



**Mobilizing Group Membership:  
The Impact of Personalization and Social Pressure E-mails**

**James Druckman**

Payson S. Wild Professor of Political Science  
Associate Director and Faculty Fellow, Institute for Policy Research  
Northwestern University

**Donald P. Green**

Professor of Political Science  
Columbia University

Version: January 8, 2013

**DRAFT**

*Please do not quote or distribute without permission.*

## Abstract

A randomized experiment was conducted in order to assess the effectiveness of three forms of e-mail appeals to prospective members of a newly formed professional group. The baseline condition consisted of an impersonal appeal—prospective members were sent a mass e-mail encouraging them to join. Participants in the personal condition received an e-mail with the same content, prefaced by a personal note from the group president. Participants in the social pressure condition received a personal note that called attention to the fact that they had previously signed a petition to form the professional group and urged them to make good on their earlier pledge (i.e., signing of the petition). Personalization is found to generate strong and statistically significant treatment effects. Even stronger are the effects of social pressure.

Groups form to bring together individuals who share common interests. Groups also often pursue agendas on behalf of their members. For example, an environmental group connects individuals interested in protecting nature and may lobby government for stronger environmental regulations. Likewise, a college's alumni club unites those with a common experience who may attempt to raise money and recruit potential students. The success of any attempt to form a group often depends on mobilization efforts by the group's founders. What makes for successful mobilization?

We build on the literature on group mobilization by exploring the impact of e-mail mobilization efforts. E-mail mobilization has become an increasingly important tactic given the ease with which e-mail reaches large numbers of potential group members. At the same time, efforts to encourage membership by e-mail must overcome a well-known problem: recipients of e-mail are often indifferent or hostile to mass e-mail communication, sometimes characterized as "spam." Mass emails have proven ineffective, for example, as a means of encouraging college students to register to vote (Nickerson 2007a,b, Bennion and Nickerson 2011). Several large-scale randomized experiments show that relatively small proportions of intended recipients open mass e-mail, and those who do are no more likely to register than recipients in the control who were omitted from the e-mail list.

This paper addresses the challenge of crafting effective e-mail messages as part of a membership drive. We specifically study how incorporating personalized content and invoking social pressure affect the success of a membership drive. A randomized field experiment was conducted by a newly-formed professional academic group. In what follows, we explain the theoretical backdrop of the interventions we test, showing how personalization and social

pressure stimulate action in other contexts. We then describe the design and results of our experiment.

### **Personalization and Social Pressure as Mobilization Tactics**

Using e-mail messages to mobilize participation has obvious benefits in terms of cost. The effectiveness of such efforts, however, is less clear – given the proliferation of e-mail solicitations, it is a challenge to attract attention and make an appeal that culminates in action.

That said, certain types of e-mail messages may be more successful than others; we focus on two message aspects. First, personalized messages may prompt attention and be more persuasive. Tam and Ho (2005: 275) speculate that “a recipient may form a more favorable attitude toward the message when a promotion e-mail is addressed to him/her personally (e.g., addressing the recipient using his/her first name) than when a generic message is received... the recipient may invoke a rule that ‘personalized recommendations are tailored for me and therefore can be trusted’.” This echoes social exchange theory (Homans 1958, Cook 1987), which posits increased responsiveness when messages generate a feeling of trust and personal interaction. The theory posits that social behavior involves the exchange of material and non-material goods where sources of approval and/or prestige come into play. Researchers have tested social exchange theory in the context of invitations to respond to surveys, and although the results are mixed, the general finding is that personalized invitations stimulate participation (e.g., Duncan 1979, Porter and Whitcomb 2003, Fan and Yan 2010).

Personalization is thought to work especially well when the message is from a source known by the recipient. For example, although mass e-mail seems to do nothing to increase voter turnout, e-mail from one friend to another may be effective (Davenport 2012). Personal

interaction further stimulates trust, suggests the possibility for later social exchange, and may invoke social pressure to perform the desired behavior (Fan and Yan 2010: 135).<sup>1</sup>

The second message aspect we explore is explicit social pressure. When individuals decide whether to take an action on behalf of a public good, they may be swayed by the extrinsic benefits of their action.<sup>2</sup> Extrinsic benefits include feelings of shame or pride in anticipation that others may learn about one's actions. The expectation that a behavior is being monitored by others can induce someone to act: he/she may do so in order to obtain the social rewards of conforming to a norm or to avoid embarrassment by non-action. Scholars have demonstrated the power of social pressure in stimulating a range of social, economic, and political behaviors (e.g., Gross et al. 1974, Schultz 1999, Cialdini and Goldstein. 2004, Bolsen 2009, Sinclair 2012).

For example, Gerber et al. (2008) randomly assigned tens of thousands of potential voters in Michigan to one of five experimental groups. The control group received no turnout message. One treatment group received a message emphasizing voting is a civic duty. A second, stronger treatment said that voting behavior among members of the recipient's household was being studied for academic purposes. A still stronger treatment encouraged recipients to do their civic duty and showed that voting was being monitored by displaying whether members of the household had voted in two previous elections. The strongest treatment showed not only the household's voting record but also the records of several neighbors, promising to inform both the recipient and the neighbors about who turned out in the upcoming election. The results show nearly a five percentage-point increase in turnout amongst registered voters who were told that their behavior would be sent to their household and an eight percentage-point increase for those told their neighbors would learn whether they voted. Telling registered voters that they were being studied, by contrast, produced much weaker effects. These results suggest that social

pressure, and not merely being observed, has the greatest effect, a finding that has since been replicated by several follow-up experiments (Gerber et al. 2010, Mann 2010, Panagopoulos 2010, 2011)

In sum, effective e-mail mobilization is far from guaranteed, but we expect the likelihood of success to increase with personalization and explicit social pressure. We further predict that the social pressure message will have a greater effect than personalization alone. In the next section, we describe a field experiment designed to test these hypotheses. To our knowledge, it is the first randomized experiment to assess the effectiveness of personalized and social pressure messages conveyed by e-mail.

## **Experiment**

We conducted the experiment during a membership drive for a new section of a large professional organization. The organization, which counts more than 15,000 members, includes more than three dozen sections, each devoted to a subfield in the profession. Each section organizes panels at the organization's annual meeting, distributes subfield awards, and engages in other activities aimed at bringing together members who share a common interest. To form a new section, a sub-group must file a petition that justifies the need for the section and includes the signatures of at least 200 current members of the larger organization. Once formed, a section must maintain a minimum of 250 dues-paying members to remain active.

The new section, which is the focus of our study, was formally recognized by the parent organization in 2010. Members of the parent organization can join the section at any time for \$8. At the start of 2011, the section had 214 members and thus, to survive, needed to recruit at least 36 new members in order to reach the 250 minimum. As the inaugural and incoming presidents of the section, we launched a mobilization drive that began with the 450 individuals who earlier

had signed the petition to form the section. Specifically, we sent e-mail messages to the 280 individuals who had signed the petition but failed to join the section. The message began with the salutation “Dear Colleague,” and then provided details of section activities (e.g., mentoring, awards, and a newsletter) and explained how to join the section (see Appendix for full version). In an effort to identify the most effective mobilization technique, we randomly assigned respondents to receive one of three messages, as follows.

- *Impersonal* (n = 93). This consisted of the basic “Dear Colleague” message.
- *Personalized* (n = 93). This included a short note prior to the “Dear Colleague” message that named the recipient:

Hi **NAME**,

“I hope your 2011 is off to a good start. I’m writing to urge you to join the new XXX section.<sup>3</sup> Our organizing petition last year drew hundreds of signatures, and now we have to turn those signatures into paying members. I’m pasting a form letter below (sorry!) with some details about the section and instructions on how to join. Thanks for helping to launch the new section, and let me know if you have questions.”

- *Social Pressure* (n = 94). This included a short note prior to the Dear “Colleague” message that not only was personalized but also applied social pressure (as italicized below; the text was not italicized in the e-mails that were actually sent):

Hi **NAME**,

“I hope your 2011 is off to a good start. I’m writing to urge you to join the new XXX section. Our organizing petition last year drew hundreds of signatures, and now we have to turn those signatures into paying members. *We are really grateful for your support last year, but the XXX Section list shows that you haven't yet joined. Now's the time! You do not have to wait to renew your XXX membership, and it costs only \$8.* I’m pasting a form letter below (sorry!) with some details about the section and instructions on how to join. Thanks for helping to launch the new section, and let me know if you have questions.”

All messages were sent from the personal account of the current section President between February 23<sup>rd</sup>, 2011 and March 22<sup>nd</sup>, 2011. We guess that roughly half of recipients personally knew the President, with rest likely knowing of him (and of the possibility of future interactions).

In order to assess the results of our efforts, we checked the updated membership list maintained by the parent organization on March 25, 2011.

To ensure all respondents ultimately received what we expected to be an influential appeal to join the section, we conducted a follow-up by sending an additional message to the impersonal message recipients who failed to join by March 25<sup>th</sup>.<sup>4</sup> These respondents were re-assigned to randomly receive either the personalized (N = 43) or social pressure (N = 43) version.<sup>5</sup> We sent these follow-up e-mails between May 9<sup>th</sup>, 2011 and May 17<sup>th</sup>, 2011 and checked membership on May 31<sup>st</sup>, 2011. During both rounds of e-mail, we also tracked whether respondents replied to the e-mail by sending e-mail back to the section president; nearly all responses included a promise to join the section.

## **Results**

We report the results from the initial mailing in Table 1. The table suggests the powerful effects of personalization and social pressure. Among those receiving the generic, non-personalized e-mails, only about 5% joined the section, and just one person e-mailed a response in reply to the section president. Simply adding a personalized greeting and note boosted membership by 15 percentage-points, with over 20% joining (and nearly 30% e-mailing back) A test of difference-in-proportions is highly significant,  $z = 3.06, p < .01$ .<sup>6</sup> A social pressure message had an even more dramatic impact with over 30% joining, which is a significant increase over the control group and marginally significant when compared to 20% rate observed in the personalized condition ( $z = 1.63, p = 0.06$ ).

Interestingly, compared to the personalized group, fewer (albeit not significantly fewer) social pressure respondents e-mailed back (21.28% versus 29.03%,  $z = 1.22, p = .11$ ). This pattern may stem from non-social pressure respondents' desire to ensure their decision to join

was appreciated by the sender (whereas in the social pressure condition they were told that the sender would know).<sup>7</sup> Overall, the results leave little doubt that personalization, and even more so social pressure, are useful tactics in mobilizing group membership, even if the latter generates a bit less subsequent communication.

**[Table 1 About Here]**

The second phase of the experiment re-contacted individuals in the impersonal condition who had failed to join, and randomly sent them either a personalized or social pressure e-mail follow-up. Although participants in this study had received a previous e-mail, they were equivalent in this regard; the question is how they would respond to a follow-up e-mail. We present the results in Table 2. The results suggest that the social pressure message had a remarkably large effect, with nearly 42% joining the section upon receiving that e-mail. The personalized message also was somewhat successful with over 16% joining, although this effect remains significantly smaller than the effect of the social pressure message ( $z = 2.61, p < .01$ ). We suspect that the sequence of repeated e-mails heightened social pressure, thereby making it an even stronger treatment despite the fact that it was applied to individuals who were initially unresponsive to an impersonal appeal. In contrast to our initial findings, we no longer see more e-mails from the personalized group; in fact, more were sent by the pressure group ( $z = 1.99, p < .05$ , two-sided test). This pattern may reflect the strong social pressure effect of a follow-up message and the individuals' perceived need to implicitly apologize for not initially joining.

**[Table 2 About Here]**

**Conclusion**

The advent of e-mail has reduced the marginal cost of communicating with prospective members. Like most membership drives conducted by e-mail, ours led us to draft several

potential messages, each of which were equally costly (or costless) to send. Our question as both practitioners and social scientists is which of the messages was most effective in terms of encouraging petition-signers make good on their pledge of support. Both waves of our experiment reveal the power of personalization and social pressure when it comes to e-mail mobilization.

Unlike many previous studies of social pressure, ours applies this social psychological force to people who had previously pledged their support. This feature of our study may explain why the treatment effects we observed are large even by the standards of this literature. A fruitful line of future research would be to randomly vary whether individuals are initially invited to pledge their support for a cause or group. The question is whether social pressure is especially powerful among those who have been (randomly) encouraged to pledge their support. If so, the practical implication may be that it pays to invest substantial resources in an initial pledge drive, which provides the target list for a subsequent social pressure intervention that induces people to honor their pledge.

## Appendix<sup>8</sup>

Dear Colleague,

I am writing about the new XXX section. Thank you again for signing the petition calling for the formation of the section. As the President of the section, I want to update you on some of the section's activities and ask that you formally join the section. Our records indicate you have not yet joined, and the section will only succeed if we have a sufficient number of members. At this point we do not have that number.

You can join at any time; you do not have to wait to renew your XXX membership and it costs only \$8. To join, please:

1. Go to <http://www.XXX>.
2. Log into "XXX." (If you are not a current XXX member, you will need to join at least as an Associate member. You can do this at <http://www.XXX>, which will then explain how to get into XXX.)
3. Once you have logged into XXX, click on "Join Organized Sections" and then follow the instructions to join Section XXX.

Now, let me update you on the section, which I think is quite unique. The goal is to do much more than simply organize XXX panels and offer awards, although we will do those activities as well. We are an action oriented section with the goal of facilitating XXX research, keeping members connected with the latest developments in XXX [the field], and offering particular opportunities for young scholars. Here is a sampling of our activities:

1. We have created a junior scholars committee; the committee plans to institute a mentor match program at XXX so that graduate students and recent Ph.D.s can meet with more senior scholars to discuss their research. The committee also has submitted a proposal for a mentoring panel at XXX.

The committee includes: XXX.

2. We will have small research grants available for junior scholars, awarded by a committee yet to be named. If we are able to recruit a sufficient number of members this year, we will launch it for 2011 XXX (the grant funds will come from membership dues, of which we receive a portion).
3. We have a top notch newsletter, edited by XXX, with the latest information on XXX. The first issue can be found at: XXX.

4. We have an outstanding website, overseen by XXX, that posts announcements, meeting information, and allows a discussion forum for members about the latest in XXX [relevant developments in the field]. The site can be found at: XXX.

5. We have created a XXX committee.... This committee will produce a memo that XXX. The memo will be distributed and discussed among section members.

The committee includes: XXX.

6. We have created a journal committee. This committee will generate a report that weighs the pros and cons for starting a new XXX journal. The report will be distributed and discussed among section members.

The committee includes: XXX.

7. We offer three awards including a best paper award presented at XXX, a dissertation award, and a book award. Information on the awards can be found at: XXX.

8. We plan to organize a get-together at XXX at a near-by venue (e.g., restaurant) to facilitate interactions. (At this point we do not plan to have a formal reception at XXX as we will use funds to support junior scholar research instead.)

I hope you find these initiatives exciting, and that you join the section. Of course I welcome any input on other activities. Thanks for your time!

## References

- Bennion, Elizabeth A., and David W. Nickerson. 2011. "The Cost of Convenience: An Experiment Showing Email Outreach Decreases Voter Registration." *Political Research Quarterly*. 64: 858-869
- Blalock, Jr., Hubert M. 1979. *Social Statistics*. 2<sup>nd</sup> Edition. New York: McGraw-Hill.
- Bolsen, Toby. 2009 "A Light Bulb Goes On: Values, Attitudes, Social Norms, and Personal Energy Consumption." Presented at the annual meeting of the American Political Science Association's, Toronto, Canada, September 3-6.
- Cialdini, Robert B., and Noah J. Goldstein. 2004. "Social Influence: Compliance and Conformity." *Annual Review of Psychology* 55: 591-621.
- Cook, Karen S., ed., 1987. *Social Exchange Theory*. Beverly Hills, CA: Sage Publications.
- Davenport, Tiffany C. 2012. "Unsubscribe: The Effects of Peer-to-Peer E-mail on Voter Turnout: Results from a Field Experiment in the June 6, 2006 California Primary Election." Unpublished manuscript, U.S. Naval Academy.
- Duncan, W. Jack. 1979. "Mail Questionnaires in Survey Research: A Review of Response Inducement Techniques." *Journal of Management* 5: 39-55.
- Fan, Weimiao, and Zheng Yan. 2010. "Factors Affecting Response Rates of the Web Survey: A Systematic Review." *Computers in Human Behavior* 26: 132-139.
- Green, Donald P., and Alan S. Gerber. 2010. "Introduction to Social Pressure and Voting: New Experimental Evidence." *Political Behavior* 32: 331-336
- Gerber, Alan S., Donald P. Green, and Christopher W. Larimer. 2008. "Social Pressure and Voter Turnout: Evidence from a Large-Scale field Experiment." *American Political Science Review* 120: 33-48.
- Gross, Alan E., Michael J. Schmidt, John P. Keating, and Michael J. Saks. 1974. "Persuasion, Surveillance, and Voting Behavior." *Journal of Experimental Social Psychology* 10: 451-460.
- Homans, George C. 1958. "Social Behavior as Exchange." *American Journal of Sociology* 63(6): 597-606.
- Mann, Christopher B. 2010. "Is There Backlash to Social Pressure? A Large-scale Field Experiment on Voter Mobilization." *Political Behavior* 32(3): 387-407.

- Nickerson, David W. 2007a. "Does Email Boost Turnout?" *Quarterly Journal of Political Science* 2: 369-379.
- Nickerson, David W. 2007b. "The Ineffectiveness of E-Votes to Democracy: Field Experiments Testing the Role of E-Mail on Voter Turnout." *Social Science Computer Review* 25: 494-503.
- Panagopoulos, Costas. 2010. "Affect, Social Pressure, and Pro-social Motivation: Field Experimental Evidence of the Mobilization Effects of Pride, Shame, and Publicizing Voting Behavior." *Political Behavior* 32(3): 369-386.
- Panagopoulos, Costas. 2011. "Thank You for Voting: Gratitude Expression and Voter Mobilization." *Journal of Politics* 73(3): 7-7-717.
- Porter, Stephen R., and Michael E. Whitcomb. 2003. "The Impact of Contact Type on Web Survey Response Rates." *Public Opinion Quarterly* 67: 579-588.
- Schultz, P. Wesley. 1999. "Changing Behavior With Normative Feedback Interventions: A Field Experiment on Curbside Re-cycling." *Basic and Applied Social Psychology* 21 (March): 25-36.
- Sinclair, Betsy. 2012. *The Social Citizen*. Chicago: University of Chicago Press.
- Tam, Kar Yan, and Shuk Ying Ho. 2005. "Web Personalization as a Persuasion Strategy: An Elaborate Likelihood Model Perspective." *Information Systems Research* 16: 271-291.

**Table 1: Rates of Joining the Newly Formed Section, by Experimental Condition**

<b>Condition</b>	<b>N</b>	<b>Joined</b>	<b>Percentage Joined</b>	<b>e-mailed</b>	<b>Percentage e-mailed</b>
Impersonal	93	5	5.38%	1	1.08%
Personalized	93	19	20.43%	27	29.03%
Pressure	94	29	30.85%	20	21.28%
Total	280	53	18.93%	48	17.14%

**Table 2: Rates of Joining the Newly Formed Section, by Experimental Condition, Among Participants who In Phase 1 were Assigned to the Impersonal Condition and Failed to Join the Section**

<b>Condition</b>	<b>N</b>	<b>Joined</b>	<b>Percentage Joined</b>	<b>e-mailed</b>	<b>Percentage e-mailed</b>
Personalized	43	7	16.28%	4	9.30%
Pressure	43	18	41.86%	11	25.58%
Total	86	25	29.07%	15	17.44%

---

<sup>1</sup> Most, but not all, of the e-mails used in the previously cited Nickerson experiments were personalized, but from sources not personally known (personal communication, David Nickerson, July 21, 2011).

<sup>2</sup> Intrinsic benefits such as fulfilling closely held values also enter the calculation.

<sup>3</sup> In order to maintain the anonymity of the organization, we replaced identifying information with “XXX.”

<sup>4</sup> The primary purpose of the mobilization exercise was to boost membership and identify the most effective technique (for use in future efforts). As such, we received approval to link the publicly available membership lists to our e-mail lists from a university Institutional Review Board.

<sup>5</sup> The N drops from 93 to 86 because, as reported below, 5 individuals in the initial impersonal group joined the section. Additionally, two e-mails were sent back as non-deliverable in the follow-up. Because both conditions of this experiment were sent e-mails, our procedure was to drop any observation whose e-mail bounced back.

<sup>6</sup> We used one-tailed tests given the directional nature of our predictions (see Blalock 1979: 163).

<sup>7</sup> As mentioned, nearly all e-mails included a note stating that the individual joined or was planning to join the section.

<sup>8</sup> As above, we have taken steps to make the letter anonymous here, with regard to the organization under study; we again use “XXX” as a filler for identifying information.