

Star Power: Two field experiments investigating the effect of celebrity endorsement on charitable fundraising campaigns¹

Michael Sanders

Behavioural Insights Team and Harvard Kennedy School of Government

Abstract:

A large literature exists that suggests that people's decisions across many facets of their life are influenced by other people. We report the results of two field experiments in which we test the influence of a salient but socially remote individual – a celebrity – on the charitable giving decisions of participants. We find the celebrities are immediately effective, but that this effect is either small or attenuates over time. More consistent effects are found, however, among participants who are more pre-disposed to donate at the outset.

¹ I am grateful to members of the CSR department at the bank in which this study was conducted, without whom this paper would not be possible. I am also grateful to Emily Gore and Kiki Kourmeridou for sharing with me the data from experiment 2, and to Marie Curie Cancer care for permitting the experiment to take place. I am especially thankful to the celebrities for their role in the study, without which it would not have been possible. I am grateful to Jamie Foehl, Mariel Beasley, and poster session participants at the UCSD field experiments in marketing conference in 2014 for useful comments and insight. I am ever thankful to my colleagues at the Behavioural Insights Team for indulging me in pursuing this work, and for providing a space in which it is possible. I am also grateful to Felicity Algate from BIT for comments on an earlier draft.

Introduction:

Celebrity endorsement is big business – Tiger Woods was reportedly paid \$100,000,000 for a 5 year endorsement of Nike, while footballer (soccer) player David Beckham’s lifetime contract with Adidas is worth \$150,000,000. Celebrity endorsements of charity do not attract such large figures, but are seemingly viewed as an important contribution that a celebrity can make to a charity’s brand, and without the same level of expectation of exclusivity – the actress Dame Judi Dench, for example, is a registered supporter of 18 different charities.

There are good reasons to expect this to be the case – a large literature has found evidence indicating that individuals’ behaviours are influenced by social pressure, and by the behaviour of others (Vesterlund, 2006). Work such as Smith et al (2014), Alpizar et al (2008), and Shang and Croson (2006), shows that information about the donations of others, either in specific (in Smith et al), or in general (in the latter two studies), influences subsequent donors, with larger (smaller) prior donations leading individuals to donate more (less) on average. Similarly, List & Lucking Reiley (2002), find that when prospective donors are told that a large amount has already been donated towards a goal, they are more likely to donate than when only a small amount has already been raised.

Prominent donors, such as the American philanthropist and socialist Brooke Astor, can also drive future donations through letting it be known that they support a particular cause (Potters et al (2005). Huck and Rasul (2011), in a field experiment conducted on potential donors to the Bavarian Opera found that the mere existence of a large anonymous donor was sufficient to encourage others to donate.

Karlan and List (2012), find that when match funding is associated with a prominent donor (the Bill and Melinda Gates foundation), it is significantly more effective at eliciting donations from others, and that this effect is strongest among prior donors to poverty charities who may have been more away of the foundation’s existence.

Although these findings are suggestive that celebrity endorsement *might* be an effective means of encouraging charitable donations, none are conclusive. Many of the studies on social influences on giving behaviours suggest that initial donations serve to signal the quality of the charity to the less well informed. Standard models of signalling require that an effective signal be costly and not just “cheap talk” (Farrell and Rabin,

1996). In the case of the example of Bill and Melinda Gates, their signal of charity quality is credible because they are putting (billions of dollars of) their money where their mouths are – such a requirement is not necessarily explicitly made of celebrity supporters. Alternative explanations, such as conformity, would appear to be stronger when an individual is playing strategically (trying to impress the celebrity), or where the celebrity is a member of a group of which the donor wishes to signal their own membership. It is far from clear whether this is the case.

In this paper we consider whether or not charitable endorsement by celebrities is effective in the field. To this end, we report the results of two field experiments. The first was conducted in a large employer (an investment bank) in London in 2012. Celebrities supporting two charities travelled a predetermined (and randomised) route around buildings containing employees of the bank, asking them to donate a day's salary (£500) to charity. The second experiment was conducted as part of a direct mail fundraising effort by a large cancer charity, in which participants were randomly assigned to receive either an envelope with the celebrity's picture on the exterior, or not, asking them to donate.

The findings of both studies are relatively similar. Although in both cases we identify a modest increase in the rate of donation, we find that the primary effect of the celebrity endorsement is to make donations happen faster, and hence earlier in the campaign. We also find in both cases that positive effects of celebrity endorsement are limited to participants who are *ex ante* more likely to donate to the charity, suggesting that social reinforcement, and not social proof, is the driving factor. These findings have implications for the design of such campaigns in future.

Before proceeding to our experiments, we review the existing on social influences on charitable giving, as well as the broader literature on celebrity influence itself.

There are theoretical reasons why the identity of a fundraiser (someone asking for a charitable donation) might matter. These reasons can be split according to whether they concern the quality of the charity or the relationship between solicitor and donor.

First, some other donors may be known (or may be able to make it known) that they are more informed about the quality of the public good provided by the charity, and hence their donation may trigger donations from others because of the information it imparts (Vesterlund (2003)). Famous philanthropists, such as Brooke

Astor, Bill Gates and Warren Buffett, might be thought to fall into this type of fundraiser, were they to encourage others to make donations. Alternatively, if a fundraiser is a beneficiary of the charitable donation, the reduction in social distance between the donor and the beneficiary of their donation (embodied in the fundraiser), may motivate donations.

The second type of solicitor influence concerns the relationship between the solicitor and the donor. If participants are concerned by conforming to a group norm (Bernheim (1994)), or seeking prestige through a large donation (Harbaugh (1998)), they are more likely to donate if the solicitor is a member of the group they wish to be part of than if the solicitor is a stranger whose approval is less meaningful. Glazer & Konrad (1996) theorise that charitable donations are a means to signal worthiness in an evolutionary sense, and therefore we would expect donations to be triggered when the solicitor is a potential mate. Finally, contribution to a public good may be an optimal strategy if playing a repeated game and attempting to encourage future cooperation from another player. Hence, we might expect potential donors to be more responsive to fundraisers with whom they have repeated strategic interaction, compared to isolated strangers.

In the field, Landry et al (2006) find that more attractive female fundraisers are significantly more successful at eliciting donations, but that attractiveness does not matter for male fundraisers. Carman (2004) finds that when people are part of a workplace team whose leader is a giver, they are more likely to give, and Meer (2011) finds that people are more likely to donate to an alumni fundraising campaign if asked by someone they know than if asked by a stranger.

Given that the social distance between celebrities and the general public is relatively large, it seems unlikely that signalling membership of the celebrity's in-group is a major factor in participants' donation decisions. Although being identified as a supporter of a charity does not necessarily imply that a celebrity themselves donates money to that charity, it may be taken as a strong indicator by the general public. We therefore argue that some element of quality signalling is the more likely explanation.

Outside of charitable fundraising, the evidence on the effectiveness of celebrity endorsements is ambiguous, and there is a general lack of field experimental evidence. Bailey (2007), in a study of consumer preferences for goods, finds that where an audience has an initially sceptical mindset, celebrity endorsement can have negative impacts on the consumers' brand attitudes. Contrastingly, Jackson and Darrow (2005) find that young

Canadians' views of politicians and political parties are improved by sport and music celebrities' endorsement. Nownes (2012) finds similar effects in an experiment involving 500 Americans. Many fundraising campaigns make use of celebrities as a means to induce donations, but it is not clear whether they are more effective than other forms of advertisement, or whether they simply crowd donations into a particular cause. In the context of a workplace giving campaign, it is possible that the presence of celebrities could crowd donations into a particular time (when they celebrity is there), without inducing any *new* donors (that is, participants who would not have donated in the absence of the campaign). Our experiment is therefore designed to test the dynamic effects of celebrities throughout the campaign.

In the next section we describe the design of experiment 1.

Experiment 1: Workplace Fundraising:

Method

This experiment took place in the offices of a large investment bank in the City of London in the United Kingdom. The experiment took place as a part of an annual fundraising campaign run by the bank's corporate social responsibility team (CSR), in which participants are asked to donate a day's salary to charity. The bank has approximately 10,000 employees in the UK, of which 7,000 are in London. Our sample includes only staff in the London offices, and of those only a subsample that are visited by celebrities as part of the experiment.

Employees work in business units, which vary considerably in their role in the bank's work (Mergers and Acquisitions, Asian Markets, etc), and are essentially autonomous in operation. Members of one business unit are not easily able to visit the areas occupied by other business units. Business units are, therefore, treated as self-contained for the purposes of our experiment. Participants are unaware that they are part of an experiment; (this is a 'natural field experiment' according to Harrison and List's (2004) taxonomy). With the exception of two members of staff in the bank's CSR department, the CSR director and the bank's CEO, nobody at the bank involved in implementing the experiment was aware that it was happening.

Salary is defined for these purposes as pay before bonuses and other incentives, and a day is defined as 1/260 of a year (based on a 5 day week, 52 weeks a year). Participants are, therefore, being asked to donate roughly 0.4% of their annual salary (although less than 0.4% of their annual income). Although it is possible to donate

multiple days, in practice very few actually do so. All money raised is split between two charities; Help a Capital Child, which helps homeless children in London, and Meningitis Research UK, which funds research into cures for meningitis (more details of the charities are available in the appendices). Charities were chosen in advance by employees of the bank as their annual corporate charities. Donations are made gross of tax, so the charities receive £1.81 for every £1 foregone by a top-rate taxpayer (participants who earn more than £150,000 at the time of the experiment (HMRC (2013))). The bank also offers a 1:1 match on pre-tax donations, so that £1 of pre-tax giving by the donor attracts £1 in match from the bank. Hence, if a top rate taxpayer forgoes £1, the charities receive £3.62, (£1.81 from both the employee and the bank). These are excluded as the bonuses for the current year are not known at the time of the experiment. Rules about matching and the tax deductibility of charitable donations are known by employees from the outset.

Participants could choose to donate in three ways. Either by clicking the link at the bottom of an email advertising the campaign, by visiting the campaign's website (figure 1) or by swiping their bank ID card (required to enter bank buildings) on portable scanners located around the buildings and carried by celebrities.



Figure 1: Campaign Website

Participants in our experiment hold positions across the bank's hierarchy (administrative staff are excluded), across 5 'corporate titles', or 'ranks'. These corporate titles are, in ascending order, Analyst, Associate, Assistant Vice President, Vice President, Director, and Managing Director. Although we do not observe the pay

of any given individual, the starting salaries (not including bonuses) are publicly advertised, and are described in table 1, below. We note that the variance of pay within grade is very high, and that there is considerable overlap between the top end pay of one band and the lower end of the one above it - hence, these salaries should be taken as indicative.

Table 1: Job Titles and Salaries	
Job Title	Mean Starting Salary
Analyst	£45,000
Associate	£62,000
Assistant Vice President	£69,000
Vice President	£95,000
Director	£122,000
Managing Director	£265,000

Our experiment contains one treatment – whether or not an office is visited by a celebrity in a given time period. Our control condition is the ‘campaign as normal’. All participants in this condition receive an email from the bank’s CEO, asking them to donate a day’s salary to the two charities. This email is displayed in figure 2. Emails were sent automatically from the CEO’s company email address, at 8 o’clock in the morning of the campaign. Participants were given the URL of the donation page, and a link saying “Yes I want to donate” (if a participant clicks this link, a donation is made without any further action being needed from the participant).

There was also a link to say ‘not this time, thank you’. The email emphasised the impact donations would have “funding vital research” and “supporting 20,000 disadvantaged children”.

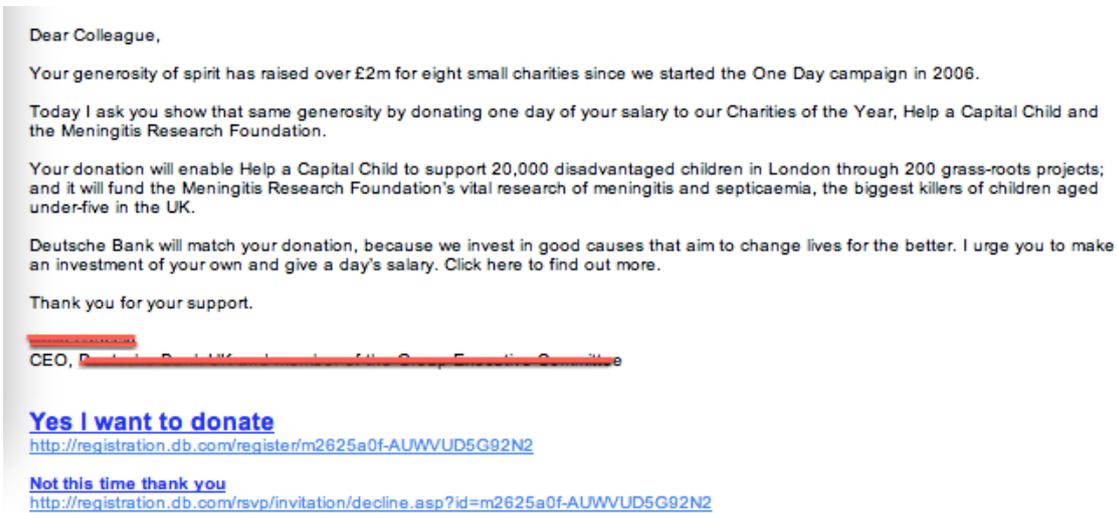


Figure 2: Control group email

The fundraising campaign was also advertised around all of the bank's UK offices with posters displayed in common spaces such as coffee areas, bathrooms and lifts. The branding of the campaign emphasised the ease of giving through this campaign, compared with other ways of fundraising, such as climbing mountains, running marathons, or baking cakes (see appendices for details). Considerable effort was exerted by the bank's CSR department to reduce the complexity of donating in this campaign, and this marketing decision was based on focus groups of bank employees conducted by the CSR department, which suggested that employees valued this ease.

Our treatment group in this experiment was a visit by a celebrity. Both charities taking part in the campaign provided celebrity guests to visit the bank's employees on the day of the campaign. Celebrities provided by Help a Capital Child were DJs from the London radio station Capital FM. Capital FM is London's largest commercial radio station, and the DJs were presenters from the station's breakfast show, which attracts 1million listeners in London (14% of the population). Celebrities provided by Meningitis Research UK were Paralympic athletes who had recently (at the time of the experiment) competed in the 2012 London Paralympic Games.

Our experiment rolls out the celebrity intervention in a stepped wedge format, described in the next section. Over the course of one day, the celebrities visited floors, which overlap with business units, in a random order. This methodology creates a counterfactual group for giving at different times of the day, while allowing the celebrities to visit as many people as possible (which was a major concern for the bank's CSR department). We now briefly describe this method of randomisation.

Stepped Wedge Design

Our treatment, a visit by a celebrity, was randomised using a stepped wedge Design. This type of design has been less widely used than either individual or cluster randomisation (Brown & Lilford (2006)). It is most widely used in one of two environments - first, where experimenters have a strong prior that the effect of an intervention is positive, and hence that exclusion might be unethical, or, secondly, where the intervention is constrained and so can only be rolled out gradually.

In a stepped wedge all, or many, sample clusters will eventually receive the intervention, but the order in which they receive it is randomised. This method can be more statistically efficient than other cluster-based randomisation techniques, as, for each cluster, there exist untreated time periods, and for each time period there exist untreated clusters (Hussey & Hughes (2007)). In environments with high between-cluster variation and/or highly variant period effects, this technique can offer significant statistical advantages over standard cluster randomisation. One disadvantage of this technique, similar to that of a pipeline or crossover design, is that participants are all (or almost all) eventually treated. Hence, longer term outcomes cannot be identified, although dynamic effects can be identified either when there are many clusters or an intervention period is short compared to the entire trial.

For our celebrity intervention, our celebrities are only capable of visiting one business unit (cluster) at a time. By randomising the order in which celebrities visit business units, we are able to identify both their effect (relative to not seeing them), but also the dynamics of that effect (how participants behave after a celebrity visit, compared to had they not been visited at all).

Our data contain information on individuals' location (office building), business unit (floor), job title, whether or not they make a donation, and, if they donate, how many days' salary they donate. For donors, we also observe the method they used to donate (website, email, scanner) and the date and time of their first

donation. For participants in our sample frame (business units visited by celebrities), we also observe the time at which the celebrity visited the business unit.

Individuals whose business unit or location is outside of London (for example people who are assigned to work in a different city or country, but swiped into one of the buildings in our sample on the day of the campaign) are excluded, as are people whose rank is undefined, as we are unable to identify their cluster-level treatments. Including these groups does not make a significant difference to any of our results. Our data only contains those individuals who were present (who swiped into a building) during the first day of the experiment.

Results

As discussed in the method section, the stepped-wedge roll-out of the celebrity intervention allows us to compare participants receiving the intervention both with themselves prior to receiving the intervention, and with those who would later receive the intervention but who had not yet received it. By doing so, we control for any selection bias in the assignment of business units to receive treatments.

First, we construct a panel of observations, by hour, for participants who receive a celebrity visit at some point in the day of the main experiment. In table 3, below, we estimate a simple survivor model, where the dependent variable is whether or not an individual has donated up to that point. Specification (1) in table 3 regresses the effect on donations in the period that the individual receives the celebrity intervention.

Specification (2) contains a linear time trend, accounting for the fact that time periods in which an individual is visited by celebrities will be systematically later in the day than periods in which they have not yet been visited.

We observe that much of the estimated impact of the celebrity visit disappears when the time trend is added, with the estimated impact falling from 2.2% to 0.8%. However, the precision of our estimates is reduced, suggesting that this time trend is not fully explaining the dynamics of donations for this sample. Specification (3) therefore contains a time trend (in hours) interacted with whether or not an individual has received a celebrity visit yet or not.

Specification (3) shows a large and positive primary effect of receiving a celebrity visit on the likelihood of having donated by the end of the period of the visit. However, the time trend on the celebrity intervention is negative and larger than the underlying trend.

From this, we can see that although an individual visited by a celebrity is (much) more likely to donate in that period, they are less likely to donate in all subsequent periods, suggesting that at least some of the effect of celebrity visits is to ‘crowd in’ donations to the time of the visit, which would have been made anyway.

Table 2: Celebrity Influence and Donations (OLS)

	(1)	(2)	(3)
Celebrity in T	0.022 ^{***} (0.004)	0.008 [*] (0.004)	0.364 ^{***} (0.032)
Time		0.009 ^{***} (0.000)	0.010 ^{***} (0.001)
Time x Celebrity			-0.026 ^{***} (0.002)
Constant	0.045 ^{***} (0.001)	0.004 ^{**} (0.002)	0.002 (0.002)
<i>N</i>	42960	42960	39380

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Although participants are significantly more likely to have donated over time, this model detects a large effect from the celebrity intervention, but a negative and significant coefficient on the interacted time trend. This suggests that celebrity interventions partially crowd out other donations, and that many of the people who donated when subject to the celebrity intervention would have done so later anyway; part of the effect of the celebrity treatment is to move some donations forward in time. Table 4 reports results of specifications looking explicitly at this phenomenon through the lag structure of the celebrity intervention.

All specifications of this table compare individuals at different points in time compared with when they are visited by a celebrity. We estimate the likelihood of having donated by the end of the period, comparing individuals in clusters that have received a celebrity visit *in that period* with those who have yet to receive one. We also compare individuals who received a visit in past periods with those who have not yet received one. In the first column this specification is estimated for the entire sample, and this is subsequently broken down by rank in columns 2-7.

Table 3: Dynamic Effects of Celebrity Interventions on likelihood of having donated yet, by Rank

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	(All)	(An)	(As)	(AVP)	(VP)	(Di)	(MD)
Celeb Now	0.008 ^{***} (0.001)	0.047 [*] (0.020)	0.004 (0.003)	-0.005 [*] (0.002)	0.006 [*] (0.003)	0.019 ^{***} (0.004)	0.040 ^{***} (0.008)
Celeb Last Hour	0.008 ^{***} (0.001)	0.024 (0.017)	0.000 (0.003)	0.001 (0.003)	0.010 ^{***} (0.003)	0.013 ^{***} (0.003)	0.036 ^{***} (0.008)
Celeb 2 Hours Ago	0.001 (0.002)	-0.014 (0.017)	-0.004 (0.003)	0.000 (0.003)	0.004 (0.003)	0.005 (0.003)	0.019 ^{**} (0.007)
Time	0.010 ^{***} (0.001)	0.038 ^{***} (0.007)	0.006 ^{***} (0.001)	0.003 ^{***} (0.001)	0.008 ^{***} (0.001)	0.012 ^{***} (0.001)	0.022 ^{***} (0.002)
Constant	-0.073 ^{***} (0.007)	-0.283 ^{**} (0.084)	-0.049 ^{**} (0.016)	-0.025 [*] (0.011)	-0.063 ^{***} (0.011)	-0.095 ^{***} (0.015)	-0.166 ^{***} (0.030)
<i>N</i>	39380	748	4433	5643	11627	9141	3718

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

As previously, we see a positive and significant impact of the celebrity visit in the hour that they arrive, consistent across the other ranks. The time trend is always positive, as we would expect, as participants do not have the opportunity to “undonate” in our data.

When we look at the effect on donations in the period after the celebrity visit, we see in almost all cases that the effect of the celebrity visit is smaller than it had been in the previous period. The interpretation of this is

that, although participants are still more likely to have donated by the end of the hour after they received a celebrity visit, than is someone who has not yet received a visit, the magnitude of this gap is less than at the end of the period of treatment. Hence, we can say that participants are less likely to donate in the hour after a celebrity visit than participants who have not yet received a visit are in the same hour.

Looking at the second lag (i.e. two hours after the celebrity visit) for all but one category (managing directors) the effect of a celebrity visit is insignificant and close to zero.

This shows a large, positive, but short term increase in donations brought about by celebrity intervention for most ranks in our data. However, the pace of donations by participants who have received a celebrity intervention is slower after the intervention itself than that for participants who have yet to receive one, and so the net effect of celebrity intervention over the course of the day is close to zero in this experiment. It is of interest, however, that the only group for whom there is a significant effect persisting two hours after the celebrity has visited are managing directors, the highest rank in the bank that we can observe in our data. As well as being the wealthiest donors (and therefore the most attractive to the charities), these also have the highest propensity to donate of any group in the control condition.

These findings provide some clear suggestions about the limited power of celebrity influence as a tool for motivating charitable donations, as well as some indication about how that influence is realised in the data, and on whom (within our slightly unusual sample) it is the most effective.

Experiment 2: Direct Mail

Method

Experiment 2 took place as part of a large direct mail campaign by the British Charity Marie Curie. Marie Curie is a large and well known British charity that helps people with terminal illnesses and their families. The charity runs 7 hospices in the UK, and employs nurses that provide at-home care for people with terminal illnesses to increase the amount of time they can spend at home and if possible to allow them to pass away in comfort.

As part of their Christmas charity raffle, 59,998 participants were sent letters asking them to purchase raffle tickets in order to support the charity and to stand a chance of winning a prize (£10,000 or a new car). The envelopes sent to participants (figures 3 and 4, below) provided promotional information about the campaign,

identifying the charity and highlighting the prizes that could be won. Participants were randomly assigned to receive one of two versions of this envelope – control or treatment. The two were identical, except that the bottom right hand corner of the control envelope contained a picture of a bauble (a Christmas decoration), while the treatment envelope contained a picture of the celebrity, Gillian Taylforth. Gillian Taylforth is an actress who appeared for 15 years in the soap opera Eastenders (viewership of 7 million)², for 5 years on the TV drama “Footballer’s wives”, and for 3 years on the TV drama “The Bill” from 2006-2008. At the time of the experiment she was acting in the Soap Opera “Hollyoaks”, which has an audience of 1.5-2million people per episode³. Taylforth is a supporter of the Marie Curie, which funded the nurses who cared for her mother when she was dying of cancer⁴. The raffle campaign ran for 12 weeks from when the letters were sent.

Results:

Our data contain 59,998 individuals. For each individual we observe whether or not they made a donation, and if so, the week in which it was received. We also observe their treatment allocation (Control/Celebrity). Some participants were identified as having given to the charity before (a “warm-list”), and others had not (a “cold list”) – this is the only individual characteristic of participants that we observe. Summary statistics are shown below in table 4. As can be seen, the conditions are balanced on these two characteristics.

Condition	Total N	Warm List	Cold List
Control	29,994	16,594	13,400
Celebrity	29,992	16,593	13,399

Proceeding to analysis, we analyse (in table 5) the decision to donate during the entire campaign (columns 1 and 3), or within the first two weeks of the campaign (columns 2 and 4). In columns 1 and 2, the donation decision by that point is regressed on our treatment variable. Columns 3 and 4 include the variables indicating whether or not a participant is on the “cold” list or not, and interact this with treatment. As can be seen from these results, there is a small difference between the celebrity and control groups at the end of the trial, but this is not statistically significant. This effect, which *is* statistically significant after two weeks, is consistent over time, however. This is shown by survival plot in figure 5, below, which is consistent with the finding from experiment 1 that the effect of celebrity is immediate, although in this instance it is also persistent over time. The change in statistical significance is a mechanical consequence of the increasing response rate in the control group, reducing statistical power. Breaking down this result by the warm and cold lists (columns 3 and

² <http://en.wikipedia.org/wiki/EastEnders>

³ <http://www.digitalspy.co.uk/soaps/s3/coronation-street/news/a445890/coronation-street-fiz-tyrone-plot-seen-by-87m-on-monday.html>

⁴ <http://www.mirror.co.uk/news/uk-news/hollyoaks-stars-give-backing-pride-1953621>

4), we find that the effect is entirely driven by an increase in the responsiveness of the warm list in the first two weeks (effect = 0.008, CI 0.001-0.015), with the estimated effect for the cold list centred around zero (effect = 0.00, CI -0.09 – 0.09).

Table 5: Results of Experiment 2 (OLS)

	(1)	(2)	(3)	(4)
Donate By:	End of Experiment	Week 2	End of Experiment	Week 2
Treatment	0.004 (0.003)	0.005* (0.002)	0.008 (0.004)	0.008* (0.004)
Cold List			-0.353*** (0.004)	-0.206*** (0.004)
Cold List * Treat			-0.008 (0.006)	-0.008 (0.005)
Control	0.216*** (0.002)	0.131*** (0.002)	0.374*** (0.003)	0.223*** (0.003)
<i>N</i>	59986	59986	59986	59986

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$



Figure 3: Treatment Envelope



Figure 4: Control Envelope

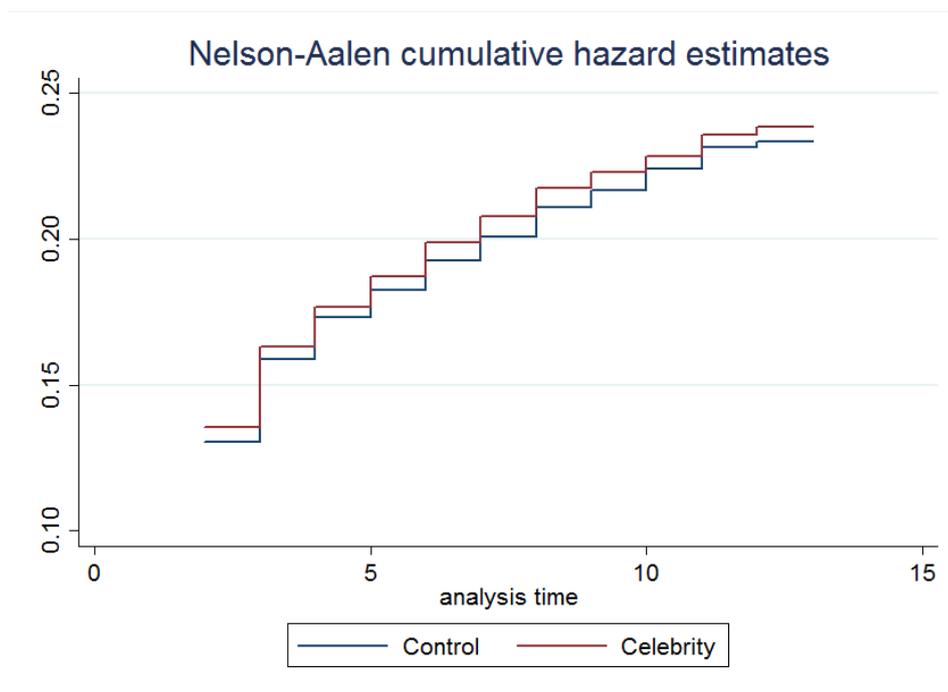


Figure 5: Nelson-Aalen Plot of donations by treatment condition

Discussion

We have presented the results of two novel field experiments testing a very particular form of social influence on charitable donations - that of celebrities. One experiment was carried out on a sample of investment bankers, while the other on a more general population of potential donors, some with prior relationships with the charity and some without. Given the differences in these two contexts, the similarities between the two results are striking. In both studies we detect small effects of celebrity endorsement, either face to face or on printed materials. In both cases, we find that the effects of celebrity endorsements are immediate.

Interestingly, we also find that effects are limited, at least in the longer term, to participants who were already more likely to give – participants on the “warm list” in experiment 2, and the most senior investment bankers in experiment 1. Although this could be a matter of margins, this is also suggestive of social reinforcement, whereby participants who already believe giving to be good, and are at the margin of donating are given a further push to do so by the celebrity. This differs from social persuasion, in which the celebrity’s influence acts on participants who are unconvinced or uninformed about the charity by acting as a prominent signal of the charity’s legitimacy. Although further research is clearly needed to build a cohesive picture of celebrity influence, we consider that Karlan and List’s (2012) interpretation of the effect of Bill & Melinda Gates’ names on the effectiveness of a donation match programme may warrant consideration.

There are also potentially important implications of our findings, not just for the design of charitable donation campaigns but also for celebrity endorsements more generally. If fundraisers or marketers must choose where to target their use of celebrity endorsement in their marketing materials, towards either new sales or encouraging repeat sales or customer loyalty, this research suggests that the latter two would be more likely to yield positive results. Where this trade-off does not exist, as in experiment 2, the complete ineffectiveness of celebrity endorsement in this context suggests that further experimentation with different forms of message would be likely to produce better results.

References:

- Alpizar, F., Carlsson, F., & Johansson-Stenman, O. (2008). Anonymity, reciprocity, and conformity: Evidence from voluntary contributions to a national park in Costa Rica. *Journal of Public Economics*, 92(5), 1047-1060.
- Bailey, A. A. (2007). Public information and consumer skepticism effects on celebrity endorsements: Studies among young consumers. *Journal of Marketing Communications*, 13(2), 85-107.
- Bernheim, B. D. (1994). A theory of conformity. *Journal of political Economy*, 841-877.
- Brown, C. A., & Lilford, R. J. (2006). The stepped wedge trial design: a systematic review. *BMC medical research methodology*, 6(1), 54.
- Carman, K. G. (2003). Social influences and the private provision of public goods: Evidence from charitable contributions in the workplace. *Manuscript, Stanford University*.
- Farrell, J., & Rabin, M. (1996). Cheap talk. *The Journal of Economic Perspectives*, 103-118.
- Glazer, Amihai, and Kai A. Konrad. "A signaling explanation for charity." *The American Economic Review* (1996): 1019-1028.
- Harbaugh, W. T. (1998). What do donations buy?: A model of philanthropy based on prestige and warm glow. *Journal of Public Economics*, 67(2), 269-284.
- Harrison, G. W., & List, J. A. (2004). Field experiments. *Journal of Economic literature*, 1009-1055.
- Huck, S., & Rasul, I. (2011). Matched fundraising: Evidence from a natural field experiment. *Journal of Public Economics*, 95(5), 351-362.
- Hussey, M. A., & Hughes, J. P. (2007). Design and analysis of stepped wedge cluster randomized trials. *Contemporary clinical trials*, 28(2), 182-191.
- Jackson, D. J., & Darrow, T. I. (2005). The influence of celebrity endorsements on young adults' political opinions. *The Harvard international journal of press/politics*, 10(3), 80-98.
- Karlan, D., & List, J. A. (2012). *How can Bill and Melinda Gates increase other people's donations to fund public goods?* (No. w17954). National Bureau of Economic Research.

Landry, C., Lange, A., List, J. A., Price, M. K., & Rupp, N. G. (2005). *Toward an understanding of the economics of charity: Evidence from a field experiment*(No. w11611). National Bureau of Economic Research.

List, J. A., & Lucking-Reiley, D. (2002). The effects of seed money and refunds on charitable giving: Experimental evidence from a university capital campaign. *Journal of Political Economy*, 110(1), 215-233.

Meer, J. (2011). Brother, can you spare a dime? Peer pressure in charitable solicitation. *Journal of Public Economics*, 95(7), 926-941.

Nownes, A. J. (2012). An experimental investigation of the effects of celebrity support for political parties in the United States. *American Politics Research*, 40(3), 476-500.

Potters, J., Sefton, M., & Vesterlund, L. (2007). Leading-by-example and signaling in voluntary contribution games: an experimental study. *Economic Theory*, 33(1), 169-182.

Shang, J., & Croson, R. (2006). The impact of social comparisons on nonprofit fundraising. *Research in Experimental Economics*, 11, 143-156.

Smith, S., Windmeijer, F., & Wright, E. (2014). Peer effects in charitable giving: Evidence from the (running) field. *The Economic Journal*.

Vesterlund, Lise. "The informational value of sequential fundraising." *Journal of Public Economics* 87, no. 3 (2003): 627-657.

Vesterlund, L. (2006). Why do people give. *The nonprofit sector: A research handbook*, 2, 168-190.