**The impact of peer, politician and celebrity endorsements on volunteering: a field experiment with English students**

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**Abstract:** Endorsement is used by charitable organisations to stimulate public support, including monetary donations. This paper reports a field experiment that examined the effect of leader and peer endorsement on student volunteering. The experiment was conducted with over 100,000 students from five UK universities and compared the effect on volunteering rates of email endorsements by politicians, celebrities and peers, to a control group that received an email but no endorsement. We examined outcomes seven weeks after the original e-mails including click-throughs to volunteering unit websites, attendance at volunteering training, registration with volunteering units, and actual volunteering. Peer endorsements reduced click-throughs to volunteering unit websites. There were positive treatment effects for endorsement by politicians on subsequent training but no significant effects of any of the endorsements on our other outcome measures. Overall, we found little support for the provision of leader and celebrity endorsement, and confirm negative effects for peer endorsement.

People are often encouraged to do something when recommended by someone they respect, particularly if the individual is also carrying out the activity. Such endorsements should make the task more appealing and help individuals overcome their resistance to providing collective goods. The idea is that the leaders are saying that if they can do it, so can you. It can be thought of as a form of leadership self-sacrifice (De Cremer and Van Knippenberg 2002), where leaders bear a personal cost so as to encourage others to carry out socially beneficial behaviors. It may be a way of puncturing the cynicism that elites attract as they are often expected to recommend actions that they themselves would never do; but instead they can convey humility by conducting an ordinary act, such as volunteering, doing a street clean up, or donating money. There is an extensive literature from economics, consumer psychology, and marketing research showing positive effects of endorsements in the for-profit sector (McCracken 1989, Till and Busler 1998, Biswas et al. 2006). There is also some evidence in the field of charitable giving (Wheeler 2009, Harris and Ruth 2014), but there has been little extension to other kinds of pro-social behaviour, such as volunteering or other forms of civic behaviour (although see Wood and Herbst 2007 who examine the effect of celebrity endorsement on voting amongst first time voters). Should such a behavioural cue emerge as important for other kinds of pro-social activities, as in the volunteering example here, then the actions of elites and other leaders might be thought to have a wider influence on the behaviour of citizens. Endorsement is a potentially powerful tool for non-profits seeking to encourage volunteering, alongside the more conventional approaches to volunteer recruitment.

The literature on charitable giving conveys little about the kind of endorsement that is most effective. There are different types of leadership that can be invoked, which may appeal to particular motivations. Endorsers may have different effects on the individual depending on their position. In particular, it may be that peers stimulate certain kinds of pro-social behaviour because they are similar to the respondent whereas other more traditional leaders, more distant from their subjects, have to rely on their allure, attractiveness or perceived expertise on a particular area to stimulate contributions (Wang 2005). On the other hand, if there are negative associations with the kind of leader, then the impact may not be as strong because the leadership effect is moderated by negative views (Till and Busler 1998). Political leadership is expected to make a distinctive contribution because elected people are argued to have legitimate authority to represent the needs of communities and to take the first steps to promote collective activities. However, the effects of politicians may now be more ambiguous given the current age of suspicion of politics and its practitioners (Hay 2007). Politicians can be associated with negative practices and behaviours, so suffer as a consequence when encouraging others to carry out socially beneficial actions. While they may be able to command leadership from their prominent status and high legitimacy, the poor reputations of politicians might limit this facility. Peers may be less likely to stimulate the provision of the goods if they are not proximate to the intended target of the endorsement. Currently, researchers do not know much about the impact on volunteering of different kinds of endorsements when tested in a field setting. This paper aims to fill the gap by testing for the influence of three kinds of personal endorsements on volunteering for students in five UK universities respectively from politicians, celebrities, and peer (student) volunteers. We did not find a treatment effect for click-throughs for celebrities or politicians; however, we found that student endorsers reduced clicks compared to the control and other endorsers. Political endorsement fared as well as celebrities for click-throughs, and encouraged students to undergo training activities, which indicates that the opprobrium sometimes directed to politicians did not contaminate this activity as we expected.

 The next section is a discussion of the various literatures in this field, and sets out theories and expectations; the section following from that is an outline of the methods and sources of data. After analysing and discussing the results, the final section and conclusion reflect on the implications of these findings for wider attempts to promote pro-social behaviours.

**Social Information, Endorsement and Prosocial Behaviour**

It is now commonplace to assume that the information about the behaviour of others has a strong influence on current behaviour, largely on the grounds of emulation and from peer pressures. This is often called social information, defined as information about what others have done, are doing or will be doing (Salancik and Pfeffer 1977, 1978). The transmission of, and conformity to, social norms (Schultz et al. 2007) has increasingly found its way into economic accounts (Elster 1989, Fehr and Gintis 2007), most notably with regard to the phenomenon of conditional cooperation whereby individuals contribute to the collective good in accordance with the contribution levels of others involved, as evidenced in public goods experiments (Fischbacher, Gӓchter and Fehr 2001, Fehr and Gintis 2007, Fischbacher and Gӓchter, 2010). Indeed, Fehr and Gintis (2007) provide extensive empirical evidence of the way in which cooperation is conditional on the interaction of individual beliefs, preferences and social structural context and constraints. Social information works through several mechanisms. Information can suggest a cognitive reference point that leads individuals to adjust their positions towards it (Shang and Croson 2009). Information can also be used in social comparison to compare the self with target individuals (Wood 1989).

One particular kind of social information concerns the activity of a recommender or endorser who does the activity, who also persuades or invites another person to do it, on the grounds that ‘I do it, so can you’. This is about leadership: endorsement by a leader shows that the leaders feel the contribution is worthwhile, providing information to those who might participate about the value of the activity (Vesterlund 2006, Andreoni 2006). Research on leadership self-sacrifice notes that it motivates group contributions (De Cremer and Van Knippenberg 2002), which suggests that appeals where leaders bear a personal cost are more likely to be efficacious. The main area for the investigation of this activity to date is in the literature on charitable giving where information about how much others have given can encourage potential donors to give similar amounts (e.g. Frey and Meier 2004, Andreoni 2006, Shang and Croson 2009). As we discuss further below, there is also an emerging literature specifically on the use of endorsement by people of different status in the charitable sector (Wheeler 2009, Francis 2011, Harris and Ruth 2014).

But there is relatively little of this kind of work on volunteering, where research has instead examined socio-economic and demographic correlates (Verba et al 1995, Pattie et al 2005), the role of personal networks (see Lowndes et al 2006) and hence barriers to civic participation (Sundeen et al 2007). Even though contextual effects on voluntary contributions of time and effort are recognised (Wilson 2000, van Ingen and Dekker 2011), there has been little work that examines the effect of social information, including endorsement, on volunteering, and even less that uses field experiments. Of course, research must recognise that charitable giving is a specific kind of pro-social behaviour for which contributions are easily divisible and where individuals can easily adjust their contributions in response to social information. Other forms of contributions, such as volunteering, are lumpy and less easy to adjust, where there is a lot of effort needed to carry out the activity; the contribution may be determined by the availability of appropriate opportunities to volunteer; and there are many circumstances where the potential volunteer may get discouraged. Nonetheless, with greater numbers of volunteers and volunteering opportunities in recent years, and greater ability to communicate hours contributed through social media to match demand and supply, volunteering may grow more similar to giving, and indeed the two are closely related together in any case, as people can trade time and money or treat them as complementary.

**Peer and Leader Endorsement**

One key reference point for endorsement is the peer endorser on the grounds that a person who is like the target of an endorsement is likely to be influential simply by virtue of being similar to them and showing that they like the activity and can do it. This relates to the large literature on peer effects, which has been applied to charitable giving (Smith et al 2012). Such factors have started to appear in the literature on volunteering. A recent study of student volunteering (Francis 2011) found the presence of other volunteers in one’s immediate social circle to be an influence on volunteering behaviour. In a similar vein, Penner (2002: 460-462) singles out social pressure, in the form of an individual’s “subjective impressions of how significant others feel about him/ her becoming a volunteer”, as a potent determinant of the first stage of volunteering: the decision to begin; and cites several studies that support the implication of explicit and implicit social pressure in the decision to volunteer. A further study by Carpenter and Myers (2010) found that being invited, having family members who were volunteers, and social image concerns were all strong, highly statistically significant predictors of the decision to volunteer.

Other kinds of endorsement rely on leadership more conventionally considered. Celebrity endorsement relies on a combination of credibility, familiarity, attractiveness and likability to attract attention and engender emulation (Ohanian 1990). The application of celebrity endorsement rests on two theories, source credibility theory (Hovland and Weiss 1951-1952, Hovland, Janis, and Kelley 1953) and source attractiveness theory (McGuire 1968), both of which have received empirical support in the literature (McCracken 1989, Biswas et al 2006). Source credibility models suggest that endorsers can be persuasive if they are perceived as possessing expertise and trustworthiness while source attractiveness theory suggests that “sources who are known to, liked by, and/ or similar to the consumer are attractive and, to this extent, persuasive” (McCracken 1989: 311).Celebrity endorsement is widely used in the marketing of commercial products (McCracken 1989, Wheeler 2009). Credibility in politics has been shown to be effective, as in revealing celebrity support for political parties (Jackson 2008, Nownes 2011).

 There are also many examples in the charity arena where celebrities are used to encourage monetary donations (Harris and Ruth 2014), and also in the field of public health to promote healthy behaviours (Chapman 2012). While celebrities are routinely used to promote volunteering, in publicity and on websites, there are few direct tests of the phenomenon (although see Wheeler 2009 for an experimental study of the effects of celebrity endorsement on stated intention to donate time and money).

Political endorsements are not so often deployed, probably because charities and volunteering agencies do not wish to appear to be politically partisan, and seek to appeal across the political divides. They may wish to avoid being associated with the negative images of some politicians, which may contrast to the less political and controversial images of celebrities, or at least some celebrities. We live in an age where politicians are less valued than celebrities although there are of course likely to be some particular exceptions to this. But there is declining trust in politicians where other kinds of trust have held up. Politicians have been associated with scandal and are less trusted than other professionals. Indeed, some write that we live in an age of anti-politics (Hay 2007). On the other hand, political leadership is expected to have a distinctive contribution because elected people are argued to have legitimate authority to represent the needs of communities and to take the first steps to promote collective activities (Van Vugt and De Cremer 1999). Moreover, politicians have been encouraging more contributions from citizens to society, such as, in the UK, David Blunkett and his civil renewal programme, and latterly David Cameron and the Big Society, which have been backed up by other ministerial initiatives and funding streams. Leaders in other countries have been doing much the same sort of thing.

Overall, it is expected that the highest proportion of click-throughs and subsequent recruitment to volunteering roles will be amongst those receiving the celebrity endorsement because of the brand recognition of such people, particularly among young people and because they are not generally so contaminated by adverse publicity in comparison to politicians in the current era. This will be followed by those receiving the student endorsement because of the importance of peer effects, and then the control group, with politicians as the least effective endorsers because of their lack of popularity, and the cynicism with which their request may be met by the student population.

**Research Design**

To test for the effect of different kinds of endorsement on volunteering we ran a large-scale field experiment with young adults. In the autumn of 2013, students across five English universities were randomly allocated to one of three treatment groups, or to a control group. Each group was sent a different form of endorsement by e-mail, or a control e-mail, with volunteering outcomes across the groups compared. We selected this form of contact as opposed to mailshots or door-to-door canvasing because the intervention can reach all students so does not suffer the self-selection biases of other methods. For students, e-mails are the main way in which their universities communicate with them, e.g. for important announcements regarding examinations or course changes, so it is likely they attract the attention of this group, who often access them by smart phone or tablet, though of course students can ignore or not even read these communications. Leaflets or direct mail is not feasible given the mobility of students. University ethical approval was obtained for the study.[[1]](#footnote-1)

**Sample**

Five universities were selected to ensure representation of students from different backgrounds and from different parts of the country. The sample included a London university (University College London), a university in a relatively deprived metropolitan borough of North West England (University of Salford), a university in a coastal city in the South of England (University of Southampton), and two universities in cities in the South West of England (University of Exeter and University of Plymouth, with the former attracting relatively more affluent students than the latter). All students were included, both undergraduate and postgraduate, apart from students not ordinarily resident in the university towns, such as distance learning students, who do not have the opportunity to engage in regular volunteering through their university’s volunteering service. The final sample consisted of 100,974 students (see flowchart in Figure 1 below for details of numbers in the original sample and at each stage of the trial).[[2]](#footnote-2)

The research was conducted in collaboration with student volunteering services, student records teams, and data protection officers in each university. Staff in the volunteering units ensured that there were a wide range of volunteering opportunities available to be taken up after our campaign. Each university’s student records service provided a dataset containing students’ e-mail addresses and a range of variables, specified by the research team, that have been shown in previous research to be predictors of civic engagement (Verba et al. 1995, Pattie et al. 2005) and that were also regarded as potential moderators of our treatment effect. These variables were gender, ethnicity, nationality, and parental education, with the latter used as a proxy measure for social class. We also obtained data on students’ year of study, mode of attendance (full or part time), faculty of study (i.e. broad disciplinary area), and level of study (undergraduates, those on post graduate taught courses such as Masters degrees, or post graduate research students, i.e. PhD candidates), all of which we regarded as further potential factors which could influence volunteering rates. Access to data was negotiated on an individual basis in each university with the data protection and student records teams, and data protection agreements were in place with each university.

**Randomisation and treatments**

The full list of students was divided into four groups at random (three treatment groups and a control group). Participants were unaware that the e-mails being received were part of an experiment and so were blind to group allocation.[[3]](#footnote-3) Randomisation was carried out by an independent statistician based at the York Trials Unit using a dedicated computer programme to allocate students to one of three conditions or the control group; the centre received only dummy ID numbers so no personal data or email addresses were passed to them.[[4]](#footnote-4) Stratified randomisation by institution was used with a fixed block size of four, to ensure approximately equal numbers from each university in each treatment or control group.

The first group (N=25,244) received an endorsement message from politicians. The second group (N=25,253) received an endorsement message from celebrities. The third group (N=25,240) received an endorsement message from peers, while the fourth (N=25,237) were the control group and received a non-specific endorsement message (see online Appendices 1 and 2 for the full texts sent to each group). The emails contained a short endorsement of the idea of volunteering, stating why volunteering could be a good thing to do, and provided a link to the relevant university volunteering website where students could click to find out more or to register. The emails were designed to make apparent volunteering opportunities that students may not have known about, and to make it easy for them to register as a volunteer.

For each treatment group, specific named individuals were chosen as endorsers. These were all real people (i.e. real politicians, celebrities or peers) who had genuinely engaged in volunteering. We purposefully selected a range of people in each endorsement message to ensure representation where possible of a mix of ethnicities or nationalities and genders.[[5]](#footnote-5) In all cases we tried to avoid controversial figures or those strongly associated with particular causes. Permission was obtained from students prior to naming them (pseudonyms are used in Appendix 2 to protect their anonymity). Celebrities and MPs were all written to and notified that we intended to use their names in the endorsements, with a request to contact us if they would rather not be named in an endorsement about volunteering. None of those we wrote to replied to say that they did not want to be named.

The politicians selected were all lesser known ‘backbench’[[6]](#footnote-6) Members of Parliament (MPs), including two Labour and two Conservative politicians. The MPs that were selected did not represent the constituencies in the areas where the universities were located. The reason for this was that we did not wish the politician endorsement to be affected by students’ perceptions of their performance in their role as a local MP. Rather, we were interested in the generic effect of national political figures. The celebrities were relatively high profile, but not known to be associated with controversial causes or issues. One celebrity was a sportsman, one was a television presenter and author, one a journalist and television presenter, and the other a singer, dancer and television presenter. The peers that were selected were real students, studying degrees at the universities taking part. However, we did not name students from the particular institution to which we sent e-mails. This was to avoid a potential problem whereby the named individuals would be personally known to some students and not to others. Again, we were interested in the general effect of people who were representative of students’ peer group rather than the effect of specific people known personally to participants in our study. We selected four students for each university, and the students included a range of people in terms of ethnicity, gender, subject studied and year of study. This was to illustrate that all sorts of students from different backgrounds, across different courses and at various stages of their degree course, could volunteer.

As shown in our online Appendix 5, Table 1, the randomisation process generated a balanced sample in terms of the main covariates of interest in our study. There were no significant differences between the control group and each treatment group, apart from slightly more females in the celebrity group than in the control group, and slightly more students with parents who had a degree in the peer group than in the control group. Each of these differences was significant at the 0.05 level. Regression on the treatment allocation (Online Appendix 5, Table 2) shows that parental education was significantly different for the student treatment and the proportion of white vs. non-white students significantly different for the politician treatment, both at the 0.05 level of significance. However, with 30 tests of variables reported in Table 2 these findings are consistent with chance variation and we conclude that the treatments are balanced overall.

**Research implementation and outcome measures**

The research design is set out in Figure 1. Students were sent an e-mail containing the specific endorsement message relevant to the treatment or control group to which they had been randomly allocated on the week beginning 14 October 2013 (for practical reasons the exact dates varied by university but all e-mails were sent within a three-day period, i.e. Wednesday to Friday of that week). For one university, and for data protection reasons specific to that institution, the e-mails were sent on behalf of the research team by the University’s Student Volunteering Service, but signed from the research team, consistent with the other universities. In all other cases, the research team sent e-mails from the project e-mail address. The text and headers used were consistent across all the universities. The reminder e-mail was sent in each university exactly two weeks after the initial e-mail (Wednesday to Friday of the week beginning 28th October). Outcome measures were collected for the period running to seven weeks after the first e-mail was sent (Wednesday to Friday of the week beginning 2nd December).

The first e-mails were sent in week four of term in all universities. By this time students were registered for their relevant courses and relatively settled with their university e-mail addresses up and running, and more likely to have opportunities to volunteer. The list of all registered students was obtained in week three of term to allow sufficient time for students to formally register at their university and for the student records teams to compile the relevant data and covariates. We chose a seven-week monitoring period because we wanted to measure outcomes before the end of the last week of term before Christmas break.

The main outcome measures were the binary variables of (i) whether or not the student clicked on the link to volunteering opportunities contained in the first, or the second, e-mail they received (1 = yes, 0 = no); (ii) whether or not they had formally registered for volunteering opportunities with their student volunteering service (1 = yes, 0 = no); (iii) whether or not they had participated in actual volunteering (1 = yes, 0 = no); (iv) whether or not they had attended a training or induction session for a volunteering role (1 = yes, 0 = no).

In addition to the observed outcomes, self-reported outcome measures concerning the extent of students’ volunteering were collected via the survey sent to all students. See Appendix 3 in our online Appendices for the text of the e-mail sent to students inviting them to take the survey, and Appendix 4 for the full list of questions asked. The key variables were whether or not students had volunteered in the seven weeks since the first endorsement message had been sent, which was asked as a means of cross-checking the data provided by the volunteering units, and how many hours they had volunteered in those seven weeks. A definition of volunteering was provided to ensure respondents answered according to a consistent construct. The definition was: “A volunteering activity includes any time you give one hour or more of unpaid help as part of a group, club or organisation to benefit others or the environment as well as any help you give as an individual to someone who is not a relative”.

The data for the first measure of website clicks were obtained using mailchimp software. The e-mails themselves were sent via mailchimp (apart from in the one institution which handled the e-mail sending). This software allows users to track the individual recipients of e-mails who click on links contained within them. The registration, training and volunteering data were collected by the universities’ volunteering services (and also in the case of the actual volunteering data, external organisations offering the student volunteering activities) and provided to the research team. The self-report survey was an online survey, a link to which was e-mailed to all students across the five universities. It was not possible to collect all outcome measures for every university and Table 1 indicates the outcome data available for each university.

**<<Insert Table 1 about here>>**

**Results and analysis**

 Table 2 contains the results for the percentage of students clicking through to view further information about volunteering or to the volunteering unit registration page at their respective universities as a response to the endorsement emails (a first email and a reminder email). The ‘Click Through Rate’ (CTR) shows the treatment effects at each stage by comparing each treatment group with the control group. We take all responses together as one measure. Our combined clicks outcome variable takes the value of 1 if someone clicked through at any one of the four opportunities, and a zero for no response, which is the penultimate row in Table 2. Here we find the invitation alone (the control email) lead to a just over 9.46 per cent click-through rate, which is impressive for busy students with lots of electronic communications, and an above average click-through rate for comparable activities such as for non-profits.[[7]](#footnote-7) The endorsements did not have a strong effect on the click-through rate however. There is a small non-significant increase for celebrities of .25 percentage points, and a 0.43 non-significant reduction for politicians. The main result is that the student endorsement reduces clicks by 0.7 per cent, which although not a substantively large difference, is nonetheless statistically significant (p=0.009). Celebrity, student and politician e-mails in aggregate has a very small negative impact of 0.3, but is non-significant (p=0.19).

The hierarchy of treatment results from Table 2 suggests that celebrity endorsement is the strongest treatment, followed by the politician, and lastly the peer. This does not confirm our expectations that politicians would perform as the worst of the endorsements. Politicians perform better than a student endorsement, though the difference between politicians and students is non-significant (-.003, z=1.1). Celebrities perform significantly better than both politicians (.007, z=2.34) and student endorsers (-.01, z=3.5).[[8]](#footnote-8)

**>>Insert Table 2 about here<<**

We used a probit regression to control for the composition of the different universities and other covariates. In Table 3, model A reproduces the treatment effects just discussed with the results we saw from before; model B shows the impact of covariates by university, sex, colour, nationality, year of programme, showing statistically significant impacts, with women, non-whites, and non-UK nationals more inclined to respond to the e-mail request. The e-mail was of more interest to those at the start of their programmes, which may reflect time commitments.

**>>Insert table 3 about here<<**

The second set of measurement outcomes reported in Table 4 is based on reported activities of students using data provided by the student volunteering services in the universities. There is little association with our treatments with no effect for volunteering seven weeks after the e-mail request. Nor do the treatments taken as a whole impact on outcomes (z=.72). But there is an impact for other outcomes, in particular a positive effect of the politicians’ e-mail for attending a training event, which is confirmed in the regression analysis (see Appendix 6, Table A in our online Appendices).

**>>Insert Table 4 about here<<**

Finally, Table 5 reports the results of the survey of students across four of the universities (the same universities that we reported the results for click-throughs which increases external validity of our findings). This is a self-selected group, with about 35 per cent reporting a volunteering activity. Nevertheless, we replicate our findings for the click-throughs where peer endorsement reduced actual volunteering reported in this way. Regressions confirm the findings from the descriptive statistics (see online Appendix 6, Table B). This is an important confirmation of the results first seen in the click through rate and is the key finding in our study.

**>>Insert Table 5 about here<<**

To understand these results it is useful to explore the interactions in our data. It is possible to see whether any covariate is strongly associated with the negative effect indicating a causal effect among a subgroup. We run a series of equations based on each covariate, and inspect the significance of the experimental and interaction terms, which can tell us about whether the effect is uniform across universities and covariates (our online Appendix 6, table C gives full details). We can confirm that for the most part the interactions are not significant, bar a negative effect on the impact of celebrities by nationality, which can be taken account of by non-UK nationals not knowing the celebrities concerned. Importantly, there were no significant interactions by university indicating that the negative treatment effect for students is consistent by university as well as by covariate, which strengthens the external validity of these findings given the range of universities and kinds of students in the study.

**Conclusion**

 Endorsements and invitations by leaders to make contributions to society have the potential to raise interest in the activity and to propel people to act pro-socially. The signal is the encouragement of the leader, and in particular the credibility of them not being hypocritical when making the invitation by actually doing the recommended activity. The mechanisms are the interest of the leader appearing to make a direct appeal, the potential respect for leadership and the credibility of the leader doing the act itself. In theory one might expect young people such as students to be a group who are susceptible to forms of leader endorsement since they are less experienced and hold less entrenched views than older people, and hence could be more reliant on opinion leaders such as politicians or celebrities to form preferences (see Wood and Herbst 2007).

 Attractive as these endorsements might be, it is important to be aware there are obstacles in providing them, obstacles which may help explain the findings of this study that leader endorsements did not significantly or substantively increase volunteering amongst our target group. One is that in a critical age and where there is scepticism to established figures, these leadership appeals may not be seen to emanate from admired persons. In particular, political figures may be contaminated by the current reputation of politicians and media attention to poor acts of political behaviour, so the recipient of the request may view an invitation sceptically. Even celebrities might attract opprobrium these days when their actions are under more critical scrutiny. Choosing a specific named reference group of leaders as endorsers also has its perils as these may be not be easily generalizable across large groups who hold different levels of knowledge of these people, and so may not have a consistent effect across a large heterogeneous population.

 Students can be regarded as a suitable target for email appeals of this kind given that they have the time to contribute amidst their other activities, and that they are also used to receiving communications by email. However they may also be already recruited through the activities of dedicated groups, such as volunteering units and by face-to-face contacts. The only practical means of reaching all students in our study was through an e-mail which, although students are used to as a medium, may be ignored; other studies find weak effects of this mode of communication for mobilising people (Nickerson 2007, Bennion and Nickerson 2010). So there are some reasons why a treatment effect of endorsements by e-mail may not have occurred. Organisations wishing to use endorsements may wish to consider using alternative modes of communication, such as leaflets, door-knocks, or texts, though interventions using these methods need to be tested too.

 Also, unlike other forms of giving, such a monetary donations, the process of volunteering is difficult and requires the volunteer to come forward to register and to be trained and then to find the right activity which might not always be available, and we envisaged this happening in a short period of time. We did not see a direct impact of endorsement on volunteering although we did find an impact of politicians for attending a volunteering training event prior to volunteering beginning.

 The negative or null effects overall of peer endorsement need further exploration. This is a key contribution of our paper which has shown that peer endorsement by email can actually be de-motivating, with fewer of those receiving this type of endorsement clicking through to find out more, than a control group. Endorsement by peers works through a peer pressure effect, which research has shown to be an important driver of volunteering, and also works by illustrating to people that others who are similar to them carry out the activity. It may be the case that the form of peer endorsement is what counts in that in our experiment we specified students from other universities to the respondent where students who are closer to the respondent may have had a stronger impact. In the literature, it is the close network of peers including families that is important, whereas our intervention mentioned students from other universities. In contrast to the celebrities and politicians, the respondents could not check whether these other students were volunteering, such as through a website. Future research could include qualitative interventions to probe the reasons for volunteering and non-volunteering when in response to an invitation and from a member of an ingroup or outgroup.

Our findings relate to a student group only. The population of students chosen for this study has the advantage of large numbers and heterogeneity discussed above, but of course students are different to other communities by being transitory and recruited from more affluent backgrounds, even with the variety of universities we chose in our sample. Future research could explore the use of endorsements on other groups as well as varying the specific endorsers and the mode of endorsement used.

Overall we have opened up a new area of understanding of the impact of endorsement on volunteering, and compared different kinds of endorsements. This extends work in economics and psychology on charitable giving to the more complex and challenging area of donating time. Also we show that when specific politicians are mentioned and it is shown that they too volunteer, individuals positively respond to these requests on one of our outcome measures. We did not find the negative opprobrium we expected and they perform as well, if not better than, the celebrity endorsers.

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**Tables and Figures**

**Table 1: Main outcome measures available by university**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | *Exeter* | *Plymouth* | *Salford* | *Soton* | *UCL* |
| Click-throughs (mailchimp) | Yes | No | Yes | Yes | Yes |
| Registration with volunteering unit | Yes | Yes | No | Yes | Yes |
| Took part in training  | Yes | No | Yes | Yes | No |
| Actually volunteered | Yes | Yes | No | No | Yes |
| *Survey measures:* |  |  |  |  |  |
| Volunteered in past 7 weeks | Yes | No | Yes | Yes | Yes |
| No times volunteered in past 7 weeks | Yes | No | Yes | Yes | Yes |
| No hours volunteered in past 7 weeks | Yes | No | Yes | Yes | Yes |

**Table 2: Percentage of student clicks on e-mails (except Plymouth)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | *Politicians* | *Students* | *Celebrities* | *Control* |
| Clicked link in 1st e-mail | 4.28 | 4.38 | 4.77 | 4.64 |
| Clicked sign up link in 1st e-mail | 3.22 | 3.05\*\* | 3.30 | 3.56 |
| Clicked link in 2nd e-mail | 2.50 | 2.25 | 2.63 | 2.46 |
| Clicked sign up link in 2nd e-mail | 2.16 | 2.13 | 2.48\* | 2.18 |
| Combined clicks  | 9.03 | 8.72\*\* | 9.71 | 9.46 |
| Observations (group) | 20,465  | 20,462 | 20,475  | 20,459 |

Two-sample test of proportions on differences with control

\*\*\* p<.001 \*\* p<0.01, \* p<0.05

**Table 3: Probit regressions of experimental conditions on combined click-throughs**

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  | A | B |
|  |  |  |
|  |  |  |
| Politicians | -0.0255 | -0.0207 |
|  | (0.0173) | (0.0181) |
| Students  | -0.0452\*\* | -0.0409\* |
|  | (0.0174) | (0.0182) |
| Celebrities | 0.0148 | 0.0224 |
|  | (0.0171) | (0.0179) |
| Sex |  | 0.259\*\*\* |
|  |  | (0.0132) |
| White |  | -0.220\*\*\* |
|  |  | (0.0151) |
| Nationality |  | -0.269\*\*\* |
|  |  | (0.0157) |
| Parental education |  | 0.0219 |
|  |  | (0.0138) |
| Year of programme |  | -0.106\*\*\* |
|  |  | (0.00678) |
| Undergraduate |  | 0.00329 |
|  |  | (0.0223) |
| Pg taught |  | 0.0245 |
|  |  | (0.0253) |
| Health & social care |  | -0.0240 |
|  |  | (0.0197) |
| Arts & social sciences |  | 0.000324 |
|  |  | (0.0160) |
| Business & law |  | 0.0164 |
|  |  | (0.0202) |
| Soton |  | 0.470\*\*\* |
|  |  | (0.0171) |
| Exeter |  | 0.377\*\*\* |
|  |  | (0.0195) |
| Salford |  | 0.158\*\*\* |
|  |  | (0.0220) |
|  |  |  |
| Constant | -1.313\*\*\* | -1.260\*\*\* |
|  | (0.0121) | (0.0308) |
|  |  |  |
| Observations | 81,861 | 79,988 |

Standard errors in parentheses

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

**Table 4: volunteering outcomes by treatment condition (per cents)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | *Politicians* | *Students* | *Celebrities* | *Control* |
| Registered with volunteering service(UCL, Soton, Exeter, Plymouth) | 2.82 | 2.74 | 3.07 | 2.81 |
| Did student volunteer in a project? (UCL, Exeter, Plymouth) | .64 | .77 | .77 | .78 |
| Attend training/ induction? (Soton, Exeter, Salford) | .41\* | .32 | .31 | .25 |

Two-sample test of proportions

\*\*\* p<.001 \*\* p<0.01, \* p<0.05

**Table 5: surveyed volunteering outcomes by experimental condition (per cents)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | *Politicians* | *Students* | *Celebrities* | *Control* |
| Volunteered in last 7 weeks | 34.45 | 30.44\* | 35.71 | 35.45 |
| Taken part in training event organised by university? | 13.95 | 14.18 | 16.88 | 18.28 |
| No of hours volunteered in last 7 weeks | 15.92 | 12.43\* | 15.55 | 17.60 |
| No times volunteered | 14.28 | 12.18\* | 13.94 | 15.62 |
| Signed up with the VSU?  | 29.66 | 29.88 | 31.39 | 29.88 |
| Raised Sponsorship | 8.6 | 8.65 | 6.79\* | 11.44 |

Two-sample test of proportions

\*\*\* p<.001 \*\* p<0.01, \* p<0.05

**Figure 1 Flowchart of the research procedure**

List of students from 5 universities & covariates obtained (100,974)

Students randomly assigned to control group or a treatment group

Politician endorsement Celebrity endorsement Peer endorsement Control group
 T1 T2 T3 C
(25358 assigned; (25359 assigned; (25361 assigned; (25356 assigned;
25244 emailed\*) 25253 emailed\*) 25240 emailed\*) 25237 emailed\*)

 1st e-mail sent 1st e-mail sent 1st e-mail sent 1ste-mail sent
wk beg 14 Oct wk beg 14 Oct wk beg 14 Oct wk beg 14Oct
(25238 delivered\*\*) (25245 delivered\*\*) (25228 delivered\*\*) (25226 delivered\*\*)

Reminder sent Reminder sent Reminder sent Reminder sent
wk beg 28 Oct wk beg 28 Oct wk beg 28 Oct wk beg 28 Oct
(25171 delivered\*\*\*) (25184 delivered\*\*\*) (25164 delivered\*\*\*) (25172 delivered\*\*\*)

Behavioural outcome data collected week beg 2nd December:

Click-through data = 81,861 obs
Registration data = 64,827 obs
Volunteering data = 42,601 obs
Training data = 52,721 obs

\*After assignment of email addresses to treatment groups some duplicate emails were discovered across all four groups (114 for politician endorsement, 106 for celebrity endorsement, 121 for peer endorsement, 119 for control group) and these were automatically filtered out when the emails were sent, hence the numbers emails are slightly lower than the numbers assigned to each group

\*\*Number of e-mails actually delivered after bounces

\*\*\* Number of reminder e-mails actually delivered after bounces and unsubscribes following first e-mail

1. Ethics committee details and reference number withheld during review process. [↑](#footnote-ref-1)
2. In the sections that follow we adopt the CONSORT guidelines for reporting randomised controlled trials <http://www.consort-statement.org/> Accessed 09/02/2014. [↑](#footnote-ref-2)
3. The e-mail footers did contain the name of the research project and also an unsubscribe link which recipients could click to remove themselves from the mailing list (those unsubscribing were removed from the list and therefore not sent the reminder e-mail). [↑](#footnote-ref-3)
4. We thank staff at the University of York trials unit, in particular Hannah Buckley, for their help. [↑](#footnote-ref-4)
5. As the supporting table in Appendix 1 shows, two of four mentioned politicians are women and two of mixed descent (British Italian and British Hungarian), with an average age of 44. As the supporting table in Appendix 2 shows, two of the four celebrities are women and two are from Mixed or non-white backgrounds (Jamaican/English and Black African), average age of 43. In each of the endorsement e-mails of students, two out of four are women, one from an Asian background, and the students were drawn from a variety of undergraduate and postgraduate courses. [↑](#footnote-ref-5)
6. Backbench MPs are those in Westminster style parliamentary systems such as the UK who do not hold government office and if in opposition, are not spokespersons for that party. [↑](#footnote-ref-6)
7. See http://www.marketingprofs.com/charts/2013/10751/email-open-and-click-through-rates-benchmarks-by-industry. [↑](#footnote-ref-7)
8. Taking a more conservative test of multiple comparisons (Bonferroni), we find that the students differ from the control at p=.059 and from the celebrities at p=0.003. Other comparisons are not statistically significant. [↑](#footnote-ref-8)