Perceptions of Prosocial Behavior: Understanding the Self-Presentation of Hardships Incurred During Altruistic Acts

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ABSTRACT. Promoting one’s altruistic motives may be an important means by which people can present themselves favorably to others. Still, promoting one’s altruistic acts can be risky, as observers tend to be sensitive to factors that indicate that an altruistic act is motivated by self-interest, rather than genuine prosocial motives. Research focused on martyrdom (Olivola & Shafir, 2013; Schaumberg & Mullen, 2017) has suggested that highlighting the hardships involved in an altruistic act can enhance perceptions of prosocial motivation (the martyrdom hypothesis). However, research on bragging (Berman et al., 2015; Sezer et al., 2018) has suggest that first-person statements that highlight hardships may be perceived as self-motivated complaints, rather than genuine (the complaint hypothesis). The current study used a 2 (statement content: accomplishment versus hardship) x 2 (presentation strategy: direct statement or humblebrag) within-groups design (N=82) to examine if self-promotional statements related to altruistic hardship increased or decreased perceptions of genuineness and prosocial motivation. Consistent with the complaint hypothesis, first-person statements focused on an altruistic hardship were perceived more as complaints (p < .001, η² = .512) and less as prosocial acts (p = .001, η² = .132) than first-person statements that focused on an altruistic accomplishment. These results suggest that there may be a penalty for emphasizing personal sacrifice as a means of self-promoting altruistic acts.

Keywords: prosocial behavior, altruism, bragging, self-promotion, sacrifice, hardship

Prosocial behaviors are designed to benefit others (Penner et al., 2005) and can also produce social benefits for one’s self (Carlson & Zaki, 2018). For example, highlighting one’s altruistic motives may be an important means by which people can present themselves as altruistic, moral, and competent to other individuals (Berman et al., 2015; Handy et al., 2010; Moon et al., 2017; Newman & Cain, 2014). For this reason, the self-promotion of one’s altruistic accomplishments may be an important self-presentation strategy. Importantly, however, promoting one’s altruistic acts can involve risk (Berman et al., 2015).

Observers tend to be perceptive to factors that indicate that an altruistic act is motivated by self-interest, rather than by genuine prosocial motives (Berman et al., 2015; Carlson & Zaki; 2018; Newman & Cain, 2014). Research on the martyrdom effect (Olivola & Shafir, 2013; Schaumberg & Mullen, 2017) has suggested that a focus on personal hardship signals the prosocial nature of one’s actions because it reduces perceptions that an
action was self-motivated (the martyrdom hypothesis). However, research on bragging (Berman et al., 2015; Sezer et al., 2018) has suggested that a focus on personal hardships can backfire if these statements are perceived as complaints, rather than genuine (the complaint hypothesis). In the current study, we examined if the style of a self-promotional statement (i.e., a direct statement versus a humblebrag) interacted with the content of that statement (i.e., focused on an accomplishment versus a hardship) to influence the degree to which the statement was perceived as being genuine and driven by prosocial motivation.

**Prosocial Motivation**

Prosocial behavior entails a broad category of actions that are beneficial to others (Penner et al., 2005), including altruistic acts such as volunteering at a charity or donating money to a fund-raiser. Perceptions of prosocial behavior are often characterized in terms of dimensions of altruism, empathy, and perceived likelihood of future prosocial behavior (Lin-Healy & Small, 2012). Although prosocial behaviors are designed to benefit others, these actions can also produce important social benefits for one’s self (Carlson & Zaki, 2018). For example, existing research has found that people involved in prosocial actions were perceived to be more altruistic, likeable, and morally good, relative to people who were not engaged in prosocial actions (Berman et al., 2015; Moon et al., 2017; Newman & Cain, 2014). Leiro and Zwolinski (2014) have also found that altruistic acts strengthen social bonds with others. Furthermore, Hand et al. (2010) reported that altruistic acts signal competence, experience, and leadership skills.

These social benefits may motivate people to share information about their prosocial acts with others. Self-presentation is a crucial interpersonal skill that aids individuals in adapting to various audiences and social rules (Lafrenière et al., 2016). The rapid growth of social media use (Perrin, 2015) has spurred an interest in examining the factors that influence self-presentation (see, for examples, Buffardi & Campbell, 2008; Leighton et al., 2018; Schau & Gilly, 2003). Self-presentation efforts are typically motivated by one of two goals: to be liked or to appear competent (Jones & Pittman, 1982).

As reviewed earlier, sharing information about altruistic acts can achieve both goals. Indeed, individuals and large groups of people have been found to promote prosocial behavior with the intent of appearing altruistic, charitable, morally good, and competent (Berman et al., 2015; Handy et al., 2010; Newman & Cain, 2014; Scopelliti et al., 2015). Still, as noted by Berman et al. (2015), there is a risk of negative evaluation when promoting one’s self.

Individuals tend to hold strong beliefs about the types of actions that constitute altruism (Howard et al., 2011). Consequently, people tend to make inferences about ulterior motives when judging prosocial behaviors (Ham & Vonk, 2011). Research has shown that clues in the environment suggesting that a person was motivated to engage in an altruistic act for self-interested reasons or for personal benefit affects judgements of altruism, moral character, and likeability (Carlson & Zaki, 2018; Newman & Cain, 2011). Indeed, in the context of these research studies, performing an altruistic act for the wrong reasons was perceived to be even worse than not doing a charitable act at all (Carlson & Zaki, 2018; Newman & Cain, 2011).

As noted by Berman et al. (2015), this creates an interesting dilemma. Directly bragging about a prosocial accomplishment may be an effective way of making one’s good deeds known to others (Berman et al., 2015). However, bragging about an accomplishment can also raise doubts about the motivations for engaging in the prosocial act (Berman et al., 2015; Sezer et al., 2018). Berman et al. (2015) noted that one approach that may use to address this dilemma is to highlight the hardships associated with carrying out a prosocial act. In the subsequent sections of this article, we review evidence that has suggested potential advantages and disadvantages of using personal hardship as a means to enhance perceptions of prosocial motivation.

**Potential Advantages of Highlighting Personal Hardship**

Research on the martyrdom effect has suggested that highlighting hardship and personal sacrifice may be an effective means for enhancing perceptions of prosocial motivation. For example, Hardy and Van Vugt (2006) found that, when individuals willingly endured hardships for collective goals, observers perceived them as more trustworthy, valuable, and admirable. Loewenstein and Small (2007) also found that people expressed more generosity and empathy toward individuals who experienced suffering, particularly when the event was uncontrollable or unexpected. Based on these prior findings, Olivola and Shafir (2013) hypothesized that emphasizing martyrdom—the act of suffering for a cause (p. 92)—would be effective in enhancing perceptions of prosocial motivation.
because sacrifice would signal to others that an undertaking was important enough to be worth experiencing undesired pain and suffering.

To examine this hypothesis, Olivola and Shafir (2013) constructed contexts in which the psychological cost of donating was low (requiring little effort and no pain) or high (requiring physical effort and pain) and measured participants’ willingness to donate money to the cause. Across five experiments, they found that, the more a participant anticipated that their contributions would be painful and require effort the more willing they were to engage in that prosocial act. The effects were explained, at least in part, by the fact that the martyrdom conditions were perceived as more meaningful than the low-effort/low-pain control conditions.

Schaumberg and Mullen (2017) similarly found that hardship influenced the degree to which external observers judged an act as altruistic. Specifically, Schaumberg and Mullen used a vignette paradigm to describe scenarios in which an individual suffered from some kind of incidental hardship (e.g., getting stung by a bee) after performing an act of good (e.g., planting trees). When participants learned about the incidental hardship, they were more likely to perceive the prosocial agent as being greater in moral character than when they read about the same action without the hardship. These findings indicated that perceptions of prosocial motivation could be increased by highlighting personal sacrifice (Olivola & Shafir, 2013; Schaumberg & Mullen, 2017).

Nevertheless, it is important to recognize that research findings on the martyrdom effect have been derived from experimental settings where the participants learned about a hardship through a neutral third party, devoid of a specific self-presentation technique. For example, in Schaumberg and Mullen’s (2017) research, the following scenario was presented to participants for evaluation: “At the end of the day, right as Geoff had finished planting the last tree, he got stung by a bee. His arm swelled from the bee sting” (p. 88). It is important to consider what the potential differences might be if the hardship were presented within the context of an explicit, first-person statement of hardship: “I spent the weekend planting trees … I now have over 20 mosquito bites!” In the next section of the article, we review evidence related to humblebragging that has suggested that, contrary to the martyrdom hypothesis, first-person efforts to highlight personal hardship may not always work in a person’s favor.

Potential Disadvantages of Highlighting Personal Hardship

Previous research on the martyrdom effect has focused on information gained from third-person narratives. Increasingly, with the rapid growth of social media use (Perrin, 2015), people are sharing their accomplishments in the form of first-person narratives (Schau & Gilly, 2003; Sezer et al., 2018). Berman et al. (2015) has found that there are risks to using first-person narratives to brag about one’s own accomplishments. To our knowledge, no prior research has directly examined how people might respond to self-promotional statements that focus on altruistic hardships. With that said, research related to humblebragging has provided some context on which to theorize about these effects. We first define what is meant by humblebragging and then discuss the findings.

Among the various tactics of impression management, directly bragging about an accomplishment is a common means by which someone shares their personal accomplishments with others (Berman et al., 2015). However, bragging about good deeds has been found to elicit lower ratings of altruism than not bragging at all because it raises the possibility that the act was carried out for self-interested reasons (Berman et al., 2015). Furthermore, Scopelliti et al. (2015) have noted that individuals who openly bragged were assumed to be braggers, which decreased positive reactions from observers, such as feeling happy for them, and increased negative emotions from observers, such as feelings of annoyance. As aforementioned, one potential approach that people could use to address this dilemma would be to highlight the hardships and personal sacrifices associated with carrying out a prosocial act (Berman et al., 2015).

Humblebragging provides a mechanism for people to emphasize the hardships they experienced while carrying out prosocial acts. Humblebragging is a unique self-presentation technique that attempts to convey both competency and likability. The act of humblebragging—”bragging masked by either a complaint or humility” (Sezer et al., 2018, p. 52)—is pervasive in everyday life. For example, someone might announce to their coworkers how exhausted they are from working extra hours over the weekend to help start a new fund-raiser. Although the approach is an attempt to highlight competence with a brag and elicit liking through added humility, Sezer et al. (2018) have suggested that humblebragging often fails to achieve either goal. In their research, they found
that individuals who highlighted a hardship in an attempt to appear humble were perceived as complainers. In addition, individuals who humblebragged were viewed as less likeable and less competent than those who bragged more directly. Perceived sincerity appeared to be implicated in this effect. Both humblebrags and direct brags were equally likely to be perceived as efforts to brag, but people who humblebragged were viewed as more performative in trying to appear humble, relative to those who directly bragged. These findings suggested that highlighting hardships may not always be an effective strategy for promoting prosocial motives. They also suggested that the way in which a person brags (i.e., a direct statement versus a humblebrag) could influence perceptions of prosocial motivation.

Overview of the Current Study
As indicated in our review of the literature, prosocial actors are faced with a dilemma in terms of how to communicate their actions. Directly telling people about a prosocial accomplishment may be an effective way of making one’s good deeds known to others (Berman et al., 2015). However, if the statement comes off as bragging, complaining, or insincere, this can hurt the perceptions of the prosocial actor (Sezer et al., 2018). The existing research raised two potential possibilities when it came to the presentation of information about a personal hardship. On the one hand, research focused on the martyrdom effect (Olivola & Shafir, 2013; Schaumberg & Mullen, 2017) has suggested that presenting information about personal hardship could increase perceptions of prosocial motivation, as observers find prosocial acts that are accompanied with hardship to be more genuine and more altruistic than acts unaccompanied with hardship (the martyrdom hypothesis). On the other hand, research on bragging (Berman et al., 2015; Sezer et al., 2018) has suggested that attempts to appear humble by talking about hardship could backfire if those attempts come off as complaining, rather than sincere (the complaint hypothesis).

Given these contradictory hypotheses, our study sought to investigate if the presentational style of a self-promotional statement (i.e., a direct statement versus a humblebrag) would interact with the content of the statement (i.e., focused on an accomplishment versus a hardship) to impact perceptions of genuineness and prosocial motivation. We predicted that an interaction would occur. Consistent with the martyrdom hypothesis, we predicted that, when a direct statement was used to discuss a hardship, the presentation of the hardship would increase perceptions of prosocial motivation relative to when the direct statement focused on an accomplishment. However, consistent with the complaint hypothesis, we predicted that, when statements of hardship were made within the context of a humblebrag, these statements would be perceived as complaints rather than genuine statements of self-sacrifice, which would decrease perceptions of prosocial motivation relative to when the humblebrag focused on an accomplishment.

Method
The procedures and methods of the present experimental study were developed by undergraduate students who were enrolled in an advanced undergraduate laboratory course focused on social psychological research methods (total enrollment: 26 students). With the instructor’s guidance, all of the students in the course worked together to identify and create the experimental manipulations and outcome measures and to analyze the data. The study description, planned recruitment method, data exclusion criterion, survey questions, and data analysis plan were preregistered on the Open Science Framework (https://osf.io/7yd6f/) prior to the analysis of our data. We also received research ethics approval to publicly archive the data and SPSS syntax files used for the analyses.

Participants
Based on a power analysis, we aimed to recruit at least 50 to 65 participants to detect a medium sized effect ($\eta^2 = .06$) at 80% power with a significance level of $\alpha = .05$. After receiving Institutional Research Ethics Board approval, we used a convenience sampling method to recruit participants via social media, email, course announcements, and research recruitment websites. After applying preregistered exclusion criterion, the final sample included 82 participants, $M_{age} = 27.9$; $SD = 12.49$ (68% women; 68% full-time students; 77% from North America, 12% from Asia, 7% from Europe, and 1% from Africa). All participants responded to the survey in English.

Design and Procedure
Using a research design similar in nature to the one used by Carlson and Zaki (2018), we manipulated two independent variables within the context of a 2 (statement content: Accomplishment x Hardship) x 2 (presentation style: Direct
Statement x Humblebrag) within-groups design that also included a fifth control condition for comparison. To create the experimental conditions, we generated five altruistic scenarios and used those scenarios to manipulate whether a self-promotional statement about an altruistic act (“I spent the weekend planting trees.”) emphasized an accomplishment (“I planted over 20 rows of park forestry!”) or a hardship (“I now have over 20 mosquito bites!”).

We also manipulated whether the information was presented as a direct statement or a humblebrag. Similar to Sezer et al. (2018), we operationalized a direct statement as a straightforward statement about an act, without any attempt to appear humble. The examples presented in the prior paragraph represented direct statements. In the humblebrag conditions, we used language similar to that used by Sezer et al. to convey humility through statements of disbelief, humor, and/or claims of something being “worth it” within the context of the accomplishment/hardship. For example, “Planting trees to protect the environment over the weekend was definitely worth more than the [20 rows of park forestry that I saved/20 mosquito bites that I got]!”

Four of the statements represented the four conditions of our study: a direct statement about an accomplishment, a direct statement about a hardship, a humblebrag about an accomplishment, and a humblebrag about a hardship. The fifth statement reflected a control statement that included a factual statement about the altruistic act, without any mention of a personal accomplishment or hardship, nor any attempts at appearing humble. For example, “I planted over 20 rows of park forestry!” or “I spent the weekend planting trees.” emphasized an accomplishment about an altruistic act (“I spent the weekend planting trees”).

Because it would be very transparent for participants to read five iterations of the same scenario, we created five different altruistic scenarios to manipulate the levels of our independent variables. These scenarios focused on planting trees over the summer, cleaning up beach litter, volunteering at a walk to raise money and awareness for cancer treatments, offering pro-bono law services, and donating money to a soup kitchen. For each scenario, we created a baseline control statement with appropriate wording to ensure consistency with each of our experimental conditions (see Appendix A for the wording of each scenario).

A 5 x 5 Latin Square was used to ensure that every participant was exposed to each of the five conditions of the study spread randomly across the five scenarios. Refer to Appendix B for the condition orders. Participants were randomly assigned to one of the five order combinations. Qualtrics was then used to present the five social media statements of that combination in a randomized order. Consistent with a repeated-measures design, participants viewed each social media statement one at a time. After reading each statement, participants rated 25 items on a seven-point Likert-type scale (e.g., strongly disagree to strongly agree). Five of these items were used as manipulation and control checks. The other 20 items were used to measure our outcome variables (genuineness and prosocial motivation).

Manipulation and Control Checks

Statement Content
To confirm the effectiveness of our manipulation of the content of the statements, we created two items that asked participants to rate their agreement that the statement focused on an accomplishment versus a personal sacrifice. As expected, the items were only moderately correlated with one another across conditions (r’s = .16 to .40). As such, we analyzed these items separately within the context of a multivariate analysis.

Presentation Style
We used an approach similar to the one used by Sezer et al. (2015) to assess the extent to which participants perceived the statement to be self-promotional, bragging, or humble. The first two items were included as a control check to ensure that all of the statements in the experimental conditions were perceived as self-promotional brags, relative to the control condition. The third item was included as a manipulation check to confirm that the statements in the humblebrag conditions were perceived as attempts to be humble, relative to the direct brag conditions.

Outcome Measures

Genuineness
We adapted two items from Sezer et al.’s (2015) study to examine the extent to which participants perceived the statement to be about a complaint versus sincere. In their analyses, Sezer et al. (2015) analyzed data related to self-presentation, bragging, being humble, complaining, and sincerity as separate single-item outcome measures. Prior to analyzing our data, we conducted preliminary analyses to examine if any of these items could be simplified into composite scores. Across conditions, the items were only weakly to moderately correlated with one another (rs = .01 to .64). As such, we chose to follow Sezer et al.’s statistical procedure and analyze these items separately.
**Prosocial Motivation**
We used 12 items created by Berman et al. (2015) to measure perceptions of moral goodness (moral, nice, good, sincere, caring, immoral, mean, bad, insincere, uncaring, altruistic, selfish). Additionally, we created two items that assessed the extent to which the post reflected an altruistic act and four items that assessed the extent to which the poster was likely to behave altruistically again in the future (see Lin-Healy & Small, 2012, for a similar approach to measuring altruism). In our preregistered data analysis plan, we labeled these items along two dimensions: moral goodness and altruism. However, similar to Berman et al., Newman & Cain (2018), and Lin-Healy & Small (2012), we found that the moral goodness items and altruism items were all highly correlated with one another. As such, we averaged together all 18 items to create measures of perceived prosocial motivation (Cronbach’s α = .90 to .95 across the five conditions).

**Results**

**Preliminary Analyses**
An examination of the histograms, Q-Q plots, and box plots of our outcome variables revealed that outcome variables were mostly normally distributed and not influenced by outliers. A sensitivity analysis (80% power, α = .05) indicated that our sample size was large enough to detect effects of η² ≥ .05. Given this, we considered a finding statistically significant only if p < .05 and η² ≥ .03. All of our data were analyzed using a 2 (statement content: Hardship x Accomplishment) x 2 (presentation style: Direct x Humblebrag) repeated-measures analysis of variance (ANOVA). Follow-up analyses were used to compare the experimental conditions to the control condition. The means and standard deviations from our analyses are summarized in Table 1.

**Manipulation and Control Checks**

**Statement Content**
We used a multivariate repeated-measures ANOVA to confirm the effectiveness of our content manipulation across two measurements: accomplishment and hardship. The accomplishment conditions were perceived to be more about an accomplishment (M = 5.36, SD = 1.64) than the hardship conditions (M = 4.89, SD = 1.66), F(1, 78) = 7.94, p = .006, η² = .092. Likewise, the hardship conditions were perceived to be more about a personal sacrifice (M = 4.80, SD = 1.80) than the accomplishment conditions (M = 4.10, SD = 1.73), F(1, 78) = 13.56, p < .001, η² = .148. Presentation style did not influence perceptions of accomplishment (multivariate effect, F(2, 77) = 0.23, p = .797, η² = .006, nor was there a significant interaction between statement content and presentation style (multivariate effect, F(2, 77) = 2.04, p = .137, η² = .050).

**Presentation Style**
A multivariate repeated-measures ANOVA was used to analyze the ratings related to self-promotion, bragging, being humble, complaining, and sincerity. Bragging and self-promotion served as control checks. The item related to being humble served as a manipulation check. The last two items, complaining and sincerity, were used to test hypotheses about the perceived genuineness of the posts across experimental conditions.

We were successful in holding perceptions of bragging and self-promotion constant across the statements, as there were no significant main effects or interactions that emerged on these two variables, ps > .15, η²s < .03. We were also effective in manipulating differences between the direct statement and humblebrag conditions. The humblebrag statements (M = 4.48, SD = 1.85) were perceived as more performative in trying to appear humble than the direct statements (M = 3.96, SD = 1.84), F(1, 73) = 7.62, p = .007, η² = .095. There was no main effect of statement content, F(1, 73) = 0.18, p = .677, η² = .002, nor was there an interaction between content and presentation style, F(1, 73) = 0.28, p = .600, η² = .004.

**TABLE 1**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Direct Ac</th>
<th>Direct Ha</th>
<th>Humble Ac</th>
<th>Humble Ha</th>
<th>Control</th>
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</thead>
<tbody>
<tr>
<td><strong>Statement type</strong></td>
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<tr>
<td>Accomplishment*</td>
<td>5.37(1.73)</td>
<td>4.99(1.68)</td>
<td>5.35(1.54)</td>
<td>4.78(1.64)</td>
<td>5.46(1.60)</td>
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<td>Hardship*</td>
<td>3.96(1.79)</td>
<td>4.99(1.71)</td>
<td>4.24(1.66)</td>
<td>4.61(1.88)</td>
<td>4.44(1.72)</td>
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<tr>
<td><strong>Self-presentation</strong></td>
<td></td>
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</tr>
<tr>
<td>Bragging</td>
<td>5.26(1.67)</td>
<td>5.03(1.60)</td>
<td>5.12(1.73)</td>
<td>4.88(1.52)</td>
<td>4.91(1.57)</td>
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<tr>
<td>Self-promotion</td>
<td>5.20(1.72)</td>
<td>5.22(1.63)</td>
<td>4.95(1.70)</td>
<td>5.09(1.53)</td>
<td>5.01(1.56)</td>
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<tr>
<td>Humble*</td>
<td>3.96(1.85)</td>
<td>3.95(1.82)</td>
<td>4.39(1.91)</td>
<td>4.57(1.78)</td>
<td>3.84(1.67)</td>
</tr>
<tr>
<td><strong>Genuineness</strong></td>
<td></td>
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<tr>
<td>Complaint*</td>
<td>2.43(1.50)</td>
<td>4.89(1.66)</td>
<td>3.34(1.84)</td>
<td>4.31(1.79)</td>
<td>2.45(1.30)</td>
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<tr>
<td>Sincere</td>
<td>4.57(1.65)</td>
<td>4.42(1.64)</td>
<td>4.41(1.58)</td>
<td>4.05(1.84)</td>
<td>4.70(1.51)</td>
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<tr>
<td><strong>Prosocial motivation</strong></td>
<td>4.95(0.81)</td>
<td>4.50(1.01)</td>
<td>4.74(0.91)</td>
<td>4.51(1.01)</td>
<td>4.87(0.86)</td>
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</table>

Note. Values are arranged as M(SD). Direct Ac = Direct statement about accomplishment; Direct Ha = Direct statement about hardship; Humble Ac = Humblebrag about accomplishment; Humble Ha = Humblebrag about hardship. Different subscripts in a row indicate statistically significant mean differences, p < .05.
Hypothesis Tests

Genuineness

We did not detect any main effects or interactions across conditions based on the perceived sincerity of the statements, $p_s > .20$, $\eta^2_s < .03$. A significant main effect of statement content emerged for perceptions of complaining, $F(1, 73) = 76.67$, $p < .001$, $\eta^2 = .512$. Statements about a hardship ($M = 4.60$, $SD = 1.73$) were rated as complaints significantly more than statements about an accomplishment ($M = 2.89$, $SD = 1.67$). Furthermore, this main effect was qualified by a significant interaction between the statement content and presentation style, $F(1, 73) = 17.49$, $p < .001$, $\eta^2 = .193$.

In the accomplishment conditions, the humblebrags ($M = 3.34$, $SD = 1.84$) were perceived as complaining more than the direct statements ($M = 2.43$, $SD = 1.50$), $p = .001$, $\eta^2 = .172$, and the control statements ($M = 2.45$, $SD = 1.30$), $p < .001$, $\eta^2 = .166$. The direct statement and control statement did not differ, $p = .94$, $\eta^2 = .001$. In contrast, in the hardship conditions, it was the direct statements about hardship ($M = 4.89$, $SD = 1.66$), not the humblebrags ($M = 4.31$, $SD = 1.79$), that were perceived as being more about a complaint, $p = .044$, $\eta^2 = .039$. Please refer to Figure 1 for an illustration of this interaction. There was no main effect of presentation style for perceptions of complaining, $F(1, 73) = 0.66$, $p = .420$, $\eta^2 = .009$.

Prosocial Motivation

Lastly, we examined if perceptions of prosocial motivation varied across conditions. There was a main effect of statement content, $F(1, 81) = 12.27$, $p = .001$, $\eta^2 = .132$. Statements focused on a hardship ($M = 4.51$, $SD = 1.01$) were perceived as less prosocial than statements focused on an altruistic accomplishment ($M = 4.85$, $SD = 0.86$). See Figure 2 for an illustration of this main effect. We were not able to detect a significant main effect of presentation style, $F(1, 81) = 0.89$, $p = .347$, $\eta^2 = .011$, nor were we able to detect a significant interaction between the statement content and the presentation style, $F(1, 81) = 1.60$, $p = .210$, $\eta^2 = .019$.

Discussion

Research focused on martyrdom (Olivola & Shafir, 2013; Schaumberg & Mullen, 2017) has suggested that altruistic acts coupled with hardship are perceived more favorably than acts of altruism that do not include a hardship (i.e., the martyrdom hypothesis). In contrast, Sezer et al.'s (2018) research on bragging has suggested that attempts to appear humble by talking about hardships could be perceived as complaining (i.e., the complaint hypothesis). Consistent with the complaint hypothesis, and contrary to the martyrdom hypothesis, we found that self-promotional statements about an altruistic act diminished perceptions of prosocial motivation. We had anticipated that these results would be particularly pronounced in the humblebrag condition, relative to the direct brag condition. Instead, we found that the content of the statement and presentation style did not interact to influence perceptions of prosocial motivation. Furthermore, content of the statement and presentation style did interact to influence perceptions of complaining, but in the opposite direction to what we had predicted. Direct statements of hardship, rather than humble statements of hardship, resulted in greater perceptions of complaining.

Although our main findings were unexpected, other aspects of our study reinforced prior research findings. For example, Sezer et al.’s (2018) research compared direct brags versus humblebrags across a wide range of personal accomplishments. The scenarios in our accomplishment conditions were
similar to the scenarios presented in this prior research, although we focused exclusively on altruistic accomplishments. Consistent with Sezer et al.’s results, we found that, within the accomplishment conditions, humblebrags were perceived as being more transparent in their attempts to appear humble and also to be more about complaints than direct brags. These findings are consistent with Sezer et al.’s results and thus serve to reinforce and validate prior research findings.

The results of our study also suggested areas for future research. One strength of our study design is the emphasis on altruistic hardships (relative to Sezer et al., 2015, who focused only on accomplishments). Within our study, the pattern of findings for the hardship conditions differed from the findings in the accomplishment conditions. Indeed, when it came to perceptions of complaining, it was the direct statements about hardship, rather than the humblebrags about hardship, that were perceived to exhibit the greatest degree of complaining. These results are important because they indicate that humblebrags may not always negatively affect self-presentation. Given these findings, we suggest that future research seek to identify the moderating contexts in which humblebrags might help or hurt perceptions relative to a direct statement.

One interesting divergence that occurred between our results and that of Sezer et al.’s findings (2018) arose in relation to the results related to sincerity. Across five different studies, Sezer et al. consistently found humblebrags to be perceived as less sincere than direct brags. In contrast, we did not find that humblebragging was rated as less sincere than direct brags in either of the content conditions. It is possible that sincerity did not differ in our study because of our focus on altruistic acts. Berman et al. (2015) found that perceptions of self-promotional statements related to altruism were not always perceived the same as self-promotional statements related to other personal accomplishments. Relative to Sezer et al., who focused on general accomplishments, there might have been something distinctive about our focus on altruistic acts that resulted in all of the self-promotional statements being perceived as somewhat sincere in our study, regardless of experimental condition. If true, then perceptions of when and whether a brag is likely to be perceived as sincere could be an area for additional research.

Our investigation also contributes to the scientific understanding of the martyrdom effect. Contrary to research that has found the presentation of information about a hardship increased perceptions of altruism (Olivola & Shafir, 2013; Schaumberg & Mullen, 2017), we found that first-person statements focused on a hardship were perceived as less genuine and less prosocial than control statements. We believe that our results occurred due to the use of first-person statements, which shifted the dynamics of the evaluation context. Our findings suggested that perceptions about an act of martyrdom may be impacted by the source of that information. Because the first-person narrative was held as a constant in our study and was not compared to information coming from a third-party source, we cannot directly test this possibility within our study. We encourage future researchers to directly manipulate and compare first-person narratives to third-person narratives in order to more thoroughly examine if the martyrdom effect generalizes to self-presentation contexts.

Despite the potential advantages of our research findings, we must acknowledge several design limitations. In our attempt to keep our survey materials a reasonable length, we included several single-item measures to use as manipulation and control checks. We also included only two items to measure perceptions of genuineness. Our decision to do so was guided, in part, by a similar approach used by Sezer et al. (2015) to measure these variables. Still, a reliance on single-item indicators is not ideal. Future research on this topic should use more reliable and valid measures to help rule out the possibility that the results were influenced by measurement error.

We must also acknowledge the relatively small size of our sample. The present study enrolled fewer research participants than studies by Sezer et al. (2018; N = 150 to 300 participants) and Berman et al. (2015; N = 148 to 400 participants). Because we knew that we would have access to a smaller participant pool than other research teams, we took several steps to increase the statistical validity of our data. First, we utilized a repeated-measures design, instead of a between-groups design, to minimize the number of participants needed to detect meaningful effects. We also conducted a power analysis prior to collecting our data to ensure that we recruited a sample large enough to detect the expected effects. Our power analysis indicated that we needed 50 to 65 participants to detect the effects we anticipated. We exceeded this number by recruiting 82 research participants. Additionally, once we knew our final sample size, we conducted a sensitivity analysis in order to gain a better assessment of the effect sizes that we could reliably detect. We analyzed our hypotheses in relation to this assessment. We encourage future researchers to replicate our effects to further establish the statistical validity of the finding.
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Finally, we must acknowledge that our use of a convenience sample limits the generalizability of our results. Although our sample included participants from around the world, most of our participants came from North America and Europe. It is possible that, if this study were to be conducted in a non-Western context, the results would not generalize due to differences in cultural expectations. For example, individuals from East Asia are found to be more modest and less likely to excessively promote themselves than Americans (Cai et al., 2007). Furthermore, external validity may be limited within any cultural context for which strong self-exuberance or bragging of any form is considered inappropriate. Future research is needed to examine if there may be social or cultural constraints that influence self-promotional statements about altruism.

In summary, our study further extends the related literature that highlight the complexities of talking about one’s good deeds. Although bragging about a prosocial accomplishment may be an effective way of making one’s good deeds known to others (Berman et al., 2015), the act can also raise doubts concerning the motivations for engaging in the prosocial act (Berman et al., 2015; Sezer et al., 2018). Research on the martyrdom effect has suggested that prosocial acts were viewed as more altruistic when they required personal sacrifice (Olivola & Shafir, 2013; Schaumberg & Mullen, 2017). Consequently, people may be tempted to divulge their hardship and struggles as a way to signal prosocial motivation (Berman et al., 2015). Our research findings suggest that this may be ill-advised. In our study, first-person statements about personal hardship were more likely to be perceived as a complaint and less likely to be perceived as prosocial. Consequently, our results suggest that, contrary to the martyrdom effect (Olivola & Shafir, 2013; Schaumberg & Mullen, 2017), it comes to self-promotional contexts, focusing on the personal sacrifices associated with altruistic acts could lead to the possibility of penalty.

References

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Appendix A

Altruistic Scenarios

The control statement was represented by the direct statement, without any information about accomplishment or hardship. The other four statements represented the four conditions of our study: a direct statement about an accomplishment, a direct statement about a hardship, a humblebrag about an accomplishment, and a humblebrag about a hardship. There was a total of five different scenarios.

Walk
Direct statement: I just got done volunteering at a cancer walk. [Near the end of the event, …]
• Accomplishment: the coordinator acknowledged my efforts in front of everyone!
• Hardship: a runner crashed into me and broke my arm!
Humblebrag: I just got done volunteering at a cancer walk. Near the end of the event, …
• Accomplishment: the coordinator acknowledged my efforts in front of everyone! How embarrassing!
• Hardship: a runner crashed into me and broke my arm! How embarrassing!

Tree
Direct statement: I spent the weekend planting trees to protect the environment.
• Direct Accomplishment: I planted over 20 rows of park forestry!
• Direct Hardship: I now have over 20 mosquito bites!
Humblebrag: Planting trees to protect the environment over the weekend was definitely worth the…
• Accomplishment: more than 20 rows of park forestry that I saved!
• Hardship: more than 20 mosquito bites that I got!

Law
Direct statement: Our law firm is getting a lot of publicity because we took on a new pro-bono case today.
• Accomplishment: Our focus is on making sure this client gets the resources that they need.
• Hardship: Our focus is on putting in the long hours that this case will require.
Humblebrag: It’s weird how much publicity our law firm is getting for taking on a new pro-bono case today.
• Accomplishment: We’re just focused on making sure this client gets the resources that they need.
• Hardship: We’re just focused on putting in the long hours that this case will require.

Beach
Direct statement: I cleared a mile of beach litter today.
• Accomplishment: Now the children have a safe place to play.
• Hardship: Now my face is super sunburnt.
Humblebrag: I can’t believe I cleared a mile of beach today.
• Accomplishment: It’ll be worth it now that the children have a safe place to play.
• Hardship: It’ll worth it once my sunburn goes away.

Soup
Direct statement: I donated $100 to a soup kitchen.
• Accomplishment: That is enough money to make soup for 20 people.
• Hardship: That is 20 Starbucks coffees that I am giving up.
Humblebrag: I don’t know why people are making such a big deal about me donating $100 to a soup kitchen.
• Accomplishment: That’s only enough money to make soup for 20 people.
• Hardship: It’s only 20 Starbucks coffees that I am giving up.

Appendix B

Condition Randomization

A 5 x 5 Latin Square was used to create five counterbalanced combinations to ensure that each participant would be exposed to each of the five conditions randomly across the five different scenarios. Participants were randomly assigned to one of the five different combinations. Furthermore, within each counterbalanced combination, the order in which each participant viewed the scenarios was randomized.

<table>
<thead>
<tr>
<th>Combo</th>
<th>Walk</th>
<th>Tree</th>
<th>Law</th>
<th>Beach</th>
<th>Soup</th>
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