

Gendered giving: the influence of social norms on the donation behavior of men and women

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- *We study if men and women are subject to different influences when determining their level of charitable giving. In particular, we examine differential sensitivities to social norms among donors to a public radio station. Our survey of 975 donors finds that male donors are more likely than female donors to use social norms to inform their own behavior. We conduct a laboratory experiment to investigate the influence of social information on social norm formation and giving. Our results suggest that temporarily created social norms influence giving by men significantly more than by women. This result replicates and establishes the causal relationship between social norms and donations suggested by our field findings. We conclude with a discussion of theoretical and practical implications of these results.*

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Introduction

In 2007, Americans donated \$306.39 billion to charities with \$229 billion coming from individuals and households (Giving USA, 2008). Nonetheless, many nonprofit organizations face challenges in obtaining funds. With cuts in government funding and increased competition for corporate and private funds, marketing and individual fundraising have become one of the biggest challenges facing nonprofit practitioners and an area of interest

for academic researchers (Bennett and Sargeant, 2005).

Previous literature in this journal and elsewhere continues to address the challenge of increasing donations. Seminal papers investigate individual and organizational level predictors of charitable giving and the efficacy of fundraising techniques. These include predictors of individual giving such as personal values (Sargeant, 1998), trust (Bekkers, 2003), past giving (Lindahl and Winship, 1992), loyalty and commitment to the organization (Lindahl, 1995; Sargeant, 2001; Sargeant and Woodliffe, 2005); the efficacy of fundraising techniques such as the design of the appeal (Sargeant and Kähler, 1999; Diamond and Gooding-Williams,

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2002), professional solicitation (Sargeant, 1999), segmenting the donor population (Sargeant *et al.*, 2006; Ranganathan and Henley, 2007); and organizational characteristics such as administrative efficiency (Bowman, 2006; Tinkelman and Mankaney, 2007), fundraising expenditures (Okten and Weisbrod, 2000), and sources of revenue (Kingma, 1995).

Scholars in psychology and consumer research have also been interested in this topic. Their research identifies techniques to better recruit donors and influence the level of contribution from existing donors. Techniques identified include foot-in-the-door (Freedman and Fraser, 1966), door-in-the-face (Cialdini *et al.*, 1975), the legitimization-of-small-donations (Cialdini and Schroeder, 1976), self-prophecy (Obermiller and Spangenberg, 2000), the impact of suggested contributions (Marks *et al.*, 1999), and other influence techniques (Cialdini *et al.*, 1978; Eisenberg and Lennon, 1983; Eagly and Crowley, 1986; Sargeant *et al.*, 2006) that can be used to increase the level of contribution from existing donors.

In this paper, we focus on the interactive effects of influence techniques and individual differences on existing donors. In particular, we show how social norms influence donation levels to nonprofit organizations, and how this influence varies by gender. Previous research on gender and giving has shown a variety of ways on how females and males differ in their giving behavior (Mesch *et al.* 2006). For example, females give to more charities than males, but they give less to each one (Andreoni *et al.*, 2003; Piper and Schnepf, 2008). Women also donate twice as much as men to their anonymous partners when any factors that may confound cooperation are eliminated (Eckel and Grossman, 1998); while Brown-Kruse and Hummels (1993) find that males give more than females.

In addition to the amount and frequency of giving, the two genders also differ on where they give and how they give. Females are more likely than males to give to environmental organizations (Israel, 2007), and religious causes (Jha *et al.*, 1997). In wealthy popu-

lations, males are more likely to give to the arts sector while females are more likely to give to "people" charities (Kottasz, 2004). Females give more to males than strangers of unknown gender (Ben-Ner *et al.*, 2003). Females also pay more attention to the cost of giving than males (Cox and Deck, 2006), and females are kinder when the cost of altruism is high while males are kinder when the cost is low (Andreoni and Vesterlund, 2001). When donations decisions are made by a household instead of individuals, females have been shown to become more and more active in making family donation decisions (Brown, 2005). When deciding on the amount of giving to higher education, wives and husbands make the same decisions (Rooney *et al.*, 2007). Given these findings on how males and females differ, there is still a literature suggesting that all else being equal, the two genders are not different in their altruistic behavior (Bolton and Katok, 1994; Monk-Turner *et al.*, 2002). There are also some studies that examine the effect of social norms on giving (Schofield, 1975; Fisher and Ackerman, 1998). However, no previous research examined the joint effect of gender and social norms on giving, and that is the purpose of this paper.

We use a survey of donors to public radio, and find gender differences in the strength of the relationship between descriptive norms and donation behavior, with men's behavior being more responsive to the norm than women's. Second, we move to the laboratory, and investigate whether male and female giving react differently to the social norms created by an experimental scenario, designed to be parallel to the fundraising environment from the first study. We replicate the effect that men and women react differently to temporarily created norms, with men being more responsive than women.

This paper is organized as follows. First, we review previous literature that motivates our investigation and provides hypotheses for testing. Second, we present the donor survey and the laboratory experiment. Lastly, we conclude with suggestions for future research and implications for fundraising practice.

Previous literature

Social influence research suggests that behavior is influenced by two types of social norms: descriptive and injunctive (Cialdini *et al.*, 1990). Descriptive social norms specify what is typically done in a given setting (what most people do), while injunctive social norms specify what is typically approved in society (what people ought to do). While both types of norms are important to nonprofit research, in this paper we focus on descriptive social norms.

In the arena of charitable giving, descriptive social norms play a significant role. For example, previous work has shown that people are more willing to contribute to a public good if others also do so (Romano and Huseyin, 2001; Frey and Meier, 2004), that their contribution is higher when another person contributes a high amount (Shang and Croson, 2009) and that people use others' contributions to infer the social norm in a given situation, and then adjust their behavior accordingly (Croson *et al.*, 2009). In this paper, we go beyond this previous research to examine gender differences in the relationship between descriptive social norms and the level of contributions. Why might norms have a different impact on different genders?

Social psychological research identifies two sets of mechanisms through which descriptive norms affect behavior. One set of mechanisms includes *self-verification* (Swann, 1983) and *self-presentation* strategies (Goffman, 1959). Both mechanisms are what we would categorize as "self-focused" mechanisms. The second mechanism involves *relationship maintenance* (Deaux and Major, 1987), which we would categorize as "relationship-focused" mechanism. These self-focused and relationship-focused mechanisms suggest competing hypotheses of gender differences in the context of charitable giving, which we will explore in this paper.

Theories of *self-verification* and *self-presentation* highlight the important function of self-focused mechanisms in guiding people's behavior (Lecky, 1945). In self-verification, individuals have a certain self-concept and they

choose their behaviors to sustain this concept. For example, if I see myself as a generous person, I will give money to a nonprofit organization in order to reinforce (verify) this self-concept. In self-presentation, individuals choose behavior to create a self-concept. Thus, if I would like to be a generous person (even if I am not currently) I might donate to a nonprofit organization at a high level in order to create this self-concept. These two processes naturally co-occur in most interactive social situations (Deaux and Major, 1987).

In this self-focused mechanism, social norms impact behavior because it affects what we see as a generous action. If others are contributing \$100 to a given nonprofit, then small contributions (e.g., \$20) are not sufficient to reinforce or to create the self-concept of generosity. In contrast, if others are contributing \$5, then \$20 is a generous donation, and can serve the self-verification and self-presentation needs of the individual. Thus, these mechanisms explain the observed impact of social norms on donation behavior.

Relationship maintenance is the second mechanism through which social norms may influence behavior. In this relationship-focused mechanism, people conform to social norms to maintain a good relationship with the social groups endorsing the norms. Thus, individuals give in order to develop and maintain their relationship with the organization's leadership, their peer group who values the organization, or the organization's beneficiaries.

In the relationship-focused mechanism, social norms impact behavior because they affect how strongly a given donation will affect the relationship donors have with a nonprofit organization. If others are contributing \$100 to a given nonprofit, then a small contribution (e.g., \$20) is not sufficient to reinforce or to create a positive relationship. In contrast, if others are contributing \$5, then \$20 can maintain a positive relationship, and can serve the relationship maintenance needs of the individual.

Note that both these mechanisms explain the observed impact of social norms on

donation behavior. However, the strength of the mechanisms varies with the gender of the individual. While both genders are influenced by self-focused and relationship-focused mechanisms, previous research has demonstrated that men are more likely to react to social norms when such reactions reinforce their own self-concept of being generous, while females are more likely to react to social norms when such reaction reinforces a good relationship with others (Eagly, 1978).

If sustaining or strengthening the self-concept of being generous is what is salient in the public radio fundraising situation and what causes individuals to conform to social norms, then:

H1a: *Descriptive social norms will influence the level of contributions by men more than by women.*

However, if the fundraising environment is one in which the need to maintain relationships is driving behavior, then females (in whom these concerns are stronger) will be more influenced by social information than males. In this case, we would expect:

H1b: *Descriptive social norms will influence the level of contributions by women more than by men.*

These hypotheses will be tested in two studies. In the field survey, we study existing donors to a public radio station. Descriptive social norms are elicited from the donors, thus representing their own naturally occurring perceptions of this norm (what others do) among the general public radio donors (Prentice and Miller, 1993). We will compare the relationship between these descriptive social norms and actual contributing behavior to the nonprofit between men and women. In our second study, we use experimentally manipulated descriptive social norms to test for gender effects. This provides a robustness check on our field results, and suggests how fundraisers may be able to influence donors'

perceptions of the descriptive social norms and thus their behavior.

To summarize, we test whether donation behavior is influenced by descriptive social norms differently in male *versus* female donors with competing hypotheses derived from the psychology literature regarding self-focused *versus* relationship-focused mechanisms. This is the first study to measure the effect of descriptive social norms for male and female donors in the nonprofit marketing context, and to test possible techniques to influence perceptions of these descriptive social norms on the level of donations.

Our environment

We collect data in the environment of public radio fundraising. Public radio is an important area to study for a number of reasons. First, public radio stations are an important segment of the nonprofit world. These stations raised about \$640 million from individual donors alone in 2005 and the overall revenue of the industry is well over \$2.5 billion (CPB Annual Report, 2005). Second, evidence obtained from the public radio industry has the potential to be easily generalized to public television stations, and to other organizations in the art and culture sub-sector that rely on donations from members. Lastly, the results may be generalized to other fundraising that occurs where the amount to be donated is not fixed, where contributions are unrelated to the ability to consume the benefits that the organization provides, and where potential donors rely on social norms to determine giving.

Field study: donor survey

Our target population for the first study is a set of active and recently lapsed donors to a public radio station. We developed a survey instrument and randomly selected a month (August 2003) to send the survey to members who normally would receive a renewal letter during that month. There is no reason to

believe that this month is different from other months, therefore we believe that we have a random sample of active and recently lapsed members. Surveys were included with the renewal mailing; also included was a separately provided envelope, pre-addressed to the researchers. Completed surveys were returned to the researchers and not to the radio station. Individuals who renewed their membership sent their renewal to the station in the usual way. Respondents were told that an additional \$5 contribution would be made to the station for each of the first 200 completed and returned surveys (this payment was indeed made as promised).

To elicit reasons why respondents contributed, we provided 21 different motivations. For each listed motivation, the respondents were asked how well it matched their reason for donating by choosing a number ranging from 1 ("Not at all") to 5 ("Very well"). These questions allowed us to infer motivations for donating. Other questions included the respondents' listening history to public radio stations, the importance of the radio station to their life, their estimate of the average donations made by other members of the radio station. This was followed by the usual questions on their demographic and social economic status.

We sent out 7123 surveys to active and lapsed donors of the station and received 975 completed surveys in return, making the response rate 13.7%. Of these 975 respondents, 422 identified themselves. This identification enabled us to link responses on their surveys with the stations' database, which provided the respondents' actual donations for the year preceding the survey and the year following the survey.¹ These 422 respondents are representative of the sample of returned surveys, in terms of gender, race, age, marital status, geographic locations (state and ZIP code),² and in the average (self-reported) level

of donations.³ Of these 422 matched surveys, 394 surveys had no missing responses. Our analysis will focus on these 394 respondents. Of them, 168 are male and 226 are female.

In reporting the findings, we focus on how descriptive social norms influence giving behavior differently in men and in women. In particular, our independent variable of interest is the descriptive social norm: the respondents' beliefs about the donation made by others, which is elicited in the survey in a question asking: "what is your closest estimate of the *average* contribution of XPN members?"⁴ We provided them with some options and a blank to fill in if they did not want to use the options we provided, which are "<\$50, \$50-\$59, \$60-\$74, \$75-\$99, \$100-\$124, \$125-\$179, \$180-\$239, \$240-\$360." We used the average of each range as measures of people's perceived descriptive norms. We then run regressions for the entire sample as well as for men and women separately, and control for demographic variables: age (number of years) and education (number of years).

In separate models, we examine three different dependent variables, the donations in the year preceding and the year following the survey and the average of these two values. Our most reliable, dependent variable is the last variable. Since there may be unrelated variation in year-to-year giving in the first two measures, this last measure is a limited attempt to smooth this noise. This dependent variable, the average contributions over two years, thus provides the most stable estimate of the individual's giving behavior.

One potential concern about this dependent variable is that it includes the contribution made after the survey was sent and thus there may be a false collinearity. In particular, something external could have happened that affected both the survey's answers and the subsequent year's contribution, causing a

¹In order to comply with human subjects protocols regarding privacy, respondents had to self-identify in order for us to access their contribution history.

² χ^2 tests on these variables between the identifying respondents and others showed no significant differences.

³*t*-tests comparing donations between the identifying respondents and others showed no significant differences.

⁴We did not include any experimental manipulations or any other measures of descriptive social norms in this survey.

Table 1. Average of last and next year's contribution

	Males and females			Males			Females		
	Estimate (SE)	<i>t</i> -stat.	<i>p</i> -value	Estimate (SE)	<i>t</i> -stat.	<i>p</i> -value	Estimate (SE)	<i>t</i> -stat.	<i>p</i> -value
Constant	58.97 (54.97)	1.07	0.284	10.28 (83.78)	0.12	0.903	120.59 (62.66)	1.92	0.056
Age	0.80 (0.58)	1.37	0.173	1.88 (1.08)	1.74	0.083	0.80 (0.64)	0.12	0.901
Education	-0.498 (2.39)	0.21	0.835	-1.76 (4.20)	0.42	0.675	-1.62 (2.75)	0.59	0.556
Descriptive Norm	0.61 (0.11)	5.76	0.000	0.85 (0.14)	6.02	0.000	-0.04 (0.18)	0.20	0.840
Gender	-18.81 (10.69)	1.76	0.079						
R^2	0.096			0.188			0.002		
<i>N</i>	394			168			226		

correlation where none exists. Thus, for a robustness check we will examine the individual's contribution in the year *before* the survey being sent as the second independent variable. This measure represents the donor's giving levels without interference from any third cause or from the survey itself. Finally, for completeness, we examine the individual's contribution in the year after the survey was sent as the third dependent variable.

Model 1: dependent variable—average contributions

Our most robust measure of contributions is the average of the previous year's contribution and the contribution made by the individual subsequent to completing the survey. We run three regressions, one pooled over all respondents, one for men and one for women. Each regression includes age, education, gender where appropriate, and the variable of interest, the descriptive social norm, as independent variables.

As can be seen from **Table 1**, we find a significant effect of the descriptive norm on contributions overall ($p < 0.001$). However, this result is entirely driven by men's contributions ($p < 0.001$). We find no significant effect of the descriptive norm on women's contributions ($p > 0.10$). Furthermore, the

coefficient on descriptive social norm is negative for females.⁵

Although this dependent variable (actual average contribution) is stable, it is not without its flaws. In particular, there may be concerns about false collinearity between the descriptive norm and the subsequent year's giving. Some third event could have occurred which affected both the descriptive social norm and the subsequent year's giving, causing a correlation without indicating causality. Our next set of regressions provides a robustness check on our results by examining the impact of our independent variables on contributions made in the year prior to the study.

Model 2: dependent variable—contribution in year prior to the survey

We run the same regressions as before, but the dependent variable here is the previous year's actual contribution, rather than the average contribution over two years. **Table 2** describes the regression results.

⁵Given these results, one might expect a significant interaction between gender and the descriptive norm in a pooled regression including all respondents. Indeed we find this interaction in all our analyses; regression results are presented in Appendix A. For expositional purposes, we continue to present separate regressions for men and women, rather than the less-intuitive interaction results shown in appendix.

Table 2. Last year's contribution

	Males and females			Males			Females		
	Estimate (SE)	<i>t</i> -stat.	<i>p</i> -value	Estimate (SE)	<i>t</i> -stat.	<i>p</i> -value.	Estimate (SE)	<i>t</i> -stat.	<i>p</i> -value
Constant	56.00 (56.30)	0.99	0.321	1.36 (78.02)	0.017	0.986	120.87 (71.31)	1.69	0.091
Age	0.64 (0.59)	1.07	0.283	1.49 (1.01)	1.48	0.140	0.74 (0.73)	0.10	0.919
Education	-0.12 (2.45)	-0.05	0.960	-1.28 (3.91)	0.33	0.744	-1.15 (3.13)	0.37	0.713
Descriptive Norm	0.54 (.11)	4.97	0.000	0.78 (0.13)	5.93	0.000	-0.12 (0.20)	0.58	0.565
Gender	-13.39 (10.95)	-1.22	0.222						
<i>R</i> ²	0.070			0.181			0.002		
<i>N</i>	394			168			226		

Table 3. Next year's contribution

	Males and females			Males			Females		
	Estimate (SE)	<i>t</i> -stat.	<i>p</i> -value	Estimate (SE)	<i>t</i> -stat.	<i>p</i> -value	Estimate (SE)	<i>t</i> -stat.	<i>p</i> -value
Constant	61.96 (62.23)	0.99	0.320	21.92 (101.67)	0.22	0.830	120.30 (64.26)	1.87	0.063
Age	0.95 (0.66)	1.44	0.151	2.28 (1.31)	1.74	0.084	0.09 (0.66)	0.13	0.897
Education	-0.87 (2.71)	0.32	0.747	-2.25 (5.09)	0.44	0.659	-2.09 (2.82)	0.74	0.459
Descriptive Norm	0.68 (0.12)	5.69	0.000	0.92 (0.17)	5.38	0.000	0.04 (0.18)	0.25	0.807
Gender	-24.24 (12.11)	2.00	0.046						
<i>R</i> ²	0.098			0.158			0.003		
<i>N</i>	394			168			226		

As before, we find a significant effect of descriptive social norms overall ($p < 0.001$), but that men's contributions are positively related to the descriptive social norm ($p < 0.001$), while the contributions of women are not ($p > 0.10$). Again, the coefficient on descriptive social norms is negative for females.

Model 3: dependent variable—contribution in year after the survey

For a final robustness check, we run similar regressions using the subsequent year's actual contribution as the dependent variable. The overall regression is reported in **Table 3**.

Again, our results replicate the results seen in Tables 1 and 2, in that we find a significant effect of descriptive social norms overall

($p < 0.001$), and that men's contributions are positively related to descriptive social norms ($p < 0.001$), while the contributions of women are not ($p > 0.10$). Here the coefficient on descriptive social norms is positive for females.

In summary, our results show that men are more influenced by descriptive social norms than are women. These findings thus support our first, rather than the second, hypothesis, that self-focused dominate relation-focused mechanisms.⁶ This result provides support for the sustaining and creation of self-concepts, instead of relationship maintenance, as the

⁶In addition to the tests mentioned above, we performed a number of other diagnostics on our regression results. In all our models, our statistics show no multicollinearity between the independent variables (the variance inflation factor ranges from 1.030 to 1.062 for the three models indicating that multicollinearity is not a cause for concern) (Myers, 1990).

salient motivations that determine the level of giving in the context of public radio fundraising.

Experimental study

Our results from the field study suggest that descriptive social norms influence the donations of men but not of women. However, these norms were naturally occurring, rather than experimentally manipulated. Therefore, while we have shown suggestive correlations, we have not shown causality. In this laboratory study, we manipulate the descriptive social norms by providing social information to the participants. Social information has been previously shown to influence descriptive social norms (Croson *et al.*, 2009). We then examine its impact on the behavior of men and women separately.

Procedure

This experiment is designed to examine the influence of social information on descriptive social norms, and the subsequent effect on contributing behavior of men and women. One hundred forty-two undergraduate students at a university (in the same city as the public radio station in the field survey above) completed the experiment to fulfill course requirements. Of them, 120 participants correctly answered the manipulation check questions, which showed that they understood the materials. We only include these participants in our analysis. Of them 49 were male and 71 were female.

We randomly assigned two versions of a scenario study to participants. Some participants saw high social information (another donor contributing a large amount) and others saw low social information (another donor contributing a small amount). We then assessed their beliefs about the descriptive social norm, and asked about their intended future actions. In the scenario, participants were told:

Imagine that since you arrived in (City) you have been listening to a local public radio station and that this station is currently having its on-air fund drive. You have been listening to the campaign for a few hours each day for the past three days and have decided that you would like to become a contributing member of the station.

You called the radio station and made your contribution of \$25. During your conversation with a volunteer on the phone, you were told that another station member had contributed \$10 (\$50) this year.

Note the two versions of the scenario: some participants were told that the other donor contributed less than s/he did (\$10 *vs.* \$25), while others were told that the other donor contributed more than s/he did (\$50 *vs.* \$25). Next, participants were asked about their belief of the descriptive norm: "how much do you think an average station listener would contribute?" Finally, the dependent variable asked how much the participant would contribute in a subsequent year.

Results

First, we check that social information affects the descriptive social norm of charitable giving (Croson *et al.*, 2009). In the low social information treatment, the descriptive social norm averages \$17.19, whereas in the high social information treatment, the descriptive social norm averages \$23.56; a statistically significant difference (coefficient = 5.831, $t = 2.869$, $p < 0.005$). Thus, our experimental manipulation of social information had the intended effect of inducing different descriptive social norms randomly in the participant population. Importantly, there were no differences in how men and women interpreted the social information in inferring the descriptive social norm (coefficient = -4.589, $t = 0.920$, $p > 0.350$).

However, we find a gender difference in the relationship between descriptive social norms

Table 4. Experimental results

	Males and females			Males			Females		
	Estimate (SE)	<i>t</i> -stat.	<i>p</i> -value	Estimate (SE)	<i>t</i> -stat.	<i>p</i> -value	Estimate (SE)	<i>t</i> -stat.	<i>p</i> -value
Constant	22.76 (1.26)	18.01	0.000	12.63 (3.31)	3.81	0.000	20.45 (1.67)	12.22	0.000
Descriptive Norm	2.80 (0.83)	3.38	0.001	.50.00 (0.15)	3.39	0.001	0.10 (0.07)	1.50	0.138
Gender	0.09 (1.64)	0.06	0.956						
<i>R</i> ²		0.089			0.197			0.178	
<i>N</i>		120			49			71	

and the amount contributed in the subsequent year. **Table 4** describes our regression model with reported future contribution as the dependent variable and the descriptive social norm as the primary independent variable, first for all participants, then for men and women separately.

The results from this experiment are consistent with those of the field survey. Descriptive social norms influence contributions overall ($p < 0.001$), but this effect is primarily driven by men. Men in our experiment are significantly responsive to descriptive social norms ($p < 0.001$) while women's decisions are not statistically significantly related to their belief about the social norm ($p > 0.10$), although the coefficient on descriptive social norm for women is positive.

To explore our results further, we conducted several follow-up tests to look at the gender effect. First, we look more directly at the relationship between descriptive social norms and giving using the compiled data with

both males and females in it. We graph the results using procedures recommended by Aiken and West (1991). The descriptive norm variable is on the *x*-axis and the amount of the donation is on the *y*-axis; each slope represents this relationship for males and females, shown in **Figure 1**.

This pattern clearly shows that the effect of descriptive social norms on donations depends on participants' gender. This result is illustrated by two different patterns of the main effect of descriptive social norms. The positive slope of descriptive social norms is significant for males (value of slope = 5.658, SE of slope = 2.079, $t = 2.722$, $p < 0.05$), whereas the positive slope of descriptive social norms is not significant for females (value of slope = 1.211, SE of slope = 0.845, $t = 1.433$, $p > 0.05$). Thus, we again conclude that males are more sensitive to descriptive social norms than females in this context.

Second, we look at the relationship between social information (the manipulation) and

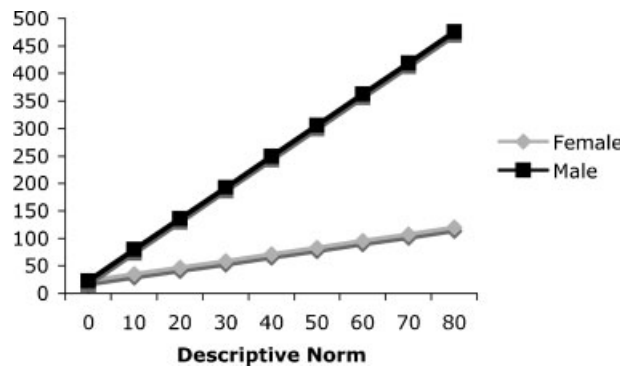


Figure 1. Males are more responsive to descriptive norms than females.

subsequent giving by separating the data set into males and females. For males, contributions average \$19.54 (SD = 7.379; $N = 25$) in the low social information treatment, and \$25.83 in the high social information treatment (SD = 14.496; $N = 24$). The difference between low and high social information on male donations is significant ($t = 1.903$, $p < 0.05$). The same difference, however, is not significant (although in the appropriate direction) in females, where contributions average \$21.47 (SD = 6.219; $N = 34$) in the low social information treatment and \$23.72 (SD = 7.537; $N = 37$) in the high social information treatment ($t = 1.373$, $p > 0.05$). Thus, we find that social information affects male contributions more than female contributions. Taking our analyses together, this differential effect of social information on donations is primarily driven by the differential responsiveness that males and females have toward social norms. Both genders infer the same social norms from the social information; however their own donation behavior is differentially sensitive to the inferred social norms.

To summarize, the laboratory experiment confirms the results obtained from the field survey. First, descriptive social norms influence contributions overall. But more importantly, this influence is entirely driven by male responses to descriptive social norms. In addition, the random assignment of social information and thus descriptive social norms to individuals provides a stronger test of causality than the field survey.

Discussion, implications and conclusion

Both studies presented in this paper demonstrate an overall effect of descriptive norms on charitable giving. However, what we discover is that this effect is primarily a result of the behavior of men. Male giving is significantly related to their beliefs about the descriptive social norm. In contrast, female giving is not robustly or statistically significantly associated with the descriptive social norm.

This result is consistent with our first hypothesis which suggests that self-focused mechanisms dominate relationship mechanisms in charitable giving. Previous research (Prentice and Miller, 1993) demonstrates that men are more motivated by self-focused mechanisms, and the fact that men are more responsive to descriptive norms in our studies is consistent with these mechanisms driving behavior in our setting. This fundraising environment, we infer based on the repudiation of the second hypothesis, is one where the need to maintain relationships is not driving behavior for donations to public radio. Collectively our results provide support for the sustaining and creation of self-concepts, instead of relationship maintenance, as the leading motivations that determine giving for public radio stations.

Based on these findings, radio stations and other (non-relationship based) nonprofit organizations need to use more social appeals connecting to donors' sense of self in their day-to-day fundraising message. For example, they might say: "public radio is for liberal-minded and intellectual people like you, who identify with the important value of unbiased news and in-depth discussion" as opposed to simply saying: "public radio provides unbiased news and in-depth discussion." The first statement, targeted to the listener's sense of self, would also be more effective than relationship based information like "public radio is your neighborhood friend, who provides unbiased news and in-depth discussion."

All research has limitations, and this study is no exception. One important issue is that we are inferring motivations (self-concept and relationship maintenance) from observed gender differences, relying on previous research to link the two. Thus, our conclusions about the psychological mechanisms behind the gender differences are somewhat speculative. As suggested by an anonymous referee, future research could measure the objectives that donors have in mind (self-concept or relationship maintenance), or even better, could experimentally manipulate fundraising appeals to target these objectives and test how social norms influence donations differently.

For example, one may speculate that men are simply more reactive to any prompts than women.⁷ Prompts, as we define here, are the environmental factors shaping people's reference points (Mazumdar *et al.*, 2005). In particular, it may change people's value frame of how to evaluate a purchase (as gains or losses, Tversky and Kahneman, 2000), shape people's expectations (Monroe, 1973), influence people's normative reference as to what constitutes a fair amount (Bolton and Lemon, 1999) and a reasonable group norm (Mezias *et al.*, 2002). As it turns out, no gender differences have been found, to our knowledge, on how males and females differ in the cognitive processes of prompts. All the reported gender differences in the past focused on the social aspects of the prompt, as outlined in this paper.

Therefore, a fruitful path for future research is to study cognitive and social prompts in separate gender groups, and to test whether social prompts effect may also carry over into any cognitive prompts as well. Until then, fundraisers can safely assume that cognitive prompts work equally effectively in males and females, while social prompts work better in males than in females. The catch though is that no research has shown whether magnitude of cognitive prompts can be as large as social prompts, and if so, how much. Social prompts, on the other hand, have been shown to be most effective if given at the 90–95th percentile of donor groups' previous contribution and the effect size is about 10% increase on average from each donor (Shang and Croson, 2009).

A second limitation has to do with the scale of the contributions studied here. It may be that relationship maintenance issues are more relevant for large donations, while self-concept issues are more relevant for small donations. Future research studying large donors could address this issue in major giving or planned giving situations.

A third limitation, present in all empirical work, involves a selection bias. As mentioned above, 13% of surveys were returned. While

this is an excellent response rate compared with similar types of studies, it is far from 100%. Those who returned our survey may be systematically different than those who did not. This type of response bias might cause a main effect difference in our data, but it is difficult to see how it would cause a difference between men (who returned) and women (who returned). Nonetheless, future research should seek to identify and establish the impact of selection bias.

Finally, our conclusions are limited somewhat by the particular nonprofit we studied. We find that self-concept concerns drive donations to public radio. But relationship maintenance issues may be more prevalent in more "personal" nonprofits like Make-A-Wish Foundation, or supporting a Third World child. These organizations focus on creating relationships between the donors and the recipients of the donations, which might activate different motivations.

Even given these limitations, we believe that these results are both theoretically and practically important. Theoretically, they demonstrate how males and females differ in using descriptive norms to decide the level of their giving, and suggest the mechanisms behind these differences. Practically, they demonstrate that nonprofit organizations can use social information to influence the descriptive social norm, and thus the level of giving, at least from men. More importantly, these results illuminate competing motivations for women and men when determining how much and why they give. By understanding these motivations and developing marketing appeals to target to them, fundraisers can increase giving. However since our findings suggest that public radios could increase income by merely changing perceptions of the "average" donation of others, ethical questions do arise. Manipulating perceptions of others donations by mentioning atypical numbers can become problematic and unethical if listeners are persuaded that this is the "average" or "median" gift.

In summary, we investigate the causal relationship between descriptive social norms and donations, and suggest techniques that

⁷We appreciate an anonymous reviewer for making this valuable addition to our discussion.

development officers can implement to target males and females. We find that descriptive social norms increase contributions from male donors, but that other techniques will need to be developed to capture the hearts (and dollars) of female contributors.

Biographical notes

Rachel Croson received her PhD from Harvard University in 1994. Her research focuses on how individuals make economic decisions, especially decisions about the voluntary provision of public goods. She has also written extensively about gender differences in economic decision-making.

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Appendix A

Table A1. Average of last and next year's contribution: interaction effects

	Males and females		t-statistic	p-value
	B	Std. Error		
Constant	−14.38	57.80	0.25	0.804
Age	0.78	0.57	1.36	0.176
Education	−1.15	2.36	0.49	0.627
Female	47.21	21.06	2.24	0.026
Norm	1.68	0.31	5.37	0.000
Norm × Female	−0.85	0.23	3.62	0.000

$R^2 = 0.126$, $N = 394$.

Table A2. Last year's contribution: interaction effects

	Males and females		t-statistic	p-value
	B	Std. Error		
Constant	−18.84	59.21	0.32	0.751
Age	0.62	0.59	1.06	0.290
Education	−0.79	2.42	0.33	0.745
Female	53.98	21.58	2.50	0.013
Norm	1.63	0.32	5.08	0.000
Norm × Female	−0.87	0.24	3.61	0.000

$R^2 = .100$, $N = 394$.

Table A3. Next year's contribution: interaction effects

	Males and females		<i>t</i> -statistic	<i>p</i> -value
	B	Std. Error		
Constant	-9.92	65.72	0.15	0.880
Age	0.93	0.65	1.43	0.154
Education	-1.51	2.69	0.56	0.574
Female	40.44	23.95	1.69	0.092
Norm	1.73	0.36	4.86	0.000
Norm × Female	-0.83	0.267	3.12	0.002

$R^2 = .120$, $N = 394$.

Table A4. Experimental contributions: interaction effects

	Males and females		<i>t</i> -statistic	<i>p</i> -value
	B	Std. Error		
Constant	11.48	3.32	3.46	0.001
Female	-2.48	2.78	0.89	0.376
Norm	0.84	0.16	5.16	0.000
Norm × Female	-7.11	2.90	2.45	0.017

$R^2 = .308$, $N = 120$.