How do we get people to donate more to charity? An overview of reviews

Preprint · February 2020

DOI: 10.31234/osf.io/yxmva

17 authors, including:

Michael Noetel
Australian Catholic University
50 PUBLICATIONS **500** CITATIONS
SEE PROFILE

Peter Slattery
Monash University (Australia)
20 PUBLICATIONS **158** CITATIONS
SEE PROFILE

Lee Huuskes
The Centre for Work Health and Safety
3 PUBLICATIONS **30** CITATIONS
SEE PROFILE

Shane Timmons
Economic and Social Research Institute
25 PUBLICATIONS **359** CITATIONS
SEE PROFILE

How do we get people to donate more to charity? An overview of reviews

Michael Noetel[1], Peter Slattery[2], Alexander K. Saeri[3], Joannie Lee[4], Thomas Houlden[5], Neil Farr[6], Romy Gelber[7], Jake Stone[8], Lee Huuskes[9], Shane Timmons[10], Kai Windle[11], Luke Spajic[12], Luke Freeman[13], Lucius Caviola[14], David Moss[15], Jon Behar[16], Stefan Schubert[17]

#	*Email*	*Affiliation*
1	michael.noetel@acu.edu.au (*corresponding author)*	Senior Lecturer, Australian Catholic University 1100 Nudgee Rd, Banyo, QLD, 4014 +61 414 822 353
2	peter.slattery@monash.edu	BehaviourWorks Australia, Monash Sustainable Development Institute, Monash University
3	alexander.saeri@monash.edu	BehaviourWorks Australia, Monash Sustainable Development Institute, Monash University
4	joannie.lee@student.unsw.edu.au	School of Social Sciences, University of New South Wales
5	tom.w.houlden@gmail.com	School of Economics, University of New South Wales
6	nfarr@sccliving.org.au	Marketing and Communications, Southern Cross Care
7	gelberromy@gmail.com	School of Psychology, University of New South Wales

8	jsto5983@uni.sydney.edu.au	School of Engineering, University of Sydney
9	lee.huuskes@environment.nsw.gov.au	Social Research Unit, NSW Department of Planning, Industry, and Environment
10	shane.timmons@esri.ie	Economic and Social Research Institute, Ireland
11	kaiwilliamwindle@gmail.com	School of Psychology, University of Sydney
12	luke.spajic@student.adelaide.edu.au	School of Medicine, University of Adelaide
13	luke.freeman@mq.edu.au	Department of Media, Music, Communication and Cultural Studies, Macquarie University
14	lucius.caviola@gmail.com	Department of Psychology, Harvard University
15	dm661@canterbury.ac.uk	Faculty of Education, Canterbury Christ Church University
16	jon.behar@thelifeyoucansave.org	Operations, The Life You Can Save
17	stefan.schubert@psy.ox.ac.uk	Social Behaviour and Ethics, University of Oxford

How do we get people to donate more to charity? An overview of reviews

Abstract

Purpose

How can charities best increase the donations to their causes? This study aims to answer this question by synthesizing review-level evidence for increasing charitable giving.

Methodology

This paper is an umbrella review of systematic reviews on interventions that influence financial donations to non-profits.

Findings

We found 14 meta-analyses (combined $N = 1{,}510{,}966$) covering nine factors influencing charitable giving. Three factors increased donations: tax deductibility, encouraging women to make intuitive judgements, and legitimizing paltry contributions. Two factors reduced donations: compassion fade and larger starting amounts of money. Four factors did not influence donations: 'door-in-the-face', prosocial media, government crowding out/in, and artificial surveillance cues. Most reviews focused on contrived experiments measuring one-off donations, such as dictator games. None met all best-practice guidelines for systematic reviews.

Practical implications

To increase donations, charities could promote the tax deductibility of the donation, the effects of even small contributions, and highlight the impact of the donation. Systematic reviews allow for more robust conclusions, but many recent reviews of philanthropy marketing neglect best-practice and focus on topics of limited applied utility.

Keywords: Charity, Philanthropy, Prosocial Behavior, Rapid Review, Overview of Reviews

Philanthropy is important for addressing many societal issues including poverty, global health, animal suffering, human rights, climate change, and the long-term future of humanity (MacAskill 2015; Singer 2009; Taylor et al. 2013; Zürcher 2017). Promoting philanthropy has therefore become a focal concern for many governments (Dolan et al. 2010), social movements (Singer 2015) and nonprofits (Pratt et al. 2009). However, the promotion of philanthropy is particularly challenging, as it involves "asking people to donate resources (e.g., time, money, blood) with little or no commensurate reward in return" (Bendapudi, Singh, and Bendapudi 1996, p. 33).

The literature examining the promotion of philanthropy is broad but fragmented. Researchers have examined drivers of charity across a diverse range of appeals (Bekkers and Wiepking 2011), actors (Wiepking and Bekkers 2012), channels (Guéguen and Jacob 2001), and solicitation contexts (e.g., Penner et al., 2005). However, there is a lack of research examining which mechanisms for promoting philanthropy are most consistently effective.

Several studies (Caber Collective 2015; e.g., Penner et al. 2005; Wiepking and Bekkers 2012) have reviewed relevant literature by identifying common themes or patterns of findings, but non-systematic reviews can be prone to selective reporting of an incomplete set of findings (Higgins and Green 2011). No contemporary review summarizes the most well established and authoritative findings atop the hierarchy of evidence (i.e., systematic reviews and meta-analyses; cf. Evans 2003). It therefore remains unclear (1) which current approaches to eliciting charitable donations are particularly reliable and important to implement within applied philanthropic contexts and (2) which approaches lack authoritative high-level evidence to support them.

To address this gap, this article reviews and summarizes the results of a comprehensive search of meta-analyses and systematic reviews to provide an accessible overview of the most

robust evidence for how to promote philanthropy. It seeks to answer the research question: which interventions influence charitable donations (i.e., the transfer of money from a donor to a recipient)? The paper used an Overview of Reviews methodology (Becker and Oxman 2011). Overviews of reviews are an emerging approach that summarizes review-level evidence into a format that is accessible and useful for guiding policy and practice (Khangura et al. 2012; Polisena et al. 2015; World Health Organization 2017). It then uses the results of the review to recommend practical interventions that appear to effectively drive philanthropy, highlight gaps in the literature, and make recommendations for future research.

The article has the following structure. It first describes and explains the search strategy, screening, and data extraction processes. The results section describes the findings of the 14 reviews identified in our search. The discussion section links these papers to established theories and explores their implications for philanthropic practice. Finally, it outlines conclusions, limitations of the review, and opportunities for future research.

Method

This paper used an overview of reviews approach (Becker and Oxman 2011; Grant and Booth 2009; Khangura et al. 2012; World Health Organisation 2017) to synthesize the literature on philanthropy. Overviews of reviews (a.k.a., umbrella reviews) are an adaptation of a traditional systematic review in that they include a systematic search and appraisal processes but focus on aggregating reviews rather than primary studies. This allows them to cover a wider scope than systematic reviews, summarizing the top level evidence across a wider range of areas than would be practical for a systematic review (Becker and Oxman 2011). Overviews are especially effective at answering questions relevant to practitioners (e.g., “which interventions

influence charitable donations?") and were initially developed to assist practitioners and policy-makers make more evidence-informed decisions about health care and health systems (Khangura et al. 2012; World Health Organisation 2017). Our review was registered a priori using the Open Science Framework (Blinded for review 2019, July 14). Deviations from this protocol are listed on the Open Science Framework (https://osf.io/465ej/?view_only=8f0ed79442cc4bc59feeb8d0880c6698) and were in the direction of increasing rigor (e.g., adding dual screening, extraction, and quality assessment).

Search Strategy

Our search strategy was based on the method outlined by Smith et al. (2011), and focused on peer-reviewed abstracts in Scopus, PsycINFO (Ovid), Web of Science, and Database of Abstracts of Reviews of Effects, published in English, from 1990 to July 2019. Terms used for identifying the type of study included: meta-anal*, meta-regress*, "systematic review", "rapid review", "scoping review", "state-of-the-art review", "systematic search and review", "systematized review", "mapping review", and "systematic map", and were informed by a comprehensive typology of review methods (Grant and Booth 2009). Terms for charitable donations as outcomes included: altruis*, charit*, philanthro*, donat*, pledge*, or non-profit. An example search string is available in our pre-registered protocol (Blinded for review 2019, July 14).

Excluded subject areas included: Medicine, Biochemistry, Engineering, Nursing, Pharmacy, Chemistry, Agriculture, Physics, Immunology, Computer Science, Neurology, Material Science, Environment, Civil Engineering, Earth Sciences, Mathematics, Dentistry, and Veterinary Science. These subject areas were excluded prior to screening but after reviewing initial exploratory searches and finding no relevant results from these subject areas.

To broaden the reach and utility of the review, our senior philanthropy researchers (LC, DM, SS) and practitioners (LF, JB) ensured that the protocol search terms, inclusion and exclusion criteria, and database sources were appropriate. Two additional papers were identified by the team and screened at the full-text stage. Further details on the search strategy are provided on the Open Science Framework (https://osf.io/465ej/?view_only=8f0ed79442cc4bc59feeb8d0880c6698). To expedite the review, the review did not involve a systematic search of reference lists, only included papers found electronically without interlibrary loans, and excluded grey literature. This practice is widely-used, and leads to few differences in review conclusions (Ganann, Ciliska, and Thomas 2010).

Screening and Selection of Studies

Our inclusion criteria were: (a) systematic reviews, meta-analyses, or similar comprehensive reviews; (b) reviews describing individual philanthropy (i.e., monetary charitable donations) to an identified cause; (c) peer reviewed and written in English (due to logistical constraints). Exclusion criteria for papers were: (a) papers reporting primary research (i.e., papers that are not secondary reviews; e.g., RCTs); (b) non-systematic reviews, theory papers, or narrative reviews; (c) reviews primarily describing the behaviors of organizations rather than individuals; (d) reviews that only assessed non-financial donations donation as outcomes (e.g., blood or organ donations); (e) reviews of other kinds of prosocial behavior as outcomes (e.g., honesty). No exclusion criteria were placed on the populations examined.

A subset of the authorship team screened titles and abstracts of records in duplicate (i.e., each title and abstract was screened by exactly two reviewers from the team). If at least one reviewer approved the paper, the full text was then assessed. The review team also used the DistillerAI toolkit (a component of DistillerSR, Evidence Partners, Ottawa, Canada) to

automatically scan excluded records for those that should have been included based on similarity to the manually-included records. It used a Naive Bayes classifier and a Support Vector Machine classifier to train the model on all screened references, then scored references in terms of their likelihood for inclusion (see Gates et al. 2019). Any excluded references above the predefined threshold (p = .5; 136 references, ~33% of the yield) were then re-screened by a senior member of the team (MN). None of those references were incorrectly excluded. This team of authors screened the full texts of relevant records in duplicate, documenting reasons for exclusion (see Figure 1). Every full text record was screened by two reviewers from the team. Disputes were resolved by discussion between reviewers, consulting a senior member of the team, if necessary.

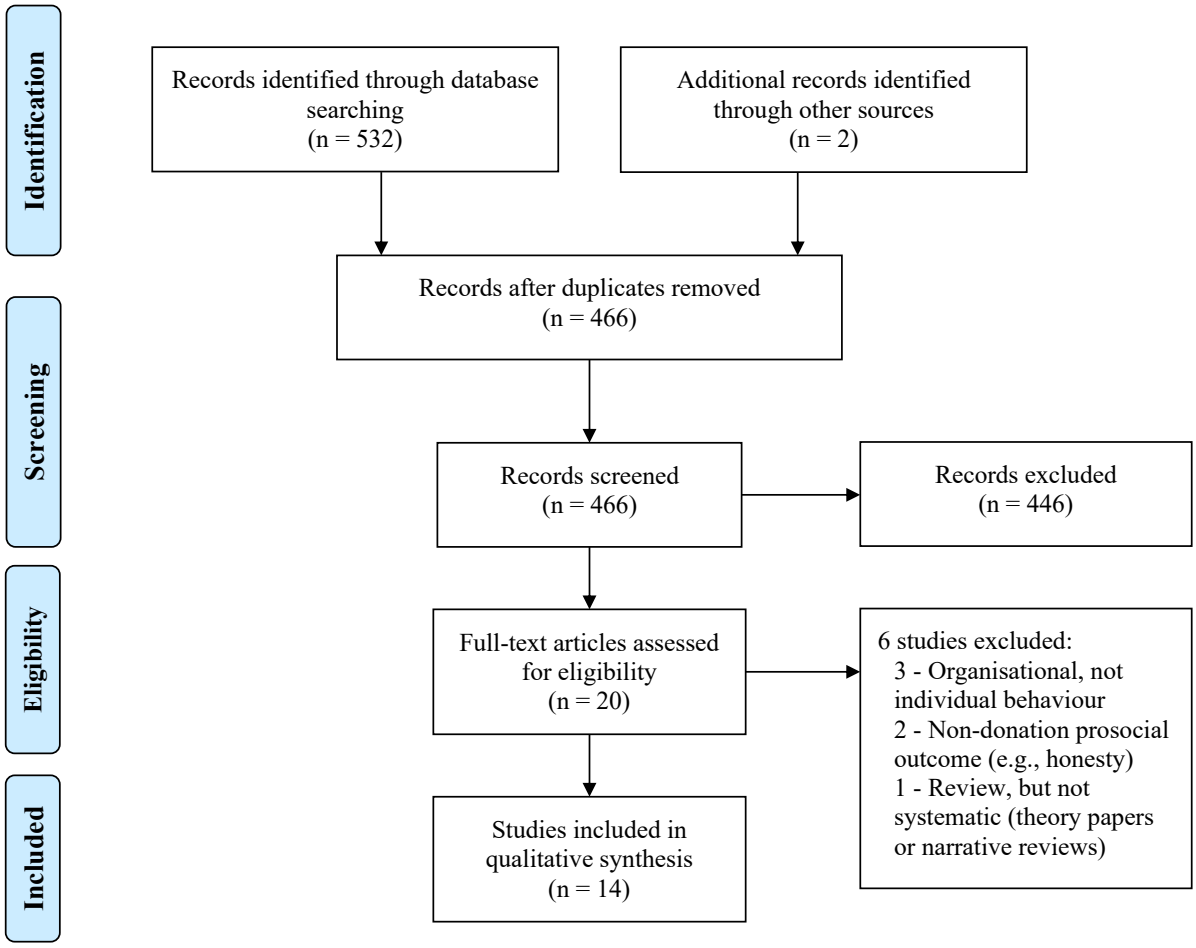

Figure 1. PRISMA flow diagram for reviews considered and included in our overview of reviews

Data Extraction and Quality Assessment

A data extraction template was developed to capture the following information from the included studies: review question(s); review methods; number of studies and participants; Key findings; pooled effect estimates with moderation analyses; key conclusions and limitations. A team consisting of several authors extracted and conducted quality assessment on the included records in duplicate to limit human error. Every included record was extracted by two reviewers from the team. Every record was quality assessed by two reviewers from the team. A third reviewer from the team resolved inconsistencies in extraction and quality assessment. The review used the NIH Quality Assessment Tool for Quality Assessment of Systematic Reviews and Meta-Analyses (National Heart, Lung, and Blood Institute [NHLBI] n.d.). Tallying different criteria into a quantitative scale of quality is not recommended because each criteria may carry different risks and cannot be weighted equally (Higgins et al. 2011), so the results of each criteria were presented for each review. The full list of extracted records and quality assessments are available on the Open Science Framework for transparency (https://osf.io/465ej/?view_only=8f0ed79442cc4bc59feeb8d0880c6698).

Results

As outlined in Figure 1, titles and abstracts of 466 unique records were screened. The team subsequently screened the full-text of 20 records for eligibility, 14 of which were included. Three records were excluded at full-text screening because they focused on organizational behavior (Gautier and Pache 2015; Lafferty, Lueth, and McCafferty 2016; Zasuwa 2017); two described prosocial behavior without financial donation as an outcome (Nagel and Waldmann

2016; Villegas de Posada and Vargas-Trujillo 2015); and one was not a systematic review (Weyant 1996). Two of the included reviews (Bolkan and Rains 2017; Rand et al. 2016) presented meta-analyses on two distinct sets of studies, which were extracted separately. Characteristics and summaries of each included review are available in Table 1. Figure 2 presents a forest plot summarising all pooled effect sizes on donation size, including those related to donor characteristics and other non-intervention factors. Effects related to other outcomes are available at https://osf.io/465ej/?view_only=8f0ed79442cc4bc59feeb8d0880c6698.

Table 1.
Summary of included reviews; review questions, sumary of method, key results and author conclusions

Review	Review Question	Review Scope	K	N	Summary of Results	Author Conclusions
Bolkan 2017	Does Legitimizing Paltry Contributions (e.g., "even a penny will help") increase donation rates? If so, is that because of impression management concerns, requestor need, or a reduction of barriers?	Inclusion: independent variable was legitimization of paltry contributions; spoken, in-person requests only; enough data for effect sizes. Search included 7 databases and 4 terms related to paltry contributions.	13	3,181	Small-moderate increase in compliance rates when legitimizing paltry contributions (r = . 22). Effects were stronger for those concerned with impression management, and when the legitimization appeared to represent a requester in need. Legitimization was less effective when donors felt they felt they lacked time, desire to give, incentive to give, or found request inconvenient. Donors lacking resources did were not more persuaded by appeals to paltry contributions.	Legitimizing paltry contributions increased donation rates, especially when not donating would make the prospective donor look bad (i.e., impression management concern), or when the legitimization made the requestor look more needy.
	Does Legitimizing Paltry Contributions (e.g., "even a penny will help") decrease donation amounts?	As above	11	1,531	Legitimizing paltry contributions reduced donation amounts with a small-moderate effect (r = −.23). The overall funds donated (number of donors x size of contributions) was equivalent whether or not paltry contributions were legitimized.	Legitimizing paltry contributions increases compliance but reduces donations, so the net benefit is negligible.
Butts 2019	When does "compassion fade" with more victims and by how much? That is, do people help less when more victims are reported compared with an individual victim?	Included experimental studies where one victim was compared with many (separate groups, parallel comparisons excluded). Included if outcome was empathic concern, anticipated positive affect, perceived impact, or helping intent or behavior. Used 7 key words in 6 databases and manually searched 10 journals from 1997.	41	13,259	Bigger groups were associated with a small but significant reduction in helping intent and helping behaviour (r = −0.11). Effects appear to be fully mediated by perceived impact and anticipated positive affect. A larger group of victims led to lower anticipated affect (r = −0. 12) and lower perceived impact (r = −0.21), which, in turn, reduced helping behavior. Effects were lower for certain, severe, and calamitous problems (famine) than uncertain, minor ones (no school books).	Compared with one victim, people are less like to help a group of victims. This effect is mediated by lower anticipated positive affect and lower perceived impact, rather than higher empathy for the lone victim. The effect was also less likely to be present when there are a large number of victims at risk of certain, severe threats.

Coyne 2018	What is the effect of prosocial media (i.e., TV, movies, video games, music, or music videos) on prosocial outcomes? NB: We extracted donation outcomes only	Inclusion: independent variable was measure of prosocial media (TV, movies, video games, music, or music videos, violence 'for good' was excluded) and prosocial (donation, empathy) or antisocial (aggression) outcomes, in English with enough data for an effect size. Used 17 search terms in 4 databases, including grey literature.	72	17,134	Prosocial media had a significant effect on other prosocial behaviours and cognitions, but media did no influence donations (r = 0.09).	Exposure to prosocial media promoted general helping of others and prosocial thoughts, but did not influence specific behaviors, such as volunteering or donating. This was possible because specific behaviours (e.g., donating) were less likely to be explicitly demonstated in the media, and therefore, less likely to be imitated.
de Wit 2017	Does increasing government funding decrease the likelihood of donations from the public ('crowding out'), or does it attract people to donate to that cause ('crowding in')?	Inclusion: size of financial donation (not likelihood of donating) was dependent variable; government support was independent variable (grants only, not rebates); donation needed to be altruistic (i.e., not private transfers). Search focused on 16 search term in one database and also searched reference lists; published only.	54	NR	On average, $1 increase in government support leads to $0.17 decrease in private charitable donations across all studies. In experiments, a $1 increase leads to a $0.64 decrease in private donations. In archival or survey data, a $1 increase leads to a $0.06 increase in private donations.	Contrived experiments support crowding-out effects. Archival or cross-sectional data found crowding-in, but methods frequently contained problems. Authors claim no decisive evidence for government support to crowd out private charitable contributions.
Engel 2011	What factors influence giving when using the dictator game as a model of generosity?	Inclusion: experimental studies of dictator games. Exclusion: dependent variable not money donated, recipient had ability to respond, insufficient data for effect size. Search included two databases and one term: "dictator game."	445	20813	Dictators give, on average, 28.3% of their pie. Controlling for other factors, donations were higher for older donors, multiple recipients, deserving recipients, recipients who had earned the money, and when donations attracted some type of multiplier. Donations were lower for donors who earned the money, recipients who already had money, child or student donors, concealed or repeat donations, group decisions, donations to people closer relationships, and donors forced to choose between keeping all and splitting 50:50.	63.89% of people will choose to donate something in the dictator game, despite the opportunity to maximise their own benefit. The most robust effects that increase this effect are for older, identified, individual donors.
Feeley 2012	Is altruism promoted by the "door in the face": do charities get more donations from requests if they're preceded by a large, objectionable request?	Inclusion: compared request with the addition of the large, objectionable request (request vs. door-in-the-face + request); enough data for an effect size; English translation available. Four search terms in four databases across 15 year period.	22	NR	When request was monetary, as opposed to research/volunteering/health, the door-in-the-face had a small, non-significant increase in the case of both verbal ("I will donate"; weighted mean difference = 0.153) and behavioural compliance (actual donations; weighted mean difference = .116). For other behaviors (e.g., volunteering), it had a small positive effect on verbal behaviour only.	For monetary requests, data does not support door-in-the-face. Authors conclude that the door-in-the-face strategy improves verbal compliance for general request but not behavioural compliance. They suggest the technique is more useful when request is difficult—when baseline rates of compliance are low.

Larney 2019	When given an unconditional opportunity to altruistically donate to an anonymous person (i.e., the dictator game), does a bigger initial pool of funds (endowment) lead to a lower percentage of donation?	Inclusion: Studies involving two adults playing the "Dictator Game," where one participant has a chance to unilaterally donate money to the other; published or unpublished. Exclusion: participants earned their money; experimental manipulation before the donation; conditions where receiver does not know donation size; cross-cultural studies; hypothetical stakes; insufficient statistical detail to calculate effect size. Search: 12 terms across 4 databases and requests for grey literature.	21	3,233	Bigger endowments reduced the proportion of that endowment donated to others: d=0. 145, 95% CI [0.022, 0.269]. The size of this difference appeared proportional to the stake: there was a non-significant, but medium-large correlation between effect size and log difference in endowment (r = 0.411, p = . 090). Log difference was used because some endowments were slightly bigger, and others were up to 1000 times bigger.	When people are given more money in experimental conditions, they donate a smaller percentage of that money to others. The effect was small (d = 0.15), but seems to get larger as the difference in stakes increases (r = 0.41). That is, people with vastly more money appear to give a much smaller percentage of their stake.
Lee 2016	What is the effect of legitimizing paltry contributions (e.g., "even a penny would help") on donation behaviour?	Inclusion: compared request for paltry contribution with a direct request; outcome was donation (rate/amount/percentage); enough to determine effect size. Search included 4 terms across 6 databases, including reference list searches.	30	6,400	People were more likely to donate some money when paltry contributions were legitimized (d = .19, 95% CI [.13, .25]). On the other hand, there was a significant trend toward people donating less when paltry contributions were legitimized (d = -.14, 95% CI [-.22, -.06]). Overall, the total contribution from all participants was slightly larger when paltry contributions were legitimized (d = 0.15).	Adding the phrase "even a penny will help" is useful for increasing compliance, and therefore overall money raised. This was particularly effective when requesting products rather than money, when people had time to consider before acting, and when studies were conducted outside the United States.
Lu 2016	Do government grants displace ("crowding out") or leverage ("crowding in") private donations to non-profit organizations?	Inclusion: reports effect size (or sufficient information to calculate one) between government grants and private contributions to a specific non-profit (rather than a sector). Seach: 5 terms across 9 databases including grey literature and search of reference list.	60	637	No overall effects of government donations on private contributions (unweighted mean = .03). Crowding-in seems more likely in the arts and health care, and crowding out more likely in human services. Crowding out is more likely in studies that control for endogeneity (e.g., those that use fixed effects or instrumental variables).	Regardless of moderators, the effect sizes were too trivial to support either crowding-out or crowding-in. The long-lasting scholarly debate between crowding-in and crowding-out might be overstated.
Nettle 2013	Does the presence of watching eyes increase altruistic donations to others?	Systematic method not reported	7	887	There was no significant increase in amount of money donated when eyes were present (d = 0.04, p = 0.55). However, people were moderately more likely to donate some money (OR 1.39, 95% CI [1.02, 1.91]).	Watching eyes increase the chances that people will altruistically donate in experimental conditions, but they do not increase the size of those donations. Watching eyes do not make people more generous, but they decrease the chance of giving nothing.

Northover 2017	What is the effect of artificial observation cues (e.g., a print of eyes watching) on generosity?	Inclusion: Experimental studies that added artificial observational cue (usually photos of eyes), but not actual surveillance (e.g., security camera); dependent variable was any measure of donation without expectation of return (usually money). Search: 14 terms across 2 databases, including call for grey literature.	21	19,512	No significant effect of surveillance cues on amount donated (d = 0.022, 95% CI [-0.08, 0.13]) or on the likelihood of donation (OR = 0.15, 95% CI [-0.03, 0.35])	There is no effect of artificial surveillance cues on generosity.
Peloza 2005	Does making a donation tax deductible increase the amount that people donate?	Inclusion: Studies that examined effect of tax on charitable giving with data for an effect size. Search: 7 terms in 7 databases including grey literature.	138	1,418,212	A $1 reduction in the cost of giving (i.e., via increased tax deductibility) increases donations by $1.44.	In general, our results support the hypothesis that tax deductions for charitable giving are treasury efficient. That is, on average, a decrease in $1 in the cost of giving can be expected to result in more than $1 being donated to charity through personal philanthropy. Charities must ensure that the egoistic benefit of tax deductibility is present in their charitable appeals and that their donor bases are aware of decreases in the tax cost of giving.
Rand 2016	Are women more altruistic when asked to make intuitive than deliberative donations? Is the pattern the same in men?	Published and unpublished research; studies with a manipulation of cognitive processing (intuitive vs. deliberative decision, usually via a taxing vs. easy distraction task) as an independent variable, studies with dependent variable of donation to anonymous recipient in zero-sum dictator games, and studies with gender as a moderator	22	4336	There was an interaction between gender and cognitive processing mode (whether or not decision to donate was forced to be intuitive or was allowed to be deliberate). Promoting intuition among women increased altruism (4 percentage points). This did not influence men.	When women made more intuitive judgements, they were more generous. For men, intuitive judgements did not influence generosity.
	Is it that women who adopt masculine sex role norms make less altruistic deliberative judgements than those with more feminine role norms? Is the pattern the same in men?		3	1831	There was a significant gender x sex-role x cognitive processing interaction. For women who identified as masculine, deliberative processing made them less altruistic. For women who identified as feminine, deliberative process did not affect their altruism. Gender roles did not influence altruism for men.	Those women who explicitly saw themselves as occupying traditionally masculine sex roles became more selfish when deliberating. Those who saw them selves as feminine remained altruistic despite being allowed to deliberate. Conversely, men's comparatively selfish intuitive response was unaffected by deliberation, regardless of sex roles

Sparks 2013	What is the influence of 'the eyes effect': that simply exposing people to images of eyes or faces increase cooperation, due to the sense of being observed? Does 'the eyes effect' emerge less reliably with prolonged exposure to the cue?	Authors do not describe inclusion, exclusion, or search strategy	25	NR	Vote count: 15/16 short exposure studies were significant, 0/5 long exposure studies were significant.	The eyes effect emerges reliably after short exposures to eye images, but not after long exposures, possible due to habituation or because the eyes trigger appraisal of social scrutiny, which is deactivated once identified as a false alarm.

Note. NR = not reported

Results from our quality appraisal are available in Table 2. All reviews except one asked a focused question and presented each study included in the review (usually through a Characteristics of Included Studies table). Most (10/14) clearly specified their inclusion criteria and over half conducted a comprehensive search (8/14). Only two clearly described duplicate screening, and no reviews clearly described duplicate quality assessment. Half of the reviews tested for publication bias (6/14) and nine explicitly assessed heterogeneity.

Table 2.
Consensus quality assessment of included reviews

Review	Focused question	Inclusion prespecified	Comprehensive search	Duplicate screening	Duplicate quality assessment	All studies described	Publication bias assessed	Heterogeneity assessed
Bolkan 2017	Yes	Yes	No	NR	No	Yes	No	No
Butts 2019	Yes	Yes	Yes	Yes	No	Yes	No	No
Coyne 2018	Yes	Yes	Yes	Yes	NA	Yes	Yes	Yes
de Wit 2017	Yes	Yes	No	NR	NR	Yes	No	Yes
Engel 2011	No	No	No	No	NA	No	No	Yes
Feeley 2012	Yes	Yes	Yes	No	NR	Yes	Yes	Yes
Larney 2019	Yes	Yes	Yes	NR	NR	Yes	Yes	Yes
Lee 2016	Yes	Yes	Yes	NR	NR	Yes	No	Yes
Lu 2016	Yes	Yes	Yes	NR	NR	Yes	Yes	Yes
Nettle 2013	Yes	No	No	NR	NR	Yes	No	No
Northover 2017	Yes	Yes	Yes	NR	NR	Yes	No	Yes
Peloza 2005	Yes	Yes	Yes	NR	NR	Yes	Yes	No
Rand 2016	Yes	No	CD	NR	NR	Yes	Yes	Yes
Sparks 2013	Yes	No	CD	NR	NR	Yes	No	No

Note. NR = not reported, CD = Cannot determine, NA = Not applicable

As described in Table 3, the included reviews synthesized research addressing philanthropy in diverse ways. Five explored how variations in economic games influenced donation. Three examined how actions by government, such as tax laws or grants, affected private philanthropy. Two examined if making specific small requests for donations was more effective than other types of appeal. Below, the results of the reviews are synthesized by theme, and taking into account the quality and scope of the relevant reviews. Finally, the contexts examined by the various reviews are discussed.

Compassion Fade Reduces Donations to Many Causes

One review of 41 studies and 13,259 participants investigated "compassion fade", a hypothesis that compassion—and therefore donation—decreases as the type of recipient moves from a single, identifiable person to a large, anonymous group (Butts et al. 2019). Butts and colleagues (2019) found support for compassion fade: donors gave less money in situations with more recipients ($r_{helping\ behavior}$ = -0.11, 95%CI [-0.17, -0.08]). This is also known as the identifiable victim effect, where an individual victim receives a higher donation than a group (Jenni and Loewenstein 1997). In mediation analyses, the authors found that this effect was driven by perceived impact and anticipated positive affect (Butts et al. 2019). That is, donating to a larger group of recipients makes the donor assess that they are having less of an impact compared with an individual recipient. They also have lower expectations of positive affect (e.g., lower 'warm glow') from making the donation. As a result of both factors, people donate less. Mediation analyses showed these two factors played a bigger role than empathy: while people showed slightly less empathy for a larger group of people, this lower empathy had only a small effect on donation.

Butts et al. (2019) also conducted a meta-regression to investigate moderators of the compassion fade effect. Their meta-regression demonstrated that compassion fade is less prevalent when problems are certain to severely affect a large number of people (e.g., famine) compared with problems that are less certain or less severe (e.g., no schoolbooks). So, donations are more likely for a single, identifiable victim, but the power of this effect is lower when the problem is severe, certain, and calamitous.

Tax Deductibility Increases Donations

One large meta-analysis of 69 studies (n = 1,418,212), examined the impact of tax deductibility on charitable donations (Peloza and Steel 2005). Peloza and Steel (2005) focused on the price elasticity of donations: whether greater opportunities for tax deductions led to greater donations. They found substantial elasticity: a tax deduction of $1 resulted in an additional $1.44 being donated to charity. The authors found that tax deductions particularly increased the likelihood of bequests. High income donors were no more concerned with tax deductions than lower income donors.

Various Demographics and Contexts Influence Donations in Dictator Games

Three reviews investigated behavior in a one-sided economic exchange called a “dictator game” (Engel 2011; Larney, Rotella, and Barclay 2019; Rand et al. 2016). The dictator game involves one player (the dictator) who hold an endowment (typically 10 USD), and who can choose to donate some or all of their endowment to a recipient. Unlike in other economic games, the recipient has no choice but to accept the dictator’s decision. Despite the contrived nature of the experiment, a dictator game closely mirrors the one-sided economic exchange of charitable giving.

Engel's (2011) systematic review and meta-regression of 445 studies (N = 20,813) found that on average dictators donated about 28% of their endowment to the recipient, but 36% of dictators did not donate any of their endowment. Dictators donated more if they were identified to the recipient (vs. concealed) or donating as an individual (vs. as a group), or if they were older (vs. children or students). Various other demographic and contextual factors influenced donations, but those findings were less robust (see Table 1).

Larney and colleagues (2019) conducted a systematic review of 21 studies (N = 3,233) of dictator games that manipulated the size of the dictator's endowment, and found that dictators with bigger endowments gave a lower percentage to the recipient (Larney, Rotella, and Barclay 2019). Both reviews concluded that donors will often want to give something, or be seen to give something, while also minimizing the personal cost to themselves (Engel, 2011; Larney, 2019).

Rand and colleagues (2016) conducted two meta-analyses to assess sex-role identification and gender in determining dictator game donations. In the first meta-analysis (k = 22, N = 4,336), women are more likely to give than men when deliberation is inhibited, but there are no differences when free to deliberate. In the second meta-analysis (k = 3, N = 1,831), the more women described themselves using traditionally masculine attributes (e.g., dominance, independence) relative to traditionally feminine attributes (e.g., warmth, tenderness, compassion), the more deliberation reduced their altruism. Deliberation and sex-role identification did not affect men's giving behavior. The authors concluded that women were more likely than men to internalize altruistic norms due to stronger social expectations, and therefore are more generous in giving when using intuitive responses (Rand et al., 2016). These conclusions, however, could be tempered given this was an internal meta-analysis: half the studies came from within the research team. Internal meta-analyses are prone to significant

biases unless drawing exclusively on a comprehensive set of pre-registered studies (Vosgerau et al. 2019), which was not the case here.

Government Funding Neither 'Crowds Out' nor 'Crowds In' Donations

Two systematic reviews (Lu, 2016, $k = 60$, $N = 637$; de Wit and Bekkers, 2017, $k = 54$, N = not reported) assessed contrasting hypotheses about the effect of government funding for a cause (Lu 2016; de Wit and Bekkers 2017). Does government funding decrease the likelihood of donations from the public ('crowding out')? Alternatively, does it attract people to that cause ('crowding in')? Neither review found decisive evidence for either phenomenon. A subset of the studies in the reviews had higher internal validity—they either controlled for confounding statistically or via experimental designs. These studies were more likely to suggest that government funding reduces private donations (Lu 2016; de Wit and Bekkers 2017), but given the small, heterogeneous effect sizes, the evidence for a relationship is weak.

'Door-in-the-Face' Does Not Reliably Increase Donations

Feeley, Anker, and Aloe (2012) conducted a systematic review of 22 studies (N = not reported) into the 'door-in-the-face' strategy for increasing charitable donations (also known as the 'request then retreat strategy'). The 'door-in-the-face' persuasion strategy predicts that compliance to a request for a donation will increase if the request is preceded by a 'large and objectionable' request. The first request is intended to be rejected (the door is metaphorically slammed in the requestor's face) and the requestor immediately seeks a lesser and more realistic donation. It is the opposite of the foot-in-the-door approach, where a small, unobjectionable request is followed by a larger, more difficult request. In their review, Feeley, Anker and Aloe (2012) did not find robust support for the door-in-the-face hypothesis, yielding small, non-

significant increases regarding both verbal compliance (stated intention to donate) and behavioral compliance (actual donation) for monetary requests.

Prosocial Media Does Not Increase Donations

Coyne and colleagues (2018) conducted a systematic review of 72 studies (N = 17,134) to investigate the effects of prosocial media—TV, movies, video games, music or music videos with explicitly prosocial content—on charitable donations and other prosocial behaviors. They found that prosocial media did not influence donating behavior in individuals. Prosocial content (voluntary behavior with the intention of benefiting others) disseminated through different forms of media had significant effects on prosocial thinking and empathic concern, but there was no significant effect on influencing specific behavior, including donating money. The authors noted that specific donating behaviors were seldom portrayed in the media compared with other forms of prosocial behavior (e.g., helping others, sharing). As a result, people may have been less likely to donate compared with these other forms of prosocial behavior that were easier to imitate.

Artificial Surveillance Cues Do Not Reliably Increase Donations

Three systematic reviews have explored the effect of artificial surveillance cues on donor generosity (Sparks and Barclay, 2013; Nettle et al., 2013; Northover et al 2017). Studies have typically analyzed the effect of displaying images of 'watching eyes' on donation decisions made within economic games. These reviews vary in scope and reach different conclusions, so conclusions presented here are weighted by the size and quality of the reviews. The highest quality review, Northover et al. (2017; k = 21, N = 19,512), found that artificial surveillance cues have no effect on generosity, increasing neither the probability of donating nor the size of donations. Sparks and Barclay (2013; k = 25, N = not reported) assessed the effectiveness of artificial cues using a 'vote-count' (counting the number of significant vs. non-significant

studies). While vote-counts are less rigorous than meta-analyses (Deeks et al. 2011), the review found that the benefit of 'watching eyes' reliably emerges after short exposures, but not after long exposures, indicating possible habituation to any effect of artificial surveillance on donations. Nettle et al. (2013; $k = 7$, $N = 887$) found that 'watching eyes' increased the chances of people making a donation versus giving nothing, but did not increase the average size of donation. Overall, artificial surveillance may increase the chance of people donating something in the short term, but the best quality evidence suggests results are unreliable.

Asking For 'Even A Penny' Has A Small Net Benefit on Donations

Two systematic reviews investigated the effect of legitimizing 'paltry contributions' on charitable donations (Bolkan and Rains 2017; Lee, Moon, and Feeley 2016). 'Legitimizing paltry contributions' is where a request for a charitable donation emphasizes the act of donation as legitimate, even when the amount is extremely small (e.g., saying "even a penny would help"). In both reviews, legitimizing paltry contributions led to more people donating, but to people making smaller donations. The larger of the two reviews ($k = 30$, $N = 6{,}400$) found a small overall increase in money raised by legitimizing paltry contributions (Lee, Moon, and Feeley 2016). Bolkan and Rains (2017) conducted a mediation meta-regression analysis that found donations were more likely following paltry contributions for donors who sought to manage others' positive impressions of them and when the donation request indicated a more needy recipient. Legitimizing paltry contributions was less useful when donors lacked the time, desire, or incentive to give (Bolkan and Rains, 2017).

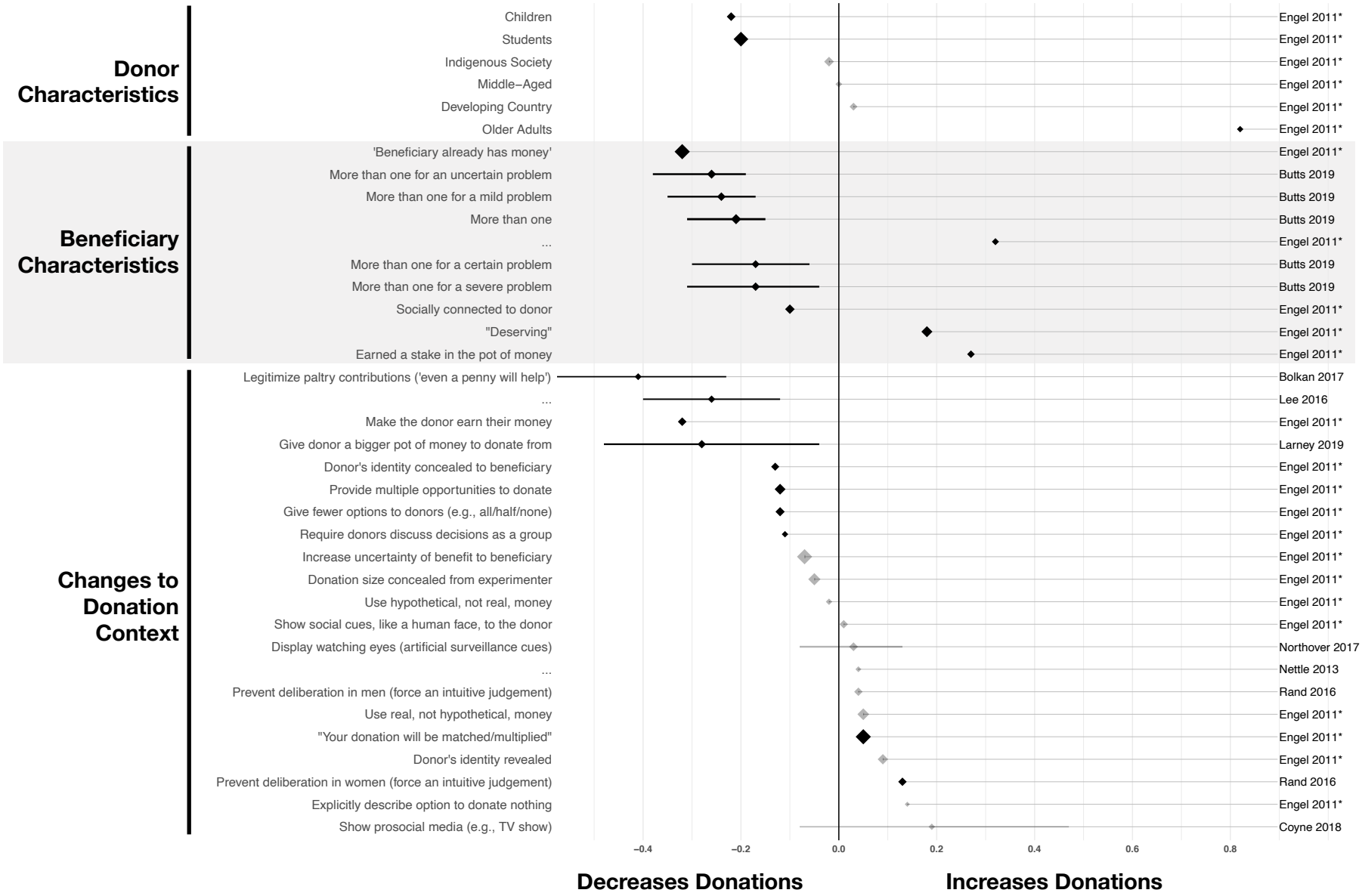

Figure 2. Factors shown in meta-analyses to influence the size of donations, usually from dictator games.
Notes: 95% confidence intervals only plotted when provided in the original review. Significant findings are indicated in black with non-significant in grey. Size of point-estimates are proportional to the number of studies used to generate the estimate, because number of participants was frequently missing. All effect sizes were converted to Cohen's *d* for comparability. Asterisk (*) indicates that the effect size was drawn from a meta-regression, controlling for other influences, so may under-estimate the raw correlation.

Analysis of The Contexts Covered by Included Reviews

To better understand the extent of research into specific interventions, audiences, moderators, mediators and outcomes, findings were mapped by context, and communication and persuasion models (Lasswell 1948; McGuire 1972; reference removed for review). Table 3 presents the results of this analysis. These communication and persuasion models outline several concepts that can be used to categorize clusters of key variables within a particular process of persuasion.

Here the review explores the source(s) of the intervention being assessed, the method(s) used in creating the intervention, the channel(s) used to transmit the intervention, the receiver(s) of the intervention, and the effect(s) of the intervention. Additionally, the data collection context is considered, as differences in data collection techniques have important implications for future research and practice. Table 3 outlines the context map created. The paper then discusses some of the most common contexts, and contextual differentiations that were explored within each of the categories examined.

Source of messaging. The majority of studies examined situations in which an individual (typically an experimenter) was the source of the intervention. However, there were reviews (e.g., Bolkan and Rains 2017) where individuals acted as a proxy for an organization, or where many unspecified sources of a particular class were involved (e.g., in government interventions; Peloza and Steel 2005). Individual sources were often differentiated into sub-classes, for instance by the number of sources (e.g., single versus multiple) or their gender (Engel 2011). In the reviews that involved government interventions, these were differentiated in one case by the type of government (e.g., central versus multiple levels; de Wit and Bekkers 2017).

Methods of persuasion. Surveillance during the donation opportunity was the most common method of influence evaluated (e.g., Nettle et al. 2013; Northover et al. 2017). Two reviews examined how variations in economic games influenced donations (Engel 2011; Larney, Rotella, and Barclay 2019). Three reviews explored the effect of government interventions, for example, to change donation tax deductibility or to fund non-profits (Lu 2016; Peloza and Steel 2005; de Wit and Bekkers 2017). In the case of tax deductibility, this was differentiated in one review by the permanency of the change involved (Peloza and Steel 2005). Two studies examined the effect of small requests for donations, examining several variations of this method, for instance, whether it involved other concurrent techniques (e.g., pre-giving or prior requests; Bolkan and Rains 2017; Feeley, Anker, and Aloe 2012).

Channel of communication. Channel refers to the media through which the intervention is delivered (e.g., face-to-face, online, TV). Most of the studies did not specify or imply that they examined interventions limited to a particular channel and instead seemed to examine multiple channels within their study. Though the reviews examining economic games did not specify channels, their use of economic games implied that they used face-to-face and online channels (e.g., Engel 2011). A few reviews both specified specific channels of interest and differentiated between variants of those channels, for example, focusing on face-to-face interaction, mediated channels (written mail or scenario, telephone), or mixed methods (Feeley, Anker, and Aloe 2012).

Receiver of message. Characteristics of the receiver/donor were not specified in most reviews. In some cases, these reviews differentiated between receivers by age, sex, race and student status (Lee, Moon, and Feeley 2016). Two reviews examining the public focused on

taxpaying American adults, differentiating, in one case, by income, and whether the taxpayers itemized their donations on their tax returns (Peloza and Steel 2005).

Effects. All reviews examined donations as the primary outcome. Most examined money offered to other players of dictator games and did not explore variations. Others included a range of outcomes, and moderate for differences by, for example, type of donation (e.g., money, product or time), focus of donation (health, poverty, animal protection; social/educational event) and time of donation relative to solicitation (immediate donation or pledge; Feeley, Anker, and Aloe 2012).

Data collection context(s) Where reviews did not explicitly specify their data collection contexts, we attempted to infer this based on the descriptions provided in the paper and the likely requirements for conducting the research method. Most reviews examined experimental data, mostly collected during economic games, usually in online and offline laboratory contexts (Engel 2011; Larney, Rotella, and Barclay 2019; Nettle et al. 2013; Rand et al. 2016). These reviews generally did not differentiate between variants of experimental data collection (e.g., online data versus offline data or different variants of economic games). Reviews examining government interventions used several types of data such as laboratory, survey, financial and secondary data (Lu 2016; Peloza and Steel 2005; de Wit and Bekkers 2017).

Table 3.
Review context categorization: who provided the message to who, via what method and channel, assessing what outcome in what context?

Review	Source of message	Method of persuasion	Channel of communication	Receiver of message	Outcome measured	Data collection context (s)
Bolkan 2017	Not specified	Small requests for donation/Paltry contributions	Spoken/Face-to-face	Individuals, presumably adults and students predominantly from western, educated, industrialized, rich and democratic countries (undifferentiated)	One off donation	Experimental; otherwise not specified or implied.
Butts 2019	Not specified, method implies experimenter	Showing one victim versus showing many victims	Not specified or implied	Individuals, presumably adults and students predominantly from western, educated, industrialized, rich and democratic countries (undifferentiated)	Monetary donations and donations of goods	Experimental; usually lab studies
Coyne 2018	Not specified, method implies that many are involved, including organisations and individual	Exposure to prosocial media: media showing voluntary behavior intended to benefit another individual as portrayed in the media, excluding where violence (i.e., killing others to "save" humanity, such as in Halo or Call of Duty) was involved	TV, movies, video games, music, or music videos	Individuals, differentiated by sex and age	Donating to an unspecified target	Experimental, cross sectional, longitudinal
de Wit 2017	Government (central versus multiple levels)	Providing government support for non-profits	Not specified or implied	Presumably tax paying american adults	Donation from individuals to non-profits	Four types: laboratory experiments, survey experiments, archival (financial information) data, and micro-level survey data.
Engel 2011	Experimenter	Compared variations of dictator game; differentiated by donor characteristics (e.g., age, ethnicity), recipient characterisics (e.g., 'deserving', social distance) and contextual manipulations (e.g., action space, real money used or not, certainty of benefit).	Not specified, method implies that online and face-to-face were used	Individuals differentiated by number (one or more), race, age (old, middle, student, old), student status (student or not), deservingness of reward (earned or not earned).	Money offered to other player(s)	Not specified, but methods and references imply lab and online experiments.

Feeley 2012	Individuals and organisations; differentiated by requestor (different or same) and beneficaree (different or same)	Sequential request (e.g., door in the face, big followed by small ask, or repeated ask for same outcome); Differentiated by whether there was a reduction in original request or not, and whether there was a delay in the follow up or not	Differentiated: Telephone/Online/Written or Face-to-Face	Adults, differentiated into students, non-students and mixed sample	Donations differentiated by type (Monetary, Research/Volunteer, Personal health behavior, Miscellaneous), Prosocialness (prosocial, not prosocial) and delay in measurement (immediate, delayed)	Not specified, references suggest a mix of lab and field experiments
Larney 2019	Experimenter	Variation in stake sizes	Not specified, method implies that online and face-to-face were used	Individuals, presumably adults and mostly students, Western, Indian and Chinese samples were also used (undifferentiated)	Money offered to other player(s)	Dictator and ultimatum games; differentiated by whether repeated measures were used; lab and online experiments
Lee 2016	Individual, differentiated by sex (male, female, both) and identifiability (impersonal request)	Making small requests for donation / Paltry contributions; also coded for use of other techniques (normative information, pre-giving, dialogue induction, initial request of a small or large favor), also coded for whether phase used was identical to "even a penny will help", or a variant	Face-to-face interaction, mediated channels (written mail or scenario, telephone), or mixed methods	Individuals differentiated by country (United States, Non-United States), sex (male, female, both) and age (student, adult)	Donation: Categorized by (money, product, time), topic (health, poverty, animal protection; social/educational event) and time of action (immediate donation or pledge)	Experiments in a subject's home, a public place, or a laboratory
Lu 2016	Government	Effect of giving grants to nonprofit organisations on individual donors	Not specified or implied	Individuals, corporations, and foundations, differentiated by sector (arts, education and research, environment, health care, human services, international development, and public benefit), country (US v Non-US) and organisational characteristics (age and size)	Donations to non-profit by individuals, corporations, and foundations	Analysis of secondary data
Nettle 2013	Experimenter	Watching eyes during donation opportunity	Not specified, method implies that online and face-to-face were used	Individuals, presumably adults and mostly students (undifferentiated)	Money offered to other player(s)	Dictator game, references imply lab and online experiments

Northover 2017	Experimenter	Artificial surveillance cues (resembled a watching face or eyes; generally photographs or stylized images of eyes)	Not specified, method implies that online and face-to-face were used	Individuals, presumably adults and mostly students (undifferentiated)	Generosity: giving material resources to others, for reasons other than direct reciprocity, without expecting anything from those others in return	Social discounting tasks, economic games, and charity donations;
Peloza 2005	Government	Giving tax deductions on donations, differentiated by permanency of tax (permanent or temporary)	Not specified or implied	Tax paying adults differentiated by income (above $100,000 in earnings and below), and itemization of charitable donations (itemizer, non-itemizer)	Private philanthropy, differentiated by type of donation (donation or bequest)	Analysis of secondary data differentiated by source type (panel or cross-sectional, and taxfiler or survey)
Rand 2016	Experimenter	Promoting either intuition or deliberation during donation opportunity	Not specified, method implies that online and face-to-face were used	Individuals differentiated by sex (male or female) and identification with sex role (male versus female) to assess interactions	Money offered to other player(s)	Dictator game, references imply lab and online experiments
Sparks 2013	Experimenter	Watching eyes during donation opportunity (short v prolonged exposure)	Not specified, method implies that online and face-to-face were used	Individuals, presumably adults and mostly students	Money offered	Dictator game, references imply lab and online experiments

Discussion

Philanthropy is important for addressing a wide number of critical social problems (MacAskill 2015; Singer 2009). Promoting philanthropy is challenging but important, particularly given the large funding gaps and competition in the sector (Bendapudi, Singh, and Bendapudi 1996). However, though considerable research from multiple fields and research perspectives has examined the promotion of philanthropy, no recent research has provided a short, parsimonious, and accessible synthesis of the most rigorous evidence (i.e., systematic reviews). The contribution of this overview of reviews is a synthesis of evidence for researchers and practitioners seeking to encourage charitable giving.

The findings collated within this synthesis add to the wider body of research examining how to promote philanthropy and prosocial behavior more broadly. Previous research has argued that donation behavior is often motivated by a desire to manage and improve reputation (e.g., Gintis, Smith, and Bowles 2001; Griskevicius et al. 2007; Miller 2019). Our findings provide support for this theory as they reveal strong evidence that donors are motivated by being seen to help, in addition to actually helping. For example, there was robust evidence that 'legitimizing paltry contributions' increased donation rates more when not donating would make the receiver look bad in the eyes of others (Bolkan and Rains 2017). Concealed donations—where the donor believed their identity to be anonymous—were lower than those that were transparent (Engel 2011). There was also some evidence that surveillance cues increase donations when looking only at short-term exposures (Sparks and Barclay 2013). Together, people appear somewhat motivated by the pressure to *appear* altruistic.

It is often argued that people are self-interested in most contexts, including altruistic donation (e.g., Batson 1994, 2011). According to the included reviews, donors appear to pursue a

number of different rewards by donating, including reputational benefits (Bolkan and Rains 2017), tax deductions (Peloza and Steel 2005), and positive psychological rewards (Butts et al. 2019). In many cases the 'reward' resources sought are mediated by *whether* the potential donors give or not, rather than *how much* they give. We therefore find evidence across several studies that donors attempt to give as little as they can to gain the reward resources required (e.g., Bolkan and Rains 2017; Butts et al. 2019) or to appear moral to themselves and others (e.g., Caviola and Faulmüller 2014). These data support hypotheses that donors are, to some extent, resource maximizing.

Included reviews find mixed support for compassion fade which argues that people are more likely to support individual victims than groups of victims (Jenni and Loewenstein 1997). While Butts and colleagues (2019) found that individual victims received more support than groups, Engel (2011) found that people give 10% more to groups rather than to individuals in dictator games. This suggests donors care about problems that affect groups, provided increasing the size of the problem do not influence the donor's perceived ability to address it.

Our contextual mapping of the reviews (see Table 3) contributes by showing the combinations of contextual factors that have been examined to date. This review also provides the first clear evidence that many of the most well researched combinations of contextual variables (e.g., messages from researchers in laboratory settings) are areas which have relatively little overlap with the contextual variables of most relevance to practice.

Implications for Practice

The primary aim of our review was to identify and synthesize the literature on interventions that influence charitable donations in a way that could be easily understood and applied by practitioners. This overview finds that the current review level research provides but a

few recommendations for implementable interventions. Most relevant reviews examine research contexts (e.g., one-off donations of $10 to a peer) that are very different from practical contexts. Laboratory contexts such as these are often poor predictors of social behavior in the field (for a review, see Galizzi and Navarro-Martinez 2019). In the field, charitable outreach occurs through a range of channels, particularly face-to-face, websites and other forms of mediated communication contexts (Bennett 2018). However, we found many reviews of economic games (Engel 2011; Larney, Rotella, and Barclay 2019; Nettle et al. 2013; Rand et al. 2016) that examine contexts that are very different to those used in general outreach and that involve very different drivers (Galizzi and Navarro-Martinez 2019). Reviews focusing on these field experiments may establish which approaches are robust in more realistic settings.

Regardless, the research curated here still has several key implications for practitioners. First, while effect sizes are considered small by some standards (*d* often < 0.3), even a 1% increase in donations in the USA alone would conservatively provide an additional $4bn for good causes. The reviews show significant benefits from segmenting this target market. For example, while legitimizing paltry donations may be an effective means to boost donation rates from those who wouldn't otherwise donate, the same message is likely to decrease the amount donated from existing donors (e.g., Bolkan and Rains 2017). One strategy for practitioners would be to send different persuasive messages to different groups of donors, whereby paltry donations are legitimized for non-donors and different types of messages used for current or likely donors. If such tailoring is not possible, those wishing to promote donations should factor into their cost-benefit analysis whether the increase in small donations is likely to outweigh what would be received from a smaller group of big donors.

That said, heterogeneity in response effects does not necessitate tailored messaging—it is possible for lessons to be applied from effects that are only observed among specific socio-demographic groups without necessarily jeopardizing the donations from other groups. For example, while time pressure increased donations from women, there was no evidence of a backfiring effect of time pressure on donations from men. As such, increasing time pressure may be a useful strategy, albeit one that may be difficult to implement without being perceived as coercive. Accounting for heterogeneity can be a powerful tool, but whether doing so is likely to be a useful endeavor requires a nuanced consideration of the context and the audience.

Multiple findings suggested that reputational effects are a strong driver in the act of donating. Practitioners could make donations appear publicly on websites, solicit donations within contexts where giving is observable by others, or provide a reputational benefit for donating. These suggestions may also have a positive byproduct of establishing a social-norm toward charitable giving (Singer 2019). It may also help reveal the discrepancy between real and perceived donation rates, where 75% of Americans think they donate more than average, but 72% actually donate less (Caber Collective 2015). Still, practitioners should exercise some caution because forcing donations to be public may dissuade some donors in naturalistic environments.

Our findings from examining government level interventions highlight that providing financial incentives for the public to donate (i.e., tax deductions) may be more effective at encouraging public donations than directly funding non-profit organizations (Peloza and Steel 2005). There may be two reasons for this preference, individual and bureaucratic. At an individual level, one of the strongest effects in our overview was the benefit of tax-deductibility. As a result, practitioners could thus emphasize the tax-deductibility of charitable donations in

explicit monetary terms. At a bureaucratic level, the political environment may make it difficult for governments to distribute their aid effectively. While governments may be able to coordinate the more effective distribution of aid, many government aid projects are driven toward political aims (Bigsten and Tengstam 2015). As a result, it is possible for tax deductions to be a more cost-effective strategy for creating impact.

Donating to support effective solutions to needy causes is motivating for many people. The findings of Butts (2019) suggest that practitioners should emphasize (1) the emotional rewards of donation for the donor, (2) the efficacy of donations in helping the recipient, and (3) the homogeneity of groups of victims. To reduce compassion fade, practitioners could emphasize the certainty and severity of the problem when seeking aid for groups of beneficiaries. This has been shown to be particularly important when targeting large philanthropic donors, who appear to respond better to analytical information than small, 'warm-glow' donors (Karlan and Wood 2015). These implications are particularly salient for organizations that target global catastrophic risks (Bostrom and Cirkovic 2011), where there are few identifiable victims. Based on findings of Butts (2019), practitioners should make potential donors more aware of the increased impacts of donation to more beneficiaries, or suggest that more effective giving (i.e., helping more people) entitles greater pleasure. At a more systemic level, some practitioners may have difficulty presenting persuasive evidence that they are deploying an effective solution to a serious problem (Ord 2013). In this case, accumulating high-quality research into the effectiveness of the organization is likely to benefit both their marketing (Butts et al. 2019) and the outcomes of their efforts (Singer, Baker, and Haushofer 2019).

Some of these systematic reviews on charitable giving found weak results, "null" results, or conflicting results. This may be because the interventions or influences under review were

conditional on context (e.g., source of intervention, method presented), or were sensitive to the approach used in the review. It may still be worthwhile for practitioners to test these interventions or influences if (1) their (in)effectiveness can be measured, (2) implementation is cheap, and (3) they are appropriate for the context (e.g., unlikely to backfire). They include: a weak positive effect of prosocial media on charitable giving compared to other prosocial behavior (Coyne et al., 2018); the door-in-the-face technique was shown not to increase compliance with monetary requests (Feeley, Anker, and Aloe 2012); women donate more than men (Engel 2011), in some cases up to nearly 33% (Rand et al. 2016); and emphasizing the relative wealth of donors versus beneficiaries (e.g., Giving What We Can n.d.) may lead to smaller donations (Larney et al., 2019).

Implications for Research

In addition to identifying the most evidence-based ways to promote philanthropic giving, our overview of reviews gives important insights into the state of the field from a research perspective. It shows that several areas and types of research are relatively well examined and synthesized. In parallel, our review also reveals the research areas and study types which are underrepresented in the review level literature, either due to a lack of individual papers or relevant synthesis.

There is a lack of systematic reviews examining topics of practical relevance. Many methods of persuasion that are commonly used in charitable contexts, such as emotional appeals and arguments (Bennett 2018; Small, Loewenstein, and Slovic 2007; Stannard-Stockton 2009), were not examined by any systematic reviews. Similarly, no reviews moderated for whether a bona-fide charitable organization was the source of the persuasion attempt. No reviews focused on website and mediated communication channels to understand how best to use these to

promote philanthropy, despite their wide usage (Gertler 2015). The lack of research on these, and other areas of practical relevance, suggests that research may benefit from more industry partnerships (e.g., Davison, Martinsons, and Kock 2004).

The literature would benefit from more examination of the causes and correlates of donation behavior as this would help to explain where behavioral effects are likely to generalize across contexts. For example, the reviews rarely examined which mechanisms were driving the donation (e.g., desire for impact or for positive emotional reward). Similarly, aside from demographic factors, relatively few reviews examined the moderators of donating behavior. Thus, we still know relatively little about how important aspects of context moderate and mediate donation decisions, for example the characteristics of the donation beneficiary (e.g., ingroup versus stranger, human versus animal, existing now versus in the future, and local versus overseas beneficiary).

The methodologies used also present implications for future research. In particular, there is a paucity of field trials (especially randomized controlled trials) that have examined real behavior. Field trials are an important next step in determining whether behavioral effects identified in simulated experimental conditions are generalizable beyond it. For example, whereas women have been found to donate more under time pressure in the lab, it is still unclear whether imposing time pressure in the "real-world" has similar effects. The impact of lab research is limited by its applicability for practitioners (Galizzi and Navarro-Martinez 2019).

None of the reviews focused on the promotion of 'effective philanthropy' (Berman et al. 2018; Caviola et al. 2014; Oppenheimer and Olivola 2011): giving motivated by a desire to maximize the positive impact rather than other outcomes (e.g., maximizing personal reward or helping similar individuals). Charity evaluations suggest that charity effectiveness varies widely:

while many donors think the best charities are only 50% better than average (Caviola et al. 2019), the most impactful charities can be over 100 times more effective than alternatives (MacAskill 2018; Ord 2013). However, promoting 'effective philanthropy' is particularly challenging: most people do not intuitively prioritize charities based on effectiveness (Caviola et al. 2014), and the most 'effective' causes to support can often involve individuals who are overseas or yet to exist (Singer 2009). This may be a particularly difficult marketing exercise when the reviews presented here show that rational deliberation can reduce altruism (esp. in women, Rand et al. 2016). Nonetheless, the evidence presented here suggests rational arguments about effectiveness may be able to overcome some cognitive biases: if people can be persuaded that donation is desperately needed (Bolkan and Rains 2017; Butts et al. 2019) and that their donation is likely to have an impact (e.g., because the problem is neglected and their donation is to an effective intervention), then biases like compassion fade can be mitigated (Butts et al. 2019). Additionally, it should be noted that there may be differences in the approaches that best promote 'effective' and 'warm-glow' philanthropy. For example, certain techniques such as emotional appeals might increase the chances that people donate, but motivate them to give naïvely, that is, without consideration of effectiveness. In contrast, techniques such as rational arguments might poorly motivate average donors but may be more likely to produce donations to more effective causes (Caviola et al. 2019). Since the difference in charities' effectiveness is so wide, the approach of targeting deliberative effective donations may be more impactful, even if the percentage of recipients persuaded is significantly smaller.

Limitations of Included Reviews

None of the systematic reviews were prospectively registered, even though registration would lead to less duplication and lower bias at a modest cost to the authors (Stewart, Moher,

and Shekelle 2012). Authors of future reviews in this area should consider registering their protocols on PROSPERO (Moher, Booth, and Stewart 2014) or the Open Science Framework (http://osf.io). Registration and standardized reporting checklists like PRISMA (Moher et al. 2010) improve the internal validity of systematic reviews through a common standard of methodology and reporting. Some of the included reviews gave insufficient detail for replication or later update, had search strategies that were not made public, and did not include methods of assessing publication bias. Transparent and comprehensive searches would allow for higher sensitivity and increased likelihood of a precise effect size estimate.

Similarly, the precision of an effect size estimate is influenced by heterogeneity of effect sizes. While many reviews did explore heterogeneity, more rigorous moderation analyses would allow future reviewers to identify factors that explain the variation between effect sizes from different studies. Very few reviews conducted duplicate screening and quality assessment. Duplicate screening increases the sensitivity of screening leading to more true positives. Duplicate quality assessment increases the reliability of review authors' judgment of possible bias. Based on the descriptions, research method and references used, it appears likely that most of the included reviews examined adult students from so called WEIRD countries: predominantly western, educated, industrialized, rich, and democratic (Henrich, Heine, and Norenzayan 2010). Given that many of these demographic factors are characteristic of donors (Bekkers and Wiepking 2011), the results of these reviews may not translate to people who have less financial security or education. Finally, publication bias is a pernicious problem throughout science (Dwan et al. 2008; Easterbrook et al. 1991), including research in marketing (Rust, Lehmann, and Farley 1990) and psychology (Francis 2012) where many of these reviews were published. If reviewers consistently assessed and controlled for publication bias (e.g., see van

Assen, van Aert, and Wicherts 2015), readers could qualify their interpretations based on the likelihood of this bias.

Limitations of Our Overview of Reviews

The most comprehensive overview of reviews would include searching for reviews that cited the included records, as well as the references of the included records ("forward and backward searching"); searching for unpublished reviews ("grey literature"), and include reviews in languages other than English. Each of these strategies was outside the scope of this overview of reviews. Unpublished reviews of fundraising interventions may assess the effectiveness of strategies that are less routinely studied, compared with those in our included reviews. The conclusions drawn from systematic reviews have been shown to be similar when excluding both grey literature and languages other than English (Ganann, Ciliska, and Thomas 2010). Nevertheless, there may be other reviews that contribute to this discussion that were missed by our searches.

We chose the NIH quality assessment tool for systematic reviews (National Heart, Lung, and Blood Institute [NHLBI] n.d.) due to its simplicity and clarity, but more thorough quality assessment checklists are available, such as AMSTAR 2 (Shea et al. 2017).

Finally, the purpose of this paper was to synthesize the systematic reviews in the field, but doing so necessarily omits primary studies not included in any systematic reviews, even though they may inform research and practice (e.g., opt-in vs. opt-out donations; Everett et al. 2015). There may, for example, be a wealth of knowledge on interventions using the internet to drive donations, but since there has been no systematic review on that topic, those interventions would have been excluded from our review (Bennett 2018, 2016; Liang, Chen, and Lei 2014).

Conclusion

Increasing levels of philanthropy could benefit society in a multitude of ways: from helping to address global poverty, health, animal suffering, climate change, human rights, and the long-term future of humanity. As a result, identifying robust strategies for marketing philanthropic causes can have widespread social benefits. Relying on an unsystematic review of marketing literature can lead to strong conclusions (e.g., arguments for the "door-in-the-face"; see Cialdini 2009) that do not generalize well to philanthropic marketing (Feeley, Anker, and Aloe 2012). As a result, researchers and practitioners can have more faith in findings drawn from systematic reviews and meta-analyses (Evans 2003).

The findings from our overview of reviews suggest that organizations can solicit more money by focusing on individual victims, increasing the publicity of donations, discussing the impact of the donation, and both ensuring and promoting the tax-deductibility of their charity. The included systematic reviews also suggest that researchers may have saturated gains that can be made from additional research into some interventions (e.g., artificial surveillance). Future reviews into other interventions—particularly those conducted outside of contrived experimental settings—would allow researchers and practitioners to assess the robustness of those interventions. Readers could have more faith those reviews if they more consistently followed best-practice approaches to systematic reviews. Our overview reveals patterns and gaps within the patchwork of current research, but it also identifies an array of well researched mechanisms for promoting philanthropy. Using the findings of these reviews may increase the funds directed to some of the most important and neglected problems faced by humanity.

References

van Assen, Marcel A. L. M., Robbie C. M. van Aert, and Jelte M. Wicherts (2015), "Meta-analysis using effect size distributions of only statistically significant studies," *Psychological Methods*, 20 (3), 293–309.

Batson, C. Daniel (1994), "Why Act for the Public Good? Four Answers," *Personality & Social Psychology Bulletin*, 20 (5), 603–10.

Batson, Charles Daniel (2011), *Altruism in Humans*, Oxford University Press.

Becker, L. A. and A. D. Oxman (2011), "Overviews of reviews," in *Cochrane Handbook for Systematic Reviews of Interventions*, J. P. T. Higgins and S. Green, eds., The Cochrane Collaboration.

Bekkers, René and Pamala Wiepking (2011), "Who gives? A literature review of predictors of charitable giving Part One: Religion, education, age and socialisation," *Voluntary Sector Review*, 2 (3), 337–65.

Bekkers, René and Pamala Wiepking (2011), "A Literature Review of Empirical Studies of Philanthropy: Eight Mechanisms That Drive Charitable Giving," *Nonprofit and Voluntary Sector Quarterly*, 40 (5), 924–73.

Bendapudi, Neeli, Surendra N. Singh, and Venkat Bendapudi (1996), "Enhancing Helping Behavior: An Integrative Framework for Promotion Planning," *Journal of Marketing*, 60 (3), 33–49.

Bennett, R. (2018), "Nonprofit marketing and fundraising: a research overview." London: Routledge

Bennett, Roger (2016), "Preventing charity website browsers from quitting the 'donate now' page: A case study with recommendations," *Social Business*.

Berman, Jonathan Z., Alixandra Barasch, Emma E. Levine, and Deborah A. Small (2018), "Impediments to Effective Altruism: The Role of Subjective Preferences in Charitable Giving," *Psychological Science*, 29 (5), 834–44.

Bigsten, Arne and Sven Tengstam (2015), "International Coordination and the Effectiveness of Aid," *World Development*, 69, 75–85.

Blinded for review (2019, July 14), "Philanthropy and charitable giving: A rapid of reviews," [available at https://osf.io/465ej/?view_only=8f0ed79442cc4bc59feeb8d0880c6698].

Bolkan, San and Stephen A. Rains (2017), "The Legitimization of Paltry Contributions as a Compliance-Gaining Technique: A Meta-Analysis Testing Three Explanations," *Communication Research*, 44 (7), 976–96.

Bostrom, Nick and Milan M. Cirkovic (2011), *Global Catastrophic Risks*, OUP Oxford.

Butts, Marcus M., Devin C. Lunt, Traci L. Freling, and Allison S. Gabriel (2019), "Helping one or helping many? A theoretical integration and meta-analytic review of the compassion fade literature," *Organizational Behavior and Human Decision Processes*, 151, 16–33.

Caber Collective (2015), "Money For Good."

Caviola, L., S. Schubert, E. Teperman, D. Moss, S. Greenberg, and N. S. Faber (2019), "The Puzzle of Ineffective Giving: People Vastly Underestimate Differences in Charities' Effectiveness," *Under review*.

Caviola, Lucius and Nadira Faulmüller (2014), "Moral hypocrisy in economic games-how prosocial behavior is shaped by social expectations," *Frontiers in Psychology*, 5, 897.

Caviola, Lucius, Nadira Faulmüller, Jim A. C. Everett, Julian Savulescu, and Guy Kahane (2014), "The evaluability bias in charitable giving: Saving administration costs or saving lives?," *Judgment and Decision Making*, 9 (4), 303–16.

Cialdini, Robert B. (2009), *Influence: Science and Practice*, Boston, MA: Pearson education.

Coyne, Sarah M., Laura M. Padilla-Walker, Hailey G. Holmgren, Emilie J. Davis, Kevin M. Collier,

Madison K. Memmott-Elison, and Alan J. Hawkins (2018), "A meta-analysis of prosocial media on prosocial behavior, aggression, and empathic concern: A multidimensional approach," *Developmental Psychology*, 54 (2), 331–47.

Davison, Robert, Maris G. Martinsons, and Ned Kock (2004), "Principles of canonical action research," *Information Systems Journal*, 14 (1), 65–86.

Deeks, J. J., J. P. T. Higgins, D. G. Altman, and on behalf of the Cochrane Statistical Methods Group and the Cochrane Bias Methods Group (2011), "Analysing data and undertaking meta-analyses," in *Cochrane Handbook for Systematic Reviews of Interventions*, J. P. T. Higgins and S. Green, eds., The Cochrane Collaboration.

Dolan, Paul, Michael Hallsworth, David Halpern, Dominic King, and Ivo Vlaev (2010), "Mindspace: Influencing behavior for public policy," Institute of Government, London, UK.

Dwan, Kerry, Douglas G. Altman, Juan A. Arnaiz, Jill Bloom, An-Wen Chan, Eugenia Cronin, Evelyne Decullier, Philippa J. Easterbrook, Erik Von Elm, Carrol Gamble, Davina Ghersi, John P. A. Ioannidis, John Simes, and Paula R. Williamson (2008), "Systematic review of the empirical evidence of study publication bias and outcome reporting bias," *PloS one*, 3 (8), e3081.

Easterbrook, P. J., J. A. Berlin, R. Gopalan, and D. R. Matthews (1991), "Publication bias in clinical research," *The Lancet*, 337 (8746), 867–72.

Engel, Christoph (2011), "Dictator games: A meta study," *Experimental Economics*, 14 (4), 583–610.

Evans, David (2003), "Hierarchy of evidence: a framework for ranking evidence evaluating healthcare interventions," *Journal of Clinical Nursing*, 12 (1), 77–84.

Everett, Jim A. C., Lucius Caviola, Guy Kahane, Julian Savulescu, and Nadira S. Faber (2015), "Doing good by doing nothing? The role of social norms in explaining default effects in altruistic contexts,"

European Journal of Social Psychology, 45 (2), 230–41.

Feeley, Thomas Hugh, Ashley E. Anker, and Ariel M. Aloe (2012), "The door-in-the-face persuasive message strategy: A meta-analysis of the first 35 years," *Communication Monographs*, 79 (3), 316–43.

Francis, Gregory (2012), "Publication bias and the failure of replication in experimental psychology," *Psychonomic Bulletin & Review*, 19 (6), 975–91.

Galizzi, Matteo M. and Daniel Navarro-Martinez (2019), "On the External Validity of Social Preference Games: A Systematic Lab-Field Study," *Management Science*, 65 (3), 976–1002.

Ganann, Rebecca, Donna Ciliska, and Helen Thomas (2010), "Expediting systematic reviews: methods and implications of rapid reviews," *Implementation Science*, 5, 56.

Gates, Allison, Samantha Guitard, Jennifer Pillay, Sarah A. Elliott, Michele P. Dyson, Amanda S. Newton, and Lisa Hartling (2019), "Performance and usability of machine learning for screening in systematic reviews: a comparative evaluation of three tools," *Systematic Reviews*, 8 (1), 278.

Gautier, Arthur and Anne-Claire Pache (2015), "Research on Corporate Philanthropy: A Review and Assessment," *Journal of Business Ethics: JBE*, 126 (3), 343–69.

Gertler, A. (2015), "Charitable fundraising and smart giving: How can charities use behavioral science to drive donations?," (H. Kober, ed.).

Gintis, H., E. A. Smith, and S. Bowles (2001), "Costly signaling and cooperation," *Journal of Theoretical Biology*, 213 (1), 103–19.

Giving What We Can (n.d.), "How Rich Am I?," (accessed November 20, 2019), [available at https://www.givingwhatwecan.org/get-involved/how-rich-am-i/].

Grant, Maria J. and Andrew Booth (2009), "A typology of reviews: an analysis of 14 review types and

associated methodologies: A typology of reviews, Maria J. Grant & Andrew Booth," *Health Information and Libraries Journal*, 26 (2), 91–108.

Griskevicius, Vladas, Joshua M. Tybur, Jill M. Sundie, Robert B. Cialdini, Geoffrey F. Miller, and Douglas T. Kenrick (2007), "Blatant benevolence and conspicuous consumption: when romantic motives elicit strategic costly signals," *Journal of Personality and Social Psychology*, 93 (1), 85–102.

Guéguen, N. and C. Jacob (2001), "Fund-raising on the web: the effect of an electronic foot-in-the-door on donation," *Cyberpsychology & Behavior: the Impact of the Internet, Multimedia and Virtual Reality on Behavior and Society*, 4 (6), 705–9.

Henrich, Joseph, Steven J. Heine, and Ara Norenzayan (2010), "Most people are not WEIRD," *Nature*, 466 (7302), 29.

Higgins, J. P. T., D. G. Altman, J. A. C. Sterne, and on behalf of the Cochrane Statistical Methods Group and the Cochrane Bias Methods Group (2011), "Assessing risk of bias in included studies," in *Cochrane Handbook for Systematic Reviews of Interventions*, J. P. T. Higgins and S. Green, eds., The Cochrane Collaboration.

Higgins, Julian P. T. and Sally Green (2011), *Cochrane Handbook for Systematic Reviews of Interventions*, John Wiley & Sons.

Jenni, Karen and George Loewenstein (1997), "Explaining the Identifiable Victim Effect," *Journal of Risk and Uncertainty*, 14 (3), 235–57.

Karlan, Dean S. and Daniel H. Wood (2015), "The Effect of Effectiveness: Donor Response to Aid Effectiveness in a Direct Mail Fundraising Experiment." *Journal of Behavioral and Experimental Economics,* 66, 1-8

Khangura, Sara, Kristin Konnyu, Rob Cushman, Jeremy Grimshaw, and David Moher (2012), "Evidence

summaries: the evolution of a rapid review approach," *Systematic Reviews*, 1, 10.

Lafferty, Barbara A., Annika K. Lueth, and Ryan McCafferty (2016), "An evolutionary process model of cause-related marketing and systematic review of the empirical literature: An evolutionary process model and systematic review of cause-related marketing," *Psychology of Marketing*, 33 (11), 951–70.

Larney, Andrea, Amanda Rotella, and Pat Barclay (2019), "Stake size effects in ultimatum game and dictator game offers: A meta-analysis," *Organizational Behavior and Human Decision Processes*, 151, 61–72.

Lasswell, Harold D. (1948), "The structure and function of communication in society," *The Communication of Ideas*, 37 (1), 136–39.

Lee, Seyoung, Shin-Il Moon, and Thomas Hugh Feeley (2016), "A Meta-Analytic Review of the Legitimization of Paltry Favors Compliance Strategy," *Psychological Reports*, 118 (3), 748–71.

Liang, Jianping, Zengxiang Chen, and Jing Lei (2014), "Inspire me to donate: The use of mixed emotions in public service announcements," *ACR North American Advances*.

Lu, Jiahuan (2016), "The Philanthropic Consequence of Government Grants to Nonprofit Organizations: A Meta-Analysis," *Nonprofit Management & Leadership*, 26 (4), 381–400.

MacAskill, William (2015), *Doing Good Better: How Effective Altruism Can Help You Make a Difference*, Avery.

MacAskill, William (2018), "Understanding effective altruism and its challenges," in *The Palgrave Handbook of Philosophy and Public Policy*, D. Boonin, ed., Cham: Springer International Publishing, 441–53.

McGuire, J. W. (1972), "Attitude change: The information processing paradigm," *Experimental Social Psychology*, 108–41.

Miller, Geoffrey (2019), *Virtue Signaling: Essays on Darwinian Politics & Free Speech*, Cambrian Moon.

Moher, David, Alessandro Liberati, Jennifer Tetzlaff, Douglas G. Altman, and PRISMA Group (2010), "Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement," *International Journal of Surgery* , 8 (5), 336–41.

Moher, D., A. Booth, and L. Stewart (2014), "How to reduce unnecessary duplication: use PROSPERO," *BJOG: an International Journal of Obstetrics and Gynaecology*, Wiley Online Library.

Nagel, Jonas and Michael R. Waldmann (2016), "On having very long arms: how the availability of technological means affects moral cognition," *Thinking & Reasoning*, 22 (2), 184–208.

National Heart, Lung, and Blood Institute [NHLBI] (n.d.), "Study Quality Assessment Tools," (accessed November 1, 2019), [available at https://www.nhlbi.nih.gov/health-topics/study-quality-assessment-tools].

Nettle, Daniel, Zoe Harper, Adam Kidson, Rosie Stone, Ian S. Penton-Voak, and Melissa Bateson (2013), "The watching eyes effect in the Dictator Game: It's not how much you give, it's being seen to give something," *Evolution and Human Behavior: Official Journal of the Human Behavior and Evolution Society*, 34 (1), 35–40.

Northover, Stefanie B., William C. Pedersen, Adam B. Cohen, and Paul W. Andrews (2017), "Artificial surveillance cues do not increase generosity: Two meta-analyses," *Evolution and Human Behavior: Official Journal of the Human Behavior and Evolution Society*, 38 (1), 144–53.

Oppenheimer, D. M. and C. Y. Olivola (2011), "The science of giving: Experimental approaches to the study of charity." *Psychology Press*

Ord, Toby (2013), "The moral imperative toward cost-effectiveness in global health," Center for Global

Development.

Peloza, John and Piers Steel (2005), "The price elasticities of charitable contributions: A meta-analysis," *Journal of Public Policy & Marketing*, 24 (2), 260–72.

Penner, Louis A., John F. Dovidio, Jane A. Piliavin, and David A. Schroeder (2005), "Prosocial behavior: multilevel perspectives," *Annual Review of Psychology*, 56, 365–92.

Polisena, Julie, Chantelle Garritty, Chris Kamel, Adrienne Stevens, and Ahmed M. Abou-Setta (2015), "Rapid review programs to support health care and policy decision making: a descriptive analysis of processes and methods," *Systematic Reviews*, 4, 26.

Pratt, Jean A., Ravshan Yakabov, Rachel Glinski, and Karina Hauser (2009), "Non-Profit Organization websites and fundraising," *International Journal of Management & Enterprise Development*, 6 (1), 55–79.

Rand, David G., Victoria L. Brescoll, Jim A. C. Everett, Valerio Capraro, and Hélène Barcelo (2016), "Social heuristics and social roles: Intuition favors altruism for women but not for men," *Journal of Experimental Psychology: General*, 145 (4), 389–96.

Rust, Roland T., Donald R. Lehmann, and John U. Farley (1990), "Estimating Publication Bias in Meta-Analysis," *JMR, Journal of Marketing Research*, 27 (2), 220–26.

Shea, Beverley J., Barnaby C. Reeves, George Wells, Micere Thuku, Candyce Hamel, Julian Moran, David Moher, Peter Tugwell, Vivian Welch, Elizabeth Kristjansson, and David A. Henry (2017), "AMSTAR 2: a critical appraisal tool for systematic reviews that include randomized or non-randomized studies of healthcare interventions, or both," *BMJ* , 358, j4008.

Singer, Peter (2009), *The Life You Can Save: Acting Now to End World Poverty*, Random House Publishing Group.

Singer, Peter (2015), *The Most Good You Can Do: How Effective Altruism Is Changing Ideas about Living Ethically*, Text Publishing.

Singer, Peter (2019), *The Life You Can Save, 10th Anniversary Edition*, www.thelifeyoucansave.org.

Singer, Peter, A. Baker, and J. Haushofer (2019), "Are Randomized Poverty-Alleviation Experiments Ethical? by Peter Singer, Arthur Baker and Johannes Haushofer," *Project Syndicate*, (accessed December 12, 2019), [available at https://www.project-syndicate.org/commentary/ethics-of-random-controlled-trials-to-fight-poverty-by-peter-singer-et-al-2019-11].

Small, Deborah, George Loewenstein, and Paul Slovic (2007), "To Increase Charitable Donations, Appeal to the Heart—Not the Head," *Organizational Behavior and Human Decision Processes*.

Smith, Valerie, Declan Devane, Cecily M. Begley, and Mike Clarke (2011), "Methodology in conducting a systematic review of systematic reviews of healthcare interventions," *BMC Medical Research Methodology*, 11 (1), 15.

Sparks, Adam and Pat Barclay (2013), "Eye images increase generosity, but not for long: the limited effect of a false cue," *Evolution and Human Behavior: Official Journal of the Human Behavior and Evolution Society*, 34 (5), 317–22.

Stannard-Stockton, S. (2009), "Appealing to Donors' Hearts and Heads," *The Chronicle of Philanthropy*, (accessed November 20, 2019), [available at https://www.philanthropy.com/article/Appealing-to-Donors-Hearts/173425].

Stewart, Lesley, David Moher, and Paul Shekelle (2012), "Why prospective registration of systematic reviews makes sense," *Systematic Reviews*, 1, 7.

Taylor, Emma Michelle, Rachel Hayman, Fay Crawford, Patricia Jeffery, and James Smith (2013), "The impact of official development aid on maternal and reproductive health outcomes: a systematic review,"

PloS one, 8 (2), e56271.

Villegas de Posada, Cristina and Elvia Vargas-Trujillo (2015), "Moral Reasoning and Personal Behavior: A Meta-Analytical Review," *Review of General Psychology: Journal of Division 1, of the American Psychological Association*, 19 (4), 408–24.

Vosgerau, Joachim, Uri Simonsohn, Leif D. Nelson, and Joseph P. Simmons (2019), "99% impossible: A valid, or falsifiable, internal meta-analysis," *Journal of Experimental Psychology: General*, 148 (9), 1628–39.

Weyant, J. M. (1996), "Application of compliance techniques to direct-mail requests for charitable donations," *Psychology & Marketing.*

Wiepking, P. and René Bekkers (2012), "Who gives? A literature review of predictors of charitable giving. Part Two: Gender, family composition and income," *Voluntary Sector Review*.

de Wit, Arjen and René Bekkers (2017), "Government support and charitable donations: A meta-analysis of the crowding-out hypothesis," *Journal of Public Administration Research and Theory*, 27 (2), 301–19.

World Health Organization (2017), "Rapid reviews to strengthen health policy and systems: a practical guide," World Health Organization.

Zasuwa, Grzegorz (2017), "The role of company-cause fit and company involvement in consumer responses to csr initiatives: A meta-analytic review," *Sustainability: Science Practice and Policy*, 9 (6), 1016.

Zürcher, Christoph (2017), "What Do We (Not) Know About Development Aid and Violence? A Systematic Review," *World Development*, 98, 506–22.