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The Preference for Distributed Helping

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Whether deciding how to distribute donations to online requesters or divide tutoring time among students, helpers must often determine how to allocate aid across multiple individuals in need. This paper investigates the psychology underlying helpers' allocation strategies and tests preferences between two types of allocations: distribution (allocating help to multiple requesters) and concentration (allocating help to a single requester). Six main experiments and three follow-up experiments (n = 3,016) show a general preference for distributing help, because distribution feels procedurally fairer than concentration. We provide evidence for this preference in Experiment 1, test its psychological mechanisms (Experiments 2–3), and examine consequences for the amount of help provided (Experiments 4, 5a, and 5b). Experiment 3 demonstrates a boundary condition to the preference for distribution, showing that if one requester seems needier than others it can feel fairer to concentrate help to him or her. Next, testing real donation decisions in Experiments 4–5b, helpers distributed their donations across multiple requesters, which led them to donate more in aggregate when there were more requesters. Finally, the preference for distribution only resulted in more donations to a larger number of requesters when the donation decision was "unpacked," that is, when donors made allocations for each requester separately (Experiments 5a and 5b). Understanding helpers' allocation strategies provides insight into how people help others, how much they help, and why they help.

Keywords: donations, fairness, judgment and decision-making, prosocial behavior, resource allocation

Supplemental materials: http://dx.doi.org/10.1037/pspi0000179.supp

The decision to help others is both common and consequential. Scholars argue that humans' prosocial proclivities provide the necessary foundation for a functioning cooperative society (Aknin, Dunn, Whillans, Grant, & Norton, 2013; Anik, Aknin, Norton, & Dunn, 2009; Chudek & Henrich, 2011; Dunn, Aknin, & Norton, 2008). Accordingly, much research examines when people choose to help others or not (Batson, 1987; Cuddy, Rock, & Norton, 2007; Darley & Batson, 1973; Graziano, Habashi, Sheese, & Tobin, 2007). But relatively less work examines the decisions that take place *after* a person has already committed to helping, such as how to allocate one's help when there are multiple requesters in need. Such allocation decisions are quite common, from lenders distributing microloans among borrowers on Kiva.org, to volunteers dividing tutoring time among a class of children, to animal-lovers giving treats to animals at a local shelter.

The current paper examines how people choose to allocate their help, the psychology underlying their allocation strategies, and consequences for the amount of help allocated. Although many considerations can influence allocation decisions—such as perceptions of wastefulness, how much recipients will value the help, and affective responses from helpers—we propose that helpers' concern for procedural fairness will primarily lead them to prefer to distribute their help across multiple requesters (rather than concentrating help to particular requesters). Moreover, when requesters appear to have relatively homogeneous levels of need, helpers will prefer an equal an unequal distribution.

An important consequence of this preference for distribution is that it can increase the amount of help provided when helpers view multiple requesters. The very act of distributing help requires helpers to consider each requester's needs separately, thereby "unpacking" the helping decision. We predict that, when making decisions about how to allocate help among small groups of requesters, considering a larger (vs. smaller) number of requesters will provide people with more opportunity to distribute their help and will lead them to allocate more help in aggregate (albeit less help per individual requester). We test these predictions in nine experiments.

Allocation Strategies: Distributing or Concentrating Help

When faced with multiple individuals needing help, potential helpers must determine how to allocate aid. There are two mutually exclusive allocation strategies they can pursue—*distribution*,

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in which helpers distribute their aid to more than one requester, thereby increasing the breadth of their reach, or *concentration*, in which helpers concentrate their aid to a single requester, thereby increasing the potential depth of their reach. Within the distributed allocation strategy, we distinguish between complete distribution (helping all requesters) versus incomplete distribution (helping more than one but not all requesters). We further examine a subset of complete distribution: equal distribution (helping all requesters with the same amount of help).

The Psychology of Allocating Help

How do people determine whether to distribute their help among multiple requesters, or concentrate it on a single requester? There are several reasons to believe that people may typically prefer to distribute their help. First, distribution may feel more impactful and efficient because it helps a larger number of people, even if each requester is helped less. For example, prior research demonstrates that people are more likely to help requesters when they make up a larger proportion of the reference group (i.e., helping 10 of 100 people in need is preferred to helping 10 of 1,000 people in need) because it feels more impactful (Fetherstonhaugh, Slovic, Johnson, & Friedrich, 1997; see also Bartels, 2006; Bartels & Burnett, 2011). Relatedly, the "effective altruism" movement in charitable donations at least partly measures impact as the total number of people helped per dollar spent (Deaton, 2013; Gabriel, 2017; Singer, 2015), which also suggests that distributing help to many people may seem intuitively more impactful. Moreover, if helpers infer that recipients receive diminishing marginal utility from the help that they allocate (e.g., Kahneman & Tversky, 1979; von Neumann & Morgenstern, 1944), they may prefer to distribute their help so as to maximize the aggregate amount of utility gained from it—giving a little help to each person rather than a lot of help to one person.

Second, leaving a requester unhelped can provoke existential guilt and shame in a helper (Aknin, Mayraz, & Helliwell, 2017; Basil, Ridgway, & Basil, 2008; Dunn, Ashton-James, Hanson, & Aknin, 2010; Montada & Schneider, 1989). Negative emotional reactions to the thought of leaving others unhelped suggest that people may prefer to at least completely, if not equally, distribute their help.

Beyond these reasons, we propose that *fairness* is one of the most dominant concerns influencing allocation strategies. Fairness, or concern for whether some people are treated differently or ultimately profit more than others (Graham, Haidt, & Nosek, 2009), is a universal moral foundation (Haidt, 2007) and a commonly used decision-making heuristic (Deutsch, 1975; Lind, 1995; Lind, 2001; van den Bos, 2001).

Prior research shows that fairness concerns can affect two separate aspects of decisions: the decision-making process itself (i.e., procedural justice; Blader & Tyler, 2003; Gordon-Hecker, Rosensaft-Eshel, Pittarello, Shalvi, & Bereby-Meyer, 2017; Lind & Tyler, 1988; Sweeney & McFarlin, 1993) and/or the outcomes of the decision (i.e., distributive justice; Bar-Hillel & Yaari, 1993; Cook & Hegtvedt, 1983; Mitchell, Tetlock, Mellers, & Ordonez, 1993; Nozick, 1973; Sweeney & McFarlin, 1993). In prior research, procedural justice concerns aspects of the decision process, such as how transparently a decision is discussed and how consistently decision rules are applied (Dolan, Edlin, Tsuchiya, & Wailoo, 2007; Lind & Tyler, 1988). In contrast, distributive justice concerns aspects of the decision outcome, such as who receives which resource or how much of the resource. Applying these two forms of fairness to the domain of allocating help, concerns about procedural justice should influence the manner by which the allocation decision is made, regardless of its outcome (Dolan et al., 2007; Shaw & Olson, 2014), whereas concerns about distributive justice should influence how much help each requester receives, regardless of how it was allocated (Messick, 1995; Messick & Schell, 1992). These two components of fairness may conflict in allocation decisions when requesters have already received different amounts of help, because equally allocating more help could be considered procedurally just (i.e., a fair allocation decision) but distributively unjust (i.e., an unfair allocation outcome).

For several reasons, we predict that helpers are typically more concerned about maximizing procedural justice than distributive justice when making allocation decisions. In other words, they care relatively more about making an equal or equitable allocation than about each recipient's final amount of help gained. Egalitarian and utilitarian philosophies hold that lives should be valued equally (Baron & Szymanska, 2011; Berman, Murphy-Berman, & Singh, 1985; Dickert, Västfjäll, Kleber, & Slovic, 2012; Sinnott-Armstrong, 2011). People typically consider inequality to be intrinsically unfair (Bolton & Ockenfels, 2000; Fehr & Schmidt, 1999; Hook & Cook, 1979; Walster, Walster, & Traupmann, 1978). Consequently, people strongly dislike unequal helping allocations, especially those that benefit others more than the self (Bazerman, Loewenstein, & White, 1992; Loewenstein, Thompson, & Bazerman, 1989). Moreover, at least in some populations, people even dislike allocations that benefit the self more than others (Blake et al., 2015; Shaw & Choshen-Hillel, 2017).

Overall, these prior findings suggest a preference not only for distributing help among requesters (vs. concentrating it on a single requester), but also for completely distributing help (vs. incompletely distributing it). Our proposed mechanism of procedural justice further suggests a moderator: helpers should prefer to concentrate help only when they can justify the fairness of their allocation decision.

In helping decisions, one particular metric by which requesters are differentiated is their perceived neediness (Bar-Hillel & Yaari, 1993; Kienbaum & Wilkening, 2009; Paulus, 2014; Shah, 2009; Stahl, Tramontano, Swan, & Cohen, 2008; Ubel, 1999).[1] Helpers believe that needier individuals will value and use their help more (Dijker, Nelissen, & Stijnen, 2013), and neediness elicits sympathy and empathy, feelings that often incite help (Batson, 1987; Batson et al., 1991). In this way, we predict that helpers might be willing to deviate from a more distributed allocation strategy to a more concentrated allocation strategy when one requester seems significantly needier than the others.

A Consequence of Allocation Strategies: Helping Amount

In addition to considering how to allocate help to requesters (e.g., distributing or concentrating), helpers must also discern

[1] Other ways of differentiating requesters include how deserving (Appelbaum, 2002; Van Oorschot, 2006), attractive (Cryder et al., 2017), or competent (Schroeder et al., 2017) they seem.

how *much* to help (e.g., higher or lower donation amount). We propose that these processes are intimately tied, such that a helper's allocation strategy can affect his or her helping amount. The process of distributing help across multiple requesters, in particular, might aggregate to increase the total amount of help provided because it makes helpers consider each constituent requester in a group separately. In this way, distributing help is a form of unpacking, requiring helpers to make multiple decisions about each individual requester rather than a single decision about one requesteror a group of requesters.

In many domains, unpacking the constituent elements of a category, by describing the elements separately rather than collectively, prompts people to attend more to each element's inputs or outputs. For example, unpacking a category can increase the overall amount of support generated in favor of a focal hypothesis (Fischhoff, Slovic, & Lichtenstein, 1978; Rottenstreich & Tversky, 1997; Tversky & Kahneman, 1983; Tversky & Koehler, 1994). In one paradigmatic experiment, people indicated that they were more likely to die from "heart disease, cancer, or other natural causes" than simply from "natural causes" (Tversky & Koehler, 1994). In another set of experiments, unpacking a group reduces overclaiming by getting people to focus more on, and make higher estimates of, each group member's contributions to a project (Caruso, Epley, & Bazerman, 2006; Schroeder, Caruso, & Epley, 2016). More generally, assigning a probabilistic or evaluative judgment to constituent parts of a whole has been shown to increase those individual judgments beyond the "sum of its parts" (subadditivity; Ayton, 1997; Bearden, Wallsten, & Fox, 2007; Fox & Tversky, 1998).

One way to increase the opportunity for distributing help is simply to increase the number of requesters that a helper views. Prior research reveals mixed findings about how the number of requesters influences the amount of helping.

On the one hand, supporting our prediction, some studies show that when helping requests are unpacked, requiring helpers to separately consider requesters' needs, more requesters can increase the total amount of help provided (Andreoni, 2007; Soyer & Hogarth, 2011). For instance, in one donation experiment that manipulated the number of requesters, Andreoni (2007) found that as the number of requesters increases, each requester receives less money but the total group of requesters as a whole receives more. This experiment, however, forced equal distributions among requesters, precluding the possibility of concentrating donations to a single requester.

On the other hand, a separate set of findings demonstrates that when helping requests are packed and therefore treated as a single entity, people tend to provide *less* help to a set of requesters than to a single requester. For instance, Galak, Small, and Stephen (2011) found a significant *negative* effect of the size of the Kiva.org borrower group on loan value, indicating that larger borrower groups received smaller loans. Kogut and Ritov (2005a, 2005b), Västfjäll, Slovic, and Mayorga (2015), and Västfjäll, Slovic, Mayorga, and Peters (2014) demonstrated that people donate less to a group or pair of identified individuals than to a single individual. Other studies show insensitivity to the scope of need when the number of requesters is very large (e.g., people donate the same amount of money to a group of 2,000 as to a group of 200,000; Kahneman, 2003; Saini & Thota, 2010).

These prior studies did not measure the individual allocation strategies of helpers, or manipulate whether the helping requests were unpacked or packed. Here, we propose that the preference for distributed helping could, in part, explain the relationship between helping amount and requester number when making unpacked versus packed allocation decisions. Packed allocations—in which requesters' needs are considered as a single unit—provide no opportunity to distribute donations and individual requesters are less salient; thus helpers provide the same or fewer donations than they would to a single individual in need. Unpacked allocations—in which requesters' needs are considered separately—provide the opportunity for distributing donations, leading the helper to attend to each request and increasing the total help provided.

Note that although we predict that the total amount of help may increase with more unpacked requests, there is no reason to believe that it will increase *linearly*. A large body of research demonstrates at least some insensitivity to the scope of need, even when the allocation decision is unpacked (also called "congestible giving"; Andreoni, 2007; Loewenstein, Weber, Hsee, & Welch, 2001; McGraw, Todorov, & Kunreuther, 2011; Slovic, 1987). Therefore, the amount of help provided per requester should decrease as the number of requesters increases. Furthermore, logically and intuitively, when the number of requesters is large enough that helpers cannot reasonably consider each request separately, our prediction will no longer apply. We limit our empirical investigations in the current paper to helping decisions that involve 10 or fewer requesters.

Hypotheses

As illustrated in our theoretical model (see Figure 1), we propose that allocation strategies are formed after the decision to help is made and are guided by the perceived fairness of the

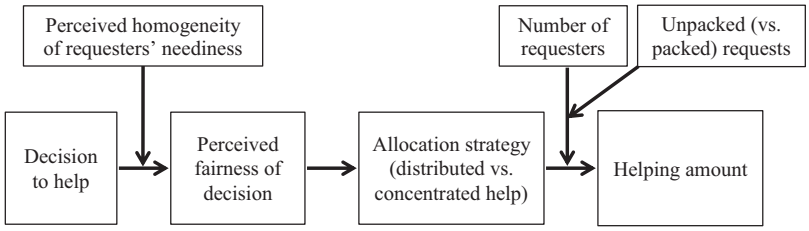

Figure 1. Theoretical model depicting a predicted antecedent (i.e., fairness) and consequence (i.e., helping amount) of allocation strategies and moderators of each effect.

allocation itself (i.e., procedural justice). Specifically, we predict that people will perceive allocations that distribute help across requesters as fairer than allocations that concentrate help (H1), which will lead to a preference for distributed help (H2a).[2] Moreover, complete or equal distribution will be preferred to incomplete distribution when requesters' neediness seems relatively similar (H2b). This preference for distribution (vs. concentration) will persist even when requesters have different baseline levels of a resource, which would make their final outcomes unequal, because concerns about procedural justice dominate distributive justice in this domain (H2c). Finally, the preference for distribution will be moderated by the perceived homogeneity of requesters' neediness; when one requester seems significantly needier than others, there may be relatively more concentration (H3).

Our model further considers the impact that allocation strategy can have on the amount of helping. We predict that distributing help across requesters can increase the total amount allocated because the process of distribution unpacks each requester's need (H4). This further suggests that seeing more (vs. fewer) requesters will increase the total helping amount, in part because each additional requester provides more opportunity for the helper to distribute aid (H5a). But we still expect that participants will show some insensitivity to the scope of need, such that the amount provided per requester will decrease as the number of requesters increases (H5b). Importantly, we only expect that more requesters will lead to more helping when the requests are "unpacked" such that each allocation decision is made separately for each requester, rather than as a single choice for all requesters ("packed"; H6).

Overview of Studies

We test our predictions in six main experiments and three follow-up experiments. All experiments examine allocation strategies (coded in Tables 1–4 and 6–10), categorizing strategies as distributed or concentrated and further categorizing the different forms of distribution (e.g., incomplete, complete, equal). For a summary and comparison of allocation strategies in Experiments 3–5b, see Table S1 in the Supplemental Materials. Experiments 1–3 test the antecedents of allocation decisions, and Experiments 4–5b test their consequences. Experiment 1 asks individuals to make a series of choices between more concentrated versus more distributed allocations to multiple requesters, testing whether the preference for distribution exists. Experiment 2 again provides helpers with sets of allocation choices and measures how fair each possible allocation seems, to examine whether perceived fairness mediates more distributed allocation decisions. Experiment 3 manipulates the homogeneity of requesters' neediness by changing their initial donation amount so that some requesters start with more money than others, making the latter appear needier. It tests whether helpers are more concerned about the fairness of the procedure (i.e., the allocation decision) or the fairness of the outcome (i.e., requesters' final donation total). It further examines other possible reasons (beyond fairness) for the preference for distribution, including efficiency, perceived prosocial impact, recipients' appreciation, and helpers' affect.

Next, considering consequences of allocation strategies, Experiment 4 manipulates the number of requesters to create more or less opportunity for distributing help. For thoroughness, we conducted two incentive-compatible follow-up experiments after Experiment 4 (Experiments S1 and S2 described in Supplemental Materials): one that conceptually replicates the effect of the number of requesters on total amount of money donated when helping decisions are unpacked, and one that examines allocation strategies in a field context with the donation of time instead of money. Finally, Experiments 5a and 5b test whether the allocation decision is packed (in which a single donation is made to a set of requesters) or unpacked (in which individual donations are made to each requester) moderates the effect of the number of requesters on donation amount. Distribution can only occur for unpacked allocations, so the number of requesters should only affect the donation amount in this condition.

For all experiments, we report how we determined our sample size, all data exclusions, all manipulations, and all measures. For experiments with similar designs, we did not allow individuals who had already participated in a prior experiment to participate again. Materials and data from all experiments can be found on Open Science Foundation at this link: https://bit.ly/2Kdo8v1.

Experiment 1: A Preference for Distributed Helping

We provide individuals with a set of donation choices in which they always choose between a more distributed or more concentrated allocation option, such as helping 100% of requesters but satisfying only 20% of each requester's need (i.e., a completely distributed allocation)[3] or helping only 20% of requesters but satisfying 100% of each requester's need (i.e., a concentrated allocation). In eight choice sets, we compare preferences for completely distributed allocations (i.e., helping all of the requesters in the group), incompletely distributed allocations (i.e., helping some of the requesters in the group), and concentrated allocations. We suspected that there would be both a preference for complete and incomplete distribution (compared with concentration) but that the preference for complete distribution might be stronger than that for incomplete distribution because it feels fairer. Finally, to test whether the magnitude of the donation affects preferences, we also manipulate donation size.

Method

Participants. Because we did not know exactly what effect size to expect, we aimed for 100 participants per condition, which should yield sufficient statistical power to detect a small-to-medium-sized effect. Our final sample was 99 adults recruited on Amazon's Mechanical Turk (U.S. citizens, M_{age} = 33.7, SD = 10.5, 45% female) for $0.75.

[2] It is possible that when the number of requesters becomes extremely large, distributing help could reduce the amount per requester to a size too small to be meaningful (because small enough units can become unrecorded; Thaler, 1999) so the preference for distribution could diminish again. We return to possible boundary conditions of the preference for distribution in the General Discussion.

[3] In Experiment 1, all allocations that are completely distributed (i.e., all requesters receive any amount of help) are also equally distributed (i.e., all requesters receive the same amount of help). In subsequent experiments, we consider allocations that are completely distributed but *not* equally distributed.

Table 1
Participants' Allocations for Each Choice Presented in Experiment 1

Choice	Allocation option	Percentage of request fulfilled	Amount provided per recipient	Percentage of requesters helped	Number of requesters helped	Total amount to spend	Participants' choices	Statistical test
Choice 1	CD	20%	$20	100%	10 people	$200	64%	$\chi^2(1, 98) = 7.36, p = .007$
	CC	100%	$100	20%	2 people		36%	
Choice 2	CD	40%	$40	100%	10 people	$400	62%	$\chi^2(1, 98) = 5.34, p = .021$
	CC	100%	$100	40%	4 people		38%	
Choice 3	CD	60%	$60	100%	10 people	$600	60%	$\chi^2(1, 98) = 3.65, p = .056$
	CC	100%	$100	60%	6 people		40%	
Choice 4	CD	80%	$80	100%	10 people	$800	62%	$\chi^2(1, 98) = 5.34, p = .021$
	CC	100%	$100	80%	8 people		38%	
Choice 5	ID	10%	$10	90%	9 people	$90	55%	$\chi^2(1, 98) = .82, p = .366$
	IC	90%	$90	10%	1 person		45%	
Choice 6	ID	20%	$20	80%	8 people	$160	63%	$\chi^2(1, 98) = 6.31, p = .012$
	IC	80%	$80	20%	2 people		37%	
Choice 7	ID	30%	$30	70%	7 people	$210	58%	$\chi^2(1, 98) = 2.27, p = .132$
	IC	70%	$70	30%	3 people		42%	
Choice 8	ID	40%	$40	60%	6 people	$240	55%	$\chi^2(1, 98) = .82, p = .366$
	IC	60%	$60	40%	4 people		45%	

Note. CD = Complete distribution; CC = Complete concentration; ID = Incomplete distribution; IC = Incomplete concentration. For each choice, participants considered 10 requesters who each requested $100 (i.e., $1,000 total needed)

Procedure and materials. Participants read that they would make a series of choices about "how to distribute money to groups of people." We manipulated how the money was distributed for each choice that participants made (see Table 1). To control for other aspects of the choice, we kept the total number of requesters always the same (10 people requesting help) and each person always requested the same amount ($100). Participants read:

> In Part 1 of this study, please imagine that there is just one group of 10 people that you could help. Each person in the group needs $100 (total amount needed is $1,000). In the next set of choices, you will tell us the choice that you would make if you had different amounts of money to give. For example, for one choice you may imagine having $100 to give; for another choice you may imagine having $500 to give.

In Choices 1–4 (depicted in Table 1), each choice presents a completely distributed allocation option in which all of the requesters receive an equal amount of money, compared with a concentrated allocation option in which only some requesters receive the same amount of money. In Choices 5–8 (also depicted in Table 1), each choice presents an incompletely distributed allocation option in which more requesters receive an equal amount of money compared with a concentrated allocation option in which fewer requesters receive the same amount of money. All choices were presented in randomized order with randomized response options.

Finally, Choice 9, depicted in Table 2 and always presented last, contained 10 options (randomized order) instead of two options like all of the preceding choices. Here we manipulated every possible option (concentrated, incompletely distributed, or completely distributed) using the total amount of $100 (i.e., giving $100 to 1 person, $50 to two people, $33.33 to three people, and so on). We told participants to select the single option that they would most prefer to allocate the money. Our theory predicts that participants would prefer the completely distributed allocation option ($10 to 10 people).

We included a second page in the survey that tested another research question and is not relevant to the current paper; these questions are reported in the Supplemental Materials.

Results

Choices 1–4 revealed our expected results: participants preferred to completely distribute their donation instead of concentrating it (*M*s for selecting the complete distribution allocation option = 64%, 62%, 60%, and 62% for each choice respectively), χ^2s(1, 98) > 3.65, *p*s < .056, *r*s > 0.19. Although this preference for complete distribution was not very strong for each individual choice, aggregating across all four choices revealed an overall preference for complete distribution compared with concentration, $\chi^2(1, 395) = 21.37, p < .001, r = .23$. Conversely, although there was a directional preference for incomplete distribution in Choices 5–8, the preference was weaker (*M*s for selecting the incomplete distribution allocation option = 55%, 63%, 58%, and 55% for each choice respectively) and statistically nonsignificant for three of the individual choices, χ^2s(1, 98) > 0.82, *p*s < .366, *r*s > 0.09. Aggregating across these four choices, there was a preference for incomplete distribution compared with concentration, $\chi^2(1, 395) = 8.49, p = .004, r = .15$. A comparison between the effect size in the first four choices compared with the latter four choices revealed the effect was only directionally (nonsignificantly) weaker for incomplete distribution ($r = .15$) than for complete distribution ($r = .23$), $z = 1.16, p = .246$.

Finally, as shown in Table 2, participants were most likely to select the completely distributed allocation option in their final choice ($10 to each of 10 requesters): 48% of participants chose this option, $\chi^2(1, 98) = 203.73, p < .001, r = 1.43$. This was significantly greater than chance (10%), one-sample $t(98) = 7.62$, $p < .001, d = 1.54$. Interestingly, the second most-preferred option was to concentrate the donation to one person ($100 to one requester): 22% chose this option, which was also significantly greater than chance, one-sample $t(98) = 2.91, p = .002, d = 0.59$.

Table 2
Participants' Allocations in the Final Choice in Experiment 1. Participants Selected One of Ten Possible Options for How to Distribute $100 to Ten Requesters Who Each Requested $100

Allocation option	Percentage of request fulfilled	Amount provided per recipient	Percentage of requesters helped	Number of requesters helped	Percentage of participants who selected each option
Option A (complete concentration)	100%	$100.00	10%	1 person	22%
Option B	50%	$50.00	20%	2 people	7%
Option C	33%	$33.33	30%	3 people	3%
Option D	25%	$25.00	40%	4 people	7%
Option E	20%	$20.00	50%	5 people	10%
Option F	16.67%	$16.67	60%	6 people	1%
Option G	14.29%	$14.29	70%	7 people	1%
Option H	12.50%	$12.50	80%	8 people	0%
Option I	11.11%	$11.11	90%	9 people	0%
Option J (complete distribution)	10%	$10.00	100%	10 people	48%

No other single option was preferred by more than 10% of participants.

Discussion

Helpers in Experiment 1 showed a preference for a completely distributed allocation strategy (62%), compared with a more concentrated allocation strategy with the same donation amount (38%), regardless of the total amount donated. However, although there was a preference for incomplete distribution (58%) compared with concentration (42%), this preference was slightly weaker than the preference for complete distribution. We suspect that complete distribution seems fairer than incomplete distribution, and both of these seem fairer than concentration, which may help to explain these preferences. However, we did not collect ratings of fairness in this experiment, or other possible predictors such as perceived prosocial impact, perceived wastefulness, and so on, and therefore cannot precisely determine whether perceived fairness drives the preference for distributing help. We examine perceptions of fairness of different allocation strategies directly in Experiment 2.

Experiment 2: Distributed Helping Feels Fair

Experiment 2 provides an initial test of whether individuals' preference for distributed helping is attributable to beliefs about how fair distributing or concentrating help seems. To increase generalizability, we examine all possible allocations to a small group of requesters. Individuals rated the fairness of different allocation strategies, and then actually selected their preferred strategy. We predict that people will rate the more distributed allocation strategies as fairer, and as a consequence will prefer more distributed allocation strategies.

Method

We preregistered this experiment on AsPredicted.org (https://aspredicted.org/me5dx.pdf).

Participants. Because Experiment 2 uses an entirely within-subjects design, we suspected that there might be more noise in the effect sizes and therefore doubled the sample size target from Experiment 1, targeting 200 participants total. Our final sample was 186 adults recruited on Amazon's Mechanical Turk (U.S. citizens, $M_{age} = 37.2$, $SD = 11.7$, 52% female) for $0.40.

Procedure and materials. We first gave participants a short introduction to Kiva.org, "a non-profit organization that allows people to lend money via the Internet to low-income entrepreneurs and students in over 80 countries," and showed them sample profiles. We selected a set of five real profiles from people on Kiva.org requesting $100 for seeds in the upcoming farming season (see Supplemental Materials). Participants imagined that they themselves could donate $100 total to the group in five different possible ways:

- Option 1 – Donate all of your money to one person in the group ($100 to 1 person)
- Option 2 – Donate your money to two people in the group ($50 each to 2 people)
- Option 3 – Donate your money to three people in the group ($33.33 each to 3 people)
- Option 4 – Donate your money to four people in the group ($25 each to 4 people)
- Option 5 – Donate your money to all five people in the group ($20 each to 5 people)

Next, participants rated their agreement with the following statement about each of the five giving options: "For each of the following donation decisions, please rate how fair each donation would be to make" (1 = *not at all fair*, 7 = *very fair*). Then participants reported which donation they would prefer to make in a binary trade-off between every combination of options one through five (10 trade-off choices, randomized order). Finally, we asked participants, "If you could choose to distribute your money within the group however you'd like, please tell us how you would do it." We provided them with five boxes (donation to person one, donation to person two, etc.) to allocate a total of $100 in any way they liked.

Results

Across all of the choices, there was a statistically significant preference for the distributed allocation option compared with the concentrated allocation option ($M = 0.76$, $SD = 0.03$), χ^2s(1, 185) > 31.05, ps $< .001$ (see Table 3 for results for each of the 10 choices).

Table 3
Preference for Distribution, Perceived Difference in Fairness, and Analyses on the Relationships Between These Two Variables for Each of the Ten Choices Presented to Participants in Experiment 2

Choice	Preference for distribution	Statistical test	Perceived difference in fairness[a]	Correlation between fairness difference score & distribution preference[b]	Standardized beta value[c]	95% confidence interval of indirect effect[d]
$20 to 5 vs. $100 to 1	.79	$\chi^2 = 62.71^{***}$	3.24	$.20^{***}$	$.22^{**}$	.0048, .1541
$20 to 5 vs. $50 to 2	.77	$\chi^2 = 53.76^{***}$	2.60	$.34^{***}$	$.34^{***}$	.0062, .1508
$20 to 5 vs. $33 to 3	.78	$\chi^2 = 60.41^{***}$	2.19	$.40^{***}$	$.42^{***}$	.0881, .2562
$20 to 5 vs. $25 to 4	.73	$\chi^2 = 39.76^{***}$	1.72	$.53^{***}$	$.55^{***}$	.1644, .3332
$50 to 2 vs. $100 to 1	.81	$\chi^2 = 72.34^{***}$	.63	$.29^{***}$	$.29^{***}$	.3509, .7406
$33 to 3 vs. $100 to 1	.75	$\chi^2 = 45.51^{***}$	1.05	$.45^{***}$	$.45^{***}$	.0360, .1283
$25 to 4 vs. $100 to 1	.75	$\chi^2 = 47.51^{***}$	1.52	$.50^{***}$	$.54^{***}$	.2972, .5813
$33 to 3 vs. $50 to 2	.70	$\chi^2 = 31.05^{***}$	.41	$.28^{***}$	$.29^{***}$	.0506, .1326
$25 to 4 vs. $50 to 2	.75	$\chi^2 = 45.51^{***}$	.88	$.40^{***}$	$.43^{***}$	.2326, .5090
$25 to 4 vs. $33 to 3	.81	$\chi^2 = 69.87^{***}$	.47	$.32^{***}$	$.33^{***}$	.1586, .3852
Average	.76	$\chi^2 = 52.84^{***}$	1.47	$.37^{***}$	$.39^{***}$	

[a] Perceived difference in fairness is calculated as perceived fairness of the more distributed option minus perceived fairness of the less distributed option. [b] Correlations were computed across participants. [c] Standardized beta values come from regression analyses controlling for age, gender, race, and education. See main text for coding details. [d] 95% confidence intervals of indirect effect are computed using a 5,000-sample bootstrap mediation model testing whether perceived fairness difference score mediates the effect of condition on choice.
$^{**} p < .01$. $^{***} p < .001$.

The more distributed the allocation, the fairer it seemed (most distributed allocation $M = 6.30$, $SD = 1.36$; second most distributed allocation $M = 4.58$, $SD = 1.76$; third most distributed allocation $M = 4.11$, $SD = 1.70$; fourth most distributed allocation $M = 3.69$, $SD = 1.81$; least distributed allocation $M = 3.06$, $SD = 1.95$); each rating of fairness was significantly different from every other rating (overall $F[4, 182] = 74.03$, $p < .001$, $\eta_p^2 = 0.62$, individual contrasts $ts > 4.58$, $ps < .001$, $ds > 0.24$) and there was a strong linear pattern across the ratings, $F(4, 182) = 262.73$, $p < .001$, $\eta_p^2 = 0.59$.

As another way to examine the differences in fairness ratings, we computed a difference score between perceived fairness of the more distributed allocation compared with the less distributed allocation for each of the 10 choices. Participants believed the more distributed allocation was fairer than the less distributed allocation for every single choice (Ms for each choice > 0.70, $M = 1.47$, $SD = 0.96$), one-sample ts(185) > 4.58, $ps < .001$, $ds > 4.58$. This fairness difference score correlated significantly with the preference for the more distributed allocation for each choice (see correlations in Table 3). These correlations held controlling for age, gender (1 = *male*; 2 = *female*), race (0 = *nonwhite*; 1 = *white*), and education (1 = *did not graduate high school*; 2 = *high school degree*; 3 = *bachelor's degree*; 4 = *master's or professional degree*; 5 = *doctorate*; see standardized betas in Table 3). Furthermore, in separate 5,000-sample bootstrapped mediation models for each of the 10 choices, the fairness difference score fully mediated the effect of distribution on choice (see 95% CIs in Table 3).

Finally, when we asked participants how they would prefer to distribute $100 between any combination of five people in a group, participants were significantly more likely to select the equally distributed allocation ($M = 73.66\%$) compared with a concentrated allocation ($M = 12.90\%$) or any other type of allocation ($M = 13.44\%$), $\chi^2(1, 185) = 136.10$, $p < .001$, $r = .86$, supporting our findings from Experiment 1.

Discussion

Experiment 2 suggests that fairness may be one reason why people prefer to distribute their help. Specifically, perceived fairness mediated the preference for distributed allocations of help in every possible choice set that we presented participants. Although this finding rules in our predicted mechanism, it does not test other possible mechanisms. Furthermore, fairness ratings were collected before allocation decisions, which could have biased the allocation decisions. Our next experiment tests several possible reasons for distributing help beyond fairness and measures allocation decisions both before and after these ratings. It also tests an instance when we would predict that distributing help feels less fair—when one requester appears needier than other requesters—to examine whether the preference for distributing help is weaker under these circumstances.

Experiment 3: Requesters with More or Less Need

Experiments 1 and 2 support our primary prediction that the preference for distributed helping will emerge among requesters who appear relatively undifferentiated, for whom it feels fairer to allocate help equally. Experiment 3 tests whether this preference diminishes when requesters are more differentiated, specifically when one requester appears to have significantly more need than others. In many cases, helpers are more partial toward helping needier individuals (Bar-Hillel & Yaari, 1993; Kienbaum & Wilkening, 2009; Paulus, 2014; Stahl et al., 2008), and may consequently deviate from a distributed allocation strategy. To cleanly manipulate differences in requesters' perceived neediness, we created profiles of requesters who all sought the same donation amount but who started with different baseline allocations (e.g., $100 out of $600 vs. $400 out of $600, where the former should seem needier than the latter).

In addition to examining beliefs about how fair different allocation strategies seemed, to more fully explore why people choose

different allocations, we examined four alternative attributions that people could make about their allocations: (a) how much the allocation would impact recipients' lives, (b) how efficient the allocation seems, (c) how much recipients would value the allocation, and (d) how badly helpers would feel about not helping enough. Although each of these beliefs could conceivably influence allocation strategies beyond the perceived fairness of allocations, we hypothesized that fairness would primarily predict the preference for equal distribution when requesters have the same level of need.

To examine the prevalence of other allocation strategies, and beliefs about the fairness, impact, efficiency, and perceived valuation of other allocations, we asked participants to rate four possible allocation strategies that we expected would be most commonly selected in this context: (a) equally distributing donations to all requesters, (b) completely concentrating donations to the neediest requester, (c) donating so that each requester achieved the same final donation total, or (d) completely fulfilling the funding goals of two requesters. By examining ratings of these four allocation strategies, we tested two primary predictions. First, we predicted that equal distribution would be the more preferred allocation strategy when requesters seemed similarly needy (i.e., had the same baseline amount of funding) but that concentration would be relatively more preferred when one requester seemed needier than the others (i.e., had lower baseline funding). Second, we predicted that, when requesters had different baseline levels of neediness, equal distribution (with unequal final amounts of money) would be more preferred than unequal distribution (with equal final amounts of money), providing empirical support that procedural justice is preferred to distributive justice in this context. We expected that the desire to be procedurally just would outweigh the desire to be distributively just because helpers are more focused on how to fairly allocate their help than on requesters' outcomes. Finally, we intended to simply explore how much participants preferred the strategy of completely fulfilling two requests, because this type of allocation may appear to minimize wastefulness.

Method

We preregistered this experiment on AsPredicted.org (https://aspredicted.org/dy9yj.pdf).

Participants. We targeted 100 participants in each of the same-need or different-need conditions, using the same stopping rule as in Experiment 1. Our final sample was 199 adults recruited on Amazon's Mechanical Turk (U.S. citizens, M_{age} = 35.7, SD = 12.9, 47% female) for $1.00.

Procedure and materials. We first gave participants a short introduction to Kiva.org, "a non-profit organization that allows people to lend money via the Internet to low-income entrepreneurs and students in over 80 countries," and showed them four real profiles of individual requesters (Gladis, Delicia, July, and Yasmin) with unique needs for business capital (solar-powered freezer, agricultural supplies, retail inventory, and farm repairs, respectively; see Supplemental Materials for profiles). In the same-neediness condition, we shared with participants a thermometer showing equal progress toward each requester's goal—each requester had already received $100 out of a total request of $600. In the different-neediness condition, we shared with participants a thermometer showing varied levels of progress toward each requester's goal—three requesters had already each received $400, but one requester had received only $100, out of a total request of $600. We then asked participants "In general, how much does each woman deserve to get more funding?" (1 = *very little*, 7 = *a great deal*) and "In general, how much does each woman need to get more funding?" (1 = *very little*, 7 = *a great deal*). Perceived amount of need was our manipulation check to test whether participants believed the requester with the lowest initial donation amount was indeed needier than the other requesters in the different-neediness condition.

To measure actual allocation strategy, we asked participants to allocate $400 between the requesters immediately after viewing the profiles and rating deservingness and need. This question was repeated at the end of the survey, as an exploratory test of whether deliberation on different possible allocation choices changed participants' actual allocation strategies. The results did not meaningfully change when comparing the initial with final allocation strategies; see Supplemental Materials for full results. We report only the initial allocation strategies in the Results of the main text.

Then, all participants considered four different ways that their $400 donation could be allocated ("Regardless of what you told us that you would donate, please imagine for the following questions that you do the following . . ."; see Figure 2 for illustrations of each possible allocation strategy). The four possible allocation strategies were: giving equally to all the requesters ($100 to each, or "equal distribution"); giving all their money to the needy requester in the different-neediness condition, which we yoked to the same profile in the same-neediness condition ("all to neediest"); giving so that each requester had an equal outcome in the different-neediness condition, which we yoked to the same profiles in the same-neediness condition ("equal outcome"); and picking two requesters to completely fulfill their total request in the different-neediness condition, which we yoked to the same profiles in the same-neediness condition ($200 each to profiles A and B, "fulfill two").

For each scenario, participants rated the consequences of choosing that allocation strategy. First, participants rated, "How fair is your donation?" (measuring perceived fairness; 1 = *not at all fair*, 7 = *extremely fair*), "How much positive impact will your donation have on all four women's lives?" (measuring perceived impact; 1 = *not much impact at all*, 7 = *extreme impact*), and "To what extent is your donation a good use of money?" (measuring perceived efficiency; 1 = *not a good use of money*, 7 = *extremely good use of money*). Second, for each individual requester in the group, participants rated the following questions: "How much do you think each woman will appreciate your donation?" (measuring perceived value for each woman; 0 = *very little*, 100 = *extremely*), "How badly do you feel about not giving more money to each woman?" (measuring negative affect for not giving; 1 = *not at all bad*, 7 = *extremely bad*), "How fair is your donation to each woman in the group?" (measuring individual fairness; 1 = *not at all fair*, 7 = *extremely fair*), and "How much positive impact does your donation have on each woman in the group?" (measuring individual impact; 1 = *not much impact at all*, 7 = *extreme impact*).

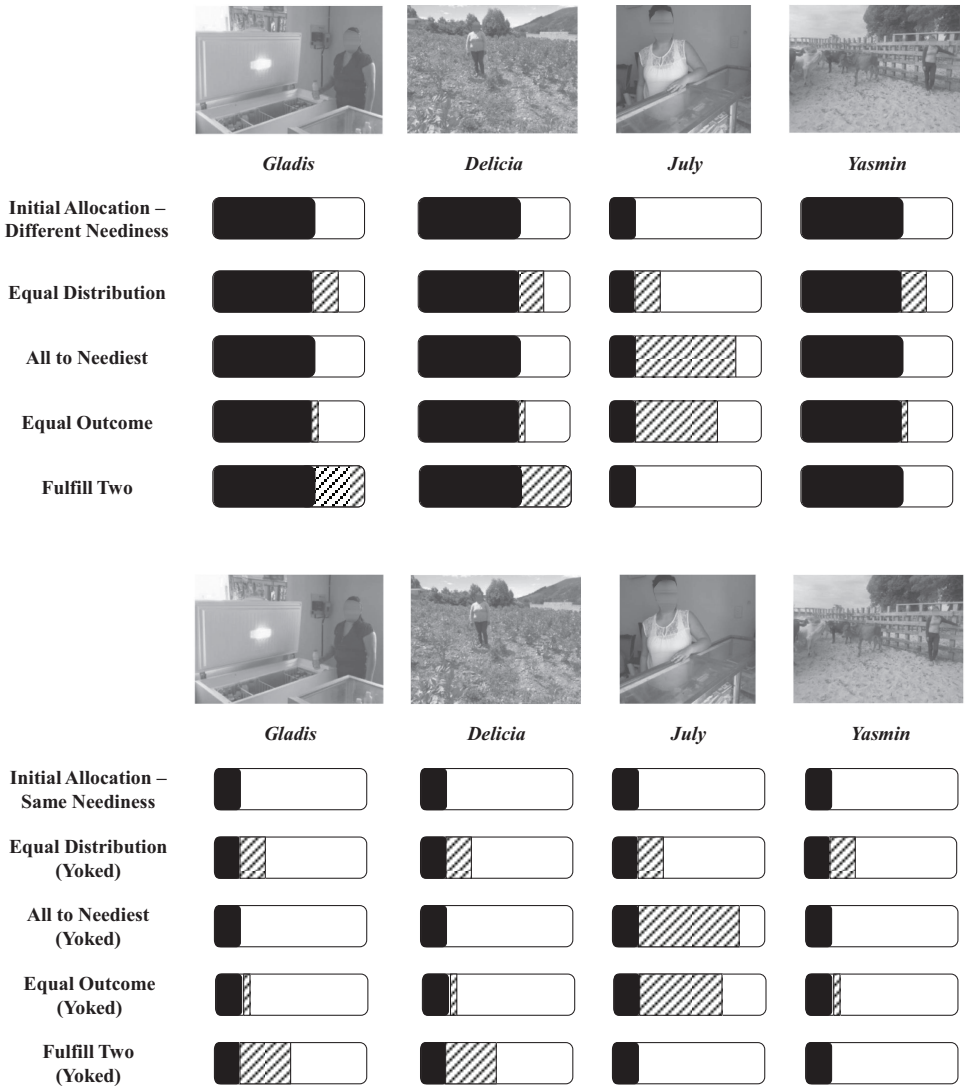

Figure 2. Depictions of each of the four tested strategies for allocating $400 to four individuals requesting $600 each on Kiva.org (Gladis, Delicia, July, and Yasmin) in the different-neediness condition (top panel, in which one requester started with less funding than the other requesters) or in the same-neediness condition (bottom panel, in which all requesters started with the same amount of funding) in Experiment 3. Black bars represent the initial allocations each requester had, and gray bars represent the added allocation in each scenario that the participant rated. The allocation-strategy scenarios were: "equal distribution" (donating $100 to each requester), "all to neediest" (donating $400 to the neediest requester), "equal outcome" (donating so that each requester achieved the same total amount), and "fulfill two" (donating to fulfill the $600 request of two requesters). [Note that participants did not see these images; the authors created these depictions to enhance readers' understanding of the experimental conditions.]

Results

Manipulation check. As expected, in the different-neediness condition, the profile with the lowest initial donation amount seemed needier ($M = 5.42$, $SD = 1.46$) than all other profiles ($M = 4.17$, $SD = 1.43$), $t(197) = 6.07$, $p < .001$, $d = 0.87$. Overall, all of the requesters seemed needier in the same-neediness condition (in which they all started with $100; $M = 5.18$, $SD = 1.27$) than in the different-neediness condition (in which three of the four started with $400; $M = 4.48$, $SD = 1.13$), $F(1, 197) = 16.94$, $p < .001$, $\eta_p^2 = 0.079$, but there was greater variance between perceived neediness of the profiles in the different-neediness condition than in the same-neediness condition, $F(3, 591) = 5.18$, $p = .002$, $\eta_p^2 = 0.03$, driven by the greater perceived neediness of the requester with the lowest initial funding amount in the different-neediness condition.

We further examined how deserving each of the requesters seemed, to test whether participants might infer that the requester with the lowest initial donation amount was not only the neediest

but also the least deserving of funding. We did not find this pattern; instead, ratings of deservingness followed the same pattern as ratings of neediness such that the neediest requester seemed *more* deserving ($M = 5.16$, $SD = 1.71$) than the other requesters ($M = 4.59$, $SD = 1.42$), $t(197) = 2.54$, $p = .012$, $d = 0.36$ (see Supplemental Materials for further analyses).

Allocation decisions. As expected, more participants equally distributed their donation in the same-neediness condition (38.6%) than in the different-neediness condition (18.3%). Although equal distribution was not the dominant allocation strategy in either condition, complete distribution (donating to all of the requesters) was indeed the dominant allocation strategy in the same-neediness condition (86.1%), supporting our prediction that the preference for distribution would emerge in this condition. In contrast, more participants gave more to the neediest requester in the different-neediness condition (50.0%) than to the same yoked profile in the same-neediness condition (20.7%).[4] Overall, as we had predicted, participants were significantly more likely to switch from a more concentrated allocation strategy in the different-neediness condition to a more distributed allocation strategy in the same-neediness condition, $\chi^2(1, 127) = 18.61$, $p < .001$ (see Table 4). Similarly, complete concentration (donating to only one requester) was more common in the different-neediness condition (19%) than in the same-neediness condition (7%), compared with equal distribution, $\chi^2(1, 83) = 12.45$, $p < .001$.

In the different-neediness condition we further examined how many participants chose an "equal *outcome*" allocation (i.e., giving donations so that each requester ends with the same donation total) and a "fulfill two" allocation (i.e., giving donations so that two requesters reached their requested donation total). A minority of participants chose these allocations (equal outcome: 4%; fulfill two: 8%).

Ratings of allocation scenarios. We first examined the overall ratings of the allocation scenarios between the same-neediness and different-neediness conditions (see Table 5). As expected, participants rated the equal distribution allocation as a fairer allocation in the same-neediness than the different-neediness condition, $t(197) = 3.87$, $p < .001$, $d = 0.55$. They also rated it as more impactful, $t(197) = 2.27$, $p = .024$, $d = 0.32$, a better use of money, $t(197) = 2.73$, $p = .007$, $d = 0.39$, and marginally more appreciated overall by the requesters, $t(197) = 1.73$, $p = .085$, $d = 0.25$. There was no difference in negative affect for not helping more between conditions, $t(197) = 0.11$, $p = .915$, $d = 0.02$. Furthermore, aggregating across the conditions, equal distribution was considered the fairest of the four allocation strategies, $t(197) = 13.51$, $p < .001$, $d = 1.35$, as well as the most impactful, $t(193) = 7.71$, $p < .001$, $d = 0.77$, most efficient, $t(197) = 5.78$, $p < .001$, $d = 0.58$, most appreciated by requesters, $t(197) = 16.53$, $p < .001$, $d = 1.66$, and incurring the least negative affect for donors, $t(197) = 7.33$, $p < .001$, $d = 0.73$.

None of the other allocation scenarios (equal outcome, all to neediest, fulfill two) significantly differed in assessments (i.e., rated fairness, impact, efficiency, perceived recipient appreciation, and negative affect of donor) between the same-neediness and different-neediness conditions (ts < 1.91, ps $> .058$, ds < 0.27) with two exceptions: the "equal outcome" allocation was considered fairer and evoked less negative affect for donors in the different-neediness condition, $t(197) = 4.01$, $p < .001$, $d = 0.57$ and $t(197) = 2.17$, $p = .031$, $d = 0.31$ for fairness and affect, respectively, and the "all to neediest" allocation evoked less negative affect for donors in the different-neediness condition, $t(197) = 2.79$, $p = .006$, $d = 0.40$.

Finally, we examined beliefs about how the neediest requester (vs. less-needy requesters) would be affected by an equal donation in the different-neediness condition. Participants believed that the neediest requester would appreciate the donation more ($M = 84.02$, $SD = 20.06$) than the other requesters ($M = 77.70$, $SD = 23.57$), $t(197) = 2.02$, $p = .045$, $d = 0.29$, and reported that they would feel more badly giving the same amount to the neediest requester ($M = 3.03$, $SD = 2.14$) than to the others ($M = 2.19$, $SD = 1.59$), $t(197) = 3.11$, $p = .002$, $d = 0.44$. However, they did not think it was any less fair to give the same amount to the neediest requester ($M = 5.26$, $SD = 1.80$) as to the other requesters ($M = 5.55$, $SD = 1.51$), $t(197) = 1.24$, $p = .218$, $d = 0.18$, or that it was any more impactful ($M_{neediest} = 5.17$, $SD_{\text{neediest}} = 1.53$; $M_{others} = 4.85$, $SD_{\text{others}} = 1.38$), $t(197) = 1.53$, $p = .127$, $d = 0.22$. In the same-neediness condition that used yoked profiles, no differences emerged in these ratings, ts < 0.78, ps $> .434$, ds < 0.11.

Predictors of participants' allocations. Although equal distribution was rated more highly on all dimensions (fairer, more impactful, more efficient, and more appreciated) in the same-neediness than different-neediness conditions, in a regression analysis predicting participants' actual allocations (1 = *equal distribution*, 0 = *other*) that included perceived fairness, impact, efficiency, appreciation, negative affect, and experimental condition (0 = *same-neediness*, 1 = *different-neediness*) as predictors, only experimental condition ($\beta = -0.15$, $p = .025$) and perceived fairness ($\beta = 0.08$, $p = .005$) predicted participants' actual decision to equally allocate money (see Table 6). Removing experimental condition from the analysis revealed similar results: only perceived fairness ($\beta = 0.08$, $p = .003$) predicted the decision to equally allocate; other predictors were nonsignificant, ps $> .134$.

We also conducted exploratory regression analyses examining how ratings of other allocations (equal outcome, all to neediest, fulfill two) predicted participants' actual allocation decisions (see Supplemental Tables S3–S5).

Mediation. In a 10,000-bootstrap sample mediation model examining the effect of experimental condition (0 = *same-neediness condition*; 1 = *different-neediness condition*) on participants' allocation strategy (0 = *any other strategy*; 1 = *equal distribution*) including all five possible mediators (fairness, impact, good use of money, requester-appreciation, and helper-affect), only fairness emerged as a statistically significant mediator: 95% $CI_{fairness}$ [−1.24, −0.20]. The other possible mediators had indirect effects that included 0 in their 95% confidence intervals: 95% CI_{impact} [−0.10, 0.28], 95% $CI_{efficiency}$ [−0.51, 0.07], 95% $CI_{appreciation}$ [−0.01, 0.40], and 95% CI_{affect} [−0.05, 0.08].

Discussion

Together, this pattern of results provides support for our two primary predictions. First, an equal-distribution allocation strategy

[4] When participants gave more to the neediest requester but did not fully concentrate their money on the neediest requester, they equally distributed the rest of the money 9% of the time in the different-neediness condition and 1% of the time in the same-neediness condition.

Table 4
The Percentage of Participants Who Chose Different Allocations by Experimental Condition in Experiment 3

Allocation strategy	Percentage of participants adopting this strategy
Different-neediness condition	
Distribution (help more than one requester)	81%
Complete distribution (all requesters, any amount)	58%
Equal distribution (all requesters, same amount)	18%
Complete distribution with most to neediest (all requesters, most to neediest)	28%
Concentration (help one requester)	19%
Give all to neediest	16%
Condition total	100%
Same-neediness condition	
Distribution (help more than one requester)	93%
Complete distribution (all requesters, any amount)	86%
Equal distribution (all requesters, same amount)	39%
Concentration (help one requester)	7%
Condition total	100%

Note. In the same-neediness condition, all requesters started with the same amount of funding, and in the different-neediness condition, one requester started with less funding than the others. The category of "Distribution" includes both incomplete distribution (giving to more than one but fewer than all requesters) and complete distribution (giving to all requesters). Another useful category to consider in this experiment specifically is the percentage of participants in the different-neediness condition who gave the most money to the neediest individual (54%).

was relatively less preferred when one requester seemed needier than others, because it seemed less fair. Helpers were more likely to completely distribute (86%) than concentrate their donations (7%) when requesters appeared similarly needy, but were somewhat less likely to distribute (58%) than concentrate (19%) when one requester was needier than the others. Second, participants were significantly more likely to select an equal allocation strategy that resulted in unequal outcomes, compared with an unequal allocation strategy that resulted in equal outcomes, suggesting that concerns for procedural justice may outweigh concerns for distributive justice in allocation decisions.

The equal-distribution allocation strategy was not only considered fairer than other allocation strategies, but also a more impactful and more efficient allocation that evoked more appreciation from recipients and left helpers feeling less badly about their allocation decision.[5] However, only perceptions of fairness mediated the effect of the homogeneity of the requesters' neediness on the preference for distributing help, providing some initial evidence that fairness might be a particularly important consideration in these decisions. Further research could elucidate when concerns beyond fairness may influence allocation decisions more or less, a point to which we return in the General Discussion.

We found little evidence that helpers' decisions were influenced by concerns about efficiency; very few helpers chose to completely fulfill some requests when it meant leaving other requests unfulfilled. However, note that this experiment does not provide a direct test for trade-offs between efficiency and equality in allocation decisions (for examples, see Gordon-Hecker et al., 2017; Mitchell et al., 1993) because the helpers believed that requesters would receive any money donated. A more direct test could explore whether there is more preference for concentrating (vs. distributing) allocations when it is clear that help would otherwise be wasted (e.g., if requesters receive no money when they do not reach their goal).

In addition to clarifying why people have a preference for distributed helping, this experiment provides a more realistic test of allocation decisions because we used real (and active) profiles from a loan-request website (Kiva.org). Although the profiles contained little variance on some aspects (e.g., gender, amount requested), other aspects naturally differed (e.g., the reason for the request, photograph background). Despite the variance between the requests in this more realistic donation scenario, distribution was still the dominant allocation strategy.

We designed Experiments 4–5b to continue this trend toward greater realism in our experimental tests by considering real donation decisions in which participants have the option to give (or keep) their own money. Whereas Experiments 1–3 test when and why helpers prefer to distribute aid, Experiments 4–5b test the consequences of distribution for the amount donated, specifically manipulating the number of requesters to control the extent to which helpers can distribute their donations.

Experiment 4: Changing the Number of Requesters

Experiment 4 examines the preference for distribution in a real donation decision using actual requesters selected from an online donation website ("Fundrazr"). For each allocation decision, helpers considered how much money each individual requester would receive, thereby "unpacking" the allocation decision by considering every possible requester. We expected that distributing help would be the preferred allocation strategy regardless of the number of requesters. In one experimental condition, the donation was

[5] All positively-valenced ratings of the allocation strategies (fairness, impact, efficiency, appreciation from recipients) were positively correlated, $rs > .52$; negative affect was inversely correlated with the other ratings, $rs < -.11$. Future research could manipulate these dimensions of helping decisions to disentangle each one's effect on helpers' allocation strategies.

Table 5
Mean (SD) Ratings for Each Allocation Strategy by Condition in Experiment 3

	Same-neediness condition				Different-neediness condition			
Rating dimension	Equal distribution allocation	All to neediest allocation	Equal outcome allocation	Fulfill two allocation	Equal distribution allocation	All to neediest allocation	Equal outcome allocation	Fulfill two allocation
Fairness	6.38 (1.08)	3.67 (2.11)	3.50 (1.85)	4.14 (1.71)	5.58 (1.73)	4.09 (1.97)	4.49 (1.65)	4.08 (1.72)
Impact	5.49 (1.17)	3.89 (2.06)	4.28 (1.45)	4.52 (1.49)	5.08 (1.38)	4.09 (2.00)	4.43 (1.54)	4.61 (1.39)
Better use of money (i.e., efficiency)	5.76 (1.43)	4.54 (1.81)	4.30 (1.55)	4.50 (1.63)	5.15 (1.70)	4.92 (1.91)	4.74 (1.75)	4.51 (1.68)
Appreciation	84.37 (19.58)	38.44 (21.69)	56.09 (22.79)	55.85 (17.37)	79.28 (21.83)	40.62 (25.13)	58.41 (22.64)	53.27 (18.69)
Helper negative affect	2.37 (1.64)	4.05 (1.48)	3.51 (1.50)	3.38 (1.12)	2.40 (1.55)	3.44 (1.59)	3.04 (1.60)	3.29 (1.32)

mandatory, so that we could simply examine the allocation strategies that emerged. In a second experimental condition, the donation was optional, so that we could examine not only allocation strategies but also donation amounts. We predicted that the number of requesters would not affect the likelihood of donation but would increase the total amount donated because of greater opportunity to distribute help. In other words, the more that helpers distribute, we hypothesized, the more that they would donate.

Testing every possible number of requesters between one and 10 provides a further opportunity to see whether some group sizes are treated differently than others. Considering the case of donating to a single requester, compared with donating to multiple requesters, is particularly interesting because competing hypotheses are possible. On the one hand, if people are more motivated to donate when they see a single victim because it increases empathy (i.e., identifiable victim effect; Erlandsson, Björklund, & Bäckström, 2015), then single requesters might uniquely attract more donations. Alternatively, a single requester might be treated no differently than any other number of requesters.

Method

We preregistered this experiment on AsPredicted.org (https://aspredicted.org/tg8g4.pdf).

Participants. We targeted 30 participants in each of 20 conditions (10 possible group sizes × 2 donation options, i.e., mandatory-donation or optional-donation). We chose this sample size to achieve 300 participants in each of the two donation option conditions. Our final sample was 602 adults recruited on Amazon's Mechanical Turk (U.S. citizens, M_{age} = 37.1, SD = 12.1, 45% female) for $0.40.

Procedure and materials. Participants enrolled in a "decision-making task" in which they were told the following

> Today, you will be viewing the profiles of people who need help of all kinds, and are asking for assistance on a crowdfunding site. These are real profiles that we collected from the crowdfunding website "Fundrazr.com." At the end of the survey, you'll receive an additional payment that you [must donate to the people in these profiles/can choose to donate to the people in these profiles, or keep some or all for yourself]. The donations will really go to each campaign you select!

Participants received a bonus: "Congratulations! You have now received $1.00 to donate to the following profiles." Participants viewed up to 10 profiles of people from Fundrazr.com who asked for donations for varying purposes, ranging from buying personal items such as warm clothing to funding for stem cell treatments (see Supplemental Materials for profiles and photos). Participants

Table 6
Binary Logistic Regression Analysis of Participants' Decisions to Equally Distribute Their Donations or Not, Predicted by Experimental Condition, Participants' Ratings of the Equal-Donation Allocation Strategy, and Control Variables in Experiment 3

Condition	Allocation decision	Allocation decision with controls
Intercept (0 = different allocation, 1 = allocation is $100 each)	.06 (.20)	.01 (.21)
Fairness	.08** (.03)	.07* (.03)
Impact	−.02 (.03)	−.04 (.03)
Good use of money	.03 (.03)	.03 (.03)
Appreciation (average of each requester)	.00 (.00)	.00 (.00)
Affect (average of each helper)	.01 (.02)	−.04 (.02)
Condition (0 = same-neediness; 1 = different-neediness)	−.15* (.06)	−.13* (.06)
Gender (0 = male; 1 = female)	—	−.01 (.06)
Age	—	.00 (.00)
Donate to charity (frequency)	—	.00 (.02)
Receive charitable assistance (frequency)	—	.09*** (.02)
Observations	199	199
Adjusted R^2	0.08	0.15

Note. Standard errors in parentheses.
* $p < .05$. ** $p < .01$. *** $p < .001$.

knew that any money they allocated to the profiles would actually be given by the experimenters (and was indeed donated). For instance, one profile read:

> "Against All Odds; A Couple in Recovery": My wife and I have had our lives destroyed in the past couple of years because of addiction. We are currently both in recovery and rebuilding a life for our family. We are raising funds and support for our decision to participate in ibogaine treatment.

The order of profiles was fully randomized, and the group of profiles included for each participant's choice set was completely counterbalanced, such that each participant saw [1/2/3/4/5/6/7/8/9/10] randomly chosen profiles from the set of 10 possible profiles.

We randomly assigned participants to one of 20 conditions: the number of requesters varying between one and 10 requesters, to which they were required to allocate $1 ("You must donate all $1.00 to the profiles"; mandatory-donation condition) or could choose to allocate any amount between $0 and $1 ("You can donate up to $1.00 to the profiles. Any amount you do not donate will be paid to you as a bonus"; optional-donation condition).

After making their allocation decisions, participants rated how fair, impactful, and efficient an equal-distribution allocation would have been.

Results

Allocation decisions. In the mandatory-donation condition, as expected, distributing donations was the preferred allocation strategy across all group sizes (62%), $\chi^2(1, 269) = 10.34$, $p = .001$ (see Table 7). The preference for distribution did not vary meaningfully across different group sizes, $\chi^2(8, 269) = 2.13$, $p = .977$. This preference for distribution further persisted in the optional-donation condition. Specifically, 66% of donations were distributed in the optional-donation condition, $\chi^2(1, 262) = 9.94$, $p = .002$, and the number did not meaningfully change across group sizes, $\chi^2(8, 262) = 0.37$, $p = 1.00$ (see Table 8).

Donation amount. In the optional-donation condition, supporting our prediction that the total amount donated would increase with more requesters, the number of requesters positively predicted total donation amount ($\beta = \$0.02$, $SE = 0.009$, $p = .013$; see Figure 3). Although the donations were not normally distributed (i.e., they were left-skewed due to a spike at $1.00), transforming data using square-root did not change the results for total amount donated, which still increased with more requesters, ($\beta = \$0.02$, $SE = 0.009$, $p = .028$). This effect remained when examining only the amount given by people who donated (i.e., excluding $0 donations in the analysis; $\beta = \$0.03$, $SE = 0.010$, $p = .009$). It also remained (albeit more weakly) when removing people who only saw one requester ($\beta = \$0.02$, $SE = 0.010$, $p = .066$).[6]

We also found evidence that participants have at least some insensitivity to the total scope of need; the amount donated per requester decreased with more requesters ($\beta = -\$0.01$, $SE = 0.003$, $p < .001$), indicating that helpers did not donate commensurately more as the number of requesters increased.

To examine our predicted mechanism—that the number of requesters increases the amount donated because there is more opportunity to distribute—we operationalized the extent of distribution as the number of requesters to whom each participant donated. For example, when considering three requesters, a helper could donate to one requester, two requesters, or three requesters. Controlling for the number of requesters possible, the extent of distribution predicted the amount donated ($\beta = \$0.04$, $SE = 0.012$, $p = .005$; only including people who donated and who viewed more than one requester). Furthermore, the extent of distribution fully mediated the effect of the number of requesters on donation amount in a 10,000 bootstrap sample mediation model, 95% CI [0.02, 0.03].

Allocation ratings. We also conducted exploratory regression analyses examining how ratings of possible explanations predicted participants' preference for equal distribution (see Supplemental Materials for questions and Supplemental Table S6 for analysis). These results revealed that perceived fairness predicted making an equal distribution allocation ($\beta = 0.03$, $p = .021$), but perceived impact ($\beta = 0.02$, $p = .192$) and perceived good use of money ($\beta = 0.00$, $p = .909$) did not.

Discussion

We found evidence for the preference for distributed helping in real donation decisions across different numbers of requesters. Participants were just as likely to distribute their donations to two requesters as they were to 10 requesters, with no meaningful differences in the overall preference for distribution emerging based on the number of requesters that donors viewed. Although outside the scope of this paper, we note that incidence of complete—and equal—distributions dropped in groups of more than five requesters compared with groups of five or fewer requesters, suggesting that there could be a possible boundary to the effect of the number of requesters on the preference for distributing donations.

This experiment further demonstrates a consequence of distribution: As the number of requesters increased—and so too did the opportunity to distribute donations (and the actual extent of distribution)—helpers donated more money. In other words, unpacking one's donations across multiple requesters aggregated to produce a larger total donation. Supporting our theoretical model (in Figure 1) that helping decisions occur in two steps (first, the decision to help and second, the allocation strategy and amount), the number of requesters did not influence the *likelihood* of helping, only the amount of the donation. However, despite giving a larger donation overall, the amount donated per requester decreased with a larger number of requesters.

To test the robustness of this finding, we conducted a preregistered conceptual replication (described in Supplemental Materials as Supplemental Experiment S1) in which we manipulated only one versus five requesters using a different donation context (donating to animals in need). Participants ($n = 252$ online workers) received a $0.50 bonus that they could choose to donate or not to requesters in an unpacked allocation decision. In the five-requester

[6] We further examined how helpers behaved when they viewed only one requester in the optional-donation condition; 28% chose to donate, which was not meaningfully different from the percentage who saw any other number of requesters who chose to donate (ranging from 33% to 47%; see Table 8). Conditional on choosing to donate, participants gave $0.38 on average, nonsignificantly less than participants who saw two requesters ($0.53). We continue to study donations to a single requester in Experiments 5a and 5b.

Table 7
Allocation Strategy of Participants in the Mandatory-Donation Condition in Experiment 4 by the Number of Requesters (Excluding Participants Assigned to Only One Requester)

Allocation strategy	Number of requesters								
	2 (n = 32)	3 (n = 30)	4 (n = 31)	5 (n = 29)	6 (n = 30)	7 (n = 30)	8 (n = 28)	9 (n = 29)	10 (n = 31)
Distribution (help more than one requester)	50%	67%[a]	74%[a]	79%[a]	57%[a]	63%[a]	64%[a]	52%[a]	55%[a]
Complete distribution (all requesters, any amount)	50%	43%	48%	41%	13%	13%	14%	7%	19%
Equal distribution (all requesters, same amount)	34%	7%	29%	24%	3%	10%	0%	7%	16%
Concentration (help one requester)	50%	33%	26%	21%	43%	37%	36%	48%	45%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Note. Equal distribution included rounding when participants were unable to exactly split their donation, ±$.02. For example, participants who viewed seven requesters who donated between $.12 and $.16 to each requester were counted as equally distributing their donations.
[a] Dominant allocation strategy.

condition, the majority of helpers (81%) distributed their donations (72% distributed completely, 67% distributed equally). Conceptually replicating Experiment 4, participants in the five-requester condition donated more total money (M = $0.25, SD = $0.23) than did participants in the one-requester condition (M = $0.15, SD = $0.19), $t(250) = 3.49$, $p < .001$, $d = 0.44$, although they were no more likely to donate (M = 56% vs. 51%), $\chi^2(2, 250) = 0.29$, $p = .593$.

We further tested whether people prefer to distribute their help when they are donating their time instead of money, in a preregistered field experiment (described in Supplemental Materials as Supplemental Experiment S2). One hundred sixty-six passersby spent time allocating tokens (one at a time) to jars representing children in need that we later converted into a financial donation on their behalf. We manipulated whether one or four jars were present at any given moment. Supporting prior results, in the four-requester condition there was a significant preference for distribution (98%), with 93% choosing complete distribution and 62% choosing equal distribution. These two follow-up experiments provide further evidence that the results from Experiment 4 are robust and generalizable to different contexts (e.g., donating time instead of money).

Experiments 5a and 5b: Packed and Unpacked Allocation Decisions

To reconcile our effects in Experiment 4, which demonstrated that people donate more to multiple requesters than to a single requester, with prior findings demonstrating the opposite, that people will at times donate *less* to multiple individuals than to a single individual (Kogut & Ritov, 2005a, 2005b; Vaštfjaľl et al., 2014, 2015), we designed two experiments. We expect that when asked to donate directly to each requester, thereby unpacking the allocation decision for each individual requester as our prior experiments have done, helpers will donate more in total to multiple requesters than to a single requester, because they prefer to distribute their help across the requesters. But when asked to donate to a single group of requesters, thereby packing the allocation decision into a single choice, participants will tend to donate more to a single requester than to the group of requesters, consistent with the identifiable victim effect. Because Kogut and Ritov (2005a) found that single victims were particularly likely to attract donations compared with multiple victims when they were individuated, we also individuated all of the requesters by including their names, photographs, and needs.

Method (Experiment 5a)

We preregistered this experiment on AsPredicted.org (https://aspredicted.org/m76g9.pdf).

Participants. We targeted 100 participants per condition and our final sample was 411 adults recruited on Amazon's Mechanical Turk (U.S. citizens, M_{age} = 38.3, SD = 12.4, 58% females) for $0.25.

Procedure and materials. To increase generalizability, we examined a new helping context: donations to animals whose owners had posted campaigns on the crowdfunding website GoFundMe (e.g., for medical care, rebuilding after a home fire). We randomly selected four animals and created profiles written from the animal's perspective (see Supplemental Materials for profiles). Though the amount requested by each animal/owner was different on the GoFundMe site, we standardized the profile requests (around $900). One profile (Greta the dog) read:

> I am a therapy dog for the local hospital, but I unexpectedly had a stroke that affected my ability to use all four of my legs. The good news is that I have a good chance for substantial recovery with a lot of care and rehab. But the vet bills have been astronomical and medical insurance only covered a fraction of the bill (around $900). Right now, my owner has to carry me everywhere. Please consider helping my owner with emergency care and rehabilitation costs.

We randomly assigned participants to one of four conditions in a 2 (number of requesters: one vs. four) × 2 (allocation decision: unpacked vs. packed) experimental design. Participants in the unpacked-decision condition read, "You have now received a bonus of $0.50. You can keep your entire bonus, or share some or all of your bonus with [some or all of] the pet[s] you saw in the previous requests." In the four-requester condition, participants entered amounts into five boxes (self and each of the four animals listed in randomized order). In the one-requester condition, participants entered amounts into two boxes (self and the animal in randomized order). We required the total amount in both conditions to sum to $0.50 (see exact instructions in the Supplemental Materials).

Participants in the packed-decision condition read, "You have now received a bonus of $0.50. You can keep your entire bonus,

Table 8
Allocation Strategy of Participants in the Optional-Donation Condition in Experiment 4 by the Number of Requesters (Excluding Participants Assigned to Only One Requester)

	Number of requesters																	
	2 (*n* = 30)		3 (*n* = 29)		4 (*n* = 29)		5 (*n* = 31)		6 (*n* = 30)		7 (*n* = 31)		8 (*n* = 27)		9 (*n* = 30)		10 (*n* = 28)	
Allocation strategy	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$
Keep bonus entirely for themselves	40%	—	45%	—	33%	—	42%	—	43%	—	45%	—	41%	—	47%	—	43%	—
Give part or all of bonus to requesters	60%	$.53	55%	$.76	66%	$.53	58%	$.76	57%	$.83	55%	$.62	59%	$.60	53%	$.72	57%	$.85
Total	100%	$.32	100%	$.42	100%	$.35	100%	$.44	100%	$.47	100%	$.34	100%	$.35	100%	$.39	100%	$.48
Conditional on donating																		
Distribution (help more than one requester)	61%[a]	$.60	44%	$.73	63%[a]	$.60	72%[a]	$.85	94%[a]	$.85	59%[a]	$.59	50%	$.59	63%[a]	$.68	88%[a]	$.56
Complete distribution (all requesters, any amount)	61%	$.60	44%	$.73	42%	$.61	44%	$.93	18%	$.95	18%	$.78	13%	$.44	19%	$1.00	38%	$.85
Equal distribution (all requesters, same amount)	39%	$.61	25%	$.65	32%	$.57	17%	$1.00	6%	$.84	12%	$.68	13%	$.44	19%	$1.00	25%	$1.00
Concentration (help one requester)	39%	$.41	56%[a]	$.79	37%	$.42	28%	$.54	6%	$.50	41%	$.66	50%	$.62	37%	$.79	12%	$1.00
Total	100%	$.53	100%	$.76	100%	$.53	100%	$.76	100%	$.83	100%	$.62	100%	$.60	100%	$.72	100%	$.85

Note. Equal distribution included rounding when participants were unable to exactly split their donation, ± $.02. For example, participants who viewed seven requesters who donated between $.12 and $.16 to each requester were counted as equally distributing their donations.
[a] Dominant allocation strategy.

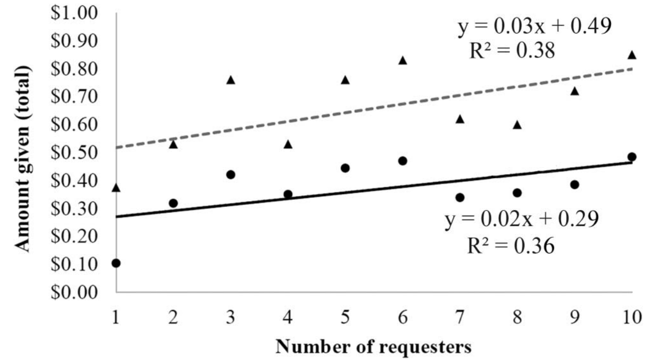

Figure 3. Total amount of money (of $1.00) donated based on the assigned number of requesters in Experiment 4 in the optional-donation condition among all participants (solid line) and only participants who donated (dotted line).

or share some or all of your bonus by donating to the 'Pets in Need' charity." In the four-requester and one-requester conditions, participants saw one box in which to input a number; this number could not be more than $0.50.

Participants who saw four requesters in need of help additionally rated the fairness of employing a concentrated allocation strategy ("Imagine for a moment that you decided to donate all of your bonus money to one pet out of the four pets that you saw today (that is, giving $0.50 to one pet). How fair would this be to the four pets?") and employing a distributed allocation strategy ("Imagine for a moment that you decided to equally distribute your bonus money to all four pets that you saw today (that is, giving $0.10 each to four pets and yourself). How fair would this be to the four pets?") on a scale of 1 = *not at all fair* to 7 = *extremely fair* (counterbalanced order).

Finally, all participants rated their own choice on fairness ("Overall, how fair do you think that the donation you made today was to pets in need?," 1 = *not at all fair*, 7 = *extremely fair*), generosity ("Overall, how generous do you think that the donation you made today was to pets in need?," 1 = *not at all generous*, 7 = *extremely generous*), and impact ("Overall, how much impact do you think that the donation you made today made on pets in need?," 1 = *hardly any impact*, 7 = *a great deal of impact*), and they reported how much sympathy they felt for the animal(s) ("How much sympathy do you have for the pet or pets that you saw today?," 1 = *not much sympathy at all*, 7 = *a lot of sympathy*). As control variables, we also asked participants whether they were a pet owner ("Are you a pet owner?" *yes* or *no*) and how often they donated money to support animal rights ("Do you ever donate money to support the cause of animal rights or to shelter animals (e.g., Humane Society)?," 1 = *never*, 6 = *usually*).

Results (Experiment 5a)

Allocation decisions. We examined participants' allocation strategies in the four-requester unpacked-decision condition, excluding their allocations to themselves. Replicating prior experiments, distribution was the dominant strategy, $\chi^2(1, 102) = 9.07$, $p = .003$, with 73% of helpers choosing to distribute (63% distributed completely and 33% distributed equally; see Table 9).

Table 9
Allocation Strategy of Participants by Condition in Experiment 5a

Allocation strategy	Number of participants adopting this strategy	Percentage of participants adopting this strategy	Average amount given across all requesters	Average amount given per requester
Four-requester, unpacked-decision condition				
Keep the bonus entirely for themselves	32	32%	$.00	$.00
Give part or all of bonus to requester(s)	70	68%	$.42	$.11
Condition total	102	100%	$.29	$.07
Conditional on donating				
Distribution (help more than one requester)	51	73%	$.42	$.10
Complete distribution (all requesters, any amount)	44	63%	$.43	$.11
Equal distribution (all requesters, same amount)	23	33%	$.38	$.09
Concentration (help one requester)	19	27%	$.44	$.44
Four-requester, packed-decision condition				
Keep the bonus entirely for themselves	39	38%	$.00	$.00
Give part or all of bonus to requester(s)	64	62%	$.35	$.09
Condition total	103	100%	$.22	$.05
One-requester, unpacked-decision condition				
Keep the bonus entirely for themselves	32	31%	$.00	$.00
Give part or all of bonus to requester	71	69%	$.33	$.33
Condition total	102	100%	$.22	$.22
One-requester, packed-decision condition				
Keep the bonus entirely for themselves	30	29%	$.00	$.00
Give part or all of bonus to requester	72	71%	$.35	$.35
Condition total	102	100%	$.25	$.25
Total	411	100%	$.24	$.15

Much less common was the strategy of concentrating donations toward one requester (27% of helpers).

Donation amount. In a 2 × 2 ANOVA on donation amount, there was no main effect of the number of requesters viewed (one vs. four), $F(1, 410) = 0.54$, $p = .462$, $\eta_p^2 = 0.001$, nor of allocation decision type (unpacked vs. packed), $F(1, 410) = 1.29$, $p = .256$, $\eta_p^2 = 0.003$ (see Figure 4). However, supporting our primary prediction, the interaction effect was statistically significant, $F(1, 410) = 5.67$, $p = .018$, $\eta_p^2 = .013$.

Decomposing this effect, in the unpacked-decision condition, participants donated more in total when they saw all four requesters ($M = \$0.29$, $SD = \$0.22$) than when they saw one requester ($M = \$0.22$, $SD = \$0.20$), $t(204) = 2.22$, $p = .027$, $d = 0.31$, replicating our prior effects. Providing evidence that participants still have some insensitivity to the scope of need, participants in the unpacked-decision condition that saw four requesters also donated less per requester on average ($M = \$0.06$, $SD = \$0.05$) than did participants who saw one requester in need ($M = \$0.24$, $SD = \$0.21$), $t(410) = -11.75$, $p < .001$, $d = -1.16$.

However, in the packed-decision condition, there was no difference in donations for one versus four requesters ($M = \$0.25$, $SD = \$0.21$ for one requester; $M = \$0.22$, $SD = \$0.21$ for four requesters), $t(205) = 1.15$, $p = .250$, $d = 0.16$.

Another interesting comparison in these data is between the unpacked and packed allocation decisions in the four-requester condition, which provides a test of whether people donate more to unpacked than packed groups. This was indeed the case; among participants who saw four requesters, unpacked donations were higher ($M = \$0.29$, $SD = \$0.22$) than packed donations ($M = \$0.22$, $SD = \$0.21$), $t(204) = 2.44$, $p = .016$, $d = 0.33$. In contrast, for participants who saw one requester, there was no statistical difference between unpacked donations ($M = \$0.22$, $SD = \$0.20$) and packed donations ($M = \$0.25$, $SD = \$0.21$), $t(203) = -0.90$, $p = .369$, $d = -0.13$. Controlling for whether participants were pet owners and how much they supported animal rights, or transforming donation data using square-root, did not change the statistical significance of any results.

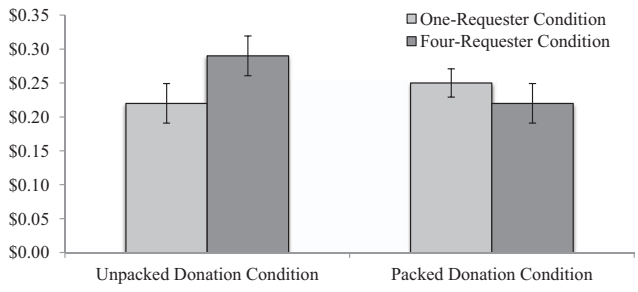

Figure 4. Total amount of money (out of $0.50) donated by condition in Experiment 5a. Bars represent standard error around the mean.

Allocation ratings. Consistent with actual allocation decisions, participants in the four-requester unpacked-donation condition believed it would be fairer to distribute ($M = 5.62$, $SD = 1.63$) than to concentrate ($M = 2.98$, $SD = 1.95$), $t(102) = 10.44$, $p < .001$, $d = 1.47$. We further examined all participants' beliefs about how fair, generous, and impactful their decision was and how much sympathy they had for the requesters. We note that these analyses are based on self-selection (e.g., beliefs of individuals who chose to donate or not) and therefore cannot be interpreted causally. Across all conditions, participants who decided to donate any portion of their bonus to the requesters felt that their decision

was fairer ($M = 5.58$, $SD = 1.50$), more generous ($M = 4.57$, $SD = 1.75$), more impactful ($M = 3.68$, $SD = 1.78$), and had more sympathy for the requesters ($M = 6.20$, $SD = 1.06$), than participants who decided to keep all of the bonus for themselves (Ms = 3.69, 1.72, 1.67, and 4.91; SDs = 2.28, 1.48, 1.41, and 1.84, respectively), ts > 7.45, ps $< .001$, ds > 0.95.

Consistent with our theory, within only the four-requester unpacked-decision condition, equal distributors ($n = 23$) reported that their decision was fairer ($M = 6.00$, $SD = 1.41$) than concentrators ($n = 19$; $M = 4.63$, $SD = 1.80$), $t(42) = 2.71$, $p = .010$, $d = 0.86$. They did not believe that their decision was more generous or impactful, and did not have more sympathy for the requesters, ts < 0.58, ps $> .562$, ds < 0.18. Furthermore, equal distributors believed that they had made a fairer decision than participants from any of the other conditions (four-requester packed-decision $M = 4.95$, $SD = 2.11$; one-requester unpacked-decision $M = 5.18$, $SD = 1.85$; one-requester packed-decision $M = 5.11$, $SD = 1.91$), ts > 2.41, ps $< .020$, ds > 0.46.

Experiment 5b was designed to address two concerns in Experiment 5a. First, we changed the featured profiles to children in need of a polio vaccine (rather than animals), to increase potential helpers' sympathy and to ensure there was nothing unique about donations to animals. Second, we removed references to the charitable organization in the packed allocation decision condition, instead asking participants to make donations directly to requesters in both conditions. This removes the potential confound that donors might choose to give differently in the packed allocation decision condition because they are concerned about a charitable organization's efficiency or overhead.

Method (Experiment 5b)

We preregistered this experiment on AsPredicted.org (https://aspredicted.org/ic92w.pdf). We preregistered that we would collect 400 participants, but after viewing a marginally statistically significant result ($p = .087$) we wanted to test whether the effect size would remain in another dataset and therefore decided to double our sample size to 800 participants for additional statistical power. Analyses below use the data from the combined sample ($n = 802$), but analysis of the initial sample ($n = 401$) can be found in the Supplemental Materials.

Participants. Our final sample was 802 adults recruited on Amazon's Mechanical Turk (U.S. citizens, $M_{age} = 36.8$, $SD = 11.7$, 46% females) for $0.50.

Procedure and materials. We randomly assigned participants to one of four conditions, 2 (number of requesters viewed: one vs. five) × 2 (allocation decision: unpacked vs. packed). We gathered the names, ages, locations, and photos of children in need from Compassion.com (Abush, Beakal, Elie, Mafumala, and Sumeya, ages 3–6, located in Ethiopia, Rwanda, or Uganda; see Supplemental Materials for stimuli), and told participants that these children were in urgent need of a polio vaccine that would save them from lifelong paralysis. Participants first viewed a short set of survey instructions: "In this study, you will learn about [1 child/5 children] who [is/are] in need of your help. On the next page, you'll be given a $1.00 bonus. You can decide to keep the bonus for yourself, or donate some or all of it to [the child/the children/each of the children]."

Then, participants were randomized into condition. In the five-requester unpacked-decision condition, participants allocated their bonus in six boxes, with a required sum of $1.00: one each for the five children, whose photos and information were presented on *separate* lines, and one for the self. In the five-requester packed-decision condition, participants allocated their donation into one box with a maximum of $1.00, "Bonus that goes to Abush, Beakal, Elie, Mafumala, and Sumeya," whose photos and information were presented on the *same* line in a row. In the one-requester unpacked-decision condition, participants allocated their bonus in two boxes, with a required sum of $1.00: one for the child (randomly selected), and one for the self. Finally, in the one-requester packed condition, participants were asked to allocate their donation into one box with a maximum of $1.00, "Bonus that goes to [Abush/Beakal/Elie/Mafumala/Sumeya]," one of whose photos was presented randomly.

Finally, all participants rated their own choice on fairness ("How fair is your donation?," 1 = *not at all fair*, 7 = *extremely fair*), impact ("How much positive impact will your donation have on the child or children's lives?," 1 = *not much impact at all*, 7 = *extreme impact*), and good use of money ("To what extent is your donation a good use of money?," 1 = *not a good use of money*, 7 = *extremely good use of money*). As control variables, we also asked participants whether they were a parent ("Are you a parent?" *yes* or *no*) and how often they donated money to support children's health ("How often do you donate money to support the cause of children's health (e.g., St. Jude Children's Hospital)?," 1 = *never*, 7 = *always*).

Results (Experiment 5b)

Allocation decisions. We examined participants' allocation strategies in the five-requester unpacked-decision condition, excluding those who kept their bonus (i.e., allocations to themselves). Replicating prior experiments, distribution was the dominant strategy, $\chi^2(1, 102) = 36.65$, $p < .001$, with 83% of helpers choosing to distribute (82% distributed completely and 75% distributed equally; see Table 10). Much less common was the strategy of concentrating donations toward one requester (17% of helpers).

Donation amount. In a 2 × 2 ANOVA on donation amount, there was an effect of the number of requesters viewed (one vs. five), $F(1, 798) = 5.37$, $p = .021$, $\eta_p^2 = 0.007$, and a marginal effect of allocation decision type (unpacked vs. packed), $F(1, 798) = 2.94$, $p = .087$, $\eta_p^2 = 0.004$, but the predicted interaction was nonsignificant, $F(1, 798) = 1.02$, $p = .313$, $\eta_p^2 = 0.001$ (see Figure 5). Because we made specific predictions about each contrast in the interaction, we decomposed it separately for the unpacked and packed conditions.

In the unpacked-decision condition, participants donated more in total when they saw five requesters ($M = $0.48, $SD = $0.44) than when they saw one requester ($M = $0.38, $SD = $0.41), $t(399) = 2.31$, $p = .021$, $d = 0.23$, providing support for our hypothesis. Participants in the unpacked condition that saw five requesters also donated less per requester on average ($M = $0.10, $SD = $0.09) than did participants who saw one requester ($M = $0.38, $SD = $0.41), $t(399) = -9.58$, $p < .001$, $d = -0.94$.

But in the packed donation condition, there was no difference in donations for one versus five requesters ($M = $0.36, $SD = $0.40

Table 10
Allocation Strategy of Participants by Condition in Experiment 5b

Allocation strategy	Number of participants adopting this strategy	Percentage of participants adopting this strategy	Average amount given across all requesters	Average amount given per requester
Five-requester, unpacked donation condition				
Keep the bonus entirely for themselves	76	39%	$.00	$.00
Give part or all of bonus to requester(s)	121	61%	$.78	$.16
Condition total	197	100%	$.48	$.10
Conditional on donating				
Distribution (help more than one requester)	101	83%	$.78	$.16
Complete distribution (all requesters, any amount)	99	82%	$.78	$.16
Equal distribution (all requesters, same amount)	91	75%	$.77	$.15
Concentration (help one requester)	20	17%	$1.00	$1.00
Four-requester, packed donation condition				
Keep the bonus entirely for themselves	85	43%	$.00	$.00
Give part or all of bonus to requester(s)	114	57%	$.70	$.14
Condition total	199	100%	$.40	$.08
One-requester, unpacked donation condition				
Keep the bonus entirely for themselves	83	41%	$.00	$.00
Give part or all of bonus to requester	121	59%	$.64	$.64
Condition total	204	100%	$.38	$.38
One-requester, packed donation condition				
Keep the bonus entirely for themselves	84	42%	$.00	$.00
Give part or all of bonus to requester	118	58%	$.61	$.61
Condition total	202	100%	$.36	$.36
Total	802	100%	$.40	$.23

for one child; M = \$0.40, SD = \$0.42 for five children), $t(399) = 0.95$, $p = .343$, $d = 0.09$. This null effect was consistent with Experiment 5a.

Another interesting comparison in these data is unpacked and packed donations in the five-requester condition, which provides a test of whether people donate more to unpacked groups than to packed groups. This was marginally true; among participants who saw five children, unpacked donations were marginally higher (M = \$0.48, SD = \$0.44) than packed donations (M = \$0.39, SD = \$0.42), $t(394) = 1.87$, $p = .063$, $d = 0.19$. In contrast, for participants who saw one child, there was no statistically significant difference between unpacked donations (M = \$0.38, SD = \$0.41) and packed donations (M = \$0.36, SD = \$0.40), $t(404) = 0.53$, $p = .598$, $d = 0.05$.

We further examined all participants' beliefs about whether their donation was fair, impactful, or a good use of money. Again we note that these analyses are based on self-selection (i.e., beliefs of individuals who chose to donate or not) and therefore cannot be interpreted causally. Across all conditions, participants who decided to donate any portion of their bonus to the requesters felt that their decision was fairer (M = 5.36, SD = 1.68), more impactful (M = 4.43, SD = 1.72), and a better use of money (M = 5.74, SD = 1.42), than participants who decided to keep all of the bonus for themselves (Ms = 3.45, 1.55, and 3.52; SDs = 2.22, 1.35, and 2.15, respectively), ts > 13.28, ps < .001, ds > 1.00.

Consistent with our theory, within only the five-requester unpacked-donation condition, equal distributors (n = 91) reported that their decision was fairer (M = 5.57, SD = 1.68) than concentrators (n = 20; M = 4.35, SD = 1.98), $t = 2.56$, $p = .017$, $d = 0.70$. They did not believe that their decision was more impactful or a better use of money, ts < 0.88, ps > .384, ds < 0.23. Furthermore, equal distributors believed that they had made a fairer decision than participants from any of the other conditions (five-requester packed-donation M = 4.62, SD = 2.12; one-requester unpacked-donation M = 4.68, SD = 2.13; one-requester packed-donation M = 4.34, SD = 2.15), ts > 3.88, ps < .001, ds > 0.45.

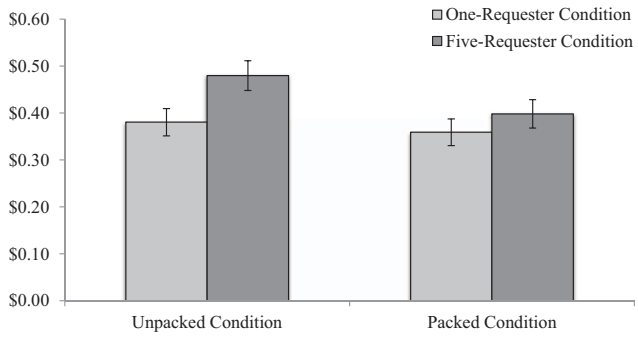

Figure 5. Total amount of money (out of \$1.00) donated by condition in Experiment 5b. Bars represent standard error around the mean.

Discussion

Experiments 5a and 5b extend our demonstration of real helping behavior among online donors, and at least partly reconcile our findings with prior research indicating that, at times, people may donate less to groups in need than to individuals in need. Although we did not find evidence in either of our own experiments that people donated less to multiple requesters than to single requesters, we did observe a circumstance under which people did not donate *more* to multiple requesters—when the allocation decision was

packed into a single choice. This provides support for our theory, demonstrating that only when individuals have the opportunity to distribute their donations does the donation amount increase.

A careful reader will note that the effect sizes varied between Experiments 5a and 5b; in the former, there was a statistically significant interaction between donation type and number of requesters, but in the latter the interaction was nonsignificant. Despite these differences, the overall pattern of results between studies was consistent. We suspect that the effect of the number of requesters on donation amount in the unpacked-decision condition is reliable, because it conceptually replicated in at least four experiments in this paper. But the overall interaction is likely unreliable because of the null effect of requester number on donation amount in the packed-decision condition.

One interpretation of the null effect that we observed in the packed-decision condition in both studies is that viewing a single victim does not increase helping behavior compared with viewing multiple victims. However, we would interpret this null effect with caution for several reasons. First, the identifiable victim effect is at least in part attributable to individual victims typically provoking greater sympathy than multiple victims (Small, Loewenstein, & Slovic, 2007). Indeed, prior tests of the identifiable victim effect have emphasized the urgency and direness of the focal victim's needs to increase donors' emotional distress (Jenni & Loewenstein, 1997). But we found no evidence for greater sympathy for one versus multiple requesters in our studies, suggesting that perhaps our polio vaccine manipulation was not sufficiently dire to induce the sympathy necessary to elicit the identifiable victim effect. A more dire manipulation might also create the preference for concentration seen in studies of fairness-efficiency tradeoffs in which victims' lives are at stake (Li, Colby, & Fernbach, 2018). Second, the most consistently replicated and paradigmatic examples of the identifiable victim effect come from comparisons of a single individuated victim to extremely large unindividuated groups (e.g., a person compared with a statistic; Jenni & Loewenstein, 1997). Our multiple-requester condition may have been too small and individuated of a group to show the effect. Third, it is possible that our sample size was simply too small to detect the identifiable victim effect's relatively small effect size—a meta-analysis by Lee and Feeley (2016) put the weighted average correlation between identifiability and helping at $r = 0.05$. Other possibilities exist as well; future research could explore moderators to the identifiable victim effect.

General Discussion

Helping decisions require people not only to consider whether to provide help but also how to allocate help to individuals in need. The current paper categorizes the strategies that helpers use to determine their allocations, providing new insight into how people allocate their help to others and the consequences of their allocations. We tested preferences between two allocation strategies: distributing help to multiple requesters, or concentrating help to a single requester. Nine experiments ($n = 3{,}109$) demonstrate a preference for distributed helping over concentrated helping, at least in part because it feels like a fairer allocation strategy. As shown in Table S1, 78% of the allocations in Experiments 3–5b and Supplemental Experiments S1 and S2 were distributed (vs. 22% concentrated). Moreover, of those who distributed, the majority (77%) chose to completely distribute across all requesters and more than half (51%) distributed equally. Our experiments provide evidence that, at least in this context, the perceived fairness of the procedure (i.e., the helper's allocation strategy) may influence helping decisions more than the perceived fairness of the outcome (i.e., the requesters' final donation amounts).

One consequence of distributing help is that it unpacks groups of requesters, leading helpers to consider each request separately. Just as unpacking any group into its constituent parts increases the attention paid to each element, unpacking multiple requesters in a group by distributing help to each of them may lead helpers to provide more total help. Indeed, in three main experiments and a supplemental experiment involving real requests for time and money, when there was a larger number of requesters, donors distributed their help more and provided more total help. However, helpers still showed some insensitivity to the scope of need because the help per requester decreased as the number of requesters increased. Providing evidence that the effect of the number of requesters on helping amount is caused by the preference for distribution, this effect disappeared when the allocation decision was packed and helpers had no opportunity to distribute aid.

Theoretical Contributions

Our findings extend beyond previous literature in at least three ways. First, we provide a new framework for measuring helpers' allocation strategies when there is more than one request for help. We diverge from prior research that studied individual helping decisions (Batson, 1987; Darley & Batson, 1973; Graziano et al., 2007) or helping between groups (intergroup aid; Cuddy et al., 2007), instead studying helping *within* groups (e.g., a page of Kiva.org requesters). Although much prior research has considered how the number of requesters can influence donation amounts (Andreoni, 2007; Galak et al., 2011; Kogut & Ritov, 2005a, 2005b; Soyer & Hogarth, 2011; Västfjäll et al., 2014, 2015), it does not conceptualize helping behavior in terms of allocations, failing to consider the role of distributed versus concentrated allocations. Our theoretical model (shown in Figure 1) provides a way to understand not the initial decision to help but rather the decisions that come afterward, decisions that concern *how* to help. Like other models (e.g., see Dickert, Sagara, & Slovic, 2011), we propose that the helping decision has two stages—the decision to help and how much to help. But unlike other models, we uniquely propose both antecedents and consequences of allocation strategies. We hope that this research will stimulate future interest in helping allocations, while also encouraging researchers who have already collected data on helping decisions to reanalyze their own data to examine helpers' allocation strategies.

Our findings further suggest that the decision of whether to help others (a yes or no choice) may have a different psychological motivation than the decision of how that help should be allocated. Whereas the decision to help is influenced by emotional responses such as empathy (Batson, 1987; Batson et al., 1991) and guilt (Aknin et al., 2017; Basil et al., 2008; Montada & Schneider, 1989), our results suggest that allocation decisions are largely influenced by perceptions of fairness. In particular, we test between two forms of fairness, procedural and distributive justice, and find initial support that procedural justice (a fair allocation strategy) may drive allocation decisions more than distributive

justice (a fair outcome for requesters). Additional psychological mechanisms for how people choose to help multiple requesters, such as "allocation portfolios" between different types of resources (e.g., time, money, in-kind donations of physical goods), could be explored in future research.

Finally, by comparing the donations allocated to groups of requesters that are either packed (one allocation decision) or unpacked (allocation decisions required for each requester), we identified differences in how the number of requesters can affect the helping amount. Prior research has not clearly differentiated between unpacked and packed helping decisions. For instance, empirical research on the identifiable victim effect often compares unpacked donation decisions (e.g., to individuals or small groups) to packed donation decisions (e.g., to a broader cause or a group of statistical victims), which can conflate the target of the help with the packed or unpacked nature of the decision (Jenni & Loewenstein, 1997; Kogut & Ritov, 2005a, 2005b; Slovic, 2007; Small & Loewenstein, 2003; Small & Loewenstein, 2005; Västfjäll et al., 2014, 2015). In our experiments, helpers donated more when allocating money to a set of unpacked requesters than to a single requester. We propose that one reason why helpers donate more when viewing more unpacked requests is because they distribute their donations across the requesters. However, other possible reasons may exist. For instance, viewing one unpacked request may nudge helpers to become more scope-sensitive to the needs of other requests in subsequent donation decisions (e.g., *unit asking*, Hsee, Zhang, Lu, & Xu, 2013). Regardless of the exact reason why unpacking requests increases the donation amount, our research provides one way to reconcile conflicting findings about the relationship between the number of requesters and the amount of donations. The precise manner in which donations are elicited for groups can meaningfully affect the amount given.

Limitations

Our experiments have limitations that future research could seek to address. First, the majority of our studies examined online donation decisions. This is problematic for at least two reasons: money may be uniquely easier to distribute than other resources, and requesters might attract different attention in online than offline contexts. It is important that future experiments test for the preference for distributed helping in a wider variety of contexts with resources other than money, to see how the preference might change.

Second, our experiments were conducted with primarily Western participants. Some research suggests that norms of equality and meritocracy are particularly strong in American cultures (Berman et al., 1985). Consequently, it is possible that helpers in non-Westernized cultures might pay more attention to the needier requesters, showing greater differentiation in their allocation strategies and more willingness to concentrate their money. Indeed, allocation strategies could systematically vary based on cultural norms and moral values for prosociality.

Third, in each of our experiments, helpers considered a relatively small number of requesters. We specifically selected smaller numbers because we suspected that differences in allocation strategies would be most likely to emerge under these circumstances. When the number of requesters is large enough, distribution may simply no longer be feasible. Consider a village of 10,000 people each requesting help—equal distribution is hardly an option that a potential helper would consider. We suspected that even smaller-sized groups of requesters may curb the desire for distribution. As a preliminary test of this idea, we conducted a donation experiment with either four, 20, or 40 requesters and asked donors to make an unpacked allocation decision (see Supplemental Materials Experiment S3 for more details). Although distribution was the preferred allocation strategy in the four-requester condition (61%), it dropped in the 20-requester and 40-requester conditions (42% & 51%, respectively). Our own Experiment 4 further showed that, although distributing donations was still the preferred strategy in 10-requester groups, it became relatively less common to completely and equally distribute donations when there were more than five requesters, perhaps suggesting a boundary point after which distributing becomes harder. Relatedly, at least on some level, distributing help—and particularly equally distributing—requires doing math. Therefore, individual differences in helpers' numeracy could influence the preference for distributed helping as the number of requesters increases.

Future Directions

There are several more interesting questions for future empirical and theoretical work to explore. We think that the time is ripe to build a broader theoretical model to understand the psychological predictors of when, why, and how people help others. Past research has offered many mechanisms for an individual's initial decision of whether to help, ranging from empathy (Batson, 1987; Batson et al., 1991) and warm glow (Cialdini, Darby, & Vincent, 1973) to social norms (Chudek & Henrich, 2011) and impact (Aknin et al., 2013; Grant, 2007). More recent research has begun to explore *how* givers help, conditional on the initial decision to help. Beyond the present investigation of allocating help for multiple requesters, other research investigates the timing of help (short-term or long-term; Matsuba, Hart, & Atkins, 2007), what form of help to provide (paternalistic or agentic; Schroeder, Waytz, & Epley, 2017), and how people select among charitable organizations (Gneezy, Keenan, & Gneezy, 2014). A broader model could incorporate these predictors, addressing the shared and distinct mechanisms associated with helping individuals (Batson, 1987; Darley & Batson, 1973; Graziano et al., 2007) and helping groups (Andreoni, 2007; Duclos & Barasch, 2014; Galak et al., 2011; Smith, Faro, & Burson, 2013; Soyer & Hogarth, 2011), or even *failing* to help individuals and groups (Amir, Kogut, & Bereby-Meyer, 2016).

Second, more could be done to understand when concentration is an appealing allocation strategy. One possibility that we did not test in the current set of experiments is when it seems particularly inefficient to distribute help (Gordon-Hecker et al., 2017; Mitchell et al., 1993) or when human lives are at stake (Li et al., 2018). In our own experiments, we find that a subset of people (around 22% of our participants; see Table S1) prefer to concentrate their help; are there systematic characteristics of these helpers that make them prefer to concentrate? We point toward one dimension on which helpers seem to discriminate between requesters—neediness—but there are many other dimensions that could be fruitful to explore, such as deservingness or attractiveness. Furthermore, future research could try to understand the different aspects of requests that *influence* perceived neediness—from how the requester looks and

speaks, to the helper's connection to the requester's cause—which could consequently affect allocation strategies (e.g., Cryder, Botti, & Simonyan, 2017; Small & Simonsohn, 2008).

Relatedly, future research could examine other psychological mechanisms beyond fairness that could influence allocation strategies. For example, one mechanism that influences helpers' current and future helping decisions is their beliefs about how much impact they have on requesters' lives (Dickert, Västfjäll, Kleber, & Slovic, 2015; Erlandsson et al., 2015; Grant, 2008; Grant et al., 2007). Our experiments suggest that distributing help may feel more impactful than concentrating it, consistent with conceptions of "effective altruism," but there could be cases when helping an entire group but only each person in the group a little (i.e., distribution) feels *less* impactful than helping only one person in the group a lot (i.e., concentration), particularly when donors care more about the depth of their impact on one particular person's life or when the units of distributed help feel meaninglessly small. As another example, how allocation decisions are grouped into subjective categories could influence beneficiaries' final allocation outcomes (*partition dependence*, Fox, Ratner, & Lieb, 2005).

Further considering possible mechanisms that influence allocation strategies, how people allocate their help to multiple requesters might depend on how much helpers consider the requesters to be part of a group. Other research suggests that decisions to help groups involve a different set of considerations than decisions to help individuals. For example, people tend to provide more help when the group is encoded as being part of one's ingroup (Duclos & Barasch, 2014), and when the group seems to have greater social proximity to the helper (Galak et al., 2011). More cohesive groups—that is, those that seem more entitative, sharing properties such as similarity, organization, interdependence, common movement, and common goals—are afforded greater help (Smith et al., 2013). Furthermore, allocation strategies might change when helpers infer that the group members know each other (and will know their allocations). Relatedly, allocation strategies may also change when helpers believe that the group is highly interdependent and helping an individual will also help the group as a whole (e.g., a team of runners raising money for charity).

Finally, this research has potential practical implications to consider. Our results suggest some possible ways that charities could change their donation appeals to raise more money from online donors. First, nonprofit organizations could shift their focus from packed allocation decisions to unpacked allocation decisions, to better encourage donors to explicitly consider the needs of each requester. Second, charities might consider presenting requesters on the same page so that donors are required to view all requesters at the same time, and may feel more inclined to distribute their donations, rather than on separate pages where concentrating donations might feel like a more natural strategy. This might be particularly advantageous with a small set of requesters (five to 10), whom donors might feel more pressured to treat equally. Third, charities could amplify fairness concerns. For example, if a donor elects to concentrate their help on a single requester, a follow-up screen could read, "Are you sure you want to leave the other requesters unhelped?" As another example, charities could group together requesters who seem relatively similar in neediness, making it more difficult for donors to choose between them.

Conclusion

From volunteering at a hospital to donating money online, people must commonly determine how to allocate their help across multiple requesters. Although helpers' allocations could be driven by many possible considerations (e.g., maximizing impact, being efficient), we find that being fair is a primary consideration that guides allocation decisions. When requesters seem similarly needy, helpers prefer to distribute their help across requesters, often as equally as possible. The process of distributing help naturally unpacks groups of requests so that helpers consider each requester's needs separately. As a result, the preference for distributed helping leads online donors to donate more when there are more requesters who need help. Better understanding allocation strategies can create opportunities to leverage the preference for distributing aid to increase helping.

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