Driving toward a goal and the goal-gradient hypothesis: the impact of goal proximity on compliance rate, donation size, and fatigue

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Abstract

Driving toward a goal (DTAG) is a compliance technique derived from observed persuasion practice (e.g., telethons) wherein the persuader utilizes a goal pitch (e.g., "Help us raise $500") and progress toward a goal (e.g., a tote board) to encourage compliance. It was postulated that DTAG would be more effective than legitimizing a paltry contribution (LPC) at increasing compliance rate, size, and stability. In Study 1, a fundraising field experiment ($N = 840$ donations) found that LPC garnered significantly more donations and DTAG garnered significantly larger donations. In Study 2, a lab experiment ($N = 992$ participants) found that LPC garnered more donations at Time 1, DTAG garnered more donations over time (eventually matching LPC), and LPC yielded smaller donations over time.

Persuaders often utilize goals or progress toward goals to increase compliance. Fundraising telethons are a prime example of this strategy, as fundraisers typically identify a goal (e.g., raising $1 million) and employ it as a reference point in their appeals (e.g., "We are halfway there . . ."). In lay terms, such efforts are commonly referred to as "drives" (e.g., fund drives, blood drives, book drives). Given the frequency with which this strategy is employed, it is surprising how little research has examined the persuasive effectiveness and underlying logic of driving toward a goal (DTAG). Of particular interest is the apparent utilization of DTAG to stave off compliance fatigue (Barnes, 2006; Kinnick, Krugman, & Cameron, 1996) or the decay of message effects over time (Cook & Flay, 1978).

The ubiquity of DTAG as a persuasive strategy suggests that it may be tapping into a highly successful, yet underdeveloped mechanism of compliance. One intriguing possibility is that DTAG could be an extension of the goal-gradient hypothesis (Hull, 1934), which states that as proximity to a goal decreases, motivation to attain the goal increases (Kivetz, Urminsky, & Zheng, 2006). It was first noted in the 1930s, when a behavioral researcher observed that rats in a maze ran faster as they approached their goal (Hull, 1932). This phenomenon was also studied in humans, assessing physiological responses (e.g., heart rate, galvanic skin response) to goal

proximity (for a review, see Heilizer, 1977). While interesting in their own right, these studies were not informative about human tendencies concerning goal achievement.

More recent work has assessed the goal-gradient hypothesis in the realm of consumer purchasing behavior. For instance, Kivetz et al. (2006) studied café customers who were members of a "Buy nine coffees, get the tenth free" program. They found that as members approached their goal of nine coffees, purchasing behavior became more frequent. This is consistent with previous research on goals and performance, which has suggested that any event that signifies decreasing proximity to a goal will likely increase overall performance (Lock & Latham, 1990). Though promising, it is still unclear whether goal proximity is an effective target for persuasive efforts, especially since translation of psychological principles to communication practice can be complex (e.g., O'Keefe & Jensen, 2006). For example, consumer-focused goal-gradient research has only examined individual contributions to personal goals, which may function quite differently from group or organizational goals.

The present study extends this work by examining whether DTAG, as a compliance-gaining strategy, yields an effect consistent with the goal-gradient hypothesis. Connecting current practice with goal-oriented cognitive research in the form of a compliance-gaining technique has significant practical and

theoretical value as it might explicate the underlying power of drives, as well as suggest methods for countering the decay of message effects. Sufficient research evidence has accumulated in other areas that it is time to investigate DTAG as a communication strategy.

Driving toward a goal

Over the years, researchers have identified several effective compliance-gaining techniques, including foot-in-the-door (Freedman & Fraser, 1966), door-in-the-face (Cialdini et al., 1975), low-ball (Cialdini, Cacioppo, Bassett, & Miller, 1978), the lure (Joule, Gouilloux, & Weber, 2001), and that's-not-all (Burger, 1986). All of these techniques have proven effective at inducing compliance in certain situations or contexts.

Compliance-gaining research is frequently inspired by current or applied persuasion practices. For example, researchers have derived techniques from observing the everyday persuasion strategies employed by door-to-door solicitors, salespeople, and fundraisers (Joule et al., 2001; Rhoades & Cialdini, 2002). This approach has strong face validity in that existing strategies are viable (i.e., they can be employed in non-lab contexts). It is sensible to study current persuasion practices, as research can identify how existing strategies might be enhanced or—if found to be harmful—replaced (see research on the fallacy of asking for generous contributions; Weyant & Smith, 1987).

One compliance-gaining technique often employed by practitioners is the use of a goal to elicit compliance. For instance, telethons frequently include a fundraising goal in their persuasive appeals and actively encourage viewers to contribute toward the goal. The Jerry Lewis Muscular Dystrophy Association Labor Day Telethon is a well-known exemplar of this strategy. The telethon focuses on a tote board that tracks the current fundraising total for the year. Ever since 1966, comedian Jerry Lewis has framed the telethon as working toward raising one more dollar than the year before (Muscular Dystrophy Association, 2011). In other words, a central aspect of the persuasive pitch is to encourage donations to help meet the goal.

The strategy could also be used for nonmonetary donations. A grade-school principal might offer to shave his or her head if students collectively meet the goal of reading a certain number of books. Local blood drives attempting to secure a certain quantity of blood might display a chart tracking how close they are to their weekly, monthly, or yearly goals. As stated earlier, the technique is often present in situations where groups are participating in a "drive" (e.g., blood drive, food drive) toward some goal.

DTAG has two basic components: a goal pitch and an indicator of progress toward the goal. Persuaders utilize a goal pitch when they explicitly frame a situation or activity in terms of a specific target or goal. The goal can be central to the persuasive appeal or tangential; either version qualifies as a goal pitch. More than one goal pitch can be advocated in a single appeal. A telethon host could encourage viewers to donate money to help reach the goal of $1 million (first goal pitch), as well as to volunteer in their communities to help reach the goal of 10,000 new volunteers (second goal pitch).

The second component of DTAG is an indicator of progress toward the goal. Progress toward the goal only needs to be communicated once, but persuaders typically communicate status frequently. In practice, persuaders can use progress as a narrative thread in long appeals. Employed in this manner, progress toward the goal functions similarly to a sports announcer's play-by-play (e.g., "We just reached the $5,000 mark, and it looks like donations are starting to pick up . . ."). Progress toward the goal typically comes after the goal pitch, but it can come before (e.g., "We currently have $3,500 dollars, but we are trying to raise $25,000 . . ."). It is also possible to communicate both components simultaneously. A tote board, for example, often contains a goal pitch (e.g., $1 million), as well as progress toward the goal (e.g., a current tally of donations).

Conceptually, both components of DTAG seem to utilize proximity as a means of persuasion. That is, DTAG is focused more on the distance between the current and desired values, rather than the goal itself. The logic behind this approach may be that proximity is a constantly evolving resource that enables persuaders to easily redefine the situation over time. Goals are often static, where proximity is unfixed and dynamic. Not only is proximity ever-changing, but it also seems to be in need of change (e.g., "We reached $10,000 and just stopped moving. We need to get back on track"). Finally, proximity has proven to be a powerful mechanism for triggering a number of behavioral and cognitive responses (Hull, 1934). Thus, DTAG provides communicators with a powerful message that may not sound repetitive because proximity changes over time.

Legitimizing paltry contributions

Identification of new compliance techniques has typically been followed by attempts to compare one technique to another. For example, Brownstein and Katzev (1985) compared the effectiveness of three techniques in a fundraising field experiment: foot-in-the-door, door-in-the-face, and low-ball. In that study, they found that the low-ball technique garnered significantly more donations than the other strategies.

The current study tests the efficacy of DTAG by comparing it to another compliance technique: legitimizing a paltry contribution (LPC; Cialdini & Schroeder, 1976). LPC is a good contrast to DTAG in that (a) it has a different underlying mechanism (i.e., countering of obstacles); (b) it has proven to

be successful in fundraising contexts (the context of the current studies); and (c) its weaknesses (e.g., it does not increase compliance size, it does not stave off fatigue) are perfectly matched with the potential strengths of DTAG. Before proceeding, it is useful to discuss LPC in further detail.

LPC (Cialdini & Schroeder, 1976)—also known as *even-a-penny-helps*—is one of the more recognizable compliance-gaining techniques. LPC is employed by having persuaders attempt to legitimize a small contribution in their appeals. For example, a persuader might ask people to donate money to the American Cancer Society and finish his or her pitch by saying "Even a penny will help" (Mark & Shotland, 1983). Thus, the technique is not a request for a paltry contribution, but, rather, it is a statement that legitimizes small contributions.

LPC is believed to be effective for two reasons. First, asking for a paltry contribution is thought to eliminate excuses for not complying. For instance, many people refuse to comply with a request on the grounds that the request is too taxing (Cialdini & Schroeder, 1976). However, LPC negates that argument by making even the smallest of donations acceptable. Second, LPC is thought to increase compliance because refusing to give a small amount of money to a good cause is socially unacceptable. The logic is that people want to maintain a socially desirable image and refusing to donate a small amount of money to a charitable cause is a threat to image maintenance (Cialdini & Schroeder, 1976).

Research studies have generally found that LPC is an effective compliance strategy. In their now classic study, Cialdini and Schroeder (1976) conducted a field experiment—disguised as a door-to-door fundraising campaign for the American Cancer Society—and found that LPC yielded more donations than did a control condition, without reducing the average donation size. Several studies have replicated Cialdini and Schroeder's basic finding (e.g., Dolinski, Grzyb, Olejnik, Prusakowski, & Urban, 2005; Fraser, Hite, & Sauer, 1988; Reeves & Saucer, 1993; Reingen, 1978; Weyant, 1984), but others have not (DeJong & Oopik, 1992; Mark & Shotland, 1983; Perrine & Heather, 2000; Weyant & Smith, 1987). A closer examination of these studies suggests that LPC is more successful (a) in face-to-face contexts than in less direct communication situations (e.g., DeJong & Oopik, 1992; Perrine & Heather, 2000; Reeves, Macolini, & Martin, 1987); (b) in situations where compliance is initially low (e.g., Mark & Shotland, 1983; Reeves et al., 1987); and (c) in lower income populations (Weyant & Smith, 1987). A recent meta-analysis confirmed that LPC was more effective than the control condition at generating increased compliance (mean $r = .18$; Andrews, Carpenter, Shaw, & Boster, 2008).

It should be noted that LPC research has utilized compliance-gaining messages aside from the standard "Even a penny helps." For example, Brockner, Guzzi, Kane, Levine, and Shaplen (1984) studied the effectiveness of "Even a dollar will help" and "Even five dollars will help." They found that both phrases resulted in more donations than did a control condition, but the $1 version did not significantly differ from the $5 version. In other words, the basic finding of LPC research seemed to hold with a slightly larger amount of money. However, in line with the underlying logic of the technique, legitimizing large amounts of money has not proven to be a successful strategy thus far (e.g., Weyant & Smith, 1987). In summary, there is good reason to believe that LPC is an effective compliance-gaining technique. Research has generally supported the strategy. However, compliance-gaining research would benefit from further testing of the technique against other strategies.

Study 1

Comparing DTAG and LPC

By focusing on proximity, DTAG has the potential to affect three key compliance-gaining outcomes: compliance rate, donation size, and stability. Concerning the former, research has shown that several compliance techniques can improve compliance rates (i.e., number of people who comply with a persuader's recommendations). LPC, for example, increases compliance rate by countering the perception that paltry contributions do not matter. DTAG has the potential to achieve a similar result; namely, by utilizing proximity to encourage higher rates of compliance (consistent with the goal-gradient hypothesis). Proximity might increase compliance rate in a number of ways. Early in a drive, people may be more likely to comply to "get the ball rolling." In the middle of a drive, people may comply to sustain the drive. Near the end, people may give to help finish off a successful drive effort. At all points in the drive, proximity to the goal may serve as a catalyst for compliance.

Unlike compliance rate, donation size (i.e., the quantity a person gives) has generally been ignored in compliance-gaining research. LPC research, for example, has consistently noted that the technique increases compliance rate without decreasing donation size. The question of how to increase donation size has received little attention.

DTAG, on the other hand, seems to be grounded in the idea that framing a persuasive situation as a drive encourages others to give more. Indeed, many drives utilize thresholds in their appeals; that is, persuaders recognize specific compliance benchmarks that are desired. For example, the Jerry Lewis Muscular Dystrophy Association Labor Day Telethon identifies desired donation sizes (e.g., $25, $50, $100), as well as mechanisms for obtaining matching funds (i.e., doubling the size of a donation) and stories about particularly noteworthy donations. In other words, DTAG seems to encourage not only increased rate of compliance, but also increased donation size.

Finally, DTAG seems to be designed to resist fatigue, improving stability. *Fatigue* is a term used to describe a decrease in performance over time. Many factors can contribute to fatigue, but communication practitioners seem especially concerned about the potentially negative effects associated with continued or repetitive exposure to a message (see Kinnick et al., 1996). In compliance-gaining contexts, fatigue may undermine the effectiveness of certain techniques over time. For example, research on fundraising has found that donors are less likely to give over time, seemingly as a result of donor fatigue (Barnes, 2006). DTAG seems likely to resist fatigue by providing (a) communicators with a dynamic resource (i.e., varying proximity) for persuasion; and (b) receivers with a framework for processing messages over time (i.e., the drive). Instead of facing an endless stream of repetitive appeals with no apparent beginning or end, DTAG frames the situation as a finite event with a rationale for continued participation (i.e., achieving the goal). Moreover, the goal-gradient hypothesis suggests that activity should increase as proximity to the goal decreases (e.g., rats run faster as they get closer to the cheese). In practice, it may be impossible to completely resist fatigue effects in compliance situations, but DTAG seems poised to be more resistant than most.

Method

Procedure

We conducted a two-condition (DTAG vs. LPC) field experiment in the late spring. The field experiment took place on a large university quad and consisted of confederates shaking cans to solicit donations for a nonprofit organization. All collected donations were given to the nonprofit organization in the study.

The confederates were 24 undergraduates (14 females, 10 males) enrolled in an upper-level communication course. The confederates were separated into six teams of four. The teams took turns fundraising on the campus quad, meaning that only one team could be active at any moment. Within teams, confederates were randomly assigned to one of two conditions (DTAG or LPC). Confederates worked in teams of two (one person shaking a can and one person holding a sign).

Fundraising was carried out in 2-hr blocks. For example, one team would solicit from 11 am to 1 pm, and another would solicit from 1 pm to 3 pm. To eliminate confounding of condition and location, confederates rotated positions on the quad every half hour (there were four positions available).

It is important to note that soliciting money for nonprofits is a common activity on the quad. In fact, fundraising regulations exist for this area (regulating the number of people who can solicit donations) because solicitors frequent the quad. The commonplace nature of solicitation on the quad—

especially can shaking—made this area an ideal place for a fundraising field experiment. The study protocol was approved by the university's Institutional Review Board (IRB).

Participants

Fundraising was conducted on a large midwestern university quad. On a typical business day, thousands of people walk or bike through the area. No data were collected that allow for assessing the total number of individuals passing through the quad, nor any identifying information from those who donated money in this study (in accordance with the recommendations of the study's IRB). That said, the quad is in a centralized location (both for the campus and the community), and it typically attracts a diverse collection of individuals. It is a public place, and anyone can traverse the area. However, it is likely that most participants were students, faculty, or staff affiliated with the university.

Stimuli

Confederates raised money for a local nonprofit (Even Start Literacy) utilizing either DTAG or the LPC technique. In the LPC condition, one confederate said, while shaking a can, "Help support Even Start Literacy, even a penny helps," while another confederate (standing right beside the first) held a sign. The sign had a cartoon penny on it and the words, "Help support Even Start Literacy, even a penny helps." In the DTAG condition, confederates said, "Help support Even Start Literacy, we're trying to raise $500." The goal pitch component of this appeal is the statement "We're trying to raise $500." The decision to frame the goal pitch as a drive toward $500 was made because it seemed like a plausible monetary target for a student-driven fundraiser. As in the LPC condition, one confederate of the DTAG pair stated the compliance message and shook a can while another confederate (standing right beside the first) held a sign. The DTAG sign depicted a donation thermometer revealing both the goal ($500) and current progress toward the goal (confederates used a red marker to fill in the thermometer over time). Progress toward the goal was artificially manipulated. Confederates in the DTAG condition increased the thermometer one unit every half hour (regardless of donations received). The thermometer started at $20 and increased $10 every half hour (during the final half hour, the thermometer was depicted as full). The pitch was not changed during the final half hour (when the thermometer was full) to examine how participants would react to this situation.

Measures

We tracked two outcomes in this study. First, confederates recorded the number of donations they received per half

hour by marking the side of their donation cans with a black marker. Second, confederates noted the total amount of money they raised per half hour. The aforementioned variables allowed for the calculation of a third variable as well: average donation size. Average donation size was calculated by dividing (a) total amount of money raised by (b) number of donations.

Pilot study

Before launching Study 1, the research team carried out a brief pilot study to quantify typical donation behavior in the target area. For comparative purposes, the control condition was compared to an LPC condition. In the pilot study, 4 confederates (2 males, 2 females) raised money for a local charity (Big Brothers/Big Sisters). Confederates rotated around the quad every half hour. In the control condition, confederates shook a can and said, "Please donate to Big Brothers/Big Sisters." In the LPC condition, confederates shook a can and said, "Please donate to Big Brothers/Big Sisters, even a penny helps." Confederates tracked the number of donations received, as well as the average money raised per half hour. The pilot study consisted of 4 hr of fundraising (8 half-hour periods) carried out over 2 days. As expected, LPC was considerably more effective than was the control condition. LPC averaged 10.75 ($SD = 2.40$) donations per hour, compared to 5.62 ($SD = 2.20$) in the control condition, $t(14) = 4.46$, $p < .001$. Consistent with previous literature, LPC did not garner smaller average donations ($M = 0.63$, $SD = 0.18$) than the control ($M = 0.59$, $SD = 0.14$), $t(14) = 0.49$, $p = .63$. Not only do these data demonstrate the efficacy of LPC, but they also provide a backdrop for interpreting the results of Study 1.

Results

Can shaking on the quad proved to be a successful fundraising endeavor. Confederates collected $713.17 via 840 donations in a span of 24 hr (spread across 8 days). The average can shaker received 9.82 donations and $7.42 per half hour.

Compliance rate

Can shaking proved to be a successful endeavor overall, but this project is primarily concerned with how different compliance-gaining techniques performed in the field. It was hypothesized that DTAG would result in more donations than LPC. A one-way ANOVA with number of donations as the dependent variable reveals a significant compliance technique main effect, $F(1, 95) = 15.98$, $p < .001$, partial $\eta^2 = .14$. However, counter to expectations, an examination of the means reveals that LPC averaged roughly three more donations per half hour than did DTAG (see Table 1).

Table 1 Average Donation Characteristics Per Half Hour by Compliance Condition

	LPC		DTAG		
	M	SE	M	SE	F
Number of donations	11.60	5.31	8.04	3.13	15.98***
Donation size	0.68	0.41	0.86	0.37	5.10*
Total money	$8.07	5.57	$6.78	3.54	1.83
N (of half hours)	48		48		

Note. LPC = legitimizing a paltry contribution; DTAG = driving toward a goal.
*$p < .05$. ***$p < .001$.

Donation size

It was hypothesized that DTAG would garner larger donations than would other compliance techniques. A one-way ANOVA with donation size as the dependent variable produced a significant compliance technique main effect, $F(1, 95) = 5.10$, $p = .02$, partial $\eta^2 = .05$. An examination of the means reveals that, consistent with the hypothesis, DTAG averaged about 18 cents more per donation than did LPC (see Table 1).

In summary, LPC averaged more donations, while DTAG averaged larger donations. As a result, a logical follow-up question is "Which technique averaged more money per half hour?" A one-way ANOVA with money per half hour as the dependent variable produced a nonsignificant compliance technique main effect, $F(1, 95) = 1.83$, $p = .17$, partial $\eta^2 = .01$. In other words, DTAG and LPC averaged the same amount of money per half hour, but the two techniques arrived at the same place in very different ways. LPC garnered many small donations whereas DTAG garnered fewer, but larger donations.

Fatigue

As a dynamic communication technique, DTAG was hypothesized to be more resistant to fatigue effects. To test these ideas, we conducted two hierarchical regression analyses—with time (Block 1), compliance condition (Block 2), and the Time × Compliance Condition interaction (Block 3) as independent variables—to determine whether fatigue effects were present. For compliance rate, the regression equation was significant at the first and second blocks (reported here at Block 2), $R = .44$, $R^2 = .19$, $F(2, 93) = 11.15$, $p < .001$ (see Figure 1). Time and compliance condition accounted for 5% and 14%, respectively, of the variance in compliance. An examination of the coefficients at Block 2 reveals that time ($\beta = -.22$), $t(93) = -2.18$, $p = .03$) and condition ($\beta = -.38$), $t(93) = -4.09$, $p < .001$, were significant predictors. The Time × Compliance Condition interaction was not significant in Block 3. Thus, participants were less likely to give over time (i.e., fatigue effect) and, above and beyond time, more likely
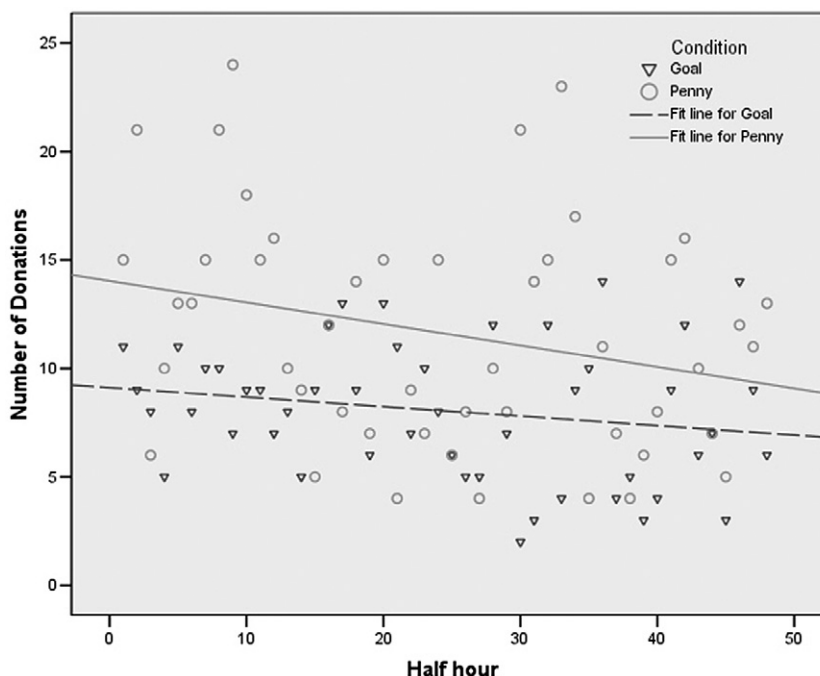
Figure 1 Average number of donations per half hour by compliance technique.

to give in the LPC condition. There was no evidence, however, that either condition resisted compliance rate fatigue effects.

For donation size, the regression equation was significant at the second block, $R = .24$, $R^2 = .06$, $F(2, 93) = 5.07$, $p = .03$ (see Figure 2). An examination of the coefficients at Block 2 reveals that only compliance condition ($\beta = .23$), $t(93) = 2.25$, $p = .03$, was a significant predictor of compliance. In other words, donation size did not change over time (no evidence of a fatigue effect) and, above and beyond time, participants gave larger donations in the DTAG condition. There was no evidence, however, that either condition resisted donation size fatigue effects.

Discussion

In study 1, DTAG was found to be just as effective at garnering donations as one of the most successful compliance techniques currently available. And the evidence in hand suggests that while LPC increases compliance rate, DTAG increases donation size. Unfortunately, neither technique proved to be effective at staving off fatigue.

The goal-gradient hypothesis postulates, for example, that activity (behavioral and cognitive) should increase as proximity to a goal decreases. A sharp acceleration in activity was not observed in Study 1, which raises questions about the explanatory power of the goal-gradient hypothesis in communication contexts. Interestingly, it is also the case that a sharp decline was not observed during the final half hour

segment when the tote board was depicted as full. Longer observation of that approach might reveal a decline, but it is also possible that participants are not discouraged by obtaining the desired outcome. Future research should engage this issue directly, perhaps by examining how participants process a goal pitch juxtaposed with a full tote board.

Limitations

There are a number of limitations that must be addressed. First, the study took place on a university campus. The conditions and the activity were natural, but the setting may have played a role in the results. Additional research conducted at off-campus sites may help to elucidate the effect (if any) that environment has on fundraising. Second, the present study investigated how compliance-gaining techniques function in a relatively passive situation. That is, confederates in this study did not actively seek out donations by approaching individuals on the quad or targeting certain groups. Previous research has typically examined compliance techniques in a more active setting; for example, testing the effectiveness of LPC in the door-to-door solicitation of funds (e.g., Cialdini & Schroeder, 1976). This limitation is not overly problematic since the present study successfully replicated the findings of compliance-gaining research in more active contexts. However, researchers will want to consider this difference if continued research suggests that these findings are in some way atypical.
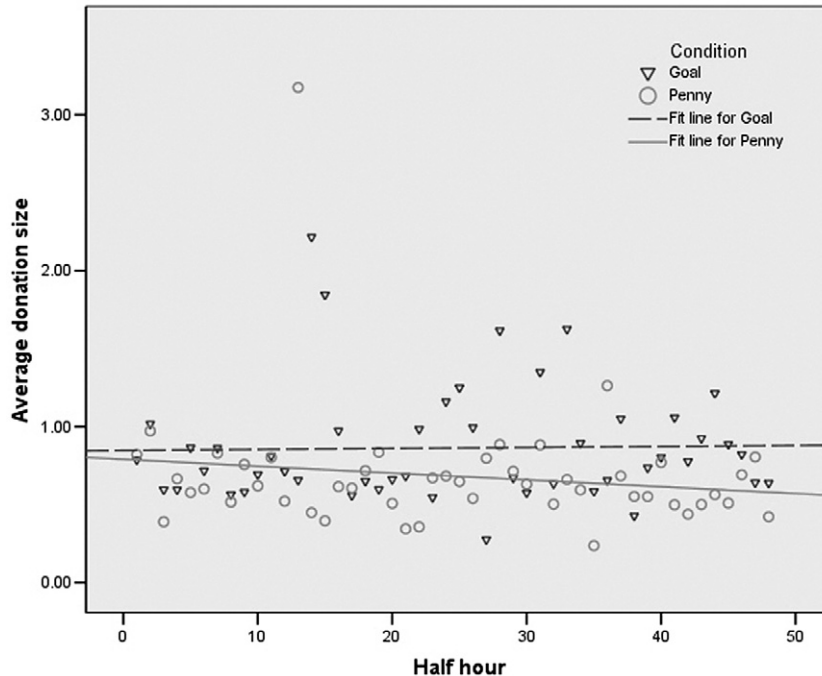
Figure 2 Average donation size per half hour by compliance technique.

Study 2

Field experiments allow researchers to examine how stimuli function in a naturalistic setting, but this added validity often sacrifices other aspects of the design. Study 1 had several limitations, including not assessing perceptions of individual donors, artificially manipulating tote boards in one way, and using a lone organization for context. All of these limitations stemmed from a desire to mask the presence of the experiment in the field.

A lab experiment was designed to address many of the limitations of the field experiment, as well as to replicate the results. Based on the results of Study 1, it is hypothesized that LPC will generate a greater rate of compliance than will DTAG. Conversely, it is hypothesized that DTAG will generate larger donations than will LPC.

Even though the field experiment did not find statistically significant resistance to fatigue, the goal-gradient hypothesis suggests that such effects should be present. Thus, it is hypothesized that DTAG will be more resistant to fatigue effects for compliance rate and compliance size.

Additionally, Study 2 examines the potential moderators of DTAG effects. Consistent with the goal-gradient hypothesis, proximity is a plausible explanatory mechanism for DTAG. A limitation of the field experiment is that the tote board could not be manipulated in two ways (or it would have revealed the presence of an experiment). To address this limitation, two versions of DTAG were created: one

where the tote board was artificially increased (DTAG proximity), and another where proximity was held constant (DTAG). It is hypothesized that DTAG will be more effective at increasing compliance rate and size as proximity to the goal increases.

An alternative explanation for DTAG is that it succeeds because people view it as a response to crisis. As evidence, persuaders utilizing this technique typically package the goal as a "need." That is, receivers are compelled to believe that a crisis exists that requires their attention. For example, blood drives often frame the drive as an attempt to shore up desperately depleted reserves and, as further support of this idea, the drives are more successful following an actual crisis or tragedy (Glynn et al., 2003). Political scientists (Mueller, 1970; O'Neal & Bryan, 1995) have noticed that citizens tend to rally in support of their leaders in times of crisis—referred to as the *rally around the flag effect*—a finding that supports the basic idea of a crisis-focused drive (see also research on terror management theory; Kam & Ramos, 2008).

DTAG is unlikely to be a technique that will only be successful in a real crisis situation, but, rather, that the effectiveness of the strategy may hinge, in part, on a persuader's ability to establish a pressing need. Even Start Literacy, the nonprofit organization that served as the vehicle in Study 1, was a local organization facing budget cuts and desperately in need of additional funds. Thus, a crisis explanation could potentially accommodate the results of that study. Accordingly, in the

present study, it is hypothesized that DTAG conditions will generate a greater number and larger donations in a crisis situation.

In addition to testing message features that could explain DTAG, we investigated several cognitive mediators. Proximity could influence donation behavior by increasing perceived contribution impact (i.e., the perception that donations will matter), especially as the desired goal approaches. Conversely, DTAG could be viewed as a combination of injunctive and descriptive norms (e.g., Lapinski & Rimal, 2005; Rimal, 2005; Rimal & Real, 2003). Research has suggested that people distinguish between what others desire of them (i.e., injunctive norms) and what others do (i.e., descriptive norms). A smoker, for instance, might distinguish between what loved ones want him or her to do (e.g., quit smoking) and what they actually do (e.g., they smoke, too).

DTAG, on the other hand, seems to cleverly pair an injunctive norm (i.e., the goal pitch) with a descriptive norm (i.e., the status update). Labeling a goal pitch as an injunctive norm is accurate because real-world goal pitches are often framed in terms of the collective. Persuaders typically market the goal as a community need or target. Inclusive language is also a common aspect of DTAG: Persuaders talk about "our" goal or the goal "we" are trying to reach (even though it is the persuader's goal).

Similarly, progress toward the goal can be thought of as a descriptive norm. In other words, an indicator of progress toward a goal may serve as a communication of what others are currently doing (i.e., a real-time, descriptive norm). Seen in this light, persuaders constantly update the status of the drive because it conveys the idea that people are currently doing (real-time, descriptive norm) what is desired/expected (injunctive norm). Thus, DTAG effects could be mediated by injunctive norms (i.e., the perception that important others want someone to give), descriptive norms (i.e., the perception that others are willing to give), or both. The crisis condition, on the other hand, could influence donation behavior by increasing perceived crisis (i.e., the perception that there is a crisis to which one should respond) or anticipated guilt (i.e., the perception that participants will feel guilty if they do not donate).

Method

Procedure

Participants were recruited to a 4 (Compliance-Gaining Condition) × 2 (Crisis/No Crisis) × 3 (Organization) × 3 (Time) lab experiment via a campus research pool. The research pool provides extra-credit opportunities to students enrolled in communication courses. Most of the students in the pool are drawn from large lecture or multi-section courses that contain a cross-section of majors.

The participants arrived at a research lab where they were randomly assigned to one of 24 experimental conditions. Participants were seated at a computer station and completed a brief pretest measuring demographics and psychosocial variables. Following the pretest, participants were exposed to a brief video clip, followed by a battery of questions assessing donation intentions. In total, participants viewed three video clips and responded to three associated question batteries. After completing the study, the participants were granted extra credit and were thanked for their time. The study protocol was approved by a university IRB.

Participants

College students ($N = 992$) participated in the study for extra credit. More females ($n = 610$; 61.5%) participated than did males ($n = 382$; 38.5%). Participants' mean age was 19.7 years ($SD = 2.1$). The racial background of the participants was disproportionately Caucasian, compared to U.S. demographics as a whole: 79.0% Caucasian, 2.9% African American, 12.6% Asian, 3.5% Hispanic, 0.1% Native American/American Indian, 1.3% self-described as "other," and 0.5% declined to answer (participants could check more than one category).

Stimuli

Participants viewed three unique media clips, averaging 12.3 s in length, over a period of approximately 20 min. Multiple clips were shown so stimuli could be manipulated over time (e.g., the tote board), with each clip unique to one condition. In the clips, two individuals (one male, one female) were shown fundraising on campus. One individual held a sign, while the other individual shook a can full of change. Participants were randomly assigned to view fundraising for one of three organizations: United Way, Red Cross, and Big Brothers/Big Sisters. Once they were assigned to an organization, participants were assigned to either a routine or crisis condition. The organizations were either depicted as in dire need of funds to respond to an emergency, or as engaged in routine fundraising. Finally, participants were assigned to one of four compliance conditions: control, DTAG, DTAG–proximity, or LPC.

Control

In the control condition, the fundraisers did not speak. One fundraiser shook a can of change, and the other held a sign with the name of the organization on it. In the crisis condition, the sign also had the words "Help Struggling Families" (for United Way), "Hurricane Relief" (for Red Cross), and "Food for Hungry Kids" (for Big Brothers/Big Sisters).

DTAG

In the DTAG condition, one fundraiser shook a can of change and said, "Help support [organization], we're trying to

raise $500." The other fundraiser held a sign with the name of the organization and a fundraising thermometer. The fundraising thermometer served as a tote board, but in this condition, it was artificially manipulated not to increase over time. That is, in all three clips, the tote board was at the same location (i.e., it did not rise or fall over time). In the DTAG crisis condition, the signs also had additional wording, identical to those in the control condition, and the speaker added a phrase to the pitch: "to help struggling families" (for United Way), "for hurricane relief" (for Red Cross), and "for hungry kids" (for Big Brothers/Big Sisters).

DTAG–proximity

The DTAG–proximity condition was identical to the DTAG condition, except that the tote board artificially increased over time. From the first clip to the last, the thermometer rose from empty ($0) to $200 to $400 (on a $500 tote board). This manipulation was designed to explicitly test how proximity related to compliance within DTAG appeals. The crisis condition added the same text/phrasings as the other DTAG stimuli.

LPC

In the LPC condition, one fundraiser shook a can and said, "Help support [organization], even a penny helps." The other fundraiser held a sign with the name of the organization and the words, "Even a Penny Helps" written below. The crisis condition added the same text/phrasings as detailed in the other non-control conditions.

Outcome measures

Compliance rate was assessed with a single item: "If you encountered the people in the video on campus, how likely would you be to donate to the organization?" Participants responded on a 7-point Likert-type scale ranging from 1 (*very unlikely*) to 7 (*very likely*). Compliance rate was assessed three times, once after viewing each media clip (Time 1, $M = 3.43$, $SD = 1.86$; Time 2, $M = 3.71$, $SD = 1.78$; Time 3, $M = 3.87$, $SD = 1.82$). Donation size was assessed with the single item, "If you would be willing to give, how much would you give?" Participants responded by typing in the amount they would give. Compliance size was also assessed three times, once after each media clip (Time 1, $M = 1.57$, $SD = 4.21$; Time 2, $M = 1.52$, $SD = 3.31$; Time 3, $M = 1.61$, $SD = 3.95$).

Cognitive mediators

After each clip, participants were asked, "What are reasons that you would, or would consider, giving to the organization in the video?" Participants were provided with five response options that they could check (unchecked coded as 0, checked

coded as 1). The response options were "They seemed like they were in crisis" (perceived crisis: Time 1, $M = 0.09$, $SD = 0.29$; Time 2, $M = 0.11$, $SD = 0.32$; Time 3, $M = 0.11$, $SD = 0.32$), "I would feel guilty later if I didn't give now" (anticipated guilt: Time 1, $M = 0.25$, $SD = 0.43$; Time 2, $M = 0.25$, $SD = 0.43$; Time 3, $M = 0.24$, $SD = 0.43$), "Everyone else is probably willing to give some money" (descriptive norm: Time 1, $M = 0.06$, $SD = 0.24$; Time 2, $M = 0.09$, $SD = 0.28$; Time 3, $M = 0.09$, $SD = 0.29$), "People important to me would expect that I contribute to the organization" (injunctive norm: Time 1, $M = 0.08$, $SD = 0.27$; Time 2, $M = 0.08$, $SD = 0.27$; Time 3, $M = 0.07$, $SD = 0.26$), and "The contribution I could provide would help" (perceived contribution impact: Time 1, $M = 0.08$, $SD = 0.28$; Time 2, $M = 0.07$, $SD = 0.26$; Time 3, $M = 0.07$, $SD = 0.25$).

Results

The main outcomes for this study (compliance rate, donation size) were measured at three points in time, following exposure to each message. We conducted repeated-measure ANOVAs to test whether compliance rate and donation size varied by compliance-gaining condition, crisis condition, and organizational context. Repeated-measure ANOVAs enable statisticians to examine the variance between participants (e.g., compare compliance rates for control, DTAG, DTAG–proximity, and LPC) as well as the variance within participants (e.g., compare compliance rates for DTAG at Time 1, Time 2, and Time 3). We employed planned contrasts and t tests to test specific hypotheses.

Compliance rate

Initially, the results for between-subjects factors were examined. For compliance rate, we hypothesized that LPC would elicit the most donations. The analysis reveals a significant main effect for compliance condition, $F(3, 964) = 29.62$, $p < .001$, partial $\eta^2 = .084$. Planned contrasts reveal that the control condition was less effective ($M = 2.89$, $SD = 1.55$) than were all other conditions combined ($M = 3.93$, $SD = 1.59$, $p < .001$). LPC was more effective ($M = 4.16$, $SD = 1.56$) than was DTAG–proximity ($M = 3.73$, $SD = 1.49$, $p = .003$), but only marginally more effective than DTAG ($M = 3.90$, $SD = 1.70$, $p = .06$). DTAG and DTAG–proximity were not significantly different ($p = .25$). Thus, LPC did generally garner more donations than other conditions. Significant between-subjects effects were not observed for crisis condition, $F(2, 964) = 0.87$, $p = .41$; organizational context, $F(3, 964) = 29.62$, $p < .001$; Compliance × Crisis, $F(3, 964) = 0.18$, $p < .90$; Compliance × Organization, $F(6, 964) = 0.57$, $p = .74$; Crisis × Organization, $F(2, 964) = 0.04$, $p = .95$; or Compliance × Crisis × Organization, $F(6, 964) = 1.31$, $p = .24$.
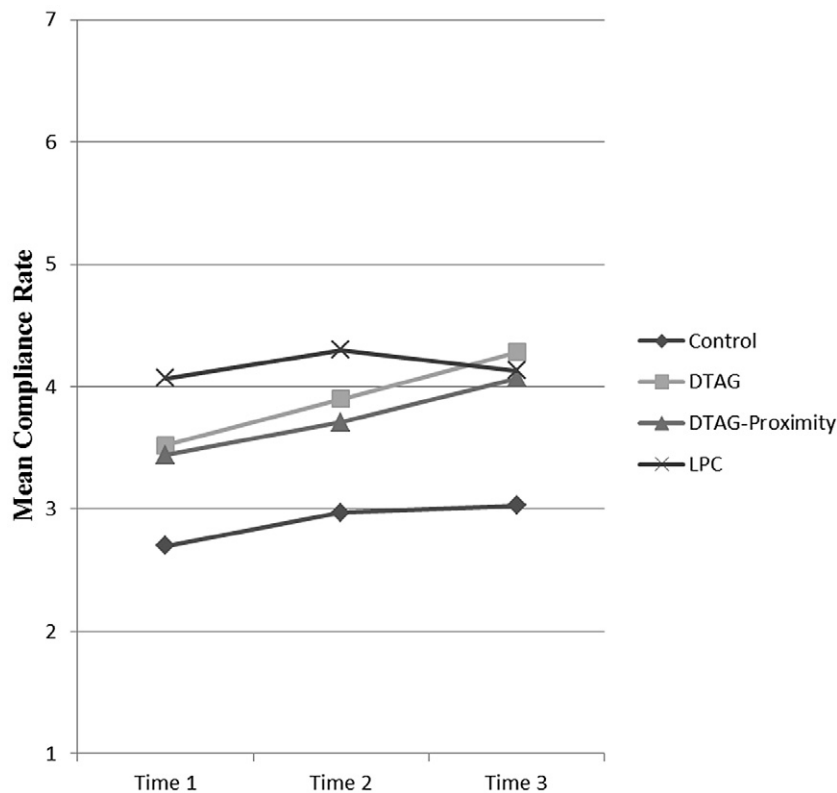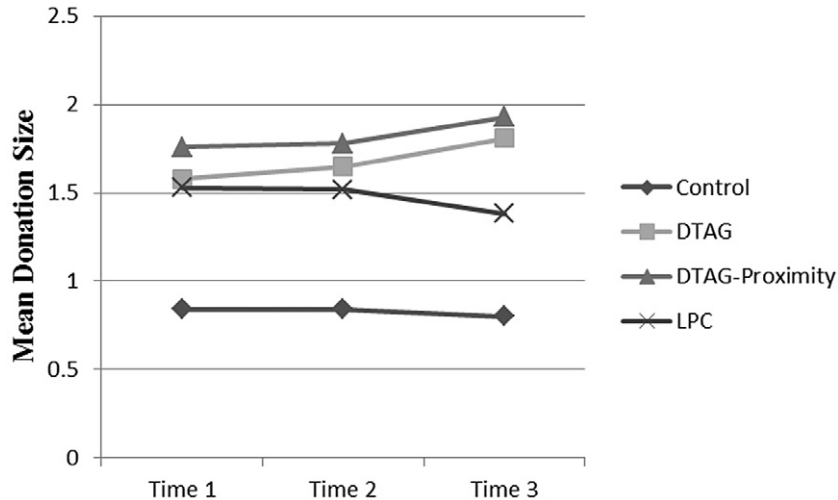
Figure 3 Mean compliance rate by time and compliance condition. DTAG = driving toward a goal. Control: Time 1, *M* = 2.70, *SD* = 1.74; Time 2, *M* = 2.97, *SD* = 1.67; Time 3, *M* = 3.03, *SD* = 1.71. DTAG: Time 1, *M* = 3.52, *SD* = 1.91; Time 2, *M* = 3.90, *SD* = 1.84; Time 3, *M* = 4.28, *SD* = 1.76. DTAG–proximity: Time 1, *M* = 3.44, *SD* = 1.69; Time 2, *M* = 3.71, *SD* = 1.67; Time 3, *M* = 4.07, *SD* = 1.76. LPC: Time 1, *M* = 4.07, *SD* = .1.87; Time 2, *M* = 4.30, *SD* = 1.72; Time 3, *M* = 4.13, *SD* = 1.79.

Next, we examined within-subject variance for compliance rate. Mauchly's test indicates that the assumption of sphericity had been violated, $\chi^2(2) = 73.03$, $p < .001$. Therefore, Roy's largest root was employed as an alternative test statistic (in line with O'Brien & Kaiser, 1985). It was hypothesized that DTAG conditions would be more resistant to fatigue effects, DTAG–proximity would collect more donations over time than would DTAG, and both DTAG conditions would have the highest compliance rate in the crisis condition. Generally speaking, compliance rate increased over time, $F(2, 963) = 44.48$, $p < .001$, partial $\eta^2 = .09$. This main effect is qualified, however, by a significant Time × Compliance-Gaining Condition interaction, $F(3, 964) = 14.35$, $p < .001$, partial $\eta^2 = .04$ (see Figure 3). Planned contrasts reveal that LPC was significantly more effective than were all other conditions at garnering donations at Time 1 ($p < .001$) and Time 2 ($p < .001$). Yet, LPC seemed to fatigue over time, whereas the DTAG conditions became stronger. By Time 3, LPC was no longer different from DTAG ($p = .34$) or DTAG–proximity ($p = .67$). Consistent with this analysis, pairwise t tests reveal that compliance rate significantly increased for DTAG from

Time 1 to Time 2, $t(246) = -5.39$, $p < .001$; and from Time 2 to Time 3, $t(246) = -5.68$, $p < .001$. Likewise, rate increased for DTAG–proximity from Time 1 to Time 2, $t(246) = -2.88$, $p = .004$; and from Time 2 to Time 3, $t(245) = -4.36$, $p < .001$. Conversely, from Time 2 to Time 3, rate did not change for control, $t(245) = -0.93$, $p = .35$; and marginally decreased for LPC, $t(248) = 1.91$, $p = .06$. Thus, both DTAG conditions were more resistant to compliance rate fatigue effects, but DTAG–proximity was not more resistant than DTAG. Significant within-subjects effects were not found for Time × Crisis Condition, $F(2, 963) = 0.60$, $p = .55$; Time × Organizational Context, $F(2, 964) = 1.57$, $p = .21$; Time × Compliance × Crisis, $F(3, 964) = 0.49$, $p = .69$; Time × Compliance × Organization, $F(6, 964) = 0.99$, $p = .43$; Time × Crisis × Organization, $F(2, 964) = 2.12$, $p = .12$; or Time × Compliance × Crisis × Organization, $F(6, 964) = 1.33$, $p = .24$.

Donation size

For donation size, we hypothesized that DTAG would induce larger donations, DTAG and DTAG–proximity would be

Figure 4 Mean donation size by time and compliance condition. DTAG = driving toward a goal. Control: Time 1, *M* = 0.84, *SD* = 1.53; Time 2, *M* = 0.84, *SD* = 1.51; Time 3, *M* = 0.80, *SD* = 0.14. DTAG: Time 1, *M* = 1.58, *SD* = 2.11; Time 2, *M* = 1.65, *SD* = 2.43; Time 3, *M* = 1.81, *SD* = 2.43. DTAG–proximity: Time 1, *M* = 1.76, *SD* = 3.09; Time 2, *M* = 1.78, *SD* = 3.08; Time 3, *M* = 1.93, *SD* = 3.41. LPC: Time 1, *M* = 1.53, *SD* = 2.78; Time 1, *M* = 1.52, *SD* = 2.59; Time 3, *M* = 1.38, *SD* = 2.35.

more resistant to fatigue effects, DTAG–proximity would garner larger donations over time than would DTAG, and both DTAG and DTAG–proximity would have larger donations in the crisis condition. Between-subjects effects were observed for compliance condition, $F(3, 959) = 9.18$, $p < .001$, partial $\eta^2 = .03$. Planned contrasts reveal that the control condition was less effective ($M = 0.82$, $SD = 1.40$) than were all other conditions combined ($M = 1.66$, $SD = 2.51$, $p < .001$). Concerning experimental conditions, DTAG–proximity was marginally more effective ($M = 1.82$, $SD = 2.99$) than was LPC ($M = 1.47$, $SD = 2.26$, $p = .08$), but not more effective than DTAG ($M = 1.68$, $SD = 2.18$, $p = .45$). DTAG and LPC were not significantly different ($p = .33$). Thus, there is some support for the idea that DTAG–proximity (but not DTAG) generated larger donations. Significant between-subjects effects were not observed for crisis condition, $F(3, 959) = 0.02$, $p = .88$; organization, $F(3, 959) = 0.11$, $p = .89$; Compliance × Crisis, $F(3, 959) = 0.77$, $p = .51$; Compliance × Organization, $F(6, 959) = 0.66$, $p = .68$; Crisis × Organization, $F(2, 959) = 1.36$, $p = .25$; or Compliance × Crisis × Organization, $F(6, 959) = 1.41$, $p = .20$.

Next, we examined within-subject variance for compliance size. Mauchly's test indicates that the assumption of sphericity had been violated, $\chi^2(2) = 190.53$, $p < .001$. Therefore, Roy's largest root was again employed as an alternative test statistic. There was no significant effect for time, $F(2, 958) = 0.39$, $p = .68$. However, there was a significant Time × Compliance Condition interaction, $F(3, 959) = 4.06$, $p = .007$, partial $\eta^2 = .013$ (see Figure 4). Planned contrasts reveal that the control condition was less effective than were

all other conditions combined at Time 1 ($p < .001$), Time 2 ($p < .001$), and Time 3 ($p < .001$). Though significantly different from control, the experimental conditions were not significantly different from one another until Time 3. At Time 3, LPC was significantly less effective than DTAG–proximity ($p = .013$), and marginally less effective than DTAG ($p = .052$). Thus, both DTAG–proximity and DTAG were more resistant to fatigue effects. Significant within-subject effects were not found for any other factor, including Time × Crisis Condition, $F(2, 958) = 0.77$, $p = .47$; Time × Organizational Context, $F(2, 959) = 1.05$, $p = .35$; Time × Compliance × Crisis, $F(6, 959) = 1.82$, $p = .14$; Time × Compliance × Organization, $F(6, 959) = 1.35$, $p = .23$; Time × Crisis × Organization, $F(2, 959) = 2.43$, $p = .10$; and Time × Compliance × Crisis × Organization, $F(6, 959) = 1.07$, $p = .38$.

Cognitive mediators

Five cognitive mediators were examined as possible explanatory mechanisms. Given the previous results, the focus of the mediation analysis is on explicating the underlying cognitive mechanisms of DTAG–proximity at Time 3. It was at Time 3 that DTAG–proximity caught LPC in terms of compliance rate and surpassed LPC in terms of donation size. Thus, identifying possible cognitive mechanisms at this stage is a priority.

To examine whether one of the five cognitive variables mediated the relationship between DTAG–proximity and compliance rate/donation size, we employed multiple mediation analysis (Preacher & Hayes, 2008). Multiple mediation

Table 2 Multiple Mediation Analysis for Compliance Rate

	IV to mediators (a paths)		
	b	SE	*t*
Crisis	0.02	0.03	0.77
Descriptive norm	0.11	0.03	4.05***
Injunctive norm	0.04	0.02	1.88†
Guilt	0.03	0.04	0.79
Contribution impact	0.04	0.02	1.62
	Direct effects of mediators on DV (b paths)		
Crisis	0.29	0.25	1.17
Descriptive norm	0.96	0.25	3.88***
Injunctive norm	0.74	0.31	2.36*
Guilt	1.21	0.18	6.59***
Contribution impact	−1.03	0.29	−3.52***
	Direct effect of IV on DV (c′ path)		
Compliance	0.89	0.15	6.07***
	Normal theory tests for indirect effects		
	Effect	*SE*	*Z*
Total	0.14	0.07	2.03*
Crisis	0.01	0.01	0.64
Descriptive norm	0.11	0.04	2.81**
Injunctive norm	0.03	0.02	1.48
Guilt	0.03	0.04	0.78
Contribution impact	−0.04	0.03	−1.48

Note. $N = 492$. Model summary for DV model: $R^2 = .53$; $F(6, 485) = 23.44$, $p < .001$.
†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

Table 3 Multiple Mediation Analysis for Donation Size

	IV to mediators (a paths)		
	b	SE	*t*
Crisis	0.02	0.03	0.77
Descriptive norm	0.11	0.03	4.05***
Injunctive norm	0.04	0.02	1.88†
Guilt	0.03	0.04	0.79
Contribution impact	0.04	0.02	1.62
	Direct effects of mediators on DV (b paths)		
Crisis	1.22	0.40	3.09**
Descriptive norm	0.84	0.93	2.14*
Injunctive norm	0.96	0.49	1.95
Guilt	0.65	0.29	2.24*
Contribution impact	−1.17	0.46	−2.53*
	Direct effect of IV on DV (c′ path)		
Compliance	1.01	0.23	4.33***
	Normal theory tests for indirect effects		
	Effect	SE	Z
Total	0.13	0.08	1.75†
Crisis	0.03	0.03	0.74
Descriptive norm	0.09	0.05	1.90†
Injunctive norm	0.04	0.03	1.36
Guilt	0.02	0.03	0.74
Contribution impact	−0.04	0.03	−1.37

Note. $N = 494$. Model summary for DV model: $R^2 = .11$, $F(6, 487) = 9.79$, $p < .001$.
†$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

analysis is a two-step process. First, a relationship between two variables is identified (e.g., via ANOVA), although this is not a necessity (see Hayes, 2009). Second, multiple mediation analysis is conducted to test whether other variables mediate the relationship identified in the first step. To facilitate multiple mediation analysis, a dummy variable was created (called *compliance condition*) to contrast the LPC condition (coded as 0) with DTAG–proximity (coded as 1).

Multiple mediation analyses reveal that compliance condition was significantly related to descriptive and injunctive norms (see Tables 2 and 3). Both norms were also significantly related to compliance rate and donation size. Compliance condition was significantly related to compliance rate, $b = 1.03$, $SE = .16$, $p < .001$; and donation size, $b = 1.13$, $SE = .23$, $p < .001$. The direct effects were still significant with norms taken into account, but they were reduced: compliance rate, $b = 0.89$, $SE = .15$, $p < .001$; donation size, $b = 1.01$, $SE = .23$, $p < .001$. Consistent with partial mediation, normal theory tests support the idea that descriptive norms, but not injunctive norms were a significant mediator of both relationships.

Bootstrapping (1,000 samples) confirmed these indirect relationships. For compliance rate, the bias corrected and

accelerated 95% confidence interval did not include 0 for descriptive norms (.0407 to .1928). For donation size, the bias corrected and accelerated 95% confidence interval did not include 0 for descriptive norms (.0138 to .2988).

General discussion

Once again, LPC was effective at initially generating donations. However, by the third exposure (i.e., Time 3), both DTAG conditions were equally effective. The DTAG conditions, on the other hand, garnered larger donations as time progressed. These results are consistent with LPC being an effective means for initially increasing compliance rate, whereas DTAG provides persuaders with a dynamic communication strategy that can gain momentum and potentially resist fatigue.

Crisis did not seem to explain the effectiveness of DTAG. However, consistent with the goal-gradient hypothesis, there were signs that proximity might be important. Study 2 only examined participant reaction to three exposures (at three tote board intervals), but even in that short time span, DTAG–proximity started to garner larger donations. This interpretation is consistent with the logic of DTAG, as well as an

established behavioral response to proximity to a goal (Hull, 1934; Lock & Latham, 1990). DTAG provides receivers with a reason to give more, especially as proximity to the goal decreases.

One intriguing possibility that should be considered in future research is whether personal relevance of the goal serves to moderate or mediate persuasive effects. After all, rats accelerate as they near cheese because they covet the food item. In a fundraising situation, donors are placed in a somewhat different situation in which they may not covet the goal of the persuader. In fact, it is plausible that proximity to the goal in a fundraising situation could trigger increased behavioral response from the persuader. Obtaining the goal is presumably the objective of the persuader and, therefore, excitement and intensity might elevate in relation to proximity.

Descriptive norms partially mediated the effects of DTAG on both rate and size. This is logical, as both the goal pitch and the indicator of progress toward the goal communicate information about what others are doing. It is also consistent with the notion of social proof; that is, the idea that "We view a behavior as correct in a given situation to the degree we see others performing it" (Cialdini, 2009, p. 99). Future work should continue to examine this possibility with multi-item measures designed to capture the subtle nuances of social norms (e.g., Lapinski & Rimal, 2005). It may be the case that more detailed measures will serve to capture all of the variance among DTAG, compliance rate, and donation size. Another intriguing possibility is that descriptive norms and some other unmeasured factor (e.g., perceived proximity) explain DTAG effects.

LPC was found to be effective as well, consistent with extant research. In fact, it is not surprising that LPC was more effective than DTAG at initially increasing compliance rate. Past research has consistently found that LPC is a successful compliance strategy for this very reason. Of course, it is possible that DTAG and LPC could be combined, or that DTAG might be improved by framing goals, or progress toward goals in ways that remove obstacles to compliance. For example, a persuader might frame progress toward a goal in a way that legitimizes a paltry contribution (e.g., "Even one more dollar would get us over the $10,000 dollar mark"). Future research could test the persuasive force of combining these two approaches.

That said, the success of LPC at increasing compliance rate masks other limitations of the strategy. As an example, past research has consistently found that LPC increases compliance rate without reducing donation size (Cialdini & Schroeder, 1976). The assumption has been that maintaining a stable donation size is an indicator of success. Contrary to this idea, two studies have now found that LPC donation size was stable, but lower (Study 1); or lower over time (Study 2). Both findings draw into question the notion that LPC garners more donations without sacrificing donation size. At the very least, LPC seems ill equipped to maintain donation size in situations where multiple persuasive attempts are likely.

Future research

The present study suggests several directions for continued research. First, researchers should explore DTAG in situations other than fundraising. For instance, it would be interesting to study whether goals or indicators of progress toward goals might serve as an effective persuasion tool within exercise groups. Exercise groups could identify collective goals (e.g., lose 100 pounds as a group in the month of October), and then track progress toward the goal (e.g., using a tote board at work, at the gym, or online). Researchers could also study the effectiveness of DTAG in other applied scenarios, such as testing whether blood drives that utilize DTAG are more effective than those that do not.

Similarly, DTAG was developed based on informal observation of current persuasion efforts. It stands to reason that theory could be further developed by continued observation. Communication researchers could conduct a content analysis of various drives (e.g., blood drives, book drives, fund drives) to identity other aspects typical of DTAG or to document specific message strategies employed. Other methods (e.g., interviewing, ethnographic research) might help to explain why DTAG is so commonplace and how persuaders think it works (or does not work). Additionally, there may be secondary data available to analyze comparable organizational "drives" that employ different compliance-gaining strategies.

Perhaps more importantly, research must be conducted regarding how to effectively communicate repetitive information. The communication environment is increasingly complex, yet audiences are likely bombarded with the same or similar messages on a continual basis. Such repetition may result in fatigue, skepticism, and a general lack of adherence to message recommendations (Jensen et al., 2011). Continued research on this front will serve the needs of persuasion researchers and practitioners alike.

Study limitations

Study 2 was limited in several ways. First, participants were exposed to three compliance-gaining pitches in a relatively short period of time. This was done to examine how participants would respond to multiple persuasion attempts. However, even in a saturated communication environment with persuasive appeals around every corner, it is unlikely that most people encounter appeals so close together. An alternative design would be to have participants exposed to multiple appeals spread out over several weeks (e.g., multiple lab visits). Second, participants were asked how likely

they were to give and how much. Behavioral intention is not a perfect proxy for behavior. Asking participants to donate money to a charity (even in the lab) or perform some action with costs (e.g., agree to volunteer for a charity) might provide a more accurate measure of behavior.

Persuaders frequently utilize goals or indicators of progress toward goals in their appeals. The present research provides evidence that such appeals have merit. DTAG affords persuaders the chance to attract larger donations, as well as potentially resist fatigue effects over time. It also provides researchers with a vehicle for connecting the goal-gradient hypothesis with compliance gaining scholarship, a combination that should further understanding of both areas.

References

Andrews, K. R., Carpenter, C. J., Shaw, A. S., & Boster, F. J. (2008). The legitimization of paltry favors effect: A review and meta-analysis. *Communication Reports*, *21*, 59–69.

Barnes, M. (2006). Reducing donor fatigue syndrome. *Nonprofit World*, *24*(2), 1–8.

Brockner, J., Guzzi, B., Kane, J., Levine, E., & Shaplen, K. (1984). Organizational fundraising: Further evidence on the effects of legitimizing small donations. *Journal of Consumer Research*, *11*, 611–614.

Brownstein, R. J., & Katzev, R. D. (1985). The relative effectiveness of three compliance techniques in eliciting donations to a cultural organization. *Journal of Applied Social Psychology*, *15*, 564–574.

Burger, J. M. (1986). Increasing compliance by improving the deal: The that's-not-all technique. *Journal of Personality and Social Psychology*, *51*, 277–283.

Cialdini, R. B. (2009). *Influence: Science and practice* (5th ed.). Boston: Pearson.

Cialdini, R. B., Cacioppo, J. T., Bassett, R., & Miller, J. A. (1978). The low-ball procedure for producing compliance: Commitment then cost. *Journal of Personality and Social Psychology*, *36*, 463–476.

Cialdini, R. B., & Schroeder, D. A. (1976). Increasing compliance by legitimizing paltry contributions: When even a penny helps. *Journal of Personality and Social Psychology*, *34*, 599–604.

Cialdini, R. B., Vincent, J. E., Lewis, S. K., Catalan, J., Wheeler, D., & Darby, B. L. (1975). Reciprocal concessions procedure for inducing compliance: The door-in-the-face technique. *Journal of Personality and Social Psychology*, *51*, 599–605.

Cook, T. D., & Flay, B. R. (1978). The persistence of experimentally induced attitude change. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 11, pp. 1–57). New York: Academic Press.

DeJong, W., & Oopik, A. J. (1992). Effect of legitimizing small contributions and labeling potential donors as "helpers" on responses to a direct mail solicitation for charity. *Psychological Reports*, *71*, 923–928.

Dolinski, D., Grzyb, T., Olejnik, J., Prusakowski, S., & Urban, K. (2005). Let's dialogue about penny: Effectiveness of dialogue involvement and legitimizing paltry contribution techniques. *Journal of Applied Social Psychology*, *35*, 1150–1170.

Fraser, C., Hite, R. E., & Sauer, P. L. (1988). Increasing contributions in solicitation campaigns: The use of large and small anchorpoints. *Journal of Consumer Research*, *15*, 284–287.

Freedman, J., & Fraser, S. (1966). Compliance without pressure: The foot-in-the-door technique. *Journal of Personality and Social Psychology*, *4*, 195–202.

Glynn, S. A., Busch, M. P., Schreiber, G. B., Murphy, E. L., Wright, D. J., Tu, Y., et al. (2003). Effect of a national disaster on blood supply and safety: The September 11 experience. *Journal of the American Medical Association*, *289*, 2246–2253.

Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, *76*, 408–420.

Heilizer, F. (1977). A review of theory and research on the assumptions of Miller's response competitions models: Response gradients. *Journal of General Psychology*, *97*, 17–71.

Hull, C. L. (1932). The goal-gradient hypothesis and maze learning. *Psychological Review*, *39*, 25–43.

Hull, C. L. (1934). The rats' speed of locomotion gradient in approach to food. *Journal of Comparative Psychology*, *17*, 393–422.

Jensen, J. D., Carcioppolo, N., King, A. J., Bernat, J. K., Davis, L. A., Yale, R., et al. (2011). Including limitations in news coverage of cancer research: Effects of news hedging on fatalism, medical skepticism, patient trust, and backlash. *Journal of Health Communication*, *16*, 486–503.

Joule, R. V., Gouilloux, F., & Weber, F. (2001). The lure: A new compliance procedure. *Journal of Social Psychology*, *129*, 741–749.

Kam, C. D., & Ramos, J. M. (2008). Joining and leaving the rally: Understanding the surge and decline in Presidential approval following 9/11. *Public Opinion Quarterly*, *72*, 619–650.

Kinnick, K., Krugman, D. M., & Cameron, G. T. (1996). Compassion fatigue: Communication and burnout toward social problems. *Journalism and Mass Communication Quarterly*, *73*, 687–707.

Kivetz, R., Urminsky, O., & Zheng, Y. (2006). The goal-gradient hypothesis resurrected: Purchase acceleration, illusionary goal progress, and customer retention. *Journal of Marketing Research*, *43*, 39–58.

Lapinski, M. K., & Rimal, R. N. (2005). An explication of social norms. *Communication Theory*, *15*, 127–147.

Lock, E. A., & Latham, G. P. (1990). A theory of goal setting and task performance. Englewood Cliffs, NJ: Prentice-Hall.

Mark, M. M., & Shotland, R. L. (1983). Increasing charitable contributions: An experimental evaluation of the American Cancer Society's recommended solicitation procedures. *Journal of Voluntary Action Research*, *12*, 8–21.

Mueller, J. E. (1970). Presidential popularity from Truman to Johnson. *American Political Science Review*, *64*, 18–34.

Muscular Dystrophy Association. (2011). *Jerry Lewis MDA Labor Day telethon.* Retrieved February 9, 2011, from http://www.mdausa.org/telethon/

O'Brien, R. G., & Kaiser, M. K. (1985). The MANOVA approach for analyzing repeated measures designs: An extensive primer. *Psychological Bulletin*, *97*, 316–333.

O'Keefe, D. J., & Jensen, J. D. (2006). The advantages of compliance or the disadvantages of noncompliance? A meta-analytic review of the relative persuasive effectiveness of gain-framed and loss-framed messages. *Communication Yearbook*, *30*, 1–43.

O'Neal, J. R., & Bryan, A. L. (1995). The rally 'round the flag effect in U.S. foreign policy crises: 1950–1985. *Political Behavior*, *17*, 379–401.

Perrine, R. M., & Heather, S. (2000). Effects of picture and even-a-penny-will-help appeals on anonymous donations to charity. *Psychological Reports*, *86*, 551–559.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*, 879–891.

Reeves, R. A., Macolini, R. M., & Martin, R. C. (1987). Legitimizing paltry contributions: On-the-spot vs. mail-in requests. *Journal of Applied Social Psychology*, *17*, 731–738.

Reeves, R. A., & Saucer, P. R. (1993). A test of commitment in legitimizing paltry contributions. *Journal of Social Behavior and Personality*, *8*, 537–544.

Reingen, P. H. (1978). On inducing compliance with requests. *Journal of Consumer Research*, *5*, 96–102.

Rhoades, K., & Cialdini, R. (2002). The business of influence: Principles that lead to success in commercial settings. In J. P. Dillard & M. Pfau (Eds.), *The persuasion handbook: Developments in theory and practice* (pp. 513–542). Thousand Oaks, CA: Sage.

Rimal, R. N. (2005). How behaviors are influenced by perceived norms: A test of the theory of normative social behavior. *Communication Research*, *32*, 389–414.

Rimal, R. N., & Real, K. (2003). Understanding the influence of perceived norms on behaviors. *Communication Theory*, *13*, 184–203.

Weyant, J. M. (1984). Applying social psychology to induce charitable donations. *Journal of Applied Social Psychology*, *14*, 441–447.

Weyant, J. M., & Smith, S. L. (1987). Getting more by asking for less: The effects of request size on donations of charity. *Journal of Applied Social Psychology*, *17*, 392–400.