

Persuasion in Fundraising Letters: An Interdisciplinary Study

Nonprofit and Voluntary Sector Quarterly

40(2) 228–246

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DOI: 10.1177/0899764009339216

<http://nvqs.sagepub.com>

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Abstract

In this article, we report experimental evidence on the effectiveness of several techniques of persuasion commonly utilized in direct-mail solicitation. The study is built on theory-based, descriptive models of fundraising discourse and on comparisons of recommended and actual practices related to three dimensions of persuasion: rhetorical, visual, and linguistic. The specific rhetorical variable included is persuasive appeal (rational, credibility, or affective). The visual variable selected for the study is the presence or absence of bulleted lists, and the linguistic variable included is readability or the complexity of exposition. Participants were presented with pairs of fictive direct-mail appeals from imaginary universities that differ in these dimensions and asked to allocate a hypothetical US\$100 across each pair. Results suggest that letters utilizing credibility appeals and letters written at a high level of readability produce the highest donations.

Keywords

fundraising, factorial experiments, persuasion, direct-mail, donations

Fundraising appeals are designed to persuade individuals to look beyond narrow self-interest toward the greater social good. In this article, we report experimental evidence on the effectiveness of several techniques of persuasion commonly utilized

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in direct-mail solicitation. Participants read pairs of direct-mail appeals differing in rhetorical, visual, and linguistic dimensions and then allocated hypothetical donations totaling US\$100 across each pair.

To select our experimental treatments, we first reviewed the advice contained in popular fund-raising textbooks. Most such advice comes from the experience-based learning of practitioners, rather than controlled scientific studies. We therefore selected specific practices for experimental testing based on theory-based, descriptive models of fundraising discourse (such as those by Upton, 2002, and Connor & Gladkov, 2004) and divergences between recommended and actual practices in the field. The rhetorical treatment included three factors—rational appeals (arguments based on logical reasoning through the presentation of facts and causal relationships), credibility appeals (arguments based on the authority of the writer) and affective appeals (arguments targeting the reader's emotions). The visual treatment included two factors differing in the presence or absence of bulleted lists, and the linguistic treatment included two factors differing in readability, the complexity of exposition. All the pairs of direct-mail solicitations were fictive, asking for donations to fictional universities. We found that letters utilizing credibility appeals and those written at a high grade-level of readability produced the highest donations.

Beyond obtaining our specific research results, we have three other objectives. First, we illustrate the potential usefulness of corpus linguistics for studying determinants of donations. A corpus is a sample of real world text structured for linguistic analysis. We employ the Indiana Center for Intercultural Communication's (ICIC) Fundraising Corpus, consisting of 900 fund-raising documents, the majority of which are direct-mail solicitations by charitable organizations. We use this corpus to prioritize potential experimental treatments by looking for disparities between recommended and actual direct-mail practices. Second, the rhetorical treatment we use is an operational version of the three Aristotelian modes of persuasion (*ethos*, *logos*, and *pathos*) developed by one of us in Connor and Gladkov (2004). We believe this treatment may prove useful in future studies of other kinds of fundraising (like telemarketing, online fundraising, door-to-door, and public service advertisements) and studies of fundraising by other kinds of charities. Third, we illustrate the usefulness of factorial experiments for understanding core topics in the developing interdisciplinary field of nonprofit and philanthropic studies. This technique, well established elsewhere, has been underemployed in this field, perhaps due to unfamiliarity with the technique by researchers in some of the relevant disciplines.

The next section reviews the relevant literature. Then we describe our procedure for selecting research hypotheses, our methodology, and empirical results.

Literature Review

Fundraising is largely a persuasive activity that seeks to convince donors to contribute to a worthy cause. Our focus here is on one tactic commonly used as part of an organization's fundraising campaign, the direct-mail letter. Warwick (2000, p. 166) argued

that this fundraising method is “the single biggest means used by nonprofits to recruit new donors,” noting that “research repeatedly confirms that the majority of first time gifts to charity are made by mail.” Abelen, Redeker, and Thompson (1993, p. 325) concurred, explaining that direct-mail letters are the “most important instrument for communicating the ‘good cause’ of a nonprofit organization to a wide range of prospective donors.” Despite the growth of the Internet, most nonprofit organizations continue to use direct-mail in some way. Furthermore, new technologies commonly rely on written forms of communication, so perhaps what is true for snail mail will also be true online.

What Works?

Because direct-mail letters are such an integral part of many organizations’ fundraising strategy, practitioners and researchers alike share an interest in identifying factors that contribute to the success of direct-mail appeals. And indeed, researchers from a variety of disciplinary perspectives, including marketing (e.g., Berger & Smith, 1997; Diamond & Gooding-Williams, 2002), communication studies (e.g., Hoeken & Hustinx, 2007), economics (e.g., List & Lucking-Reiley, 2002; Eckel & Grossman, 2008), and psychology (e.g., Weyant & Smith, 1987) have focused attention on this research question.¹

Organizations often conduct their own research, test-marketing various letters to determine what works for their campaigns. However, the data, research methods, and research findings are proprietary and, if they are shared at all, not subject to the review processes of refereed journals. But some situational analyses (where participants make hypothetical choices after being presented with hypothetical appeals), laboratory experiments, and field experiments have appeared in the academic literature. Much of this research compared the efficacy of the presence or absence of particular fundraising strategies such as including a suggested donation amount (Weyant & Smith, 1987; Fraser, Hite & Sauer, 1988; Desmet & Feinberg, 2003), personalizing persuasive appeals by multiple use of the potential donor’s name in the solicitation (Turner & Yeakel, 1994), or including a list of other donors and the size of their contributions as a strategy for motivating compliance (Reingen, 1982). Other researchers (e.g., Stone, 1992; Tversky & Kahneman, 1981) have explored the impact on compliance of the ways in which fundraising messages are framed. For example, Tversky and Kahneman (1981) compared the impact of positive and negative frame valence, operationalized as describing outcomes in terms of “lives saved” versus “lives lost,” and concluded that positively framed messages yield greater outcomes.

Warren and Walker (1991) reported on a field experiment conducted in Perth, Australia. They mailed 2,648 letters of eight types, differing in three two-factor treatments—inclusion of statements designed to induce empathy (“picture yourself in the position of the other” vs. “picture a person”), designed to create the perception that the problem was extensive (describing a family’s plight vs. that of a community),

and designed to create the perception that the problem was persistent (describing immediate vs. long-term needs of the victims). They confirmed their expectation that donations were more likely to be made and were larger when the problem was portrayed as less extensive and of shorter duration but found no statistically significant effect of empathy induction. They acknowledge that the failure to find an effect of empathy induction may be an artifact of the low response rate and consequent lack of statistical power (they were prospecting for new donors, rather than seeking new donations from established donors), highlighting the difficulty in conducting field studies with this type of participant pool. Interestingly, they first conducted an experiment testing their procedures on 72 undergraduate Psychology majors. Results for this group, using intent to donate as the dependent variable, were quite similar to those from the field experiment.

Smith and Berger's (1996) field study used a factorial design with four treatments: use of anchors, framing, and two kinds of reference information. Their third and fourth treatments are similar to our rhetorical treatment. They found that letters containing factual/statistical information had a positive impact on the amount donated relative to those without such information. Letters with narrative/experiential information also had a positive impact, and the difference in the effects of these two types of information was statistically insignificant and numerically small. Neither sort of information had a significant effect on response rates. Similarly, Parsons' (2001) field study found that providing repeat donors with financial efficiency information influenced the likelihood of giving, whereas this information had no effect on prospective donors who had not donated previously. Finally, Katzev (1995) found that inclusion of vivid information about what a specific dollar contribution "buys" increased the amount but not the probability of giving. However the sample size was small and the conclusion was sensitive to inclusion of an outlier.

Other field experiments tested direct-mail packaging and enclosures. Falk (2004) found that when gifts to the prospective donor were included in direct-mail letters, the likelihood and size of donations increased by more than enough to cover the additional costs of the gifts. Bekkers and Crutzen (2007) found that envelopes with attractive color graphics were less successful than plainer envelopes, at least for continuing donors nurtured on the latter. Possibly graphics help when the campaign is designed to prospect for new donors, as Perrine and Heather (2000) found that pictures on collection boxes placed in commercial establishments did increase donations.

One of the best studies, combining a laboratory and field experiment, is Vriens, van der Scheer, Hoekstra, and Bult (1998) in which they sent 16 different fundraising letters to 3,000 different households per letter. Participants were Dutch households that had contributed at least once in the past 3 years to a specific charity. They found that an optimal letter would contain no brochures or illustrations, not use bold print to amplify specific aspects, would contain a postscript summary, and would be signed by a professor (this was a health research charity, and professors are very highly respected in the Netherlands). This strategy would raise response rates by 9.8% and average

donations by 5%. Response rates were extraordinarily high by American standards, and, considering the other cultural differences, it is unclear whether the specific conclusions would carry over to this side of the big pond.

Persuasive Strategies in Direct-mail Fundraising Letters

Because fundraising direct-mail letters are a distinct genre, with unique rhetorical moves and relational objectives, one would expect that persuasive messages might function differently in direct-mail fundraising letters than in other communication genres. Research has identified the functions of fundraising discourse (Bhatia, 1998; Connor, 1997), the rhetorical patterns (Abelen, Redeker & Thompson, 1993; Crismore, 1997; Lauer, 1997) that typify fundraising messages, as well as the social contexts (Bazerman, 1997; Myers, 1997) and cultural differences (Connor & Wagner, 1998; Graves, 1997) that affect fundraising communication.

The majority of this research is descriptive, identifying the rhetorical and linguistic features of the genre of direct-mail fundraising letters. Much of it is based on analysis of the fundraising texts housed in the Indiana Center for Intercultural Communication's (ICIC) Fundraising Corpus. This Corpus codes nearly two million words of text from 900 fundraising documents collected from 236 nonprofit organizations and is part of the American National Corpus. Within the Corpus are 245 direct-mail letters totaling 94,235 words.

Connor and Gladkov (2004) developed an operational system of persuasive appeals utilized in fundraising discourse, drawing from previous work by Connor and Lauer (1985) and rooted in the three appeal categories of Aristotelian persuasion: rational (*logos*), credibility (*ethos*) and affective/emotional (*pathos*). Rational arguments address the sensible, logical aspect of readers' minds, presenting facts and statistics and urging action by forecasting effects, consequences, or ends. Credibility appeals portray the writer and organization as trustworthy by "providing information directly from the writer's experiences, thus, establishing the writer's credibility" (p. 266) and by "showing [the] writer's respect for [the] audience's interests and point of view" (p. 267). Affective appeals compel the audience to show empathy by "appealing to the audience's views [and thereby arousing] emotions by addressing [the reader's] attitudinal and moral values" (p. 268). Rational appeals predominate in 48% of the Corpus letters, affective appeals in 28%, and credibility appeals in 25%.

Although all three persuasion categories are important, credibility appeals may be the most influential because of the importance of donor trust, which Handy (2000) identified as the key challenge of nonprofits seeking to raise funds through direct-mail campaigns. Handy described a variety of cues used by letter writers to build trust, including highlighting the charitable status of the organization, noting the longevity of the organization, using celebrity endorsement, or sharing with the reader the percentage of funds spent on administration.

Visual Elements of Letter Layout

The relationship between persuasive strategy and giving is likely mediated by a wide range of factors, including elements of visual design. Conventional wisdom is full of suggestions about layout design, including the recommendation that direct-mail fundraising letters should use a variety of highlighting techniques to break the monotony of unbroken text, employ boldface or underlining to point out benefits, include a postscript, and make liberal use of numbered and bulleted lists (for summaries of conventional wisdom related to visual elements, see Smith, 1996; Vasilopolous, Goering & Nagelhout, 2004; Wheildon 2005). Although some of these factors have been tested as individual strategies, no research has explored the interaction between physical layout and persuasive strategy.

We selected the use or nonuse of bulleted lists for study. We chose this because of the disjuncture between conventional wisdom, which overwhelmingly endorses the use of lists, and practice. Only 19% of letters in the ICIC Fundraising Corpus contain bulleted lists. Consequently, we test whether bulleted lists result in higher donations and whether there are interaction effects between the visual and persuasive treatments.

Linguistic Elements

A variety of linguistic elements related to direct-mail fundraising are discussed in the conventional wisdom, including language choice and grammatical construction. In fact, the popular literature on how to write effective fundraising messages is full of advice about language use in fundraising letters (e.g., use clear, engaging, and personal language; “you” should be the most frequently used word in fundraising letters; use compact powerful words, colloquialisms, and familiar words—even clichés; avoid simile and metaphor, highly technical language, adjectives, first-person plural, big words, abbreviations, and foreign phrases) and about how to grammatically construct the fundraising letter (e.g., avoid semicolons, passive voice, and spelling errors; feel free to start sentences with a conjunctive; em dashes, ellipses, and contractions are all appropriate in fundraising letters).

This advice, when viewed in composite, endorses the notion that fundraising letters should be written at a relatively low grade-level of readability. Readability scales, such as the Flesch Index, the Flesch-Kincaid Grade Level, the Fog Index, the Coleman-Liau Formula, or the Lix Formula, are indicators of the accessibility of a piece of writing. We use the Flesch-Kincaid Grade Level to measure readability. This assigns a grade level based on the number of words per sentence and the number of syllables per word. For example, this paragraph has a Flesch-Kincaid Grade Level of 12.5. Although the conventional wisdom related to fundraising does not offer any specific advice related to the readability level that is best suited to this genre, the linguistic advice noted in the previous paragraph supports the claim that readability should be low. However, we found disjuncture between advice on the components of readability (endorsing the use of short sentences and paragraphs) and practice, with the majority of letters in the ICIC Fundraising Corpus targeting a 9th grade reading level. In addition, we observed

inconsistency in reading level across the letters in the corpus (the average Flesch-Kincaid Grade Level of letters written by health and human services organizations was only 7.4, whereas the average grade level of letters written by environmental organizations was 9.4). Thus we compare the effects of letters with high versus low (grade-level) readability on donations, alone and in interaction with the other treatments.

Method

We employed the factorial survey method (also known as situation analysis, vignette analysis, or scenario analysis) to generate our data, an experimental design where respondents are asked to judge descriptions of varying situations (vignettes) presented to them. We used a 3 (rhetoric) \times 2 (linguistic) \times 2 (visual) factorial design to generate 66 pairs of letters differing in at least one element of the design. Each letter was a fundraising message from a hypothetical university, named by drawing randomly from eight compass directions (e.g., Southeast University, North University). In each round of the study, participants were given two letters to read and asked to imagine that they had decided to donate US\$100 divided across the two universities. As they read each letter, participants were instructed to imagine that they were alumni from that university. Each participant followed this directive and allocated exactly US\$100. Participants participated in 4 rounds, starting with a fresh US\$100 in each round. The letters were drawn from a rotation of the 66 pairs designed to assure that no participant received the same pair twice. For example, in Round 1 the first participant might have been asked to look at a letter from "Southeast University" (a mythical nonprofit educational institution) that includes rational appeals, high readability, and a bulleted list and another letter from "Northwest University" (another nonprofit educational institution) that utilizes credibility appeals, low readability, and a bulleted list.² The process generated 164 observations of paired allocations. After four complete rounds, participants were asked a series of questions, inviting them to reflect on and explain their choices.

Although we initially employed more elaborate sampling techniques, low yields and budgetary constraints forced us to revert to a sample of convenience.³ The sample consisted of 41 participants who were alumni of IUPUI or current graduate students in Communication, Economics, or Philanthropic Studies.

To construct the 12 model letters presented to participants, we first selected actual direct-mail appeals from the ICIC Fundraising Corpus that typified each of the three rhetorical treatments (rational, credibility, affective) and that contained lists in the body of the letter. We replaced the charity name with randomly assigned university names, and produced two letters from each rhetorical treatment differing in their use of bullets. Finally, we produced two letters from each of the six rhetorical/visual model letters differing in their readability, as measured by the Flesch-Kincaid grade-level scale. We did so by modifying word length and sentence length, keeping the content and order of ideas as close as possible to the original corpus wording. It is of course possible that the particular way we reworded the letter had effects on giving for reasons unrelated to readability, but we are aware of no such differences. The high

readability letters were written at a 12th grade level, with actual readability scores ranging from 11.7 to 12, and the low readability letters were written at a 6th grade level, with readability scores ranging from 5.9 to 6.2 on the Flesch-Kincaid Grade Level Index.

One limitation of this approach is that participants were presented with a forced choice. They were asked to read a pair of letters and then to definitely give a hypothetical US\$100 to one charity or the other or to split between both. In the real world, the vast majority of direct-mail solicitation letters are thrown out unopened, and many of those that are opened do not convince the reader to make a contribution. Although opting for a forced choice design may limit the generalizability of our findings to real-world setting, it allows us to test more treatments with more statistical power at relatively low cost. Few charities are willing to risk their donor pools on field experiments unless there are strong reasons to suspect that the treatments will increase donations; forced-choice laboratory experiments can provide the evidence that makes follow-up field experiments possible. And there are reasons to expect our results to generalize. First, repeat donors, those who give year after year to the same charities act as if the decision on whether to give has been settled, so that the remaining choice is on the allocation of their donations across charities. Generalization to this group of donors would be an important addition to our knowledge base even if new and sporadic donors respond to treatments differently. Second, although our estimated rates of giving are higher than one would expect in the real world, there is no obvious reason why forced choice should affect the relative efficacy of the treatment factors.⁴

A second limitation inherent in factorial surveys is the hypothetical nature of choice. Because participant choices have no real-world consequences for charity, donors may respond impulsively, with less care than they would put into a more salient decision. However, the postscenario explanations offered by participants appeared generally thoughtful, suggesting that participants (at least *ex post*) exhibited realistic patterns of decision making. Another problem is that because participants do not bear the costs they would in making a real-world donation, they may wish to exaggerate their generosity to secure self-approval and the approval of the experimenter. This isn't a problem for us because the total to be donated is specified by our protocol.

Finally, the factorial treatments were not completely crossed owing to early exhaustion of the project's budget. The Appendix shows the number of times each pair was actually tested. One pair was tested 7 times, as intended, but 3 pairs were never tested and the average pair (assuming order does not matter) was tested about 2.5 times. No clear pattern is evident in this table, so perhaps we are not far wrong in regarding the experimental treatments as random draws without replacement (for each participant) and with replacement (across participants).

Results

Figure 1 shows the distribution of amounts donated to the university represented by the first letter (the remainder of the US\$100 was always given to the university

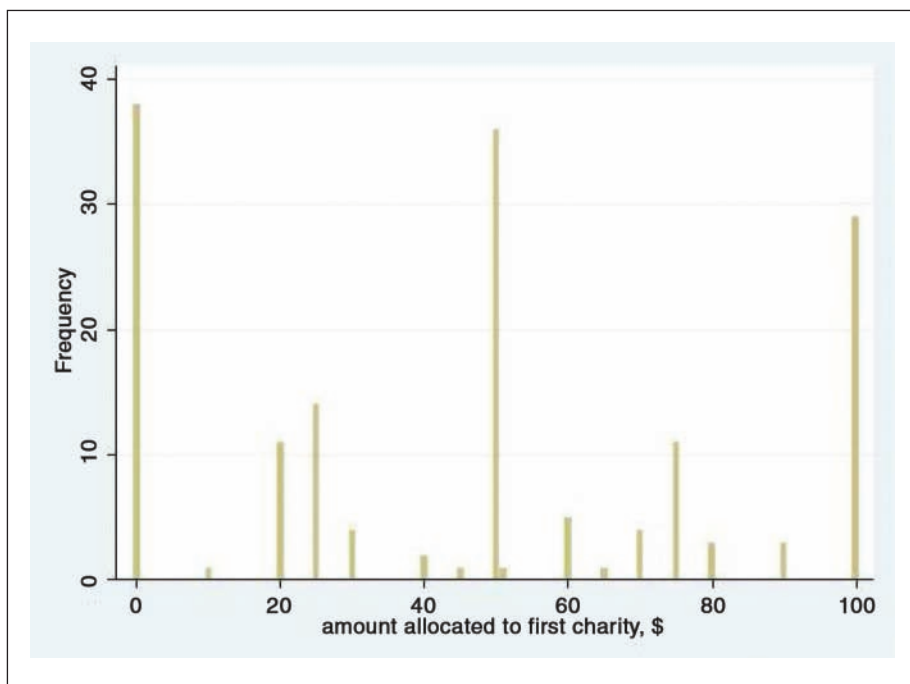


Figure 1. Amount Given to First Charity

represented by the second letter read in each round). This distribution was tri-modal, with 41% of observations going exclusively to one charity or the other, 22% splitting their donation evenly, and 37% splitting their donations unevenly. Those who gave all their money to the second university were slightly more numerous than those who gave all their money to the first charity (23% vs. 18%). Possibly this represents a bias toward whatever is read last (which will be freshest in the participant's mind when deciding how much to give to each charity). We report some evidence in favor of this interpretation below.

First, we present *t* tests on those paired comparisons where there was a difference between characteristics (Table 1). There were 39 cases where a participant was presented with one affective and one rational letter in a round. Mean gifts to the charity represented by the affective letter were US\$47.31. Because gifts to one charity are identically US\$100 minus gifts to the other in any paired comparison, the proper statistical test is for a difference between mean gifts to one charity and a null hypothesis of US\$50 rather than for equality of the paired means. By this test, there was no statistically significant difference in the impact of affective versus rational letters. However, in the 51 cases where participants chose between affective and credibility letters, mean gifts to affective were US\$40.39 and in the 35 cases of rational versus credibility,

Table 1. Paired Comparisons

Comparison	M (SE)	N
A vs. R (pooled)	A = US\$47.31 (5.83)	39
Affective first	A = US\$46.55 (6.67)	29
Rational first	A = US\$49.50 (12.53)	10
A vs. C (pooled)	A = US\$40.39** (4.75)	51
Affective first	A = US\$36.43 (5.74)	35
Credibility first	A = US\$49.06 (8.29)	16
R vs. C (pooled)	R = US\$37.11** (5.83)	35
Rational first	R = US\$32.11 (7.73)	19
Credibility first	R = US\$43.06 (8.89)	16
H vs. L Readability (pooled)	H = US\$67.83*** (3.53)	92
H Readability first	H = US\$65.24 (5.63)	41
L Readability first	H = US\$69.90 (4.51)	51
B vs. N (pooled)	B = US\$52.47 (3.81)	81
B first	B = US\$48.94 (4.80)	52
N first	B = US\$58.79 (6.21)	29

Note: The numbers in the second column represent the average amount given to the letter with the indicated factor. Thus, for example, the first row indicates that when Participants were presented with one affective letter and one rational letter, the affective letter received US\$47.31 (so the rational letter received US\$100 – US\$47.31 = US\$52.69). This “pooled result” is further broken down to indicate what happened when the affective letter was the first one read in the pair and when the rational was first read. Standard errors are in parentheses below means. Significance tests for pooled estimates test the difference between giving to the indicated letter and US\$50. Significance for ordering estimates is for the difference between mean gifts to a characteristic when it is the first letter presented versus the second. No asterisks appear in the table because none of these differences were significantly different from zero. A = Affective; R = Rational; C = Credibility; H = High; L = Low; B = Bulleted; N = Not Bulleted.
p* = .1. *p* = .05. ****p* = .01.

mean gifts to rational letters were US\$37.11. Both of these coefficients are significantly different from US\$50 at the 5% level. Thus it appears that letters employing credibility strategies are most productive of donations, and there is little difference between the two runners-up.

Readability matters. In the sample of high (H) vs. low (L) readability letters, mean gifts to H were US\$67.83, allowing us to reject the null hypothesis at the .001 level. Visual style did not have a statistically significant effect on giving. Mean gifts to schools using bulleted lists (B) were US\$52.47 in the sample of all pairs that placed B against its alternative N (not bulleted).

In every case, participants assigned greater donations to whichever letter was read second in each paired comparison. For example, in affective versus rational comparisons, affective received US\$46.55 when it was the first letter read and US\$49.50 when it was the last. This is consistent with the expectation that whatever is freshest in the donor's mind is rewarded, but in no case was the difference in mean giving statistically significant.

To determine whether there are important interactions, round-specific effects, or participant-specific effects we turn next to a regression framework.⁵ The simplest approach would be to regress

$$D1 = \alpha + \beta_1 A^1 + \beta_2 A^2 + \beta_3 R^1 + \beta_4 R^2 + \beta_5 H^1 + \beta_6 H^2 + \beta_7 N^1 + \beta_8 N^2 + \varepsilon$$

where D1 is donation to the first school in each paired comparison, A is a dummy variable equaling 1 if the letter has rhetorical characteristic A, R is a dummy variable equaling 1 if the letter has rhetorical characteristic R, H is a dummy variable equaling 1 if the letter has high readability, N is a dummy variable equaling 1 if the letter lacks bullet points, and superscripts denote the first and second letter in a paired comparison.

But this approach seems unsatisfactory, as an example makes clear. Suppose that Participant 1 always receives letters with rhetorical characteristic A (her letters differ in the visual or readability dimensions). Further suppose that Participant 2 always receives letters with rhetorical characteristic R. Then the regression would use the cross-participant variation in the rhetorical factor and the data contain no within-participant variation. A's effect would be hopelessly confounded with any individual-specific excluded variables that took different values for Participants 1 and 2.

Instead, we estimate models of the form

$$(1) D1_{it} = \alpha + \alpha_i + \alpha_t + \beta_1 dA_{it} + \beta_2 dR_{it} + \beta_3 dH_{it} + \beta_4 dN_{it} + \varepsilon_{it}$$

where i indexes participants and t indexes rounds. D1 is donation to the school described in the first letter, dA is an indicator variable that equals 1 if the first member of the pair has characteristic A and the second does not, equals -1 if the second member has A and the first does not, and equals 0 otherwise. $dA = A^1 - A^2$, dR is an indicator variable equaling $R^1 - R^2$, dH is $H^1 - H^2$, dN is $N^1 - N^2$, α_i is a vector of coefficients on 40 individual-participant-specific dummy variables. The i th such dummy takes the value 1 if the observation is from participant i , 0 otherwise. α_t is a vector of coefficients on 3 round-specific dummy variables. The t th such dummy takes the value 1 if the observation is from round t , 0 otherwise.

This approach exploits the panel nature of our data (participants and rounds constitute the two dimensions of the panel). Because this specification will be unfamiliar to

some readers, it is worth spelling out the underlying assumptions and the interpretation of coefficient estimates. β_3 , the coefficient on dH , tells us the average predicted difference in money given to the first university if the first university letter had high readability and the second did not, and β_4 , the coefficient on dN tells us the average predicted difference if the first letter lacks bullets and the second letter has bullets. The 40 estimates constituting the α_i vector represent the average predicted differences in giving to the first university for each of these 40 participants relative to the 41st participant, and the 3 estimates constituting the α_i vector represent the average predicted difference between giving to the first letter in each of the first three rounds relative to the fourth round.

The rhetorical dimension, with three possible characteristics (A , R , or C), is the most difficult to understand. If $dA = 1$, we know that the second letter possesses either characteristic R or C , so that either dR or dC (but not both) must equal -1 ; if $dA = -1$, either dR or dC must be $+1$. The coefficient on dA then indicates the effect on giving to the first school when R or C is substituted for A . If A has a positive effect on giving and $dA = -1$, the negative value of dA corresponds to the fact that when A is in the second letter, giving to the first letter will be lower. One limitation of this approach is that it assumes that if both letters have the same rhetorical characteristic, it does not matter what value this characteristic takes.⁶ Thus an observation comparing, say, letters with characteristics ANH and ANL will have the same effect on regression estimates as an observation comparing RNH and RNL. This seems like a reasonable restriction, but it is a restriction.

Table 2 summarizes our results. Column 1 presents our preferred specification, in which individual-specific and round-specific fixed effects were not included but the error term was clustered by participant. This approach implicitly assumes that there are unobserved participant-specific random effects that are uncorrelated with the error term.⁷ Rhetorical characteristics matter, with credibility producing higher levels of donations, but the statistical significance levels are lower than those in the simple t tests reported above. Readability has a strong and highly significant effect on giving. High grade-level appeals, on average, result in donations that are US\$16.48 higher than less readable appeals. The point estimate of the effect of bulleted lists is small and statistically insignificant.

The remaining columns explore the robustness of these conclusions to alternative specifications. Column 2 includes interaction effects. Second-level interaction effects are the coefficients on variables constructed as the product of any pair of distinct characteristics (such as $dH \times dN$).⁸ Third-level interactions consist of the product of any three distinct characteristics, and under our design, there are two such nonredundant variables ($dA \times dH \times dN$ and $dR \times dH \times dN$). The main effects are robust to inclusion of these additional variables, but it is difficult to interpret the full effects because none of the second-level interaction effects are statistically significant, whereas one of the two third-level interaction variables is significant. However, whether we look at the joint significance of all the second-level interaction variables, the third-level variables, or

Table 2. Regression Results

	Preferred Specification ^a	Full Interactions ^b	Individual Effects ^c	Median Regression ^d	Double Tobit ^e
dA	7.14 (5.10)	−5.07 (5.47)	−5.15 (5.00)	−20*** (5.03)	−7.27* (4.06)
dR	−8.36* (4.67)	−7.12 (4.59)	−6.14 (4.80)	−20*** (5.16)	−8.47** (4.25)
dH	16.48*** (3.98)	16.50*** (4.50)	14.79** (4.80)	25*** (4.11)	15.5*** (3.43)
dN	−1.98 (3.29)	−2.54 (3.17)	−3.42 (4.43)	0 (4.22)	−2.67 (3.66)
Constant	47.64 (2.59)	53.46 (4.83)	34.68 (15.15)	50 (3.19)	27.43*** (2.70)
R ²	0.1647	0.0203	0.3527	0.1128	0.0236

Note: dA indicates whether the two letters in a paired comparison differed in the Affective characteristic. Similarly for other variables, where *R* denotes rational, *H* denotes high readability, and *N* denotes no bullets. Standard errors in parentheses below parameter estimates. Significance levels are with respect to the excluded category. For the rhetorical dimension, there are three categories so we also tested for significant differences between the coefficients on dA and dR, which was never significant.

a. Estimated by OLS with robust errors clustered on participants.

b. Interactions not displayed. None of the second-level interactions were individually significant, and only the third-level interaction between *R*, *H*, and *N* was individually significant at the 10% level. The second-level, third-level, and combined joint significance levels did not reject the null hypothesis that interactions are unimportant. Estimated by OLS with clustered errors.

c. Includes participant-specific individual effects. Estimated by OLS with robust errors. Individual effects were jointly significant at the 5% level. Results also including round-specific individual effects (not reported here) were similar but the round effects were insignificant.

d. No individual effects or clustered errors. Pseudo-R² reported.

e. Dependent variable left-censored at US\$0 and right-censored at US\$100. This is the marginal unconditional effect on the dependent variable, with significance levels of the latent variable. Pseudo R² reported.

p* = 0.1. *p* = .05. ****p* = .01.

both the second- and third-level variables, we cannot reject the null hypothesis so we are somewhat safe relying on a model that lacks interaction variables.

Column 3 replaces clustered standard errors with individual-specific fixed effects (the α_i and α_j in (1)). Results look just like those of column 1, except that the comparison favoring credibility over rational letters goes from marginally significant to marginally insignificant. Column 4 reports a median regression. Whereas OLS coefficients indicate the effect of an independent variable on the conditional mean of the dependent variable, median regression coefficients present the effect on the conditional median. This approach is useful when the error term is not classically distributed, as it is less sensitive to outliers and skewness. Results are broadly similar to OLS, but all the independent variables except dN are statistically significant. This may be an artifact of our inability to correct for the clustering of errors without a larger data set

(employing more rounds as well as more participants). Column 5 reports another alternative that adjusts for the fact that the error term cannot be normal because gifts cannot be less than zero or more than US\$100. Double-tobit is commonly employed to deal with the resulting censorship bias (double because the dependent variable is constrained on both ends), and we are happy to employ it here. The estimates in column 5 are very close to those of column 1. We still prefer column 1 estimates because tobit is not robust to violations of the very strong assumptions the procedure makes, but it is comforting to know that accounting for censorship bias makes little difference in the present case.

Conclusions

Are there any universal rules governing the writing of direct-mail requests for donations, or is each campaign by each charity a special case? Fundraising texts and classical models of persuasion offer advice of both types, but the literature offers too few scientific tests of the quality of that advice. We examine three dimensions of plausibly universal rules—rhetorical, linguistic, and visual, alone and in combination, and use factorial surveys to test the effect of these rules. However, we only begin the analysis here, because we look only at donations to institutions of higher education.

The first area explored was the rhetorical strategy used in constructing the persuasive argument. Although previous research has tested the impact of particular persuasive tactics on giving (i.e., suggesting a particular donation amount, using the donor's name multiple times in the letter, framing outcomes positively vs. negatively), no one has compared the impact of the three generic approaches to persuasion: logical, emotional, or credibility appeals. According to the results of this study, credibility appeals are the most productive of donations, with little difference observed between emotional and rational appeals.

The second area explored in this study was linguistic features of fundraising letters. Existing literature, mostly experience-based, provides few “meta-guidelines;” instead, the advice is typically offered as a seemingly random list of dos and don'ts. This study proffers “readability” as a useful meta-frame for examining language use in fundraising letters. The specific guidelines offered in popular sources related to fundraising (i.e., use short sentences and short paragraphs, avoid big words) would construct a low grade-level readability message, and this study tests whether that is indeed the most persuasive linguistic strategy in terms of soliciting donations. Our results indicate that in fact letters of higher readability are more successful in terms of donations. In part, this may be because participants were told they were associated with the universities represented, and low grade-level readability is more important for unfamiliar charities. But the facts that the participants were college-educated and asked to donate to hypothetical universities suggest that this finding may not be generalizable. Regardless, our results imply that low readability is not a universally valid criterion for

direct-mail solicitation. Future research should examine other types of nonprofits that attract less-educated donors to see whether low readability is good advice anywhere.

The final element of written communication examined in this study was visual design. Use of bullet points is recommended in fundraising texts but rarely implemented in the representative letters contained in the fundraising corpus. This departure from recommended practice appears harmless, as we were unable to detect statistically significant effects of bullets on giving. Interestingly, in the follow-up interviews where participants were asked to describe their decision-making process, the bullets were generally praised. Only two of the participants mentioned that they did not like the bullets. Two did not mention the bullets at all, but all of the remaining participants commented positively on the bullets, noting that the bullets made the letters "easier to read," "helped to draw attention to the kinds of things that support is needed for," and made the letter "friendlier."

Although we were interested in the main effects in each of these three areas, we also were interested in the interactions among the three components. Regression analysis confirmed the main effects for rhetorical strategy and readability but found no statistically significant interaction effects.

Each of these findings deserves further study with other kinds of charities and other methods of solicitation as part of a research program that moves from overly generalized experience-based advice to experimentally tested domains of applicability. We also illustrate a methodology that is unfamiliar to many in our interdisciplinary field that has wide applicability for uncovering the determinants of giving and volunteering. Finally, factorial-survey experiments provide a relatively cheap and easy way for practicing fundraisers to refine their proprietary, campaign-specific testing.

Appendix

Sample Size in Each Paired Treatment

	AHN	AHB	ALN	ALB	RHN	RHB	RLN	RLB	CHN	CHB	CLN	CLB
AHN	—	3	2	2	3	3	2	2	3	5	4	3
AHB		—	3	1	1	3	1	2	1	3	2	3
ALN			—	2	4	5	2	2	6	3	2	4
ALB				—	2	1	3	3	3	5	2	2
RHN					—	2	3	2	4	4	0	1
RHB						—	3	4	2	2	0	4
RLN							—	1	2	2	2	1
RLB								—	2	7	2	0
CHN									—	3	2	1
CHB										—	1	2
CLN											—	2
CLB												—

Note: A = Affective Persuasive Appeal, R = Rational Persuasive Appeal, C = Credibility Persuasive Appeal, H = High Readability, L = Low Readability, B = Bulleted, N = Not Bulleted

Authors' Note

Research was supported by a grant from the Center on Philanthropy at Indiana University. The authors wish to thank Alicia Anino, Bradley Andersen, Molly Anthony, Stephanie Alexis Balunda, Adolph Kotlik, Kyle McIntosh, and Toulia Vasilopolous for research assistance and Jane Chu, Robert Sandy, Adrian Sargeant, Jen Shang, Kathy Steinberg, participants at ARNOVA's annual conference, and IUPUI's Workshop in Multidisciplinary Philanthropic Studies for helpful suggestions on earlier drafts.

Notes

1. These same disciplines study parallel questions regarding donations of blood, but the categories of persuasion are sufficiently different from those employed in the present study that we need not discuss blood donations studies further. For example, LaTour and Manrai (1989) combine in one variable (information provision) receipt of a brochure with vivid pictures, facts about the blood donation process and its consequences, and specific examples of need.
2. Because some of our fictive university names resemble the names of real universities (e.g., Northwest is similar to Northwestern) we checked whether there were name effects. In results not displayed here, the introduction of dummy variables for the university names had small impact on our estimated treatment effects and the dummy coefficients were insignificant, both individually and jointly.
3. In the initial protocol, we used two sampling frames provided by the Indiana University Foundation. The first frame consisted of frequent donors (who made donations of any size in 4 of the last 5 annual campaigns) who attended the Indianapolis campus (IUPUI) within the last 10 years and currently lived in the Indianapolis Standard Metropolitan Statistical Area (SMSA). The rare-givers frame was identical, except donations were made no more than once in the past 5 campaigns. Several waves of mailings produced only 22 participants, so we approached on-site individuals to enlarge the sample.
4. The possible exception to this conclusion is the rhetorical treatment. It is possible that, say, an affective/emotional appeal is more successful in inducing participants to consider donating, whereas credibility is more important in forcing a split between recipients.
5. In marketing scholarship, it is common to analyze factorial surveys using conjoint analysis. However, conjoint analysis requires that participants make discrete choices (picking one option or another). Our participants make a continuous choice (dividing a sum of money), so the technique is not appropriate here.
6. There are nine possible distinct pairs of rhetorical characteristics—*AA*, *AR*, *AC*, *RA*, *RR*, *RC*, *CA*, *CR*, and *CC*. The two indicators for rhetorical characteristics can take only seven pairs of values, $-(0, 0)$, $(0, 1)$, $(0, -1)$, $(1, 0)$, $(-1, 0)$, $(1, -1)$, and $(-1, 1)$. The indicator values map uniquely into rhetorical characteristics in most cases, but $(0, 0)$ maps into *AA*, *RR*, or *CC*.
7. Results clustering by both subject and round are nearly identical and not reported here.
8. There is no need to construct an interaction variable equaling $dH \times dB$ because a list is either bulleted or not, so the information in that variable is already contained in $dH \times dN$. For the rhetorical dimension, we need interaction variables such as $dA \times dN$ and $dR \times dN$; the third rhetorical interaction ($dC \times dN$) is redundant. We also need an interaction variable obtained

from multiplying dA by dR . The value of the coefficient on this variable allows us to test the assumption that the coefficient on dA is the same regardless of whether A changes because R changes or because C changes.

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