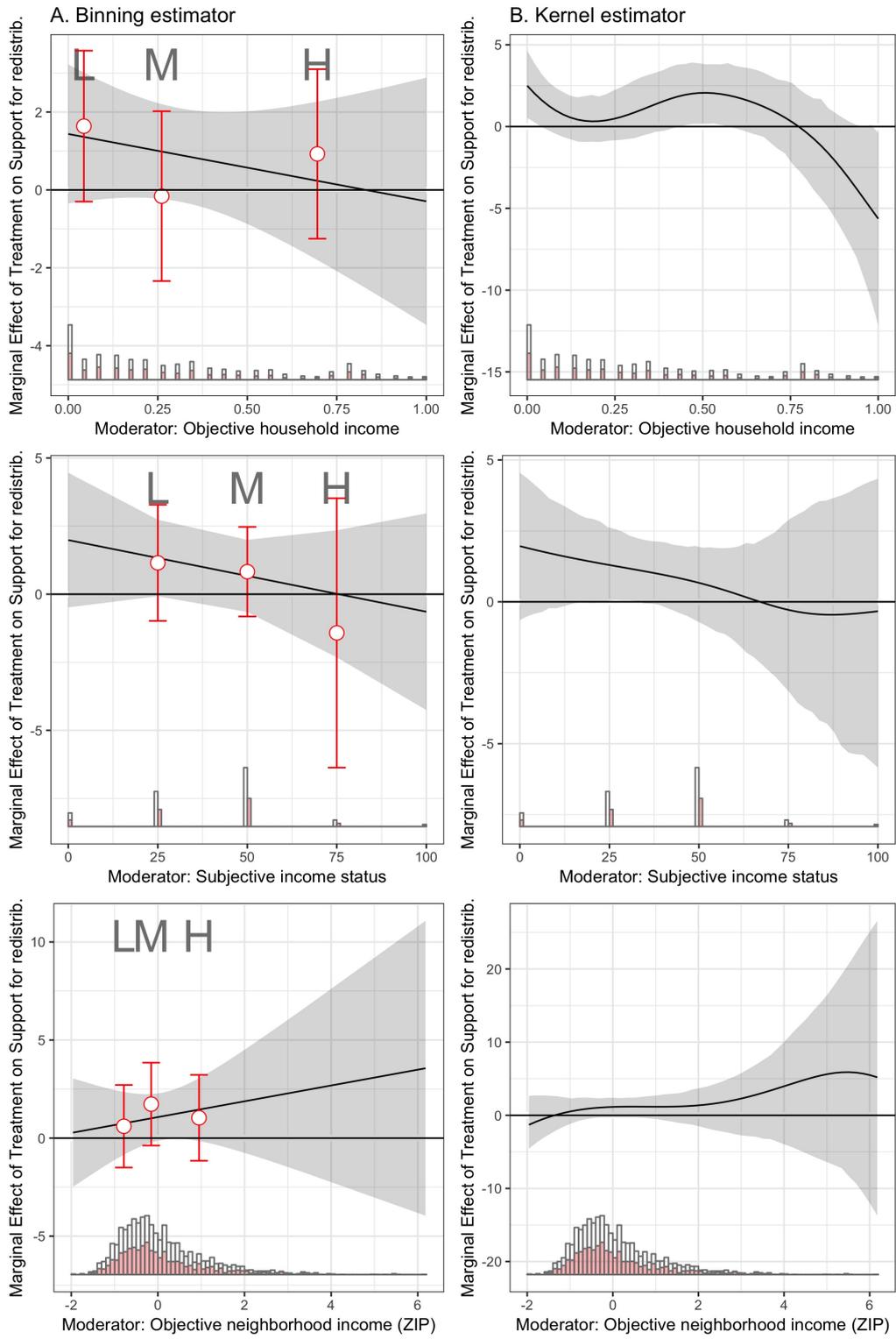
To test these predictions, we measured respondents' (1) self-reported household income, and (2) subjective income status, and (3) an objective measure of affluence in the respondents' place of living. Full question wording and additional data sources for residential affluence are available in the study's pre-analysis plan. Consequently, we estimated the treatment effect of the perspective-taking experiment on support for redistributive policies conditional on each of these three measures. We have no particular theoretical reason to believe that the effect of the perspective-taking exercise changes linearly at a constant rate with income. Therefore, we relax the stringent linear interaction effect assumption and rely primarily on the binning estimator and the kernel estimator in our analyses (Hainmueller, Mummolo and Xu 2019).

The binning estimator bins the moderator (our measures of income) into three roughly equally sized groups and estimates the marginal treatment effect independently in each bin. Thereby, we receive an estimate of the average treatment effect for observed low, middle, and high levels of income. The kernel estimator extends this idea by relying on a larger number of bins and applying a kernel reweighting scheme to estimate the smoothed marginal effect across the entire range of the moderator. All models adjust for basic demographic covariates (age, gender, education, race, partisanship), as specified in the pre-analysis plan.

Overall, we find no evidence that the perspective-taking exercise has increased support

for redistributive preferences in any income group. Figure OA1 demonstrates that no matter which income measure or estimation method we rely on, there is no evidence that the marginal treatment effect increases with income. Indeed, if anything, both of our individual level measures (objective household income and subjective income status) hint that more affluent respondents were less likely to respond to treatment. This may provide a tentative explanation for our results: While poor people are more likely to take the perspective of another poor individual, they already highly support more redistribution. Meanwhile, more affluent respondents who are further away from the ceiling are seemingly less likely to take the target's perspective and, thus, do not change their redistributive policy preferences.

Figure OA1: Models exploring marginal effects conditional on income



D Moderation by partisan identity

As a post-hoc analysis, we investigate whether the effect of the perspective-taking tas is conditional on partisan identity. To do so, we include an interaction between the treatment variable and the two partisan identity dummies (Republicans and Democrats) in our model. Figure OA2 below shows the marginal effect of the treatment, conditional on partisan identity. Neither our model, nor the marginal effects plot shows any evidence of a significant interaction between the treatment and partisan identities. Support for welfare assistance is close to equal in the control and treatment groups across all levels of partisan identity.

Figure OA2: Marginal effects conditional on partisan identity

