

1-1-2021

## Functional altruism among agreeable and narcissistic donors: Evidence from crowdsourced fundraisers

Kelsey M. Drea

*University of Southern Mississippi*, Kelsey.Drea@usm.edu

Mitch Brown

*University of Arkansas*, mb103@uark.edu

Donald F. Sacco

*University of Southern Mississippi*, Donald.Sacco@usm.edu

Follow this and additional works at: [https://aquila.usm.edu/fac\\_pubs](https://aquila.usm.edu/fac_pubs)



Part of the [Psychology Commons](#)

---

### Recommended Citation

Drea, K., Brown, M., Sacco, D. (2021). Functional altruism among agreeable and narcissistic donors: Evidence from crowdsourced fundraisers. *Psihologijske Teme*, 30(1), 125-143.  
Available at: [https://aquila.usm.edu/fac\\_pubs/18940](https://aquila.usm.edu/fac_pubs/18940)

This Article is brought to you for free and open access by The Aquila Digital Community. It has been accepted for inclusion in Faculty Publications by an authorized administrator of The Aquila Digital Community. For more information, please contact [Joshua.Cromwell@usm.edu](mailto:Joshua.Cromwell@usm.edu).

## Functional Altruism Among Agreeable and Narcissistic Donors: Evidence from Crowdsourced Fundraisers

Kelsey M. Drea<sup>1</sup>, Mitch Brown<sup>2</sup>, and Donald F. Sacco<sup>1</sup>

<sup>1</sup> The University of Southern Mississippi, Hattiesburg, Mississippi,  
United States of America

<sup>2</sup> University of Arkansas, Fayetteville, Arkansas, United States of America

---

### Abstract

Given the increasing popularity of crowdsourced fundraisers, understanding how characteristics of funding initiatives and donors influence donations has critical real-world implications. Across two studies, we identified potential situational factors most conducive to successful crowdsourcing while also determining whether individual differences in various personality factors predicted differing levels of donation. Participants in Study 1 ( $M_{Age} = 19.99$ ; 309 women, 75 men) viewed descriptions that manipulated donation type (organizer donation, anonymous donation, no donation) and type of fundraiser (self-organized, other-organized), and reported their willingness to donate to an individual's medical treatment and completed inventories assessing Big Five personality traits. In Study 2 participants ( $M_{Age} = 20.22$ ; 322 women, 102 men) viewed vignettes describing fundraisers for an individual's vacation fun and completed inventories assessing participants levels of narcissism using the Pathological Narcissism Inventory. Higher agreeableness in men predicted heightened donation interest, regardless of type of cause, particularly when someone else has already donated (Study 1). Unexpectedly, narcissistic men and women both reported heightened donation interest (Study 2). We frame these findings through a framework assessing the adaptive utility of altruism as a function of personality in modern donation contexts.

*Keywords:* altruism, crowdsource, agreeableness, narcissism, mating

---

### Introduction

Crowdsourced fundraisers have increased in popularity in recent years as individuals and groups attempt to fund campaigns by receiving small donations from a large online community (Mollick, 2013). GoFundMe, one of the most popular crowdsourced fundraising platforms, has reportedly elicited more than 120 million

---

✉ Kelsey M. Drea; Donald F. Sacco, School of Psychology, The University of Southern, Mississippi, 118 College Dr. #5025, Hattiesburg, MS 39406, USA. E-mail: [kelsey.drea@usm.edu](mailto:kelsey.drea@usm.edu); [donald.sacco@usm.edu](mailto:donald.sacco@usm.edu)

Mitch Brown, Department of Psychological Science, University of Arkansas, 215 Memorial Hall Fayetteville, AR 72701, USA. E-mail: [mb103@uark.edu](mailto:mb103@uark.edu)

donations and raised over \$9 billion (US) since its inception in 2010. These fundraisers are instrumental to various causes ranging from funding education to costly medical procedures. Such endeavours are often met with varying degrees of success, with some fundraisers accruing considerable wealth to the recipient and others failing to reach desired funding goals. Recent investigations have identified a variety of motivations for donating money to charities. For example, the mere solicitation for a donation is a major driver of donation to charities (Bekkers & Wiepking, 2011). Solicitation is particularly important with fundraisers done via online platforms (e.g., social media) because most donors exist within the social network of the fundraiser (Payne et al., 2014). Being solicited by a social network member increases the likelihood of donating and the value of the donation (Meer & Rosen, 2011). Therefore, solicitation is especially powerful with crowd-based fundraisers as the person asking for donations is likely to be known by the donor.

Beyond solicitation, other factors, including reputational concerns experienced by the prospective donor, can determine the likelihood of donations. People are typically more generous when their charitable donations are visible to others, potentially in the service of fostering this positive reputation among group members (Alpizar & Martinsson, 2013; Bereczkei et al., 2007; Satow, 1975). Actions that make the fundraiser cause itself and the personal motivation of the fundraiser organizer more selfless should additionally improve fundraising outcomes. For example, individuals may be more likely to donate to a fundraiser started by someone on behalf of the individual ultimately receiving the funds, given the altruistic behaviour likely signalled through such prosociality (Barclay & Barker, 2020). Third-party organization of a fundraiser could ostensibly provide a more objective validation that the fundraiser is for a good cause, while providing the opportunity to demonstrate the organizer's willingness to invest in others in a manner that would invite more financial support (Barclay, 2010).

Prosocial behaviour is ubiquitous and documented across all studied cultures (e.g., Norenzayan & Shariff, 2008). Given prosociality requires the helper to incur an initial cost, numerous theories have garnered evidence in explaining why individuals would be motivated to incur the costs associated with prosocial behaviour on a regular basis. According to social rewards theories of helping (Cialdini et al., 1981), people may be motivated to help, including making monetary donations, because it can bolster a positive reputation and social standing (Fehr & Fischbacher, 2003; Griskevicius et al., 2010; Iredale et al., 2008). People may additionally behave prosocially because of basic principles of compliance based on normative expectations from social referents who donated themselves (Krupka & Weber, 2009). Given that responding to a request for a donation is itself a form of compliance, many factors associated with inducing compliance may be integral in explaining donating to crowdfunding initiatives. Such displays would implicate one as particularly capable of engaging in the altruistic behaviour normative in group living among group members and therefore capable of receiving reputational and

material benefits from others (Cosmides & Tooby, 2006; Everett et al., 2016; Sacco et al., 2017).

### **Social Influence in Prosociality**

Reputational maintenance may influence one's likelihood to donate as the desire to appear socially desirable may encourage compliance with group-level edicts (Leary & Kowalski, 1990). Individuals may feel more motivated to maintain good reputation, or social status, when others have previously performed ostensibly normative behaviours to ensure continued good standing in the group (Leary & Cox, 2008). Recent findings harnessing this ancestral motivation have implicated normative social influence, or behaviour that occurs out of a motivation for group membership (Deutsch & Gerard, 1955), as an effective strategy in fostering energy conservation behaviour compared with information highlighting other various reasons to conserve (Nolan et al., 2008). As social media becomes an increasingly pervasive means to communicate normative behaviours among individuals, understanding the optimal moments for altruism would likely be facilitated through online outlets. This would implicate crowdsourced fundraisers as particularly crucial in understanding new social environments wherein normative social influence potentially shapes altruism, given these endeavours are largely public and presented as a normative experience with many participants. This participatory desire could then motivate individuals to donate so as not to miss normative experiences (Milyavskaya et al., 2018).

Seeing individuals on social media sharing fundraisers could motivate donations to crowdsourced campaigns, but an even stronger role may be the ability to see who specifically donated money to the fundraiser. With normative social influence being a powerful influence to motivate prosociality, individuals may be more willing to donate to a fundraiser if another person has previously donated. Such social information could indicate to prospective donors that a given campaign has a degree of social endorsement and would be capable of facilitating an increase in a positive reputation for the donor (Griskevicius et al., 2010).

In addition to various situational factors that encourage individuals to engage in prosocial behaviour, certain individual differences also predict one's likelihood to participate in prosociality, which could be functional based on the goals of an individual. Most germane to prosociality, both a presence and absence of interest in engaging in such behaviours, are agreeableness and narcissism. For example, agreeable individuals have greater proclivity to comply with others and with charitable causes, which could serve to ingratiate oneself with an ingroup or signal their capabilities as a mate (Bégue et al., 2015; Carlo et al., 2005). Conversely, narcissistic individuals could demonstrate more prosociality in the service of signalling their status to group members (Hart & Adams, 2014).

## **Mating Strategies in Prosociality**

According to Parental Investment Theory (Trivers, 1972), different levels of investment during and after reproduction have led to an evolution of sex differences in selecting a suitable mate. For example, women's larger minimal investment in reproduction (e.g., gestation, lactation) compared to men's (e.g., sperm provision) have resulted in them employing more stringent criteria in mate selection, which would facilitate the identification of mates who would be most capable of offsetting these costs through the provision of resources that would increase offspring's chance of survival into adulthood (Trivers, 1972). This selectiveness fostered greater intrasexual competition between men to ensure reproductive opportunities. Within this competition is the opportunity to display considerable prosociality toward prospective mates in the service of communicating one's willingness and ability to provide for their offspring. Men interested in finding a long-term mate report a heightened interest in donating to charitable causes, particularly when competing with intrasexual rivals (Griskevicius et al., 2010; Van Vugt et al., 2007). Further, women find men more willing to engage in altruistic behaviour more appealing as long-term partners (Barclay, 2010; Brown et al., in press; Brown et al., 2020; Farrelly, 2013). Given the ostensibly altruistic signal from the donor for a fundraiser, women may perceive those donating to be especially desirable as partners, thus prompting men to engage in more altruism.

Despite this overall interest in signalling one's value as a mate through altruism in men, variability in its engagement may nonetheless be apparent. Individual differences in prosociality nonetheless exist, with highly altruistic men experiencing the most reproductive success (Arnocky et al., 2017). Considering both this signalling function of altruism, and the fact that altruism is associated with socially desirable personality constellations (Oda et al., 2014), it follows that men demonstrating such desirable behavioural repertoires would be especially likely to donate to a crowdsourced fundraiser.

## **Current Research**

The current program of research sought to identify the interactive effective effects between situational and dispositional factors that predict instances when individuals are most likely to donate to crowdsourced fundraisers considering the adaptive function of altruism. In two studies, we presented participants with experimentally manipulated crowdsourced fundraisers that varied in whether the fundraiser was either self- or other-organized and the types of donations seen for each fundraiser (i.e., no donations, anonymous donations, public donation from the organizer). These fundraisers were for either an arguably necessary (medical procedure; Study 1) or unnecessary goal (vacation; Study 2).

We further considered individual differences in these studies. In Study 1, we considered agreeableness, a personality trait associated with prosocial intentions ostensibly important in prompting prosocial behaviour. Study 2's consideration of arguably unnecessary goals prompted us to address narcissism, given its role in shaping selfish decision-making. All data and materials are publicly available through the OSF link (<https://osf.io/25yx6/>).

## Study 1

The first study sought to identify how crowdsourced fundraisers are affected by situational and dispositional factors for in how they facilitate the funding of necessary medical procedures for a recipient. We considered these factors from a social rewards theoretical perspective for helping that synthesizes with an understanding of normative social influence by considering whether such fundraisers were previously funded (Cialdini et al., 1981). We further considered a complementary perspective of costly signalling theory that addressed the extent individuals would be particularly favourable toward others' displays of altruism by organizing fundraisers for others (Fehr & Fischbach, 2003; Griskevicius et al., 2010). We thus hypothesized that having knowledge of another person's efforts to donate to a fundraiser and that another person sought to fund a procedure another person would elicit greater altruism toward a given cause relative to those without donations or that were self-organized. Within the effects of normative social influence for donating to already-funded causes.

### **Agreeableness in Facilitating Donations**

In addition to various situational factors that foster prosociality, certain individual differences may be similarly predictive of one's proclivity to engage in prosociality. Most germane to the current research includes consideration for the trait agreeableness, a trait that facilitates considerable prosociality within various situations (Graziano et al., 2007). Agreeableness refers to individual differences in the extent to which one may engage in cooperative behaviour and display warmth toward others, necessarily implicating those exhibiting high levels of agreeableness as especially prosocial. Indeed, agreeable individuals are motivated to establish and maintain positive relationships with others (e.g., Digman, 1997; Graziano & Eisenberg, 1997) and are highly desirable as relationship partners (Brown et al., 2019; Figueredo et al., 2006). Agreeable individuals are additionally more likely to provide material and emotional benefits for romantic partners and have longer-lasting marriages (Botwin et al., 1997).

These findings specifically implicate agreeableness as having emerged through social selection to ensure group members are capable of engaging others prosocially (Buss, 2009). That is, individuals whose behavioural repertoire connoting a greater proclivity toward cooperation and warmth toward other group members enjoyed

greater access to the benefits of social living. This selection would have rendered agreeableness a ubiquitous trait among group members that would further strengthen prosociality as normative. Agreeable individuals are more likely to volunteer their time to charitable causes (Carlo et al., 2005) and comply with others' requests (Bégue et al., 2015), which could be in the service of maintaining positive impressions (DeYoung et al., 2002). Given that donating is a form of compliance to requests, which could similarly boost one's reputation, it could stand to reason that highly agreeable individuals would be especially likely to donate toward crowdsourced fundraisers, particularly if someone else has already donated and thus the norm to donate is stronger.

This led to hypotheses that agreeableness will be associated with greater likelihood of donation for a fundraiser. Furthermore, because of the social signalling function of altruism that affords many reproductive benefits for men when such displays are public (Barclay, 2010; Farrelly, 2013), we further predicted that these effects of agreeableness would be most apparent for men, particularly when prompted to donate to an already-funded cause with previous donors not being anonymous.

## Method

### *Participants*

We recruited 386 undergraduates ( $M_{\text{Age}} = 19.99$  year,  $SD = 3.72$ ; 309 women, 75 men, 2 identifying as "Other"; 55.7% White) from a large public university in Southeastern U.S. in exchange for course credit. We did not conduct an a priori power analysis but rather used the end of the semester as the stop rule for data collection, though a sensitivity analysis indicated we were sufficiently powered to detect small effects (Cohen's  $f = 0.05$ ,  $\beta = 0.80$ ). We excluded the two participants from the final analyses who reported being neither male nor female.

### *Materials*

**Fundraisers.** During the experimental session, participants read about six crowdsourcing fundraisers that were seeking donations. Following each vignette, participants were asked a series of questions regarding the willingness to donate money to each fundraiser to fund an individual's medical procedure. Vignettes critically differed in two primary ways. First, vignettes varied in whether they were organized by the person receiving treatment (i.e., first-party) or organized by another person (i.e., third-party). Second, vignettes were accompanied by information about who else had donated to the cause, which varied in terms of there being no one donating yet, there already being anonymous donations, and there being donations from the organizer. Participants viewed one vignette for each possible combination,

which were presented in a randomized order to prevent order effects or demand characteristics. For each vignette, participants responded the extent to which they would not donate to the fundraiser on a 7-point Likert-type scale (1 = *strongly disagree*; 7 = *strongly agree*). We collected additional data assessing perceptions of these causes that were less relevant to the current hypotheses; these materials are available through the OSF link.

**Personality.** We assessed individual differences of participants using 50-item version of the Big 5 Personality Inventory (Goldberg, 1992). Items operated on 5-point Likert-type scales (1 = *disagree*; 5 = *agree*), with 22 items being reverse-scored. Each of the five traits (agreeableness, conscientiousness, extraversion, neuroticism, and openness) was represented by ten items that were ultimately aggregated into single measures of each trait. For the sake of this paper, we specifically focused on agreeableness, which demonstrated acceptable reliability ( $\alpha = .82, M = 37.74, SD = 6.77$ ). Data for other traits are available through the OSF link.

### **Procedure**

Consenting participants evaluated each vignette before responding to the Big 5 Inventory. This was followed by demographics and debriefing.

### **Results**

We submitted participants' likelihood to donate to a 2 (Participant Sex: Male vs. Female)  $\times$  3 (Donation Type: No Donation vs. Anonymous vs. Organizer)  $\times$  2 (Organizer: First- vs. Third-Party) mixed-model ANCOVA with repeated factors over the latter two factors and Agreeableness as a custom covariate to test for interactive effects between categorical and continuous variables in the same omnibus analysis, thereby reducing the likelihood of a false-positive through multiple omnibus regression analyses (Sacco & Brown, 2018). In both studies, we report adjusted degrees of freedom when the statistical assumption of sphericity is violated. We further report estimated marginal means and standard errors for descriptive values on the omnibus level to account for the presence of covariates in highly complex models. These complex models further necessitated us to report only bivariate correlations that were qualified by superordinate interactions.

A main effect of Participant Sex indicates that men reported a greater intention to donate more money ( $EMM = 4.24, SE = 0.13$ ) than women ( $EMM = 4.10, SE = 0.06$ ),  $F(1, 380) = 6.94, p = .009, \eta_p^2 = .018$ . A main effect of Agreeableness emerged,  $F(1, 380) = 22.69, p < .001, \eta_p^2 = .056$ ; this main effect appears rooted in a positive correlation between Agreeableness and an intention to donate ( $r = .19, p < .001$ ). No other main effects reached conventional significance and were therefore considered no further,  $F_s < 3.74, p_s > .053$ .

Effects were most superordinately qualified by a Participant Sex  $\times$  Donation Type  $\times$  Organizer  $\times$  Agreeableness interaction,  $F(1.93, 734.91) = 5.73, p = .004, \eta_p^2 = .015$ . We decomposed this interaction by conducting subordinate repeated ANCOVAs separate for men and women. Effects for men were subordinately qualified by a Donation Type  $\times$  Organizer  $\times$  Agreeableness interaction,  $F(1.61, 117.53) = 3.98, p = .029, \eta_p^2 = .052$ . When decomposing this interaction, we found effects were subordinately qualified by a Donation Type  $\times$  Agreeableness interaction for first-party fundraisers,  $F(2, 164) = 5.47, p = .005, \eta_p^2 = 0.070$ . We conducted three separate bivariate correlations for Agreeableness with each of the three self-funded causes. Among first-party causes, positive associations emerged for both the anonymous donation cause ( $r = .41, p < .001$ ) and organizer donation causes ( $r = .42, p < .001$ ); a non-significant positive association emerged for the non-donation cause ( $r = .22, p = .056$ ). That is, higher levels of agreeableness were associated with greater willingness to fund self-funded causes with existing funders, both with organizer-funded and anonymously donations, but agreeableness did not predict for self-funded causes without any existing donations. No interaction emerged for third-party causes, prompting us to consider it no further,  $F(1.78, 130.27) = 0.35, p = .678, \eta_p^2 = .005$ .

For women, effects were also subordinately qualified by a Donation Type  $\times$  Organizer  $\times$  Agreeableness interaction, albeit at a substantially reduced magnitude compared to men,  $F(2, 164) = 3.15, p = .047, \eta_p^2 = .010$ . When decomposing this interaction, we found effects subordinately qualified by a Donation Type  $\times$  Agreeableness interaction for first-party causes,  $F(1.93, 594.69) = 4.21, p = .016, \eta_p^2 = .014$ . A positive association emerged for the anonymous donation cause ( $r = .13, p = .017$ ); two non-significant associations emerged for the organizer donation ( $r = .02, p = .719$ ) and non-donation causes ( $r = .09, p = .104$ ). No interaction emerged for third-party causes, prompting no further consideration,  $F(1.93, 594.03) = 1.66, p = .191, \eta_p^2 = .005$ .

## Discussion

Results provided support for our hypotheses, albeit with considerable nuance. First, effects among these study variables were limited to first-party fundraisers; effects did not emerge for third-party causes. This discrepancy could be rooted in both an overall desirability of those seeking to help another person, given humans' evolution to prefer and reward prosociality (Barclay & Barker, 2020), and a need to discern between the individual merits of first-party causes. This distinction between the peripheral information surrounding first-party causes could be rooted in identifying which cause could be the most normatively acceptable for donors, particularly among highly agreeable people with a predilection toward demonstrating normative prosociality (Oda et al., 2014). Knowledge of another's donation may connote prosociality toward this cause is desirable (Goldstein et al., 2008), thus implicating the prospective donor as capable of engaging in the reciprocal altruism necessary for group living and therefore positions them toward continued access to

group benefits (Trivers, 1972). The lack of effects for agreeable individuals toward causes without donations further bolsters this point. Specifically, agreeable individuals may view these self-funded causes as both more selfish and unpopular, which would implicate their donation toward these causes as less capable of bolstering a positive reputation.

Interestingly, these effects were more pronounced for men than women. Agreeable men reported greater interest in donating toward normatively funded causes, both anonymously and organizer-funded, compared to agreeable women, who only reported interest in funding anonymously funded causes among the self-organized causes. These effects could reflect a sexually selected basis of altruism among men, given the fact that altruistic behaviour would implicate them as optimal long-term mates willing to be their pair bonds and to give offspring (Arnocky et al., 2017; Barclay & Barker, 2020; Brown et al., 2020). Because such reproductive goals are most relevant to agreeable men who prefer monogamous mating strategies (Schmitt & Shackelford, 2008), it would be advantageous for them to utilize these donations as prosocial strategy to signal their prowess as a long-term mate. Their willingness to donate more indiscriminately compared to women may similarly implicate donations as a costly signal demonstrating their access to resources and therefore an ability to offset women's high reproductive costs (Griskevicius et al., 2007). Conversely, agreeable women's judiciousness in donate could reflect the general judiciousness women exhibit in mating domains to reduce the likelihood of a suboptimal mating experience (Haselton & Buss, 2000). These sex differences suggest that donations can indeed signal prosociality, although results from this study may be limited to causes that are arguably necessary for an individual. We sought to extend these findings in Study 2 by identifying both how individuals may react to arguably less necessary causes (i.e., vacations) while also addressing a personality trait more indicative of a disinterest in prosociality in narcissism.

## Study 2

Donations through crowdsourcing certainly implicates the donor as highly prosocial, a trait particularly desirable for many. Nonetheless, variability exists in one's desire for prosociality that results in the manifestation of self-interested behaviour. One trait that has been extensively considered for its general disinterest in prosociality is narcissism, which became the crux of Study 2.

Narcissism is a trait denoted by high levels of self-esteem and low levels of empathy, with considerable focus on one's own benefits, potentially at the expense of others (Miller & Campbell, 2008; Watson et al., 1984). It has been argued that narcissism evolved to facilitate short-term interpersonal exchanges, wherein narcissistic individuals present themselves as desirable toward exchange partners before exploiting them to ensure their own access to resources and socially

discarding the partner upon exhausting that exchange (Holtzman, 2018; Jonason et al., 2010). Narcissists tend to endorse others' selfish behaviours (Hart & Adams, 2014). In our second study, participants view vignettes describing a campaign raising funds for an individual's vacation. As vacation is an arguably more "selfish" fundraiser than that of a medical treatment, we used the Personal Narcissism Inventory (PNI; Pincus et al., 2009) to assess levels of narcissism in participants. Focusing on how levels of narcissism influence the likelihood to donate, we predicted that individuals higher in narcissism will be more likely to donate to the more selfish cause, because individuals higher in narcissism tend to validate selfish behaviours more often than those with lower levels of narcissism (Hart & Adams, 2014). As a person starting a fundraiser for themselves is a considerably more selfish behaviour than if another person started a fundraiser for others' selfish endeavours, we expected to see higher levels of narcissism to be more likely to donate to a cause in which the person asking for money is the person receiving the funds (e.g., self-started). The current study is interested in how different donation types, fundraisers organizers, and personality traits, specifically levels of narcissism influence people's willingness to donate to a fundraiser.

## Method

### *Participants*

Participants were 425 undergraduate students (322 women, 102 men, 1 other;  $M_{\text{Age}} = 20.22$ ,  $SD = 4.24$ ; 58.8% White) from a large south-eastern university who completed the study for partial course extra credit for psychology courses. We did not conduct an a priori power analysis but rather used the end of the semester as the stop rule for data collection; sensitivity analyses indicated we were sufficiently powered to detect small effects (Cohen's  $f = 0.05$ ,  $\beta = 0.80$ ). We excluded the participants reporting being neither male nor female from the final analyses.

### *Material and Procedure*

**Narcissism.** After finishing the questionnaire, participants were asked to complete the Pathological Narcissism Inventory (PNI; Pincus et al., 2009), a 52-item assessment operating along 5-point Likert-type scales (1 = *not at all like me*; 5 = *very much like me*). Though typically consisting of seven subscales, we averaged across items for a total narcissism summed score (e.g., It's hard for me to feel good about myself unless I know other people like me;  $\alpha = .96$ ,  $M = 144.41$ ,  $SD = 34.34$ ).

Consenting participants evaluated the vignettes based on willingness to donate, similar to Study 1 with one notable difference. Specifically, these fundraisers were for vacation funds. Participants responded to the same single-item endorsement scale before completing PNI and providing demographics.

## Results

We submitted participants likelihood to donate to a 2 (Participant Sex: Male vs. Female)  $\times$  3 (Donation Type: No Donation vs. Anonymous vs. Organizer)  $\times$  2 (Organizer: First- vs. Third-Party) mixed-model ANCOVA with repeated factors over the latter two factors and Narcissism as a custom covariate. A main effect of Narcissism emerged,  $F(1, 420) = 19.67, p < .001, \eta_p^2 = .045$ ; this was rooted in a positive association between Narcissism and an intention to donate ( $r = .25, p < .001$ ). No other main effects or interactions emerged, prompting us to consider these results no further,  $F_s < 1.12, p_s > .291$ .

## Discussion

Interestingly, and contrary to hypotheses, an association between narcissism and a willingness to donate toward these non-essential causes emerged, such that narcissistic individuals were more receptive toward donating to these fundraisers overall instead of only for self-funded causes. These unexpected findings could potentially reflect an understanding of the signalling function inherent in prosociality. Narcissistic individuals present a highly attractive veneer upon initial meetings with prospective group members only for this favourability to decrease with time (Paulhus, 1998). Before such decreases, these individuals could present themselves as socially desirable in appearing interested in causes to reap several benefits. Altruistic individuals report greater reproductive success in numbers of sexual partners (Arnocky et al., 2017). This association may reflect individuals whose prosociality reflects a genuine interest in helping others and those who are merely prosocial for short-term gains and disinterested in connoting prosociality beyond initial meetings. Future research would specifically benefit identifying narcissistic individuals' willingness to donate to people whom they had just met relative to those whom they know well.

With results that individuals higher in narcissism are equally likely to donate across the board to a selfish fundraiser regardless of who it was organized by, suggest that narcissists are equally supportive of people being selfish on their own and helping others be selfish. Though donating to a selfish fundraiser such as a vacation fund may be seemingly benevolent, it could be a potential dissonance reduction strategy for narcissists to justify their own selfishness. If narcissists can endorse other's selfish endeavours, they remain consistent with their beliefs that selfishness is acceptable.

## General Discussion

The evolutionary history of altruism within humans has necessitated the emergence of prosocial behavioural repertoires that signal one's ability to act

benevolently within group contexts. Individual variability in one's dispositional interest in such altruism may further shape interests in facilitating this group living based on one's desire for continued access to group resources. As much of a modern environment's prosociality migrates to online mediums that would facilitate both immediate recognition for one's efforts, donations toward crowdsourced fundraisers seem to become an increasingly important avenue through which one may demonstrate their prosociality toward others (for similar arguments, see Brady & Crockett, 2019). The current program of research sought to understand this utility of prosociality in crowdfunding by identifying which individuals are more willing to donate in given contexts while considering various situational factors that have previously demonstrated efficacy in creating prosocial behaviours in the real world. The current studies critically advance an understanding of crowdsourced fundraisers in several capacities. Most importantly, whereas much research investigating such endeavours remain correlational, we adopted an experimental design to identify which situational factors are causally predictive of donation likelihood. Additionally, as crowdsourcing exists primarily online, it is crucial to understand altruism in the context of online outlets. The current study contributes a further understanding of how prosocial behaviour occurs in an online context and advances current literature by emphasizing an understanding of prosocial behaviour and social influence through the use of social media platforms.

The current study sought to understand how influence of other's donations, the type of campaign, and campaign organizer influenced one's likelihood to donate. We specifically focused on the nature of pre-existing donations for a given cause, whether from an anonymous donor, from the fundraiser creator, or nonexistent. Second, we considered which aspects of a funding initiative would be most appealing to donors by considering both the goal of such an initiative being either needed (i.e., surgery) or non-essential (vacation), and who started it (i.e., first- or third-party initiatives). Specifically, we considered the extent relevant individual differences to the enactment of prosocial behaviour (i.e., agreeableness, narcissism) are predictive of reputationally derived donation decisions. This program thus affords us to understand the interplay between situational and dispositional factors that foster functional engagement in altruism within modern contexts. Most notably, this work found evidence for the role of normative social influence in shaping altruistic decision-making by demonstrating the importance of information for previous donors in shaping subsequent behaviour in first-party fundraisers (Cialdini et al., 1981). As crowdsourced fundraisers typically provide all of the information above when describing a fundraising campaign, it is necessary to understand the role social influence plays when taking all variables into consideration. Additionally, as men and women have different strategies to increase successful reproductive opportunities, we extended current literature about altruism in the context of mating strategies to uncover how individual differences in prosociality exist in regard to interest in signalling one's mate value through altruism.

This adherence to the imposed social norms of altruism was most apparent among agreeable men. Their donations could be described as a signal for both their prosocial intentions within general affiliative setting but also their ability as an optimal mate (Barclay, 2010; Oda et al., 2014). Indeed, women's agreeableness predicted their altruism toward first-party causes but these effects were much larger in men, thereby suggesting their prosociality extends into multiple domains wherein altruism is especially desirable. This potential signalling function of mate value may further explain the association between narcissism and donations in Study 2, given that narcissistic individuals seek to present an attractive veneer in mating contexts that could mask their actual exploitative intentions (Jonason et al., 2010). Although narcissistic individuals can behave prosocially, such intentions may have ulterior motives. That is, narcissistic individuals may behave prosocially in the service of increasing their own success, power, and attention rather than focus on caring (Campbell & Foster, 2007). Additionally, those higher in narcissism tend to endorse others' selfish behaviours (Hart & Adams, 2014). This latter point became the impetus of our second study, wherein participants evaluated campaigns raising funds for an individual's vacation, arguably more selfish motive to start a fundraiser. With a selfish fundraiser focused less on the caring aspect of raising money for a medical treatment, the current study is interested in how different donation types, fundraisers organizers, and personality traits, specifically levels of narcissism influence people's willingness to donate to a fundraiser.

### **Limitations and Future Directions**

Despite the theoretically sensible findings across both studies, the current program of research nonetheless presents several opportunities for future research in light of its methodological limitations. First, our experimental control to infer causality within the different situational factors could have undermined these studies' ecological validity afforded to more naturalistic settings. Having to evaluate various campaigns could have elicited consideration of demand characteristics among participants that may have led their responses to be influenced by other responses when using a within-subjects design (Orne, 1962). Future research would benefit from utilizing a between-subjects design.

Another possible limitation emerges from participants' not actually donating real money, putting the current study at odds with behavioural economics research wherein participants would donate actual monetary amounts. Though the amount of money allocated in tasks with actual and hypothetical money are frequently equivocal (Ben-Ner et al., 2008), it remains an empirical question whether individuals would be willing to incur monetary costs to donate as a function of personality or situational factors. Future studies could provide outlets wherein individuals could make costly monetary donations toward prospective causes, with the actual donations being made for each cause being indicative of their actual

willingness to give. Previously findings suggest individuals are willing to incur financial costs for social desirability (Arnocky et al., 2017; Fehr & Fischbacher, 2003), and a future study considering actual funds may identify these boundaries of donation.

Future work would additionally benefit from utilizing different theoretical conceptualizations of the personality variables considered in these studies. With agreeableness, we utilized a measure of personality rooted in the Big Five, although such a structure conceptualizes personality differently from the HEXACO model (Ashton & Lee, 2007). Within this model, much of the prosociality seen in agreeable people conceptualized through the Big Five may be better conceptualized as being high in honesty/humility, a trait typified by altruism and long-term mating interest in men (e.g., Aghababaei et al., 2014; Lee et al., 2013). Additionally, when understanding which the motivational impetus driving the narcissism effects in Study 2, researchers could consider whether donations were made as a function of one's motivation to be admired by others (Back et al., 2013).

## Conclusion

The advent of modern outlets to display altruism has begun to include crowdsourced fundraisers. This program of research has found instances wherein various situational and dispositional factors influence individuals' desire to donate to these causes that appear to have ancestral roots. These modern outlets for donations could be shaped by ancestral desires to ensure access to resources to facilitate one's standing within a group.

## References

- Arnocky, S., Piché, T., Albert, G., Ouellette, D., & Barclay, P. (2017). Altruism predicts mating success in humans. *British Journal of Psychology*, *108*, 416–435. <https://doi.org/10.1111/bjop.12208>
- Alpizar, F., & Martinsson, P. (2013). Does it matter if you are observed by others? Evidence from donations in the field. *The Scandinavian Journal of Economics*, *115*, 74–83. <https://doi.org/10.1111/j.1467-9442.2012.01744.x>
- Aghababaei, N., Mohammadtabar, S., & Saffarinia, M. (2014). Dirty Dozen vs. the H factor: Comparison of the Dark Triad and Honesty-Humility in prosociality, religiosity, and happiness. *Personality and Individual Differences*, *67*, 6–10. <https://doi.org/10.1016/j.paid.2014.03.026>
- Ashton, M. C., & Lee, K. (2007). Empirical, theoretical, and practical advantages of the HEXACO model of personality structure. *Personality and Social Psychology Review*, *11*, 150–166. <https://doi.org/10.1177/1088868306294907>

- Back, M. D., Küfner, A. C., Dufner, M., Gerlach, T. M., Rauthmann, J. F., & Denissen, J. J. (2013). Narcissistic admiration and rivalry: Disentangling the bright and dark sides of narcissism. *Journal of Personality and Social Psychology, 105*, 1013–1037. <https://doi.org/10.1037/a0034431>
- Barclay, P. (2010). Altruism as a courtship display: Some effects of third-party generosity on audience perceptions. *British Journal of Psychology, 101*, 123–135. <https://doi.org/10.1348/000712609X435733>
- Barclay, P., & Barker, J. L. (2020). Greener than thou: People who protect the environment are more cooperative, compete to be environmental, and benefit from reputation. *Journal of Environmental Psychology, 101444*. <https://doi.org/10.1016/j.jenvp.2020.101441>
- Bègue, L., Beauvois, J. L., Courbet, D., Oberlé, D., Lepage, J., & Duke, A. A. (2015). Personality predicts obedience in a Milgram paradigm. *Journal of Personality, 83*, 299–306. <https://doi.org/10.1111/jopy.12104>
- Ben-Ner, A., Kramer, A., & Levy, O. (2008). Economic and hypothetical dictator game experiments: Incentive effects at the individual level. *The Journal of Socio-Economics, 37*, 1775–1784. <https://doi.org/10.1016/j.socec.2007.11.004>
- Bekkers, R., & Wiepking, P. (2011). A literature review of empirical studies of philanthropy: Eight mechanisms that drive charitable giving. *Nonprofit and Voluntary Sector Quarterly, 40*, 924–973. <https://doi.org/10.1177/0899764010380927>
- Berezkei, T., Birkas, B., & Kerekes, Z. (2007). Public charity offer as a proximate factor of evolved reputation-building strategy: An experimental analysis of a real-life situation. *Evolution and Human Behavior, 28*, 277–284. <https://doi.org/10.1016/j.evolhumbehav.2007.04.002>
- Botwin, M. D., Buss, D. M., & Shackelford, T. K. (1997). Personality and mate preferences: Five factors in mate selection and marital satisfaction. *Journal of Personality, 65*, 107–136. <https://doi.org/10.1111/j.1467-6494.1997.tb00531.x>
- Brady, W. J., & Crockett, M. J. (2019). How effective is online outrage? *Trends in Cognitive Sciences, 23*(2), 79–80. <https://doi.org/10.1016/j.tics.2018.11.004>
- Brown, M., Keefer, L. A., Sacco, D. F., & Brown, F. L. (in press). Demonstrate values: Behavioral displays of moral outrage as a cue to long-term mate potential. *Emotion*.
- Brown, M., Sacco, D. F., & Medlin, M. M. (2019). Sociosexual attitudes differentially predict men and women's preferences for agreeable male faces. *Personality and Individual Differences, 141*, 248–251. <https://doi.org/10.1016/j.paid.2019.01.027>
- Brown, M., Westrich, B., Bates, F., Twibell, A., & McGrath, R. E. (2020). Preliminary evidence for virtue as a cue to long-term mate value. *Personality and Individual Differences, 167*, 110249. <https://doi.org/10.1016/j.paid.2020.110249>
- Buss, D. M. (2009). How can evolutionary psychology successfully explain personality and individual differences? *Perspectives on Psychological Science, 4*, 359–366. <https://doi.org/10.1111/j.1745-6924.2009.01138.x>

- Campbell, W. K., & Foster, J. D. (2007). The narcissistic self: Background, an extended agency model, and ongoing controversies. In C. Sedikides & S. J. Spencer (Eds.), *Frontiers of social psychology. The self* (pp. 115–138). Psychology Press.
- Carlo, G., Okun, M. A., Knight, G. P., & de Guzman, M. R. T. (2005). The interplay of traits and motives on volunteering: Agreeableness, extraversion and prosocial value motivation. *Personality and Individual Differences*, 38, 1293–1305. <https://doi.org/10.1016/j.paid.2004.08.012>
- Cialdini, R. B., Baumann, D. J., & Kenrick, D. T. (1981). Insights from sadness: A three-step model of the development of altruism as hedonism. *Developmental Review*, 1, 207–223. [https://doi.org/10.1016/0273-2297\(81\)90018-6](https://doi.org/10.1016/0273-2297(81)90018-6)
- Cosmides, L., & Tooby, J. (2006). Evolutionary psychology, moral heuristics, and the law. In G. Gigerenzer & C. Engel (Eds.), *Dahlem workshop reports. Heuristics and the law* (pp. 175–205). MIT Press; Dahlem University Press.
- Deutsch, M., & Gerard, H. B. (1955). A study of normative and informational social influences upon individual judgment. *The Journal of Abnormal and Social Psychology*, 51, 629–636.
- DeYoung, C. G., Peterson, J. B., & Higgins, D. M. (2002). Higher-order factors of the Big Five predict conformity: Are there neuroses of health? *Personality and Individual Differences*, 33, 533–552. [https://doi.org/10.1016/S0191-8869\(01\)00171-4](https://doi.org/10.1016/S0191-8869(01)00171-4)
- Digman, J. M. (1997). Higher-order factors of the Big Five. *Journal of Personality and Social Psychology*, 73, 1246–1256. <https://doi.org/10.1037/0022-3514.73.6.1246>
- Everett, J. A., Pizarro, D. A., & Crockett, M. J. (2016). Inference of trustworthiness from intuitive moral judgments. *Journal of Experimental Psychology: General*, 145, 772–787. <https://doi.org/10.1037/xge0000165>
- Farrelly, D. (2013). Altruism as an indicator of good parenting quality in long-term relationships: Further investigations using the mate preferences towards altruistic traits scale. *The Journal of Social Psychology*, 153, 395–398. <https://doi.org/10.1080/00224545.2013.768595>
- Fehr, E., & Fischbacher, U. (2003). The nature of human altruism. *Nature*, 425, 785–791. <https://doi.org/10.1038/nature02043>
- Figueredo, A. J., Sefcek, J. A., & Jones, D. N. (2006). The ideal romantic partner personality. *Personality and Individual Differences*, 41, 431–441. <https://doi.org/10.1016/j.paid.2006.02.004>
- Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. *Psychological assessment*, 4, 26–42. <https://doi.org/10.1037/1040-3590.4.1.26>
- Goldstein, N. J., Cialdini, R. B., & Griskevicius, V. (2008). A room with a viewpoint: Using social norms to motivate environmental conservation in hotels. *Journal of Consumer Research*, 35, 472–482. <https://doi.org/10.1086/586910>

- Graziano, W. G., & Eisenberg, N. (1997). Agreeableness: A dimension of personality. In R. Hogan, J. A. Johnson, & S. R. Briggs (Eds.), *Handbook of personality psychology* (pp. 795–824). Academic Press. <https://doi.org/10.1016/B978-012134645-4/50031-7>
- Graziano, W. G., Habashi, M. M., Sheese, B. E., & Tobin, R. M. (2007). Agreeableness, empathy, and helping: A person x situation perspective. *Journal of Personality and Social Psychology, 93*, 583–599. <https://doi.org/10.1037/0022-3514.93.4.583>
- Griskevicius, V., Tybur, J. M., Sundie, J. M., Cialdini, R. B., Miller, G. F., & Kenrick, D. T. (2007). Blatant benevolence and conspicuous consumption: When romantic motives elicit strategic costly signals. *Journal of Personality and Social Psychology, 93*(1), 85–102. <https://doi.org/10.1037/0022-3514.93.1.85>
- Griskevicius, V., Tybur, J. M., & Van den Bergh, B. (2010). Going green to be seen: Status, reputation, and conspicuous conservation. *Journal of Personality and Social Psychology, 98*, 392–404. <https://doi.org/10.1037/a0017346>
- Hart, W., & Adams, J. M. (2014). Are narcissists more accepting of others' narcissistic traits? *Personality and Individual Differences, 64*, 163–167. <https://doi.org/10.1016/j.paid.2014.02.038>
- Haselton, M. G., & Buss, D. M. (2000). Error management theory: A new perspective on biases in cross-sex mind reading. *Journal of Personality and Social Psychology, 78*(1), 81.
- Holtzman, N. S. (2018). Did narcissism evolve? In A. D. Hermann, A. B. Brunell, & J. Foster (Eds.), *The Handbook of Trait Narcissism* (pp. 173–181). Springer. [https://doi.org/10.1007/978-3-319-92171-6\\_19](https://doi.org/10.1007/978-3-319-92171-6_19)
- Iredale, W., Van Vugt, M., & Dunbar, R. (2008). Showing off in humans: Male generosity as a mating signal. *Evolutionary Psychology, 6*(3), 386–392. <https://doi.org/10.1177/147470490800600302>
- Jonason, P. K., Li, N. P., & Teicher, E. A. (2010). Who is James Bond? The Dark Triad as an agentic social style. *Individual Differences Research, 8*, 111–120.
- Krupka, E., & Weber, R. A. (2009). The focusing and informational effects of norms on pro-social behavior. *Journal of Economic Psychology, 30*, 307–320.
- Leary, M. R., & Cox, C. B. (2008). Belongingness motivation: A mainspring of social action. In J. Y. Shah & W. L. Gardner (Eds.), *Handbook of motivation science* (pp. 27–40). The Guilford Press.
- Leary, M. R., & Kowalski, R. M. (1990). Impression management: A literature review and two-component model. *Psychological Bulletin, 107*, 34–74.
- Lee, K., Ashton, M. C., Wiltshire, J., Bourdage, J. S., Visser, B. A., & Gallucci, A. (2013). Sex, power, and money: Prediction from the Dark Triad and Honesty-Humility. *European Journal of Personality, 27*, 169–184. <https://doi.org/10.1002/per.1860>
- Meer, J., & Rosen, H. S. (2011). The ABCs of charitable solicitation. *Journal of Public Economics, 95*, 363–371. <https://doi.org/10.1016/j.jpubeco.2010.07.009>

- Miller, J. D., & Campbell, W. K. (2008). Comparing clinical and social-personality conceptualizations of narcissism. *Journal of Personality*, 76, 449–476. <https://doi.org/10.1111/j.1467-6494.2008.00492.x>
- Milyavskaya, M., Saffran, M., Hope, N., & Koestner, R. (2018). Fear of missing out: Prevalence, dynamics, and consequences of experiencing FOMO. *Motivation and Emotion*, 42, 725–737. <https://doi.org/10.1007/s11031-018-9683-5>
- Mollick, E. R. (2013). Swept away by the crowd? Crowdfunding, venture capital, and the selection of entrepreneurs. *Venture Capital, and the Selection of Entrepreneurs. SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2239204>
- Nolan, J. M., Schultz, P. W., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2008). Normative social influence is under detected. *Personality and Social Psychology Bulletin*, 34, 913–923. <https://doi.org/10.1177/0146167208316691>
- Norenzayan, A., & Shariff, A. F. (2008). The origin and evolution of religious prosociality. *Science*, 322, 58–62. <https://doi.org/10.1126/science.1158757>
- Oda, R., Machii, W., Takagi, S., Kato, Y., Takeda, M., Kiyonari, T., & Hiraishi, K. (2014). Personality and altruism in daily life. *Personality and Individual Differences*, 56, 206–209. <https://doi.org/10.1016/j.paid.2013.09.017>
- Orne, M. T. (1962). On the social psychology of the psychological experiment: With particular reference to demand characteristics and their implications. *American Psychologist*, 17, 776–783.
- Paulhus, D. L. (1998). Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing? *Journal of Personality and Social Psychology*, 74, 1197–1208.
- Payne, A., Scharf, K., & Smith, S. (2014). Online fundraising - the perfect ask? *Competitive Advantage in the Global Economy (CAGE). CAGE Online Working Paper Series 194*. Available at <https://ideas.repec.org/p/cge/wacage/194.html>
- Pincus, A. L., Ansell, E. B., Pimentel, C. A., Cain, N. M., Wright, A. G., & Levy, K. N. (2009). Initial construction and validation of the Pathological Narcissism Inventory. *Psychological Assessment*, 21, 365–379. <https://doi.org/10.1037/a0016530>
- Sacco, D. F., & Brown, M. (2018). Preferences for facially communicated big five personality traits and their relation to self-reported big five personality. *Personality and Individual Differences*, 134, 195–200. <https://doi.org/10.1016/j.paid.2018.06.024>
- Sacco, D. F., Brown, M., Lustgraaf, C. J., & Hugenberg, K. (2017). The adaptive utility of deontology: Deontological moral decision-making fosters perceptions of trust and likeability. *Evolutionary Psychological Science*, 3, 125–132. <https://doi.org/10.1007/s40806-016-0080-6>
- Satow, K. L. (1975). Social approval and helping. *Journal of Experimental Social Psychology*, 11, 501–509.
- Schmitt, D. P., & Shackelford, T. K. (2008). Big Five traits related to short-term mating: From personality to promiscuity across 46 nations. *Evolutionary Psychology*, 6, 147470490800600204. <https://doi.org/10.1177/147470490800600204>

- Trivers, R. (1972). *Parental investment and sexual selection* (Vol. 136, p. 179). Biological Laboratories, Harvard University.
- Van Vugt, M., Roberts, G., & Hardy, C. (2007). Competitive altruism: A theory of reputation-based cooperation in groups. In L. Barrett & R. Dunbar (Eds.), *Handbook of Evolutionary Psychology* (pp. 531–540). Oxford Handbooks Online. <https://doi.org/10.1093/oxfordhb/9780198568308.013.0036>
- Watson, P. J., Hood Jr, R. W., Morris, R. J., & Hall, J. R. (1984). Empathy, religious orientation, and social desirability. *The Journal of Psychology*, *117*, 211–216.

Received: October 19, 2020

