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# Endorsing Help For Others That You Oppose For Yourself: Mind Perception Alters the Perceived Effectiveness of Paternalism

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*How* people choose to help each other can be just as important as how *much* people help. Help can come through relatively paternalistic or agentic aid. Paternalistic aid, such as banning certain foods to encourage weight loss or donating food to alleviate poverty, restricts recipients' choices compared with agentic aid, such as providing calorie counts or donating cash. Nine experiments demonstrate that how people choose to help depends partly on their beliefs about the recipient's mental capacities. People perceive paternalistic aid to be more effective for those who seem less mentally capable (Experiments 1 and 2), and people therefore give more paternalistically when others are described as relatively incompetent (Experiment 3). Because people tend to believe that they are more mentally capable than are others, people also believe that paternalistic aid will be more effective for others than for oneself, effectively treating other adults more like children (Experiments 4a–5b). Experiencing a personal mental shortcoming—overeating on Thanksgiving—therefore increased the perceived effectiveness of paternalism for oneself, such that participants thought paternalistic antiobesity policies would be more effective when surveyed the day after Thanksgiving than the day before (Experiment 6). A final experiment demonstrates that the link between perceived effectiveness of aid and mental capacity is bidirectional: Those receiving paternalistic aid were perceived as less mentally capable than those receiving relatively agentic aid (Experiment 7). Beliefs about how best to help someone in need are affected by subtle inferences about the mind of the person in need.

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As members of a highly interdependent species, people not only try to improve their own well-being, but also try to improve others' well-being. People can choose to help themselves and others in various ways. A person can give books to a poor student, or give cash that the student could use to buy whatever is needed most. A government agency can help its citizens lose weight by banning large sugary drinks, or by providing clearer calorie information about large sugary drinks. These options vary in how paternalistically they treat the recipient. Providing or banning specific goods is more paternalistic because it restricts the recipient's choice compared with giving cash or information. Not all forms of aid, of course, are equally effective, meaning that *how* people choose to help may be just as important as *how much* people choose to help.

We propose that how people help depends partly on subtle inferences about the minds of those being helped. Specifically, we predict that paternalistic aid will seem more effective for those perceived to have weaker mental capacities. This prediction has five important implications. First, to the extent that the perceived effectiveness of aid guides actual decisions about aid, people will be more likely to choose paternalistic forms of aid for those described as less mentally capable. For instance, giving food to someone in need (a relatively paternalistic form of help) should seem more effective than simply giving cash (a relatively agentic form of help) when the needy person seems less mentally capable. Second, how *much* people give is guided by the magnitude of a person's need (Cuddy, Rock, & Norton, 2007; Levine, Prosser, Evans, & Reicher, 2005; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), meaning that decisions about how to give versus how much to give may be guided by different mechanisms. Third, because people tend to believe that they are more mentally capable than others (see Waytz, Schroeder, & Epley, 2014, for a review), people will believe paternalistic policies are more effective for others than for themselves, partially explaining public resistance to

relatively paternalistic policies. Fourth, experiencing a mental shortcoming should increase the perceived effectiveness of paternalism targeted toward oneself. Immediately after overeating at a birthday party, a dieter may recognize that banning desserts from one's home is an effective weight loss strategy. Fifth, if the perceived effectiveness of paternalism is related to the mental capacity of recipients, then the inverse inference should also exist. Those receiving paternalistic aid may be perceived to be less mentally competent. Paternalistic aid may, in this way, be relatively dehumanizing. We designed a series of experiments to test our prediction and these five implications.

## Connecting Mind Perception to Paternalism

Making inferences about others' mental capacities is a complicated, but central, feature of social life. Whereas a person's own mental capacities can be experienced directly from an internal perspective, others' mental capacities must be indirectly inferred from an external perspective (such as through others' words and observed actions; Epley & Waytz, 2010; Jones & Nisbett, 1972; Malle, Knobe, & Nelson, 2007; Pronin, 2009). This inferential guesswork about another person's mind creates a systematic bias such that other minds often appear less capable—less sophisticated, agentic, and rational—than one's own (Haslam, Bain, Douge, Lee, & Bastian, 2005; Waytz et al., 2014). For example, people tend to believe that they are better able than others to avoid cognitive biases (Pronin, Gilovich, & Ross, 2004; Pronin, Lin, & Ross, 2002) and to exercise their free will (Pronin & Kugler, 2010).

Representing another person as lacking the capacity to think and feel is the essence of dehumanization, whereby the other person's intellect may seem more like a nonhuman animal or object than like a mentally sophisticated human being (Demoulin et al., 2004; Gray, Gray, & Wegner, 2007; Haslam & Loughnan, 2014). Prior research identifies certain groups, such as homeless people, drug addicts, and children, who are presumed to have relatively weak mental capacity (Fiske, Cuddy, & Glick, 2007; Harris & Fiske, 2006; Leyens et al., 2000). This dehumanizing attribution can be consequential: For instance, it can lead to moral disregard and lower likelihood of helping the person (Bandura, Underwood, & Fromson, 1975; Cuddy et al., 2007; Gray, Waytz, & Young, 2012; Levine et al., 2005). As one example, in the aftermath of Hurricane Katrina, White and Black individuals reported that they were more interested in helping their ingroup members (same-race) than outgroup members (different-race), in part because they attributed more humanlike secondary emotions to their ingroup (Cuddy et al., 2007). Although dehumanization can take two separate forms— denying someone the capacity to think or to feel (i.e., lacking agency or experience, respectively; Gray et al., 2007)—here we focus on beliefs about recipients' agentic mental capacities because they are most directly related to a person's presumed ability to benefit from agentic versus paternalistic forms of aid.

We propose that inferences about another person's agentic mental capacities affect not only the decision of *whether* to help but also *how* to help. Specifically, paternalistic approaches to helping should seem more effective among individuals who appear to have weaker mental facilities. "Paternalism" comes from the Latin word for "fatherly" (*paternus*), and therefore implies some authoritarian supervision. In policy settings, paternalism is defined as aid that

restricts freedom of choice (Baker, 2015). This can include restricted-use donations, such as giving food to a person in need rather than cash, or banning consumer products deemed harmful to another's well-being. From an individual's perspective, even aid that merely guides individuals' decisions, for instance by "nudging" them to notice certain information (Thaler & Sunstein, 2008) or by providing additional default options (Tannenbaum & Ditto, 2016), can seem paternalistic. In contrast, less paternalistic aid— what we refer to as "agentic aid"—offers assistance with relatively fewer restrictions on a recipient's perceived freedom of choice. Notably, and consistent with our prediction, dehumanized groups such as poor people are more commonly provided with in-kind donations than with cash donations (Currie & Gahvari, 2008).

## How to Help Oneself Versus Others

An important implication of our account is that, because people tend to perceive their own mental capacity to be greater than others' capacity (Waytz et al., 2014), paternalism will seem more effective for helping others than for helping oneself. Consistent with this suggestion, people *receiving* paternalistic aid seem relatively more opposed to this aid than do people *providing* paternalistic aid. Indeed, paternalistic policies are often strongly opposed by their recipients, the very people those policies are meant to help (e.g., Conly, 2013; Hill, 2007; Mill, 1869/1999). When donors restrict the use of aid, recipients are more likely to resent the help and the donors (Gergen, Morse, & Kristeller, 1973), less likely to accept the aid (Gergen, Ellsworth, Maslach, & Seipel, 1975; Rosen, 1971), and less likely to reciprocate (Brehm & Cole, 1966).

Despite recipients' seeming opposition to paternalistic aid, most of the largest aid programs in the world provide paternalistic help to their recipients. For instance, almost all countries provide the majority of their aid in-kind (Currie & Gahvari, 2008), and well-established charities such as the Red Cross and World Health Organization typically provide in-kind aid. Anecdotally, donors seem hesitant to contribute more agentic types of aid, such as giving cash directly to poor people. For instance, a recent op-ed in the New York Times, addressing a charity that gives cash to the poor, was entitled, "Is it nuts to give to the poor without strings attached?" (Goldstein, 2013). In sum, anecdotal and empirical evidence suggests that individuals seem to prefer more (vs. less) paternalistic aid when providing it to others but not when receiving it.

Several explanations have been separately proposed for recipients' resistance to paternalistic aid and providers' endorsement of it. For instance, recipients may resist paternalism because they want to defend their individual liberty (Hill, 2007; Nadler & Halabi, 2006), are concerned about the policymaker's motives (Jung, Mellers, & Baron, 2015; Sunstein, 2016; Tannenbaum & Ditto, 2016), or experience threats to their self-esteem (Fisher, Nadler, & Whitcher-Alagna, 1982). In contrast, providers may endorse paternalism because it allows them to control recipients' behavior (Currie & Gahvari, 2008), they may want to keep recipients dependent on their aid to maintain social hierarchy (Nadler, 2002), or they may even be prejudiced against recipients (e.g., against racial minorities; Baker, 2015). We believe our explanation, that beliefs about recipients' mental capacities influence the perceived effectiveness of paternalistic aid, may provide a more unifying and parsimonious explanation for why recipients are

more likely to oppose paternalistic aid but providers are more likely to endorse it. Because people tend to believe that they have greater mental capacity than do others (Epley & Waytz, 2010), differences in perceived mind may, at least in part, account for differences in receptivity to paternalistic aid between recipients and providers. Specifically, to the extent that recipients believe that they are highly mentally capable, they may also believe that paternalistic (vs. agentic) aid will be less effective for them. This also explains why even recipients may become more receptive to paternalism that is directed toward them when they are reminded of their own mental weaknesses.

## Paternalistic Versus Agentic Aid: A Framework for How People Give

Beyond connecting the literatures on mind perception and paternalism, our theory also provides a framework to study how people help others. Much is already known about *how much* people choose to help others (Batson, 1991; Landry, Lange, List, Price, & Rupp, 2010; List, 2011; Preston & deWaal, 2002), but relatively little is known about how people choose to help. Variance in the degree of paternalism is an important dimension across many different forms of aid. We connect our framework to three previously studied research paradigms. First, a financial transfer can occur either as an in-kind donation, whereby a donor selects goods for a recipient (e.g., food, shelter, health care), or as cash (Currie & Gahvari, 2008; Haushofer & Shapiro, 2016). Because in-kind transfers limit the recipient's freedom of choice compared with cash transfers, they are relatively more paternalistic.

A second paradigm that varies the level of paternalistic giving is asymmetric paternalism, which differentially targets recipients based on their behavior (Camerer, Issacharoff, Loewenstein, O'Donoghue, & Rabin, 2003; Loewenstein, Brennan, & Volpp, 2007). In essence, asymmetric paternalism automatically applies greater paternalism toward people who stray farther from prescribed goals. For example, a customer who chooses to "supersize" a fast food meal may be presented with a healthier default option (i.e., a water instead of a soda) than a customer who does not supersize. This form of aid aligns recipients with their goals more effectively than other types of aid (Loewenstein et al., 2007), yet little is known about why a decision architect may choose to apply asymmetric paternalism, or exactly how the decision architect might choose which recipients should be treated more or less paternalistically.

A final relevant paradigm is dependency-oriented or autonomy-oriented aid (Nadler, 1997, 1998). Dependency-oriented aid provides recipients with the "full solution to the problem" (Nadler, 2002, p. 491), whereas autonomy-oriented aid provides recipients with the tools to discover a solution themselves, mapping closely to our framework of paternalistic and agentic aid. In contrast to aforementioned models, the psychological mechanisms underlying these different methods of help have been studied, but only among groups that vary in status or in power. According to this theory, higher status groups provide more dependency-oriented aid to lower status groups to maintain social disparity, reinforcing the lower-status group's dependency on the higher-status group (Nadler, 2002). We suggest an alternative explanation for why people choose more paternalistic aid for lower-status groups: These groups may seem less mentally capable. Incidentally, we

provide some data that can help shed light on these accounts, by examining paternalistic aid toward targets who vary in perceived mental capacity while holding social status constant.

In sum, our hypotheses provide a psychological account of how people choose to help, explaining why people might prefer paternalistic approaches even when they are relatively ineffective, and why people might prefer more paternalistic approaches for some and more agentic approaches for others. Our theoretical account also integrates treatment of paternalistic forms of aid that have previously been studied separately across different literatures—such as affirmative action (Pratkanis & Turner, 1999), redistribution (Baker, 2015), nudges (Sunstein, 2016), and dependency-oriented help (Nadler, 2002)—that all share the same feature of limiting individual freedoms.

## Hypotheses and Overview of Experiments

Our hypothesis is perhaps most clearly illustrated in the landmark 1868 Rogers v. Higgins case that deemed paternalism legally appropriate for those considered "incapable" of competent decision-making (i.e., "idiots, minors, or married women," p. 217). Stemming from our proposal that the perceived effectiveness of paternalistic aid depends on beliefs about recipients' mental capacities, we form five specific predictions that we test in nine experiments.

First, we predict that providers will believe paternalistic aid is more effective for recipients who seem less mentally capable, and will consequently be more likely to provide paternalistic aid toward such recipients. More specifically, we predict that people will prefer more paternalistic aid for individuals who seem relatively less agentic (i.e., less capable of self control, planning, and rationality). We test this by manipulating the perceived mental capacity of recipients using multiple paradigms, measuring perceived effectiveness of more (vs. less) paternalistic donations, and measuring actual donation decisions (Experiments 1–3). We expect recipients' perceived mental capacity to influence donation decisions, mediated by the perceived effectiveness of paternalistic aid. Second, prior research suggests that decisions about how *much* to give are determined by perceived need (e.g., Levine et al., 2005), whereas we predict that how to give (e.g., paternalistically) is guided by perceived mental capacity. We test this directly in Experiment 2 by orthogonally manipulating need and mental capacity of aid recipients.

Third, we test whether people believe paternalistic policies to be more effective for others than for themselves (Experiments 4a–5b). To better understand the magnitude of this predicted self/other difference, we measure perceived effectiveness of paternalism directed not only toward other adults but also toward children, who are more readily recognized as having weaker mental capacities than adults (Gray et al., 2007). We suspect individuals would treat another adult more paternalistically, like a child, than they would treat themselves. Fourth, people will become more receptive to paternalistic aid targeted toward themselves when they believe they have less mental capacity, because paternalism then seems more effective. To test this, we capitalize on a pervasive annual instance of compromised self-control in the United States to remind recipients of their mental weakness—overeating during Thanksgiving (Experiment 6). Finally, we predict that when individuals observe others being treated paternalistically, they will be

more likely to infer that recipients have less mental capacity. We test this prediction in Experiment 7.

## Experiment 1: Perceived Mental Capacity and Paternalistic Giving

Experiment 1 tests how mind perception could influence an important behavior in everyday life: choosing to help others through charitable giving. We test the perceived effectiveness of two approaches to charitable giving: a more agentic approach in which donors give money *directly*, allowing recipients to spend money as they choose, versus a more paternalistic approach in which donors give money *indirectly* by buying goods such as food or clothing to fulfill an apparent need chosen by the donors. Indirect aid is a much more common approach for charitable organizations at this moment in time than direct aid: In virtually all countries, a significant amount of redistribution occurs in-kind (Currie & Gahvari, 2008). Why governments and charities typically choose to give in-kind instead of giving cash, thereby limiting the utility of recipients, is an "enduring puzzle" to economists (Currie & Gahvari, 2008, p. 333) that could partly be explained by givers' beliefs about the perceived mental capacities of those in need. Although we cannot test this broader hypothesis directly, we can test how the perceived mental capacity of those in need affects support for direct versus indirect giving.

We did so by using two charities that exemplify these two approaches: GiveDirectly, a relatively agentic charity that provides cash directly to recipients, and the Red Cross, a relatively paternalistic charity. Although these two charities differ on numerous dimensions (e.g., reputation and size) our goal was not to account for all these differences, but rather to exploit the critical difference of paternalistic versus agentic giving that we predicted perceived mental capacity would affect. We predicted that the less mentally capable donors perceived aid recipients to be, the more effective the paternalistic charity would seem, and the more they would actually donate to the paternalistic charity.

Related to the perceived effectiveness of paternalistic aid, we added another measure that might explain why donors give paternalistically: how likely recipients are to waste money given to them directly. Thinking that someone lacks intellect or self-control could make agentic aid seem unwise because recipients might be irresponsible, spending money on short-term desires rather than long-term needs. Paternalistic aid would reduce this concern because recipients would not choose how to spend their aid.

## Method

In this experiment and subsequent experiments, we report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures. Our data and materials are available at: https://osf.io/47cp9/.

**Participants.** Because we did not know what effect size to expect, we targeted 100 participants per condition (adequate statistical power to detect a medium-sized effect). One hundred U.S. citizens recruited through Amazon.com's MTurk website ($M_{age}$ = 29.14, $SD_{age}$ = 7.14, 35 women) completed this survey in exchange for $0.35 base payment with the possibility of a $0.25 bonus that participants could give to a charity or keep for themselves.

**Procedure.** First, to explain the difference between the agentic and paternalistic charities, we introduced participants to the agentic charity (GiveDirectly). They viewed the GiveDirectly homepage and read the following information about it:

> Here's how the [GiveDirectly] charity works. You donate your money through their website, and the money is transferred directly into the bank accounts of poor people in Kenya and Uganda. The people can then do whatever they want with your money. This is very different from most charities, which instead give indirectly to poor people by providing food, other goods, or essential services.

Second, to measure beliefs about the perceived effectiveness of agentic aid, our predicted mediator of the effect of mental capacity on support for agentic aid, participants answered three questions ($\alpha$ = .91) measuring their beliefs about GiveDirectly's effectiveness compared with other charities. We created these items to comprehensively measure all aspects of a charity's effectiveness (e.g., reducing poverty, increasing well-being). The items were: (a) "How effective would GiveDirectly be for reducing poverty compared with other types of charity such as the Red Cross, which give indirectly by providing food or other goods?" ($-3$ = *GiveDirectly is much less effective*; 3 = *GiveDirectly is much more effective*), (b) "How likely is it that a family who receives money directly, through GiveDirectly, will be able to rise out of poverty compared with a family who receives indirectly (getting food or other goods)?" ($-3$ = *They will be much less likely to rise out of poverty with GiveDirectly*; 3 = *They will be much more likely to rise out of poverty with GiveDirectly*), and (c) "To what extent do you think the well-being of poor people who receive money directly from GiveDirectly will increase, compared with people who receive indirectly (getting food or other goods)?" ($-3$ = *They will have much lower well-being with GiveDirectly*; 3 = *They will have much higher well-being with GiveDirectly*).

Third, to test the possibility that recipients' likelihood of wasting the money informs the perceived effectiveness of agentic aid, participants rated the likelihood on 7-point scales (1 = *not at all likely*; 7 = *very likely*) that people who receive money from GiveDirectly would use the money unwisely on three items: (1) "They will waste the money (e.g., on gambling, jewelry, or some other unwise expense)," (2) "They will use the money to feel good in the short-term (e.g., on alcohol or drugs)," and (3) "They will use the money to invest in their future (e.g., on education or in a savings account)" (reverse-scored; $\alpha$ = .76 for the three-item index).

Fourth, to measure mental capacity beliefs comprehensively, we created our own scale drawing items from previously validated scales of agency (specifically measuring self-control, memory, planning, thoughtfulness, intention, and cognition; Gray et al., 2007; Kozak, Marsh, & Wegner, 2006). Participants rated how much they agreed ($-3$ = *strongly disagree*; 3 = *strongly agree*) with eight statements (order randomized) in reference to the aid recipients (poor people in Kenya and Uganda): (1) "Everything poor people do is on purpose," (2) "Poor people plan every action before they do it," (3) "Poor people sometimes lack self-restraint" (reverse-scored), (4) "Poor people always engage in a great deal of thought before they act," (5) "Poor people have excellent self-control," (6) "Sometimes poor people have trouble exerting willpower over their goals" (reverse-scored), (7) "Poor people don't always know what is good for them" (reverse-scored), and

(8) "Poor people sometimes behave mindlessly (that is, without thinking very much first)" (reverse-scored). These items formed our perceived mental capacity index ($\alpha = .83$).

Fifth, to measure support for paternalism, participants received a $0.25 bonus and chose how to divide the money between three possible targets: themselves, GiveDirectly (the agentic charity), or the Red Cross (the paternalistic charity). Participants could divide the bonus any way they wanted. We told participants that any money allocated to themselves would be distributed through MTurk and any money given to the charities would be distributed to these charities by the experimenters.

Finally, to examine self/other differences, each participant imagined that he or she personally was the one to receive the money from GiveDirectly. Participants then reported how much the money would increase their own well-being (1 = *not at all*; 7 = *very much*), how they would use the money on the same three measures asked earlier in the survey ($\alpha = .73$: wasting the money, short-term uses, or long-term uses), and completed the eight-item mental capacity scale about themselves ($\alpha = .90$).

## Results

Participants who believed that the aid recipients, poor people from Kenya and Uganda, were more mentally capable also believed that the agentic charity (GiveDirectly) would be more effective, $r = .34$, $p = .001$, and that recipients would spend the money more wisely (less irresponsibly), $r = -.46$, $p < .001$. Critically, those who believed recipients were more mentally capable also donated significantly more of their bonus at the end of the experiment to the agentic charity (GiveDirectly), $r = .27$, $p = .006$, donated marginally less to themselves, $r = -.17$, $p = .086$, and donated nonsignificantly less to the paternalistic charity (Red Cross), $r = -.11$, $p = .277$. Because participants reported how much they wanted to give to all three targets, we also calculated the difference between amounts donated to the agentic versus paternalistic charity. Participants who believed recipients were more mentally capable also donated relatively more to the agentic than the paternalistic charity (i.e., there was a greater difference in their donations to the agentic versus paternalistic charity), $r = .27$, $p = .007$.

We tested our predicted mediator through which beliefs about a recipient's mental capacities could affect the amount donated to the agentic charity versus the paternalistic charity: the perceived effectiveness of the agentic charity. In a 5,000-sample bootstrap test (using the Indirect SPSS Macro from Preacher & Hayes, 2008), the perceived effectiveness of the agentic charity mediated the relationship between mental capacity beliefs and donation amounts, reducing the path from $\beta = 0.04$, $p = .007$ to $\beta = 0.02$, $p = .099$, with a significant indirect effect of 0.01 ($SE = .006$), 95% confidence interval (CI) [.01, 03] (MacKinnon, Fairchild, & Fritz, 2007). Consistent with our prediction that beliefs about how recipients spend the donation would influence the charity's perceived effectiveness, the more wisely participants believed the money would be spent, the more effective they thought the agentic charity would be, $r = .47$, $p < .001$.

Finally, we found a self-other difference such that participants believed they were more mentally capable ($M = 0.31$, $SD = 1.15$) than the poor people in Kenya and Uganda ($M = -0.39$, $SD = 0.92$), paired $t(99) = 5.55$, $p < .001$, $d = 0.67$. Participants also

believed that support from the agentic charity (GiveDirectly) would increase their own well-being more (*M*s for self vs. other = 1.06 and 0.51, *SD*s = 1.31 and 1.55), paired $t(99) = 3.36$, $p = .001$, $d = 0.38$, and that they would spend the direct cash payment more wisely (less irresponsibly) than the Kenyans and Ugandans (*M*s for self vs. other = 2.40 and 3.32, *SD*s = 1.26 and 1.27), paired $t(99) = -7.00$, $p < .001$, $d$s = $-0.73$, respectively.

Existing empirical evidence suggests that people consistently dehumanize the poor and perceive them to have weaker mental capacities than others (Harris & Fiske, 2006). We observed that the more participants perceived the poor to be mentally incapable, the less they preferred an agentic approach to charitable giving because they perceived the charity to be less effective and believed recipients would use the cash less wisely. These results suggest that *how* donors choose to give depends in part on the inferences they make about the minds of recipients. Experiment 2 tested whether experimentally manipulating the apparent mental capacities of a recipient affects how people give.

## Experiment 2: Minds Versus Needs

Experiment 2 distinguishes between two aspects of helping others: *how* people help versus *how much* they help. Existing research demonstrates that people give more when others appear to need more (Batson & Shaw, 1991; Small & Verrochi, 2009), but it does not examine different types of giving. We compared the effects of perceived need versus mental capacity of the target on how, and how much, people give. We predicted that perceived mental capacity will affect how donors choose to give—whether they adopt a more or less paternalistic approach—but that the magnitude of need will not.

## Method

**Participants.** Based on Experiment 1's large effect sizes, we targeted at least 50 participants per condition in a 2 (Mental capacity: low vs. high) × 2 (Need: low vs. high) between-participants experimental design. A final sample of 202 U.S. citizens recruited through Amazon.com's MTurk website ($M_{age} = 31.62$, $SD_{age} = 9.83$, 81 women) completed the survey in exchange for $0.35 base payment, with the possibility of a $0.25 bonus that participants could give to a charity or keep for themselves.

**Procedure.** At the beginning of the survey, participants read:

> Today, we would like to get your opinions about poor people from a particular African country. We do not want your current opinions about the group to affect how you respond to this survey, so we have made the country anonymous. We will call this country "Nia" and the people that inhabit it "Nians." Next, we will tell you a little about Nians. Then, you will tell us about your beliefs about this group.

Participants next received two pages of information, each created to manipulate the apparent mental capacities and needs of the Nians, in counterbalanced order. Participants read information that "we compiled in order to help you better understand what the life of a Nian is like." Unbeknownst to participants, we provided quantitative data from a country that GiveDirectly actually serves (Kenya) obtained from Nationmaster.com. This website compiles data from hundreds of sources about countries' social and economic indicators.

In the low-capacity condition, we presented participants with a list of statistics about the Nians' mental capacities (e.g., 14% of Nians are

illiterate). In the high-capacity condition, we presented participants with the same list of statistics but reframed as the *inverse* percentages presented in the low-capacity condition (e.g., 86% of Nians are literate). This framing manipulation is an important feature of our design because participants receive objectively identical information in both conditions and thus any differences that emerge cannot be explained by objective differences in the information participants observe. The complete stimuli are available in the supplemental materials (available online). As a manipulation check, participants then completed the eight-item mental capacity scale from Experiment 1, measuring their beliefs about a typical Nian's mental capacities ($\alpha = .94$).

To manipulate perception of Nians' need, participants in the low-need condition read that Nians had relatively little need for money:

> Compared with the rest of Africa, people in Nia are relatively less desperately in need of money. More than half of the people in Nia are above the poverty line. Nians' GDP per capita is about average compared with all African countries' GDP per capita. A little bit of money, such as a quarter ($0.25), would not make much difference in the life of a person from Nia.

Participants in the high-need condition read the same information, but framed to make it seem that the Nians had considerable need for money:

> Compared with the rest of the world, people in Nia are in desperate need of money. Almost half of the people in Nia make less than $1 per day, which is barely enough to keep them alive. Nia is among the world's poorest countries. Even a little bit of money, such as a quarter ($0.25), would make a big difference in the life of a person from Nia.

As a manipulation check, participants then rated how much difference a single quarter ($0.25) would make in the life of a person from Nia (1 = *no difference*; 7 = *a lot of difference*).

Next, participants read the same information about the agentic charity (GiveDirectly) as Experiment 1 and completed the same three-item scale measuring how effective they believed GiveDirectly would be for Nians compared with the paternalistic charity (Red Cross; $\alpha = .88$) and the same three-item scale measuring how unwisely they believed Nians would spend the money from GiveDirectly ($\alpha = .78$) on 1 to 7 Likert response scales.

Finally, to measure support for paternalism, participants received a $0.25 bonus and chose how much to allocate to themselves, the agentic charity (GiveDirectly), and the paternalistic charity (Red Cross).

## Results

To determine whether we successfully manipulated participants' beliefs about Nians' need and mental capacity, we conducted a 2 (Need: high vs. low) × 2 (Mental capacity: high vs. low) analysis of variance (ANOVA) on our two manipulation check items. As expected, participants in the high-need condition believed that a quarter would make a bigger difference ($M = 5.92$, $SD = 1.41$) than did participants in the low-need condition ($M = 2.00$, $SD = 1.12$), $F(1, 198) = 474.5$, $p < .001$, $\eta_p^2 = 0.71$, but participants in the high mental capacity condition did not believe a quarter would make a bigger difference ($M = 4.11$, $SD = 2.36$) than did participants in the low mental capacity condition ($M = 3.89$, $SD = 2.33$), $F(1, 198) < 1$. The interaction between perceived need and mental capacity was nonsignificant, $F(1, 198) < 1$. Conversely, participants in the high-need condition did not believe Nians were

more mentally capable ($M = 0.29$, $SD = 1.42$) than did participants in the low-need condition ($M = 0.23$, $SD = 1.40$), $F(1, 198) < 1$, but participants in the high mental capacity condition did believe Nians were more mentally capable ($M = 1.25$, $SD = 0.90$) than did participants in the low mental capacity condition ($M = -0.74$, $SD = 1.09$), $F(1, 198) = 196.98$, $p < .001$, $\eta_p^2 = 0.50$. The interaction was nonsignificant, $F(1, 198) < 1$. These results suggest that we orthogonally manipulated the perceived need and mental capacity of the Nians.

We next tested our primary hypothesis that only participants' inferences about the Nians' mental capacity—not perceptions of their need—would predict (a) differences in perceived effectiveness for agentic versus paternalistic charities (i.e., GiveDirectly vs. Red Cross), (b) how wisely Nians would use the money, and (c) how much more participants donated to the agentic versus paternalistic charity. We conducted 2 (High vs. low mental capacity) × 2 (High vs. low need) ANOVAs on each dependent measure. Consistent with our prediction, participants believed that the agentic charity would be more effective in the high mental capacity condition, ($M$s high vs. low capacity = 4.63 vs. 3.49, $SD$s = 1.35 vs. 1.44, respectively), $F(1, 198) = 7.04$, $p = .009$, $\eta_p^2 = 0.03$. Not predicted by our hypotheses, we also found that participants believed the agentic charity would be more effective in the high-need condition ($M$s high vs. low need = 4.32 vs. 3.79, $SD$s = 1.47 vs. 1.50, respectively), $F(1, 198) = 34.04$, $p < .001$, $\eta_p^2 = 0.15$. Consistent with our prediction, the Nians' apparent mental capacity affected evaluations of how wisely the Nians would use the money, ($M$s for unwise spending in high vs. low capacity conditions = 2.58 vs. 4.14, $SD$s = 1.00 vs. 1.47, respectively), $F(1, 198) = 77.41$, $p < .001$, $\eta_p^2 = 0.28$, but their apparent need did not ($M$s high vs. low need = 3.24 vs. 3.50, $SD$s = 1.44 vs. 1.51, respectively), $F(1, 198) = 1.89$, $p = .171$, $\eta_p^2 = 0.01$.

Critically, manipulating the Nian's apparent mental capacity significantly affected participants' donations to the agentic versus paternalistic charity. To create a relative measure of how much participants donated to each charity, we subtracted the amount donated to the agentic charity from the amount donated to the paternalistic charity. Participants donated relatively more to the agentic charity in the high mental capacity condition ($M = \$0.02$, $SD = \$0.11$) but relatively *less* in the low mental capacity condition ($M = -\$0.01$, $SD = \$0.11$), $F(1, 198) = 4.27$, $p = .040$, $\eta_p^2 = 0.02$. Participants' charity choices did not differ in the high- and low-need conditions, ($M$s = $-\$0.01$ vs. $\$0.01$, $SD$s = $\$0.11$ vs. $\$0.11$, respectively), $F(1, 198) = 2.49$, $p = .116$, $\eta_p^2 = 0.01$.[1] We observed no significant interactions between perceived need and mental capacity on any of our dependent measures, $F$s (1, 198) < 1.53, $p$s > .218, $\eta_p^2$s < 0.01 (Figure 1).

Finally, we tested our predicted mediator through which our mental capacity manipulation could affect participants' donations. We expected our manipulation would alter participants' beliefs

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[1] Replicating prior research, perceptions of Nians' need was a better predictor of the overall amount that participants donated (combined donations to both GiveDirectly and the Red Cross), ($M$s for high vs. low need = $\$0.10$ vs. $\$0.07$, $SD$s = $\$0.11$ vs. $\$0.10$, respectively), $F(1, 198) = 5.84$, $p = .017$, $\eta_p^2 = 0.03$, than perceptions of their mental capacity, ($M$s for high vs. low capacity = $\$0.08$ vs. $\$0.09$, $SD$s = $\$0.10$ vs. $\$0.11$, respectively), $F(1, 198) = 0.49$, $p = .484$, $\eta_p^2 < 0.01$. There was no interaction, $F(1, 198) = 2.00$, $p = .159$, $\eta_p^2 = 0.01$.
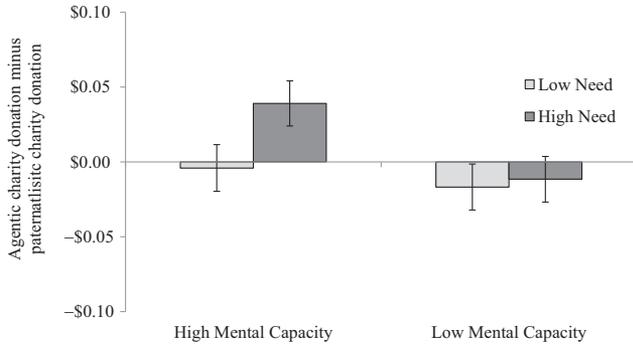
*Figure 1.* How much more people donate to the agentic charity (Give-Directly) compared with the paternalistic charity (Red Cross) as a function of need and mental capacity manipulations (Experiment 2). Error bars represent *SEM*.

about the Nian's mental capacity, in turn altering beliefs about each charity's effectiveness and thereby altering the amount donated to the agentic versus paternalistic charity. This model was supported (Figure 2). When we included perceived mental capacity and perceived effectiveness in the model, the effect of experimental condition (1 = high mental capacity; 0 = low mental capacity) became nonsignificant (from $\beta = -0.03$, $SE = .015$, $p = .037$, to $\beta = 0.01$, $SE = .019$, $p = .767$). A 5,000-sample bootstrap test (using SPSS macro "MedThree"; Hayes, Preacher, & Myers, 2010) estimated no indirect effect of perceived mental capacity of $-0.01$ ($SE = .014$, 95% CI [$-0.03$, 0.02]), a significant indirect effect of perceived effectiveness, 0.02 ($SE = .009$, 95% CI [0.01, 0.04]), and a significant combined indirect effect with both mediators of 0.02 ($SE = .008$, 95% CI [0.005, 0.04]; MacKinnon et al., 2007). At least part of the reason why beliefs about recipients' mental capacities influences perceived effectiveness of the charities may be beliefs about how recipients' will spend the money: The more wisely participants believed the money would be spent, the more effective they thought the agentic charity would be, $r = .55$, $p < .001$.

Merely reading statistics that framed a novel group (Nians) as more or less mentally capable affected how donors chose to give to this group, but manipulating the magnitude of the group's need did not. The magnitude of need may generally influence how *much* people donate in order to help them, but inferences about the minds of recipients seem to guide *how* people donate. In particular, people gave more paternalistically when those in need seemed less

mentally capable, because people believed recipients of agentic aid in this case would use it less wisely and it would be ineffective. Critically, participants' inferences in this experiment were based on the very same objective information, simply framed to imply different mental capacities. Describing the conditions of those in need can also convey information about the minds of those in need, thereby affecting how donors choose to help.

## Experiment 3: Giving Game

Experiment 3 provides a more ecologically valid test of how people might actually choose between different forms of aid. Visitors to a museum played a "Giving Game," in which they received information about one relatively agentic charity and one relatively paternalistic charity, then voted for which charity should win $1,000 pledged by an anonymous donor. We used the same agentic charity as in Experiments 1 and 2 (GiveDirectly) but a different paternalistic charity (OxFam) to increase generalizability. We also used a different manipulation of mental capacity; voters received information highlighting charity recipients' mental strength or mental weakness. We predicted that voters would be more likely to vote for the agentic charity when the information highlighted recipients' mental strength.

## Method

**Participants.** We conducted this experiment during the December holiday season and pre-committed to running throughout the entire season. In total, 518 visitors to the Museum of Science and Industry in Chicago ($M_{age} = 37.23$, $SD_{age} = 16.06$, 289 women) voluntarily participated in our Giving Game.

**Procedure.** To manipulate mental capacity, participants first listened to the experimenter describe the charity recipients (via a prerecorded message). In the high mental capacity condition, participants heard:

> The recipients of these charities will be poor people in Kenya and Uganda. Some of these people are enterprising entrepreneurs. They want to build businesses in order to create sustainable food sources and better access to medical care. They need funding to build their businesses. Just like other entrepreneurs you may know, these people are often smart and ambitious. They want money to achieve their dreams.

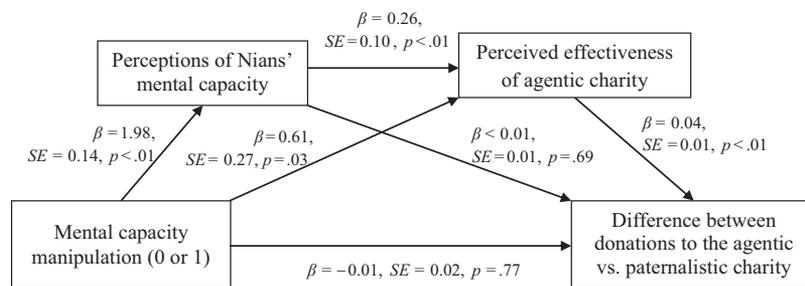In the low mental capacity condition, participants heard:



*Figure 2.* Perceptions of Nians' mental capacity and perceived effectiveness of the agentic charity sequentially mediate the effect of mental capacity manipulation on donations (Experiment 2).

The recipients of these charities will be poor people in Kenya and Uganda. Some of these people are unemployed and starving. They may live in dirty huts, sleeping and eating with the animals with which they live. They want better food and medical care. They need funding in order to improve their lives. Just like others you may know living in poverty, these people are often illiterate and resigned. They want money for a better life.

Both descriptions are honest depictions, but the first highlights the mind of some people living in poverty—their hopes, dreams, and ambitions—whereas the second highlights the immediate conditions and bodily needs of some people in poverty. A pilot study using an online sample of 186 participants revealed that these descriptions also influenced the perceived mental capacities of the recipients on the same eight-item scale used in Experiment 1 ($\alpha = .84$), $t(181) = 3.53$, $p = .001$, $d = 0.52$, but did not affect recipients' perceived need, $t(181) = 0.05$. See the online supplemental materials for a full description of this pilot test.

Participants then listened to two short descriptions about the two charities in the Giving Game, the agentic charity (GiveDirectly) and the paternalistic charity (OxFam) in counterbalanced order. Participants heard that if the money is donated to GiveDirectly, "It will be transferred directly into the bank accounts of the people in Kenya and Uganda. These people can then do whatever they want with the money. It is their choice how to use the money." Participants heard that if the money is donated to OxFam,

> OxFam will use this money to purchase goods that the people in Kenya and Uganda may need, such as food or medicine. OxFam will purchase the goods they believe are best for these people and then allocate it to them as they see fit.

Participants then received a coin that they dropped into a box labeled "GiveDirectly" or labeled "OxFam" to vote (see the online supplemental materials for a photograph of the experimental setup). Afterward, participants completed a survey in which they were asked to write an explanation for "why they made that choice," and to report their familiarity with each charity (1 = *not at all familiar*; 7 = *very familiar*). We asked about familiarity because participants may tend to vote for charities they know (because of the mere exposure effect, Zajonc, 1968) and wanted to control for this in our analyses.

**Coding participants' reasons.** Two research assistants blind to our hypotheses and experimental conditions coded participants' explanations of their vote. A third assistant resolved discrepancies. These research assistants coded whether the reasons mentioned a positive description of the recipients' intellect or not (0 = *no mention of intellect*; 1 = *implication that recipients have low intellect*; 2 = *implication that recipients have high intellect*). An alternative reason for why our mental capacity manipulation could affect voting is that it changed the *type* of need recipients seemed to have, such that the low mental capacity recipients seemed to need food and medicine whereas high capacity recipients seemed to need supplies to build businesses. To address this possibility, the assistants also indicated whether each reason mentioned needing food or medicine ("no" or "yes", coded as 0 or 1) or business supplies ("no" or "yes," coded 0 or 1).

## Results

Overall, 58.1% of participants voted for the paternalistic charity (OxFam), and 41.9% voted for the agentic charity (GiveDirectly). This preference in favor of OxFam is unsurprising given that participants were more familiar with OxFam ($M = 1.81$, $SD = 1.54$) than with GiveDirectly ($M = 1.32$, $SD = 0.96$), paired $t(517) = 7.87$, $p < .001$, $d = 0.38$.

More important, participants were more likely to vote for the agentic charity in the high mental capacity condition ($n = 120/259$, 46.3%) than in the low mental capacity condition ($n = 97/259$, 37.5%), $\chi^2 = 4.20$, $p = .041$, $\varphi = .09$ (Figure 3). This effect remained significant when controlling for familiarity with each charity in a binary logistic regression, $\beta = 0.37$, $p = .039$.

We next tested how participants' explanations of their vote mediated the effect of our manipulation. First, we tested for our predicted mediator that participants who heard the high mental capacity information would believe recipients were more intelligent and thereby vote for the agentic charity. A total of 174 participants mentioned recipients' intellect in their free responses. Explanations coded as indicating low intellect included: "Because most poor people don't know what to do with the money." Explanations coded as indicating high intellect included: "I think locals are intelligent and responsible and would know how to use these resources best in their own culture."

As predicted, participants in the high-capacity condition ($n = 83$) were more likely to describe high intellect in their explanations (71 vs. 12, respectively), whereas participants in the low-capacity condition ($n = 91$) were more likely to imply low intellect (21 vs. 70, respectively), $\chi^2 = 67.97$, $p < .001$, $\varphi = .63$. As expected, beliefs about recipients' intellect fully mediated the effect of our manipulation on voting behavior (1 = OxFam; 2 = GiveDirectly), reducing the path from $\beta = 2.54$, $p < .001$ to $\beta = -0.50$, $p = .645$, with a significant indirect effect of 4.45 ($SE = 6.04$), 95% CI [2.63, 16.69] (MacKinnon et al., 2007) using a 5,000-sample bootstrapped mediation model (SPSS "Indirect" macro; Preacher & Hayes, 2008).

To examine an alternative explanation, we additionally coded participants' responses to test whether how we described recipients' needs in our manipulation (as needing food and medicine in the low-capacity condition, or as needing business supplies in the high-capacity condition) might affect charity choice. Participants
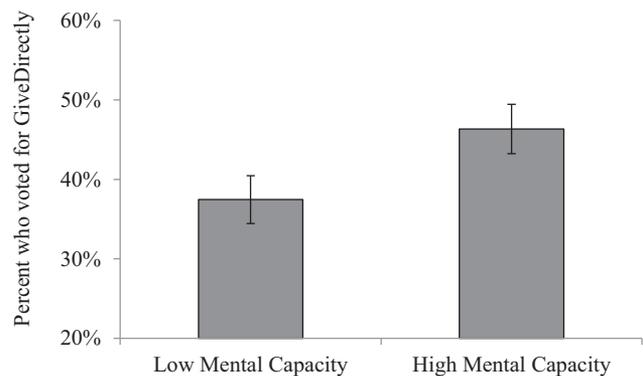


*Figure 3.* Voting behavior as a function of mental capacity manipulation in Experiment 3. Error bars represent *SEM*.

were no more likely to mention recipients' need for food or medicine in the low-capacity condition ($n = 259$, 9% mentioned food or medicine) than in the high-capacity condition ($n = 259$, 8% mentioned it), $\chi^2 < 1$. However, participants were more likely to mention recipients' need for business supplies in the high-capacity condition (4%) than the low-capacity condition (1%), $\chi^2 = 5.46$, $p = .019$, $\varphi = .10$, presumably because the high-capacity condition described recipients as "enterprising entrepreneurs." Mentioning recipients' need for business supplies did not mediate the effect of the mental capacity manipulation on voting, as indicated by a nonsignificant indirect effect of 0.01 ($SE = 0.03$), 95% CI [$-0.03$, 0.06] (MacKinnon et al., 2007).

Although voters overall had a general preference for the more paternalistic charity, receiving information about the entrepreneurial hopes and dreams of people living in poverty encouraged more agentic giving. Our mediational analyses suggest that this information increased agentic giving because it made the poor seem more intellectually capable. However, because we described recipients' needs differently in our manipulation, we cannot rule out the possibility that participants might have inferred that different types of aid were appropriate for serving recipients' needs. A second mediation analysis suggests that this alternative possibility is unlikely, but we must interpret this analysis with some caution because relatively few people mentioned the specific needs of recipients in their explanations. It is not clear whether these low rates indicate that people were not thinking about the recipients' needs, or because they simply did not take sufficient time to describe the reasons for their choice. These results are therefore consistent with our hypotheses, but perhaps not completely conclusive.

We believe these results have a practical implication, suggesting that how the mental capacities of individuals in need are portrayed can influence how people give to them. People in poverty live in dire conditions with considerable needs, but highlighting those conditions might encourage more paternalistic aid even though agentic aid (e.g., direct cash transfers) can more effectively help the poor achieve their ambitions (Haushofer & Shapiro, 2016). Experiments 1–3 suggest that the perceived effectiveness of paternalism is guided by inferences that people make about their own or others' minds. We conducted the next four experiments to test whether people would provide more paternalistic aid to others than themselves, because they tend to believe others have weaker mental capacity than they possess themselves.

## Experiments 4a and 4b: Paternalistic Policies for Me Versus You

Individuals help those in need through charitable giving, but governments, workplace organizations, and schools help their respective citizens, employees, and students through policies. In Experiments 4a–5b, we therefore measure paternalistic aid through policy decisions. Participants evaluated the effectiveness of paternalistic versus agentic policies targeted at themselves versus others. We predicted that participants would rate other people as less mentally capable than themselves—less able, for instance, to exert self-control—and would therefore rate paternalistic policies as more effective for others than for themselves.

## Experiment 4a

### Method.

*Participants.* We targeted 80 participants in each of our two experimental conditions. One hundred sixty-two U.S. citizens recruited through Amazon.com's MTurk website ($M_{age} = 34.12$, $SD_{age} = 11.64$, 57 women) completed the survey in exchange for $0.75.

*Procedure.* Participants considered policies targeted toward either themselves or others. In the self-targeted condition, we asked participants to "imagine that the Governor of your state is enacting legislation that may affect you directly. . . . Please choose the policy that you believe will be best for you." In the other-targeted condition, participants imagined that they were the Governor of Ohio. They read,

> As Governor of Ohio, part of your job is to enact legislation that will benefit the citizens of Ohio. You have the ultimate discretion to sign legislative bills into law or to veto them. . . . Please choose the policy that you believe will be best for the average citizen.

We asked participants to imagine being governor of an actual state so that it would be comparable to the self-targeted condition. We chose Ohio because we believed that most participants would be relatively unfamiliar with it, because it was a swing state in recent elections and therefore seemed to have broadly representative citizens, and because its population is small enough that most of our participants would not live there. To ensure that participants were not from Ohio, we asked them at the start of the survey to name their home state. If participants were from Ohio, then the scenario asked them to imagine being the Governor of Colorado.

Participants then considered five categories of policies designed to: (1) increase healthy eating, (2) reduce credit card debt, (3) reduce gun violence, (4) increase retirement savings, and (5) reduce mortgage debt. For each category, we presented two policies for participants to consider, one more paternalistic and the other more agentic (in counterbalanced order). The titles and descriptions used for all policies are shown in Table 1. We asked participants in the other-targeted condition to choose the policy that would be "most effective for the average citizen," and asked participants in the self-targeted condition to choose the policy that would be "most effective for you."

To measure mental capacity, participants completed a five-item scale measuring their own capacity ($\alpha = .73$) and an average citizen's capacity ($\alpha = .88$) in counterbalanced order. The scale asked participants how capable [you are/the average citizen is] of: avoiding unhealthy foods, avoiding credit card debt, not misusing a gun, saving for retirement, and avoiding mortgage debt ($1 = not\ at\ all\ capable$; $7 = very\ capable$).

### Results.
As predicted, participants were more likely to select paternalistic policies for the average citizen (out of five policies, $M = 2.36$, $SD = 1.86$) than for themselves ($M = 1.77$, $SD = 1.53$), $\chi^2(5, 162) = 15.14$, $p = .010$, $\varphi = 0.31$. To assess whether this difference was related to participants' beliefs about their own versus others' mental capacity, we averaged together the five items asking about participants' own or others' mental capacity into a single composite measure. Participants believed they were more mentally capable ($M = 5.66$, $SD = 1.02$) than the average citizen ($M = 4.50$, $SD = 1.23$), paired $t(161) = 12.25$, $p < .001$, $d = 1.03$. This difference in beliefs about their

Table 1

*Policies Used in Experiment 4a*

| | Policy | | Percentage who selected paternalistic policy as most effective | |
|---|---|---|---|---|
| Domains | Paternalistic | Agentic | Self | Other |
| Healthy eating | Unhealthy food ban—Bans you [citizens] from ordering and consuming entrées at fast food restaurants that contain more than half of the American Heart Association's recommended daily cholesterol intake. You [Your citizens] will not be allowed to consume such entrées. | Calorie count—Requires all fast food restaurants in the state to provide the number of calories in each entrée. You [Your citizens] will be able to read the calorie counts and make informed decisions regarding your [their] choice of entrée. | 28.1 | 35.0 |
| Credit card debt | Maximum credit limits—Sets maximum credit limits that you [your citizens] cannot exceed. You [Your citizens] will not be allowed to spend more than your [their] allotted maximum in any month. | More financial information—Requires all credit card companies to provide information about the length of debt, your [their] late payment penalties, and your [their] interest rates. You [Your citizens] will be able to read this information and make informed decisions about paying off your [their] credit cards. | 30.5 | 36.3 |
| Gun violence | Gun ban—Bans you [citizens] from buying certain types of guns deemed unsafe, such as assault rifles, and also screens citizens who are deemed unsafe, such as those who have a history of mental health problems, from purchasing any guns. | Safety course—Requires you [citizens] to take a safety course prior to being able to purchase a gun. You [Your citizens] will be able to use this information to handle your [their own] gun[s] more safely. | 39.0 | 55.0 |
| Savings rate | Mandatory retirement accounts—Requires you [citizens] to enroll in 401k retirement plans. Enrollment is mandatory with no option to opt out. | Optional retirement accounts—Requires companies to automatically enroll the employees into 401k retirement savings plans, but employees have the option to opt out of the plan at any time. You [Your citizens] will be able to choose whether to stay in the [their] retirement plan or to opt out. | 39.0 | 55.0 |
| Mortgage debt | Mandatory mortgage requirements—Requires more rigorous requirements for obtaining a mortgage loan to ensure that home buyers are less likely to default on their loans. You [Your citizens] will be unable to obtain loans unless you [they] meet the minimum requirements. | Clearer mortgage documents—Requires mortgage lenders to simplify their loan documents in order to make them as comprehensible as possible for home buyers. You [Your citizens] will be better able to choose a [their] mortgage loan with clearer loan documents. | 40.0 | 55.0 |

own versus others' mental capacities fully mediated their selection of more paternalistic policies for average citizens versus themselves, reducing the path from $\beta = -0.59$, $p = .028$ to $\beta = -0.20$, $p = .492$, with a significant indirect effect of $-0.39$ ($SE = 0.16$), 95% CI $[-0.79, -0.12]$; MacKinnon et al., 2007) using a 5,000-sample bootstrapped mediation model (SPSS "Indirect" Macro; Preacher & Hayes, 2008; Figure 4). Participants believed that paternalistic policies would be more effective for others than for themselves, a difference that appeared to stem from the belief that others have diminished mental capacity.



*Figure 4.* The perceived effectiveness of paternalistic policies for oneself versus others is mediated by perceptions of one's own versus others' mental capacities (Experiment 4a).

One possible alternative interpretation of results is that participants assigned to the other-targeted condition also felt higher power than participants assigned to the self-targeted condition, making paternalism seem more effective for relatively powerless individuals. Indeed, some prior research suggests that power differences between groups are a meaningful predictor of dependency-oriented aid (Nadler, 2002). We therefore conducted Experiment 4b to test whether our findings would replicate when there was no power difference between our two experimental conditions.

## Experiment 4b

### Method.

*Participants.* Because we used a within-participants design that we thought might reduce our effect size, we targeted 100 participants in total. Ninety-eight U.S. citizens recruited through Amazon.com's MTurk website ($M_{age} = 34.96$, $SD_{age} = 12.61$, 41 women) completed the survey in exchange for $0.40.

*Procedure.* Participants selected which of two policies "would be most effective" to achieve five different goals (eating healthy, reducing credit card debt, reducing gun violence, increasing savings rates, and reducing mortgage debt) for "yourself" (self-targeted condition) and "an average citizen in the United States" (other-targeted condition), in counterbalanced order. Each decision
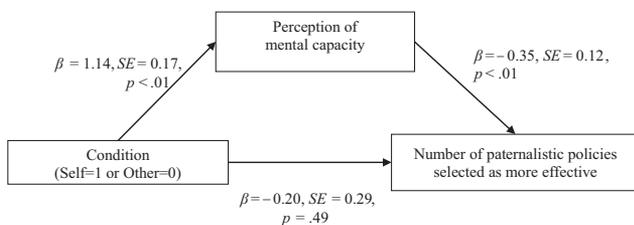
set contained a more paternalistic policy option and a more agentic policy option; the policy descriptions were the same as those used in Experiment 4a and shown in Table 2. Participants next rated their own mental capacity ($\alpha = .71$), and the average citizen's mental capacity ($\alpha = .86$), using the same scales described in Experiment 4a, in counterbalanced order.

**Results.** Replicating Experiment 4a, participants believed that more of the paternalistic policies would be effective for the average citizen ($M = 2.58$, $SD = 1.85$) than for themselves ($M = 1.58$, $SD = 1.39$), $t(97) = 6.35$, $p < .001$, $d = 0.61$. They also believed the average citizen had less mental capacity ($M = 4.05$, $SD = 1.13$) than they did ($M = 5.72$, $SD = 0.99$), paired $t(97) = 12.10$, $p < .001$, $d = 1.22$. Although including beliefs about mental capacity reduced the effect of condition on the selection of paternalistic policies in a 5,000-sample boostrapped mediation model (using SPSS "Memore" macro; Montoya & Hayes, 2016), from $\beta = -1.00$, $p < .001$ to $\beta = -0.69$, $p = .006$, the indirect effect was nonsignificant: $-0.31$ ($SE = 0.21$), 95% CI [$-0.77$, $0.07$], suggesting mental capacity beliefs did not fully mediate the effect (MacKinnon et al., 2007). Consistent with this analysis, the difference between the self-targeted and other-targeted conditions on selection of

paternalistic policies and mental capacity beliefs was nonsignificant, although in the predicted direction, $r = -.14$, $p = .166$.

These findings replicate our effects in Experiment 4a using a cleaner experimental manipulation. However, because mental capacity beliefs did not significantly mediate our effect in this experiment, these findings also add a cautionary note that the self/other difference in perceived effectiveness of paternalism may be driven by other factors in addition to beliefs about the targets' mental capacities. Taken together, three results emerge from Experiments 4a and 4b: (1) individuals believe that they have greater mental capacity than do others, replicating prior work (Waytz et al., 2014), (2) individuals believe paternalistic aid is more effective for others than for themselves, and (3) the self/other difference in perceived effectiveness of paternalism is at least partly because of differences in perceived mental capacities.

## Experiment 5a and 5b: Paternalistic Policies for Me, You, and Children

Experiments 5a and 5b tested our hypotheses in two new domains: at work (Experiment 5a) and at school (Experiment 5b). To better understand the magnitude of difference in preferences be-

Table 2

*Policies Used in Experiment 4b*

| Domains | Policy | | Percentage who selected paternalistic policy as most effective | |
|---|---|---|---|---|
| | Paternalistic | Agentic | Self | Other |
| Healthy eating | Unhealthy food ban—Bans you [citizens] from ordering and consuming entrées at fast food restaurants that contain more than half of the American Heart Association's recommended daily cholesterol intake. You [Your citizens] will not be allowed to consume such entrées. | Calorie count—Requires all fast food restaurants in the state to provide the number of calories in each entrée. You [Your citizens] will be able to read the calorie counts and make informed decisions regarding your [their] choice of entrée. | 25.5 | 44.9 |
| Credit card debt | Maximum credit limits—Sets maximum credit limits that you [your citizens] cannot exceed. You [Your citizens] will not be allowed to spend more than the allotted maximum in any month. | More financial information—Requires all credit card companies to provide information about the length of debt, their late payment penalties, and their interest rates. You [Your citizens] will be able to read this information and make informed decisions about paying off your [their] credit cards. | 34.7 | 55.1 |
| Gun violence | Gun ban—Bans you [citizens] from buying certain types of guns deemed unsafe, such as assault rifles, and also screens citizens who are deemed unsafe, such as those who have a history of mental health problems, from purchasing any guns. | Safety course—Requires you [citizens] to take a safety course prior to being able to purchase a gun. You [Your citizens] will be able to use this information to handle your [their] own gun[s] more safely. | 33.7 | 55.1 |
| Savings rate | Mandatory retirement accounts—Requires you [citizens] to enroll in 401k retirement plans. Enrollment is mandatory with no option to opt out. | Optional retirement accounts—Requires companies to automatically enroll the employees into 401k retirement savings plans, but employees have the option to opt out of the plan at any time. You [Your citizens] will be able to choose whether to stay in the [their] retirement plan or to opt out. | 37.8 | 55.1 |
| Mortgage debt | Mandatory mortgage requirements—Requires more rigorous requirements for obtaining a mortgage loan to ensure that home buyers are less likely to default on their loans. You [Your citizens] will be unable to obtain loans unless you [they] meet the minimum requirements. | Clearer mortgage documents—Requires mortgage lenders to simplify their loan documents in order to make them as comprehensible as possible for home buyers. You [Your citizens] will be better able to choose a [their] mortgage loan with clearer loan documents. | 26.5 | 48.0 |

tween oneself and others, we also asked participants to choose paternalistic policies for middle-school-age children. We predicted that adult individuals would readily endorse more paternalistic strategies for children than for themselves, partly because people perceive children to have weaker mental capacities than the average adult (Gray et al., 2007). We likewise predicted that participants would treat an average adult more paternalistically, more like a child, than they prefer to be treated themselves. Treating adults as childlike has been identified as a form of dehumanization (Jahoda, 1999; Saminaden, Loughnan, & Haslam, 2010) and comparing evaluations of other adults against evaluations of the self and children will identify the degree to which providing paternalistic aid reflects subtly dehumanizing beliefs about other adults' mental capacities. We pre-registered our predictions on Open Science Framework (https://osf.io/j2zr6/).

## Experiment 5a

### Method.

*Participants.* Consistent with earlier experiments, we targeted 80 participants in each of our three experimental conditions. More participants completed the study than we targeted: In total, 288 U.S. citizens recruited through Amazon.com's MTurk website ($M_{age} = 35.14$, $SD_{age} = 11.58$, 125 women) completed the survey in exchange for \$0.60.

*Procedure.* Only individuals who worked in a large organization with more than one division participated. We randomly assigned participants to one of three conditions, whereby they were asked to either think about their own division at work (self condition), think about "the average employee" from another division at work (average adult condition), or think about "the average middle school student" (average child condition). We asked participants to imagine that the supervisor at their division, the supervisor at the other division, or the middle school principal was considering making some policy changes that would affect them directly, affect the average employee in the other division, or affect the average child at the middle school.

We asked participants to select the policy option that would be most effective for themselves, the average adult, or the average child for six different types of policies (Table 3). Each policy choice contained two options, one more paternalistic than the other. For instance, in the example below, implementing a dress code is more paternalistic than simply recommending attire:

> Which of these policies would be most effective in increasing a sense of professionalism for the average employee?
>
> ■ Recommended attire—The Supervisor will provide all employees with a list of suggested clothing to wear to work. The employees will be able to read the clothing recommendations and make informed decisions regarding their choice of attire.
>
> ■ Dress code—The Supervisor will require all employees in the division to adhere to a strict dress code. Employees in the division will not be able to deviate from the dress code or they will face penalties from the Supervisor.

Following this task, participants rated the target's mental capacity in each of the six domains for which they previously made policy decisions ($\alpha = .84$). We predicted that participants who thought about themselves would afford themselves the most ca-

pacity and thereby choose the least paternalistic policies, whereas those who thought about the middle schoolchildren would believe they had least capacity and select the most paternalistic policies for them, and those who thought about the employees in the other division would make paternalistic selections in between those of the other two conditions.

**Results.** As predicted, participants were more likely to select paternalistic policies for employees in the other division (out of six policies, $M = 2.33$, $SD = 1.68$) than for themselves ($M = 1.69$, $SD = 1.52$), $\chi^2(6) = 13.80$, $p = .03$, $\varphi = .27$, but were most likely to select paternalistic policies for middle schoolchildren ($M = 3.89$, $SD = 1.61$) compared with either other employees, $\chi^2(6) = 39.21$, $p < .001$, $\varphi = 0.45$, or to themselves, $\chi^2(6) = 66.26$, $p < .001$, $\varphi = 0.58$.

To assess whether this difference was related to participants' beliefs about their own versus others' versus children's mental capacity, we averaged together the six items asking about participants' own or others' mental capacity into a single composite measure. A significant one-way ANOVA, $F(2, 285) = 45.85$, $p < .001$, $\eta_p^2 = 0.24$, revealed that participants believed they were more mentally capable ($M = 6.10$, $SD = 0.84$) than the average other employee ($M = 5.48$, $SD = 1.04$), $t(285) = 4.12$, $p < .001$, $d = 0.49$, or the average middle school student ($M = 4.68$, $SD = 1.22$), $t(285) = 9.55$, $p < .001$, $d = 1.13$, and believed that the average other employee was more capable than the average middle school student, $t(285) = 5.32$, $p < .001$, $d = 0.63$.

This difference in beliefs about participants' own versus others' mental capacities partially mediated their selection of more paternalistic policies for average other employees or children (coded 0) versus themselves (coded 1), reducing the path from $\beta = -1.44$, $p < .001$ to $\beta = -1.03$, $p < .001$, with a significant indirect effect of $-0.41$ ($SE = 0.11$), 95% CI $[-0.65, -0.22]$ (MacKinnon et al., 2007) using a 5,000-sample bootstrapped mediation model (SPSS "Indirect" Macro; Preacher & Hayes, 2008; Figure 5). Participants believed that paternalistic policies would be more effective for others and children than themselves, a difference that appeared to stem at least in part from the belief that others and children have diminished mental capacity.

Experiment 5b provides another test of this hypothesis, asking participants to evaluate all three targets (self, other adults, and children) in a within-participants design, using policies that are relevant to an educational setting.

## Experiment 5b

### Method.

*Participants.* Because we expected that a within-participants design might reduce our effect sizes, we targeted more participants to maximize statistical power, aiming for about 150 participants. We met our target: In total, exactly 150 college students ($M_{age} = 20.35$, $SD_{age} = 3.89$, 76 women) completed the survey in exchange for \$2.00.

*Procedure.* Participants followed the same procedure as Experiment 5a with three changes. First, to increase generalizability we used a different sample in which we recruited college students at the University of Chicago and asked them to evaluate policies for themselves (self condition), "the average student" at a local University (DePaul University; average adult condition), and "the average middle school student" (average child condition) in counterbalanced order. Second, we asked

Table 3
*Policies Used in Experiment 5a*

| Domains | Policy | | Percentage who selected paternalistic policy as most effective | | |
|---|---|---|---|---|---|
| | Paternalistic | Agentic | Self | Average adult | Average child |
| Increasing professionalism | Dress code: The Supervisor will require all employees in the division to adhere to a strict dress code. Employees in the division will not be able to deviate from the dress code or they will face penalties from the Supervisor. | Recommended attire: The Supervisor will provide all employees with a list of suggested clothing to wear to work. The employees will be able to read the clothing recommendations and make informed decisions regarding their choice of attire. | 15.5 | 33.3 | 50.0 |
| Decreasing disruptions | Banning cell phones: The Supervisor will ban employees from bringing cell phones into meetings. Employees will not be allowed to bring their cell phones into meeting rooms. | Reminder to silence cell phones: The Supervisor will remind all employees to silence their cell phones before the start of meetings. The employees will be able to keep their cell phones on their person. | 19.6 | 33.3 | 61.2 |
| Reducing illness | Mandatory vaccinations: The Supervisor will require all employees in the division to get vaccinated and provide proof of vaccination before they are allowed to return to work. | Optional vaccinations: The Supervisor will provide information about the benefits of vaccinations to all employees in the division and ask them to get vaccinated. Employees will be able to use this information and reminder as they see fit. | 34.0 | 41.9 | 78.6 |
| Decreasing absenteeism | Sick day doctor notes Required: The Supervisor will require employees to bring a note from their doctor to prove that they were sick. | Sick day doctor notes Suggested: The Supervisor will grant employees a "sick day" when they say they are sick. Employees will not be required to provide proof they were sick. | 29.9 | 50.5 | 60.2 |
| Increasing sanitation | Chewing gum ban: The Supervisor will ban employees in the division from chewing gum in the workplace. Employees found to be violating the policy will face penalties. | Chewing gum discouragement: The Supervisor will discourage employees in the division from chewing gum in the workplace. The Supervisor will explain the negative impact of chewing gum on office sanitation. | 36.1 | 45.2 | 71.4 |
| Increasing healthy eating | Removing high-calorie snacks: The Supervisor will have snacks with more than 500 calories removed from the vending machines in the division. Employees will not have access to snacks with more than 500 calories. | Vending machine with calorie labels: The Supervisor will have the vending machines in the division fitted with clearly marked calorie labels for all of the snacks. Employees will be able to use this information to make well-informed decisions about which snacks they purchase. | 34.0 | 29.0 | 67.4 |

about seven policies rather than six. Because of the different sample, we also adjusted the questions so that the policy choices would make sense for schools instead of workplace organizations (Table 4). The decision-maker for each policy



*Figure 5.* The perceived effectiveness of paternalistic policies for oneself versus others is partially mediated by perceptions of one's own versus others' mental capacities (Experiment 5a).

was either the president of the University of Chicago (self condition), the president of DePaul University (adult condition), or the principal of the middle school (child condition). Finally, participants compared all three targets' mental capacity in a within-participants design (order counterbalanced).
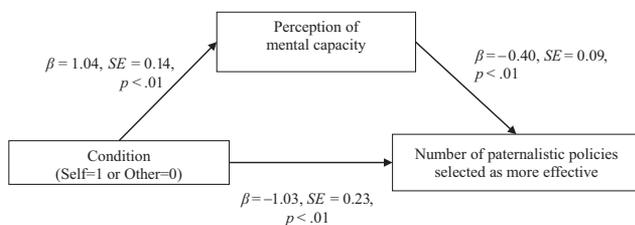
## Results

As predicted, participants were more likely to select paternalistic policies for the average DePaul University student (out of seven policies, $M = 3.57$, $SD = 1.78$) than for themselves as University of Chicago students ($M = 3.28$, $SD = 1.86$), paired $t(149) = 2.19$, $p = .030$, $d = 0.16$, but were most likely to select paternalistic policies for the average middle school student ($M = 5.09$, $SD = 1.61$) compared with either DePaul students or to themselves, paired $t$s $= 11.34$ and $12.14$, $p$s $< .001$, $d$s $= 0.90$ and $1.04$, respectively.

Table 4
*Policies Used in Experiment 5b*

| Domains | Policies | | Percentage who selected paternalistic policy as most effective | | |
|---|---|---|---|---|---|
| | Paternalistic | Agentic | Self | Average adult | Average child |
| Increasing homework completion | Late homework not accepted: The President will require all students to turn in all homework assignments on time or receive no credit. | Late homework discouraged: The President will allow students to receive full credit for late homework assignments if they have legitimate excuses (as evaluated by the course instructors). | 53.3 | 58.7 | 58.0 |
| Increasing comprehension of course material | Mandatory exams: The President will require that all courses have final exams. | Optional exams: The President will allow all courses to have a choice in administering either a final exam, a final paper, or a final presentation. | 28.7 | 30.7 | 42.0 |
| Decreasing class disruptions | Banning cell phones: The President will ban students from bringing cell phones into classes. Students will not be allowed to bring their cell phones into classrooms. | Reminder to silence cell phones: The President will remind all students to silence their cell phones before the start of classes. The students will be able to keep their cell phones on their person. | 29.3 | 34.0 | 80.7 |
| Reducing illness | Mandatory vaccinations: The President will require all students to get vaccinated and provide proof of vaccination before they are allowed to return to class. | Optional vaccinations: The President will provide information about the benefits of vaccinations to all students and ask them to get vaccinated. Students will be able to use this information and reminder as they see fit. | 78.7 | 84.0 | 89.3 |
| Decreasing absenteeism | Sick day doctor notes required: The President will require students to bring a note from their doctor to prove that they were sick. | Sick day doctor notes suggested: The President will grant students a "sick day" when they say they are sick. Students will not be required to provide proof they were sick. | 48.7 | 59.3 | 80.0 |
| Increasing sanitation | Chewing gum banned: The President will ban students from chewing gum in the classroom. Students found to be violating the policy will face penalties. | Chewing gum discouraged: The President will discourage students from chewing gum in classrooms. The President will explain the negative impact of chewing gum on classroom sanitation. | 40.7 | 48.7 | 79.3 |
| Increasing healthy eating | Removing high-calorie snacks: The President will have snacks with more than 500 calories removed from the vending machines on campus Students will not have access to snacks with more than 500 calories. | Vending machine with calorie labels: The President will have the vending machines on campus fitted with clearly marked calorie labels for all of the snacks. Students will be able to use this information to make well-informed decisions about which snacks they purchase. | 48.7 | 41.3 | 79.3 |

To assess whether this difference was related to participants' beliefs about their own versus other students' versus children's mental capacity, we averaged together the seven items asking about participants' own or others' mental capacity into a single composite measure ($\alpha$s > .74). A significant one-way repeated measures ANOVA, $F(2, 298) = 100.37$, $p < .001$, $\eta_p^2 = 0.40$, revealed that participants believed they were more mentally capable ($M = 5.73$, $SD = 0.88$) than the average DePaul University student ($M = 5.30$, $SD = 1.03$), paired $t(149) = 6.11$, $p < .001$, $d = 0.73$, or the average middle school student ($M = 4.54$, $SD = 1.02$), paired $t(149) = 12.30$, $p < .001$, $d = 1.43$. As in Experiment 5a, participants believed other university students were less

mentally capable than they were themselves, and indicated that paternalistic policies would be more effective for others than for themselves.

To test for mediation, we combined the average adult and average child conditions into a single "other target" condition. Including beliefs about mental capacity reduced the effect of condition (self, coded as 1 vs. other, coded as 0) on the selection of paternalistic policies in a 5,000-sample bootstrapped mediation model (using SPSS "Memore" macro; Montoya & Hayes, 2016), from $\beta = -1.05$, $p < .001$ to $\beta = -0.89$, $p < .001$, but the indirect effect was nonsignificant: $-0.16$ ($SE = 0.14$), 95% CI [$-0.48$, 0.08], suggesting mental capacity beliefs did not fully

mediate the effect (MacKinnon et al., 2007). To examine this further, we ran three subsequent mediation models comparing each of the experimental conditions (child vs. adult, self vs. child, and self vs. adult). The indirect effect for the child versus adult comparison was statistically significant (0.27, $SE = 0.11$, 95% CI [0.07, 0.51]), but the indirect effects for other comparisons were nonsignificant (self vs. child: $-0.32$, $SE = 0.18$, 95% CI [$-0.72$, 0.004]; self vs. adult: $-0.04$, $SE = 0.07$, 95% CI [$-0.21$, 0.07]). We note that the number of paternalistic policies selected and mental capacity beliefs only significantly correlated in the child condition, $r = -.16$, $p = .05$, but not in the self condition, $r = -.01$, $p = .862$, nor the adult condition, $r = -.09$, $p = .253$, suggesting that mental capacity inferences alone may not account for paternalistic policy selection when making selections for oneself or another adult. Lack of mental capacity is more salient in a child than in an adult or in oneself (Gray et al., 2007), which may partially explain why our participants seemed to draw more on mental capacity inferences to make aid decisions for children than for other groups. Because prior research points to many other predictors of paternalism (Nadler & Halabi, 2006), we think it is outside the scope of the paper to determine the comprehensive set of mediators for the effects we consistently demonstrate in Experiments 4a-5b. We simply conclude that mental capacity beliefs seem to be one predictor of how people determine which types of aid are appropriate for different targets, although more predictors undoubtedly also exist.

It is worth noting that although participants in both Experiments 5a and 5b supported paternalism for other adults more than for themselves, they did not evaluate other adults and children identically. Indeed, participants thought paternalistic policies would be even more effective for children than for other adults, a finding in line with perceived differences in mental capacity. This suggests paternalism might seem even more effective for outgroups that are also more dehumanized as childlike (e.g., indigenous people; see Saminaden et al., 2010), possibly to a point where they would be treated in the same way as children.

## Experiment 6: Paternalism for a Weak-Willed Self

Prior experiments demonstrate that people believe paternalistic aid will be more effective for others with weaker mental capacities; Experiment 6 tests whether these beliefs extend to the self. To test this, we asked participants to evaluate the effectiveness of four policies for reducing obesity either just before or just after a major cultural temptation for overeating in America: Thanksgiving dinner. Two policies were relatively paternalistic, and two were relatively agentic. We predicted that participants would think that the paternalistic policies would be more effective just after their Thanksgiving dinner than just before it because they would recognize more weakness in their own mental capacity shortly after Thanksgiving than shortly before it.

## Method

**Participants.** Based on effect sizes from earlier experiments, we targeted 100 participants per condition. A final sample of 198 participants from a research laboratory email listserv ($M_{age} = 25.96$, $SD_{age} = 11.05$, 112 women) consented to complete a survey in exchange for a lottery prize (their choice of $1 and one entry

into a lottery for an iPhone 5C, or two entries into the lottery for the iPhone).

**Procedure.** Participants first completed a presurvey in which they learned about the study procedure and incentives, consented to complete the survey at their assigned time, gave their contact information, and reported their demographics. In the presurvey, we randomly assigned 100 of these participants to complete a second survey before Thanksgiving (emailed the survey link at 7 PM the Tuesday before Thanksgiving), and the other 98 participants to complete the survey after Thanksgiving (emailed the survey link at 7 PM on Thanksgiving day). To maximize participation, we told participants that they needed to respond within two days to be eligible for the iPhone lottery and that they would receive one text message reminder if they did not respond within a day. Eighty-five participants completed the survey before Thanksgiving (85% response rate) and 86 participants completed the survey after Thanksgiving (88% response rate) within the allotted 2-day time frame.

To remind participants about their (potential) mental weakness, we asked them to list up to 20 food dishes they consumed for lunch and dinner that day (in the before condition) or for Thanksgiving lunch or dinner (in the after condition). Next, we asked participants how effective (1 = *not at all effective*; 7 = *very effective*) four policies would be for them personally to encourage healthy eating. We selected two policies that were relatively paternalistic: "Reduce portion size in restaurants by 1/3" and "Eliminate all entrées in restaurants that are in the top 5% of total calories." We also selected two policies that were relatively agentic: "Include calorie counts for all entrées, side dishes, and desserts in restaurants" and "Launch a large-scale advertising campaign to raise awareness about healthy eating." We presented these policies to participants in a random order.

Finally, participants rated their own mental capacity, using the same general scale from earlier experiments but modified to fit the context. Specifically, participants rated how much they agreed ($-3$ = *strongly disagree*; 3 = *strongly agree*) with the following statements in randomized order: (a) I always engage in a great deal of thought before I act, (b) Everything I do is on purpose, (c) I am not always aware of my goals (reverse-scored), (d) I sometimes lack self-restraint (reverse-scored), (e) I sometimes behave mindlessly (that is, without thinking very much first; reverse-scored), (f) I plan every action before I do it, (g) I have excellent self-control, and (h) Sometimes I have trouble exerting willpower over my goals (reverse-scored). These items formed our mental capacity index ($\alpha = .85$).

## Results

We averaged the perceived effectiveness of the two paternalistic, $r = .45$, $p < .001$ and two agentic policies, $r = .33$, $p < .001$ into separate composites. As predicted, participants who completed the survey the day after Thanksgiving thought the two paternalistic policies would be more effective ($M = 3.99$, $SD = 1.41$) than participants who completed it the day before Thanksgiving ($M = 3.50$, $SD = 1.61$), $t(169) = 2.14$, $p = .034$, $d = 0.33$. Also as predicted, participants who completed the survey the day after Thanksgiving believed they had weaker mental capacities ($M = 4.17$, $SD = 1.07$) than those who completed the survey the day before Thanksgiving ($M = 4.55$, $SD = 1.14$), $t(169) = 2.30$,
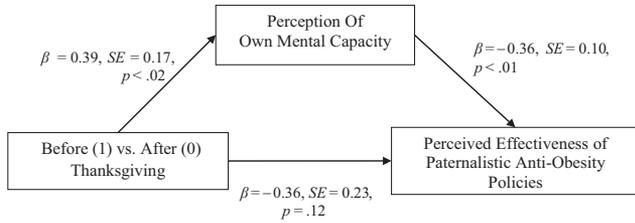
*Figure 6.* Completing the survey before or after Thanksgiving influenced participants' beliefs about their own mental capacity, which in turn affected the effectiveness of paternalistic policies to reduce obesity (Experiment 6).

$p = .023$, $d = 0.35$. As shown in Figure 6, participants' ratings of their own mental capacity mediated the effect of survey timing (before = 1, after = 0) on perceived effectiveness of the paternalistic policies, reducing the path from $\beta = -0.49$, $p = .034$ to $\beta = -0.35$, $p = .121$, with a significant indirect effect of $-0.14$ ($SE = 0.08$), 95% CI [$-0.35$, $-0.02$]; MacKinnon et al., 2007) using a 5,000-sample bootstrapped mediation model (SPSS "Indirect" Macro; Preacher & Hayes, 2008).

We observed a similar, but weaker, effect on the relatively agentic policies. Participants who completed the survey the day after Thanksgiving thought the two agentic policies would be more effective ($M = 4.48$, $SD = 1.47$) than participants who completed it the day before Thanksgiving ($M = 4.11$, $SD = 1.54$). This effect, however, was statistically nonsignificant, $t(169) = 1.63$, $p = .104$, $d = 0.25$, and we did not observe indirect mediation of mental capacity ratings on evaluations of the agentic policies ($-.02$, $SE = 0.05$), 95% CI [$-0.15$, $0.06$]; MacKinnon et al., 2007). Table 5 shows the effect of condition on each policy.

These results demonstrate a unique effect derived from our theoretical account: Reminding people that they, too, experience moments of mental weakness increases the perceived effectiveness of paternalism for oneself.

## Experiment 7: Inferring Mental Capacity From Paternalistic Giving

Experiment 1–6 demonstrate a causal relationship between beliefs about a group's or individual's mental capacities and how to

help them. Our final experiment tests whether the inverse relationship exists: Does observing someone receive more paternalistic aid make the recipient seem less mentally capable?

### Method

**Participants.** Because we did not know what effect size to expect, we targeted 200 participants in total. Participants were exposed to two within-subject experimental conditions, but randomly assigned to four different orders, therefore yielding about 50 participants for each possible order. In total, 210 U.S. citizens recruited through Amazon.com's MTurk website ($M_{age} = 36.21$, $SD_{age} = 12.09$, 136 women) completed the survey in exchange for $0.35 each.

**Procedure.** For the survey introduction, participants read:

> In today's study, you will learn about the United Nations High Commissioner for Refugees (UNHCR), which protects refugees. You will find out how the UNHCR handled two recent refugee emergencies and then you will make some judgments about the refugee families that were helped.

The survey procedure had five parts: first, participants learned about the paternalistic versus agentic aid methods; second, participants learned about two different refugee families; third, participants learned which aid method was provided to which family; fourth, participants made judgments about the mental capacities of each family; finally, participants completed manipulation checks and reported their demographic information. Our experimental design was therefore a 2 (Family A vs. Family B) × 2 (Aid method: paternalistic vs. agentic) entirely within-participant, with order counterbalanced throughout the survey.

To first manipulate the type of aid, we told participants that "UNHCR provides different types of aid depending on their administrators' assessments of refugees' needs." We focused on two different "methods of providing food and shelter" (counterbalanced order). We described these aid methods (paternalistic vs. agentic) in the following way:

> UNHCR's local administrators assess what refugees need and then [purchase food and build shelter for] / [give cash directly to] refugees. . . . This method of aid is relatively [more] / [less] paternalistic because [the administrators make choices for the refugees

Table 5
*Perceived Effectiveness of Paternalistic and Agentic Policies to Reduce Obesity for Participants Assigned to Complete Survey Before or After Thanksgiving Dinner in Experiment 6*

| Paternalistic and agentic policies | How effective would this policy be for you? (1 = *not at all effective*; 7 = *very effective*) | |
|---|---|---|
| | Before Thanksgiving (M, SD) | After Thanksgiving (M, SD) |
| Paternalistic policies | | |
| Reduce portion size in restaurants by one third. | 3.84 (2.04) | 4.21 (1.62) |
| Eliminate all entrees in restaurants that are in the top 5% of total calories. | 3.16 (1.66) | 3.78 (1.78) |
| Agentic policies | | |
| Include calorie counts for all entrees, side dishes, and desserts in restaurants. | 4.38 (2.02) | 4.72 (1.84) |
| Launch a large-scale advertising campaign to raise awareness about healthy eating. | 3.84 (1.82) | 4.24 (1.71) |

about what they need and then provide it to them directly] / [it gives refugees the freedom to make their own choices about what they need].

See the online supplemental materials for full descriptions of both types of aid. To ascertain that participants had carefully read the information we provided, we asked them to (a) "Briefly describe the two different types of aid that UNHCR can provide to refugees" and (b) "How does UNHCR decide what type of aid to provide?" Both of these questions had open-ended response boxes, and participants could write anything they wanted to move on to the rest of the survey.

Participants next learned about two different refugee families from Africa, one from South Sudan and the other from Cameroon. We selected these two countries because we believed it was very unlikely that our American MTurk participants would be familiar with them, and because they were actually experiencing humanitarian crises at the time of the experiment. We provided participants with short descriptions of each family in counterbalanced order (e.g., "The Sudanese family of refugees has been living in a climate of war and violent conflict" and "The Cameroon family of refugees left their home when a violent political uprising led to militants brutally killing civilians and looting their homes"). The descriptions were of similar length, contained the same theme of each family fleeing their homes because of violent conflict, and reported each family was "in desperate need of food and shelter." See the online supplemental materials for full descriptions of each family.

Third, participants learned about UNHCR's aid response (paternalistic or agentic) to each family:

> UNHCR sent a staff member to assess the needs of this family. The staff member determined that the most effective way to provide aid is to [purchase food and shelter for] / [give cash to] these refugees. . . . Therefore, these refugees [will not select their own food or shelter; UNHCR will purchase or build it for them] / [can select their own food or shelter without any input from UNHCR].

To judge each family's mental capacities, participants then completed the eight-item mental capacity scale described in Experiment 1 (agentic aid condition: $\alpha$ = .86; paternalistic aid condition: $\alpha$ = .86). We modified each item so that it referred to the refugees and was probabilistic because participants did not know very much about the refugees (e.g., "These refugees probably have excellent self-control"; "These refugees probably do most things on purpose"; "These refugees probably don't know what is good for them.")

To measure beliefs about how wisely the refugees would spend cash, we then asked participants a series of items similar to those used in Experiments 1 and 2, and averaged them together into an index in each condition (agentic aid condition: $\alpha$ = .83; paternalistic aid condition: $\alpha$ = .86). Specifically, participants rated: (a) How likely would these refugees be to spend the cash wisely? (b) How likely would these refugees be to waste the cash? (reverse-scored; c) How likely would these refugees be to spend the cash on food and shelter (vs. other purchases like drugs and alcohol)? (d) How likely is it that these refugees would spend the cash more efficiently and appropriately than UNHCR administrators would have spent it? (1 = *very unlikely*; 7 = *very likely*). If the refugee family had not been given cash, we asked participants to "imagine

the refugees had been given cash instead of food and shelter" and make the same judgments.

Finally, to check our manipulation, participants reported how "paternalistic UNHCR was" to each family (1 = *not at all*; 7 = *very much*), and reported their age, gender, and political affiliation.[2]

## Results

Our manipulation check confirmed that participants believed the aid method described in the paternalistic aid condition was more paternalistic (M = 5.42, SD = 1.96) than the aid method described in the agentic aid condition (M = 2.81, SD = 1.96), t(156) = 10.32, p < .001, d = 0.82. Supporting our primary hypothesis, participants believed that refugees who received paternalistic aid had less mental capacity (M = 4.58, SD = 1.12) than did refugees who received agentic aid (M = 5.13, SD = 0.94), t(209) = −7.41, p < .001, d = 0.51. They also believed these refugees were less likely to spend the money wisely (M = 4.56, SD = 1.25) than were those who received agentic aid (M = 5.03, SD = 1.10), t(209) = 5.54, p < .001, d = 0.38.

The effect of aid type on beliefs about recipients' mental capacities was mediated by how paternalistic the aid type seemed, reducing the path from $\beta$ = 0.56, p < .001 to $\beta$ = 0.37, p = .001, with a significant indirect effect of 0.19 (SE = 0.06), 95% CI [0.08, 0.32] (MacKinnon et al., 2007) using a 5,000-sample bootstrapped mediation model (using SPSS "Memore" macro; Montoya & Hayes, 2016). This effect was also mediated by how wisely participants believed recipients would spend the cash, reducing the path from $\beta$ = 0.55, p < .001 to $\beta$ = 0.27, p < .001, with a significant indirect effect of 0.28 (SE = 0.07), 95% CI [0.16, 0.42] using a separate 5,000-sample bootstrapped mediation model.

These findings provide greater insight into the relationship between mental capacity inferences and paternalistic giving. Not only do beliefs about mental capacities inform decisions about whether to provide paternalistic aid, but paternalistic aid also, reciprocally, can influence beliefs about recipients' capacities. An organization's decision to treat an individual or group paternalistically may meaningfully affect how observers come to view the aid recipients. In this way, paternalism may be cyclical—the more that a group is treated paternalistically, the less mentally capable they will seem and the more that others may treat them likewise.

## General Discussion

Joy Sun, current Chief Operating Officer of GiveDirectly, described her prior belief on how to give aid by stating,

> I believed that I could do more good with money for the poor than the poor could do for themselves. I [assumed] that poor people are poor in part because they're uneducated and don't make good choices [and they] need people like me to figure out what they need and get it to them. (Sun, 2014)

Sun goes on to explain how her opinions have changed since she started working for GiveDirectly: "The more cash we give to the

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[2] This manipulation check was added at the end of the survey after data collection had started; only 157 participants out of 210 completed the manipulation check.

poor, the more evidence we have that it works . . . [Recipients do not] work less. In fact, they work more." Our research suggests that people tend to agree with Sun's prior belief on how to help others, preferring more paternalistic aid for recipients because they seem to have weaker mental capacities. But they agree with her current belief on how to help themselves, preferring more agentic aid (like cash) for themselves.

In nine experiments, we provide empirical evidence that people deem paternalistic aid to be more effective for those who are perceived to have weaker mental capacities. In Experiments 1–3, groups and individuals who were seen as less mentally capable were also provided with more paternalistic aid. When given a choice between a more agentic charity that provides cash directly to recipients and a more paternalistic charity that purchases items for recipients, participants selected the more agentic charity when they believed the recipients were more mentally competent. Although only perceived need predicts overall amount of giving, critically, beliefs about recipients' mental capacities better predict the *type* of aid provided (Experiment 2). Experiments 4a–5b provide evidence that people believe paternalism is more effective for others than for themselves, at least in part because others seem to have weaker mental capacities than the self. Across policy goals ranging from increasing healthy eating to reducing public health risk, individuals consistently selected more paternalistic policies when tasked with choosing the most effective policies for others than for the self. This was particularly true for a group perceived to have especially weak mental capacity: children. Our results suggest that individuals may treat other adults more like children than they treat themselves, endorsing paternalistic approaches for both these groups because they seem mentally weaker. The effect of mental capacity inferences on effectiveness of paternalistic aid also applies to oneself: In Experiment 6, being reminded of one's own mental weakness increased the perceived effectiveness of paternalism directed toward the self. Specifically, people rated paternalistic antiobesity policies as more effective just after they had a paradigmatic self-control failure—overeating on Thanksgiving—compared with just before Thanksgiving. Finally, Experiment 7 tested the inverse of this relationship, demonstrating that merely observing an organization provide a group with paternalistic aid makes observers believe the recipients must have weaker mental capacity. This suggests a way in which providing paternalistic aid may be relatively dehumanizing.

Across all experiments, participants consistently believed paternalistic aid would be more effective for those who seemed to have less mental capacity: people described as having diminished mental capacities (Experiments 1–3), other adults and children (Experiments 4a–5b), and oneself after experiencing a moment of mental weakness (Experiment 6). Whereas prior research examines how perceptions of others' minds predict *whether* people help others (Cuddy et al., 2007; Levine et al., 2005), our research suggests that these perceptions can also influence *how* people help others. Manipulating people's beliefs about both their own and others' mental capacities, simply by providing information about a group with which a donor is unfamiliar (Experiments 2 and 3) or by making mental weaknesses accessible (Experiment 6), affected support for paternalistic aid.

Our research bridges several previously disconnected literatures, advancing our understanding of dehumanization, prosociality, and paternalism. First, our research suggests that the subtle tendency to dehumanize others (Haslam & Loughnan, 2014)—to think of their mental capacities as relatively diminished compared with one's own (Pronin, 2009; Waytz et al., 2014)—matters because it can affect how people attempt to help each other. Thinking of others as relatively mentally incapable, perhaps more like children than like adults, can lead people to treat others as relatively childlike by providing paternalistic aid. We believe this is an important implication of emerging research on subtle forms of dehumanization. Whereas prior work has focused largely on how dehumanization affects people's willingness to hurt others (Bandura, Underwood, & Fromson, 1975; Kelman, 1973; Struch & Schwartz, 1989), the present work shows how dehumanization affects willingness to help others as well.

Second, whereas other research on the topic of prosociality focuses on how much people give, or whether or not they give, we instead examine *how* people give. Amount of giving is influenced by beliefs about recipients (e.g., in our own data, recipients' need), characteristics of givers (e.g., empathy, Batson, 1991; self-image, Ariely, Bracha, & Meier, 2009), and situational factors (e.g., bystanders, Darley & Latané, 1968; social pressure, Dana, Cain, & Dawes, 2006; DellaVigna, List, & Malmendier, 2012). In contrast, how people give is determined by a different set of factors, such as the perceived social status of the recipient (Nadler, 2002) and how much givers want to control recipients' consumption behavior (Currie & Gahvari, 2008). Expanding on this short list of predictors of how people give, we demonstrate that giving decisions are strongly influenced by givers' beliefs about recipients' mental capacities. More research may uncover further predictors. Regardless, the distinction that we draw between different types of giving—paternalistic versus agentic aid—creates meaningful categories previously unexplored. As such, our research develops a new lens by which to study prosociality.

Third, prior research has separately examined the predictors of recipients' willingness to receive paternalistic aid and donors' willingness to give it. For instance, previously identified predictors of recipients' opposition to paternalism include ideology and need for autonomy (Costa & Kahn, 2013; Cuddy et al., 2007; Jung et al., 2015; Sunstein, 2016; Tannenbaum & Ditto, 2016) whereas predictors of providers' endorsement of paternalism include beliefs about recipients' needs (Nadler, 2002). We unite these disparate literatures by proposing a common underlying psychological mechanism of aid decisions: beliefs about recipients' mental capacities. The belief that others have relatively weaker mental capacity than the self can simultaneously account for why it may seem more appropriate to provide paternalistic aid toward others (for whom it seems more effective) but less appropriate to provide paternalistic aid for the self (for whom it seems less effective).

Beyond theoretical contributions, we believe these results have important practical implications for policymakers, charitable organizations, and any others who are trying to improve people's lives through different sources of aid. Our own experiments do not indicate whether people support paternalism too much or too little. Prior research suggests that people sometimes *overestimate* the power of their own personal agency on their own behavior, perhaps rejecting paternalistic aid to their own detriment (e.g., Nordgren, van Harreveld, & van der Pligt, 2009; Thaler & Sunstein, 2008). Other times, such as when evaluating commonly dehumanized targets such as the poor, people may *underestimate* the importance of others' individual agency and prefer paternalism too

much. For instance, direct cash transfers, a very agentic source of aid, are significantly more effective for improving the welfare of the poor than more common sources of paternalistic indirect aid (Haushofer & Shapiro, 2016). Decisions about how to help others *should* be guided by empirical evidence about the actual effectiveness of particular interventions. Our experiments, however, demonstrate that these decisions in the absence of evidence may actually be guided by a less useful source: potentially mistaken inferences about the minds of those being helped. Those who design policy, offer aid, or try to help individuals in need would be wise to remember that good intentions may be guided by mistaken assumptions about the very people whose lives they are trying to improve.

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