



THE USC ANNENBERG NORMAN LEAR CENTER

MEDIA IMPACT PROJECT



PRESSING FOR CHANGE

The Role of Action Buttons in
Online News Engagement

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ABOUT



The Norman Lear Center is a nonpartisan research and public policy center that studies the social, political, economic and cultural impact of entertainment on the world. The Lear Center translates its findings into action through testimony, journalism, strategic research and innovative public outreach campaigns. Through scholarship and research; through its conferences, public events and publications; and in its attempts to illuminate and repair the world, the Lear Center works to be at the forefront of discussion and practice in the field.



At the Lear Center's **Media Impact Project**, we study the impact of news and entertainment on viewers. Our goal is to prove that media matters, and to improve the quality of media to serve the public good. We partner with media makers and funders to create and conduct program evaluation, develop and test research hypotheses, and publish and promote thought leadership on the role of media in social change.



See Change is a research institute devoted to studying and shaping behavior change programs for the greater good. Backed by theory, tested with data, and designed with care, we develop, implement, and evaluate efforts to solve issues that matter to us the most.



Founded in 1821, **The Guardian** is the world's leading liberal voice. Learn about its editors, history and unique, independent structure. The Guardian has been named Newspaper of the Year four times at the annual British Press Awards, the most recent in 2014 for reporting on government surveillance.



SPEAKABLE is bridging the gap between media and impact. Their Action Button empowers readers to impact news stories that inspire them—whether by donating, signing a petition or emailing a policymaker. Users can do more than read headlines, they can change headlines.

Acknowledgement

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EXECUTIVE SUMMARY

This report presents research conducted by the USC Norman Lear Center Media Impact Project (MIP), in collaboration with See Change Institute (SCI), the Guardian, and Speakable, to investigate the role of Action Buttons in influencing reader motivations in addressing homelessness. We studied a set of 54 articles created as part of the Guardian's *Outside in America* feature series, which ran from February to August 2017, to determine whether changes in presentation influenced reader engagement with Action Buttons — interactive widgets that allow readers to easily donate money or volunteer for causes from within story content. After coding the Action Buttons features, we performed a series of qualitative and quantitative analyses to examine the effects of variations on usage.

Findings from our analysis of the Speakable Action Buttons include the following:

- Buttons placed at the bottom of an article resulted in a higher action initiation rate than buttons placed in the middle of the article.
- Buttons with multiple actions resulted in a higher initiation rate than buttons featuring only one action.
- The presence of a donation scale resulted in a lower initiation rate than when a donation scale was absent.
- Action Buttons featuring city-level organizations had higher initiation rates than others.
- Messages using 'moral norms' — what someone ought to do — led to greater audience engagement than those employing 'social norms' — what others are currently doing.
- Messages using concrete framing led to greater audience engagement than abstract messages.

Social science represents a potentially powerful, yet underutilized tool that can improve messaging content aiming for social benefit. When such elements are included in campaigns, evaluation should be performed to better understand what does and does not work for a given audience. The work described here was an initial attempt at informing such an approach; we hope future research can build on this work and continue the conversation.

INTRODUCTION

When journalists, non-profit organizations and advocacy groups release media discussing issues of public concern, their aim is often to both inform discourse and promote positive societal change. In the areas of social marketing and entertainment, scientific insights have long been used to develop and promote content that garners attention and influences consumer decision-making.¹ However, our understanding of how to leverage such insights in the context of nonprofit and advocacy work is far less comprehensive.²

Translating social science research into direct insights for communications practice is less straightforward than it may appear at first glance; unique methods and approaches must be employed to validate social science insights in real-world settings. Accumulating robust evidence for factors that influence public engagement with important social issues is a vital step toward developing effective impact-driven media. Systematic research is necessary to produce generalizable insights into such practices. Partnerships between content creators and social scientists to design and evaluate media may offer a valuable framework to advance this cause.

The Guardian's *Outside in America* series was designed to produce content covering a range of issues faced by homeless people in the United States, including lack of political representation, interpersonal violence, social stigmatization and inadequate health coverage. A collaboration between the Guardian and Speakable for this work had the following goals:

1. to spark audience interest and philanthropic reactions to homelessness in America; and
2. to help generate insights for how Action Buttons can be leveraged to maximize the impact of online news stories.

Each story appeared on the Guardian's website, and an Action Button was embedded within the content. These buttons varied, but each offered readers the option to donate or volunteer to a related cause, and/or to share the story with others. Figure 1 provides an example of a Speakable Action Button employed in this research. Reader engagement with the articles and Action Buttons was tracked throughout the series, allowing our research team to examine 'click-through' rates, as well as which types of actions readers did and did not engage in.

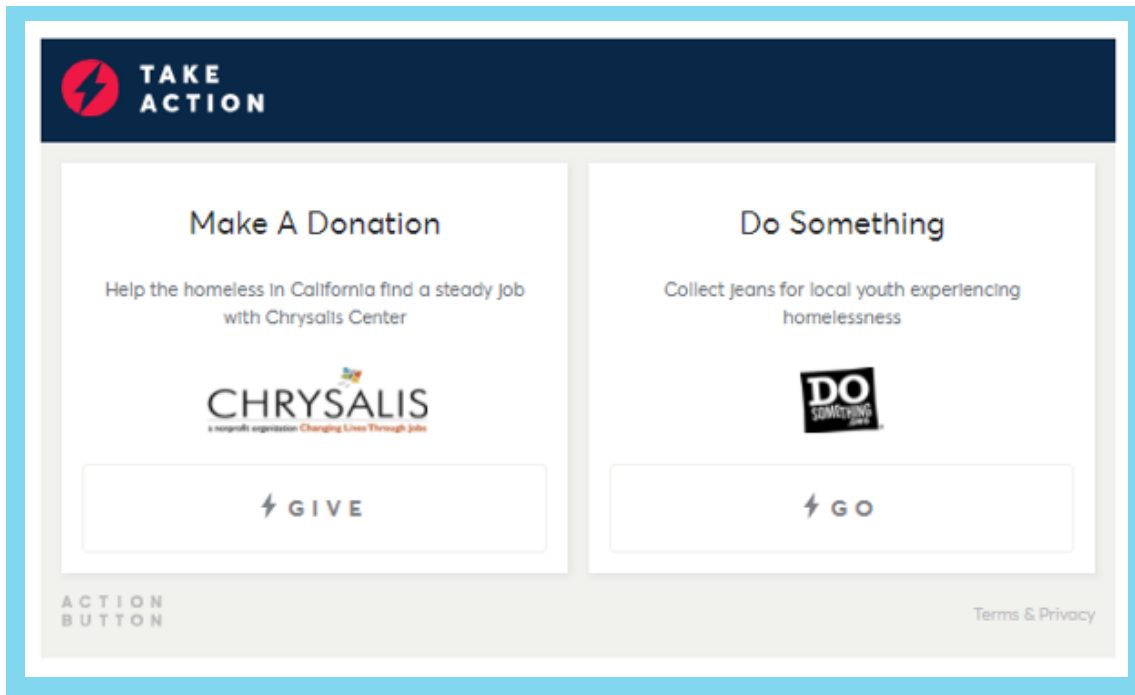
The goal of this research was to identify how differences in the presentation of Action Buttons influence reader responses. This was done through an analysis of 54 articles created as part of the Guardian's *Outside in America* feature series, which ran from February-August 2017. Each story in this series included a Call to Action Button (hereafter, "Action Button") designed by the company Speakable, which offered readers the opportunity to donate time and money to relevant causes directly while they are reading an article.

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¹ Levin, I. P., & Gaeth, G. J. (1988). How consumers are affected by the framing of attribute information before and after consuming the product. *Journal of Consumer Research*, 15(3), 374-378.

² Chang, C. T. (2008). To donate or not to donate? Product characteristics and framing effects of cause-related marketing on consumer purchase behavior. *Psychology & Marketing*, 25(12), 1089-1110.

Figure 1. Sample Action Button from:
How America counts its homeless – and why so many are overlooked



The research team drew on social scientific insights from psychology and behavioral science to inform the approach, evaluation and interpretation of results. The following methods were employed to carry out the research: content analysis of Action Button features, qualitative coding and statistical analysis of user engagement with the Action Buttons, and A/B testing involving the comparison of different Action Button presentations.

METHODS

A total of 53 articles provided by the Guardian were included for the analysis. Reader engagement data with these articles was provided by the Guardian and Speakable for the period of February 16 to August 17, 2017. A coding scheme was developed to classify the different types of buttons used (e.g., number of actions listed on the button), and to examine the impact of these characteristics on reader engagement (e.g., click-through rates).

To conduct the analysis, we reviewed the buttons from each story and identified several variables for coding; however, due to the small number of instances available, there were limitations regarding what could be analyzed using traditional statistical methods. Analyses therefore focused on the following four Action Button codes:

1. Button Placement
2. Presence of a Donation Scale
3. Number of Actions Listed
4. Organization Level

Data was analyzed using negative binomial regressions and poisson regression techniques. To account for each article having different numbers of views, we weighted our results by viewership rates. We then conducted analyses to examine whether each code that was developed (e.g., Action Button placement at the middle or bottom of the article) predicted the total number of actions initiated by readers.

The content analysis was followed by a series of A/B tests to examine whether specific changes to the Action Buttons influenced engagement rates.³ The following three variables were selected for A/B testing:

1. **Norms:** Do social/moral norms influence reader engagement with the Action Button?
2. **Efficacy:** Do legitimizing, outcome or reinforcing efficacy statements influence audience engagement with the Action Button?
3. **Abstract vs Concrete descriptions:** Does a charity description that uses concrete details (e.g., statistics) increase audience engagement with the Action Button?

The Action Buttons were embedded within the media content, and readers were randomly assigned to see one of several variations. The variations in the Action Buttons were the only differences implemented across each article version, and no changes were made to the actual stories themselves. The three A/B tests were analyzed using identical statistical methods for each condition, which are described in the findings overleaf.



³A/B tests are means for comparing two or more versions of content (e.g. webpage, flyer, app, etc.) against each other to determine which one results in the desired outcome. In these tests only one feature of the content is varied, so a causal relationship can be drawn between the altered variable and the observed outcome.

FINDINGS

We conducted two phases of research on the Action Buttons. The first looked at Action Button codes, documenting the presence of specific features and comparing them to on-site response rates. In the second phase, three A/B tests experimentally evaluated the impact of specific message frames on Action Button initiation rate.

CONTENT ANALYSIS

This section describes the results of testing on the following four types of button features:

BUTTON PLACEMENT

Of the 51 articles that had Action Buttons, 21 (41%) of the Action Buttons were located in the middle of the article, while 30 (59%) were located at the bottom of the article. We found that buttons placed at the bottom of the article resulted in a higher initiation rate than buttons placed in the middle of the article. In fact, users who viewed the Action Button at the bottom of the article were 2.5 times more likely to initiate actions than users who viewed the button in the middle of the article.

These results suggest that button placement plays a role in influencing action initiation, such that placing buttons at the bottom of the article results in a higher initiation rate than placing them in the middle. However, this finding was based on exploratory (vs. experimental) data, so we recommend additional A/B testing or sampling alternative button placements (e.g., both top and bottom of the page) to more comprehensively examine the effect of button placement on reader engagement.

NUMBER OF ACTIONS

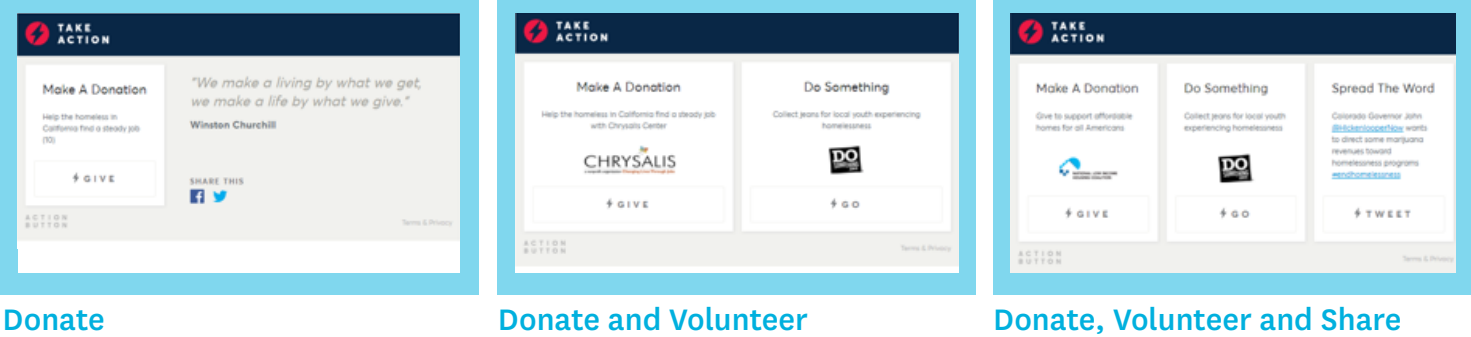
The Speakable Action Buttons presented audiences with either one, two, or three options, which could be clicked to take action (see Figure 2 below). We found that 17 (33%) of the articles presented the audience with only one action (in this case, it was always “donate”), 28 (55%) presented audiences with two actions, and six (12%) presented audiences with three actions.

Due to the small number of buttons that presented three action options, we combined the “two action” and “three action” categories into one to enable comparisons using inferential statistics.

Our results suggest that providing audiences with choices may improve their willingness to donate and take action, as buttons with multiple actions resulted in a higher initiation rate than buttons featuring only one action. In fact, statistical analyses indicated that respondents were four times more likely to initiate an action when more than one action was listed.

However, there was not an even distribution of action types in this article set, as all of the Action Buttons that offered one option asked users to donate, while buttons with more than one action option asked users to donate as well as to either donate, share or volunteer. Consequently, this finding may be a result of the Action Buttons that included “share,” a relatively easy action compared with donate or volunteer, and may have disproportionately increased the initiation rate for buttons with more than one option.

Figure 2



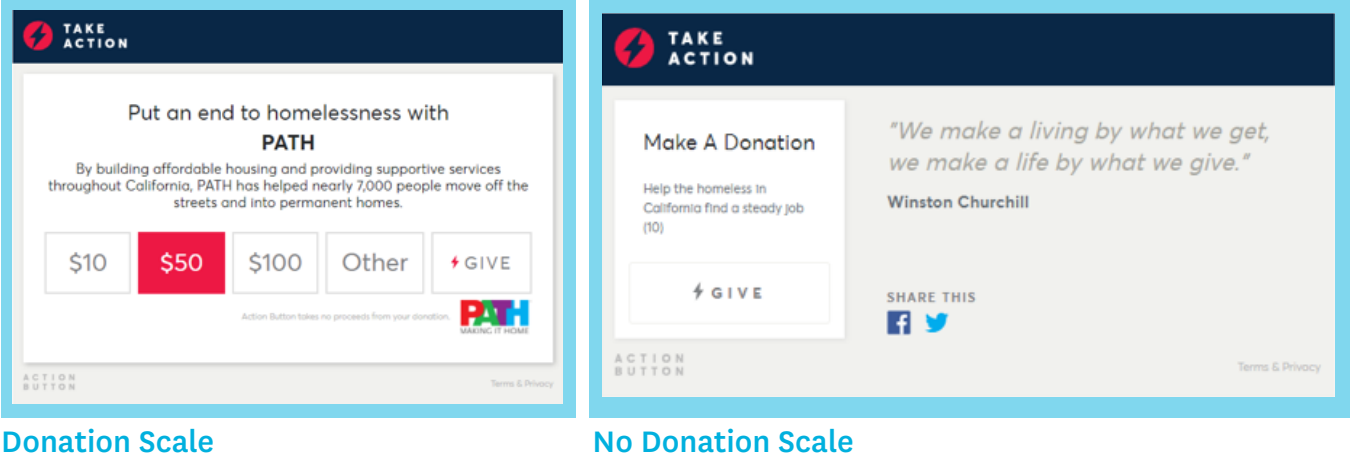
DONATION SCALE PRESENCE

The Action Buttons examined during coding asked for donations by presenting readers with either a scale or with a simple donation request. We found that of 51 articles, 16 (31%) used a donation scale and 35 (69%) did not.

Our results showed that for buttons with a donation option, the presence of a donation scale resulted in a lower initiation rate than when a donation scale was absent. There was a statistically significant effect such that those without a donation scale were close to five times more likely to initiate an action than those with a donation scale.

However, the total amount donated was not significantly influenced by the presence or absence of the donation scale.

Figure 3



ORGANIZATION LEVEL

The Action Buttons examined during coding listed non-profit organizations that operate on a city, state, national or international level; for instance, The Midnight Mission (City-level) as opposed to Mercy Housing (National-level)⁴.

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⁴ Note that each Action Button could list more than one charity and thus the total will not add up to 51. In addition, the volunteer organization/database Do Something was considered to operate on the national level.

Table 1

City level	12
State level	13
National level	25

Results⁵ indicated that, overall, the effects of organizational “scale” are unclear.

- Action Buttons listing state-level organizations were less likely to motivate users to initiate action than buttons featuring local level organizations. Action Buttons with city- and national-level organizations did not significantly differ.
- When contrasting Action Buttons listing state-level with city- and national-level organizations, those featuring state-level organizations were less likely to motivate users to initiate action.
- Action Buttons with city-level organizations listed were associated with higher donations initiated than those with state or national level organizations.

However, while buttons promoting city-level organizations resulted in higher action initiation than state-level organizations, the results suggest that there were outliers which heavily influenced this result. Due to the small amount of data and the variation in the stories themselves, we are hesitant to trust the veracity of this result. Furthermore, since there were also no compelling differences between the national-level and other organizational levels, the effects of organizational “scale” on action initiation is unclear.

A/B TESTING

Following the Action Button coding, we worked with Speakable and the Guardian to select three topics of primary interest for additional A/B testing and analyses: norms, efficacy and concrete vs. abstract framing. A/B tests function as a means to experimentally compare two identical messages with the exception of one variable, allowing us to explicitly determine what effect the variable has on engagement.

NORMS

Social norms are essentially social constructed standards establishing what behavior is “normal” or “acceptable.” They can be adjusted in persuasive messaging by emphasizing the number of people who are performing an action, i.e. “Join the 5,000 people who have already donated.” Moral norms establish what people ‘ought’ to do, i.e. “Please donate, it is good to help homeless people.” Incorporating social and moral norms in charity appeals has been found to be effective in many different circumstances.⁶ Our analysis of norms utilized four

Figure 4



⁵ Contrast codes were entered into regression models to account for the three organization levels (City, State, National). For each analysis, two models were performed: one model using the city-level as the reference category, and one model using state-level as the reference category.

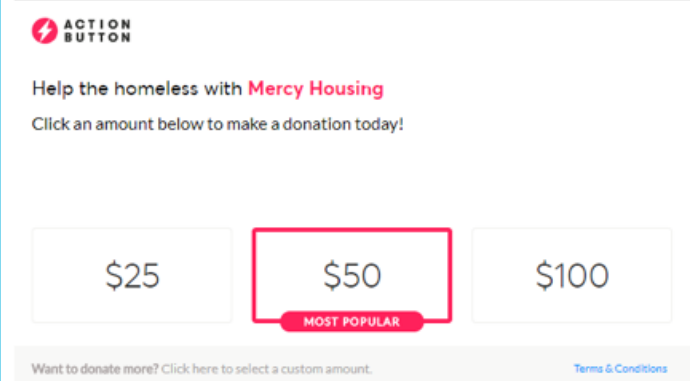
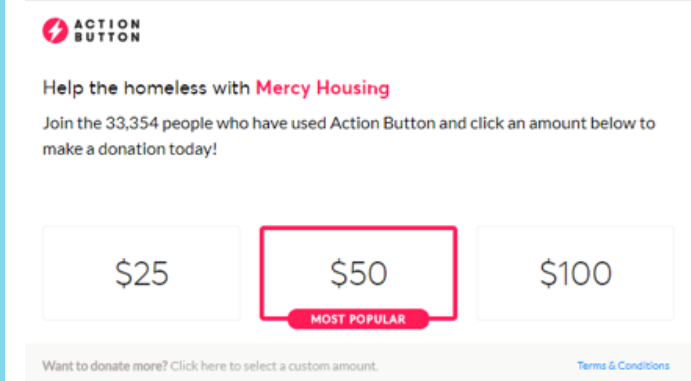
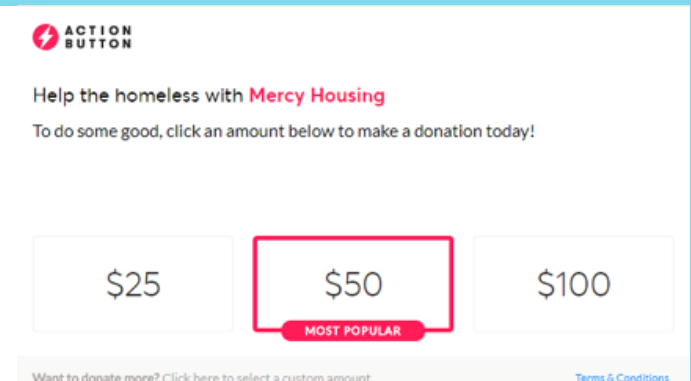
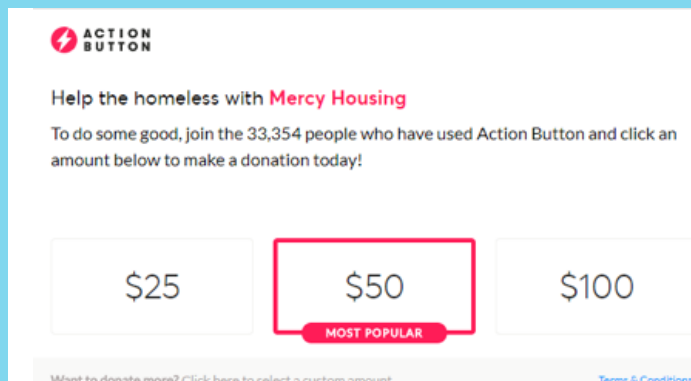
⁶Smith, J. R., Louis, W. R., Terry, D. J., Greenaway, K. H., Clarke, M. R., & Cheng, X. (2012). Congruent or conflicted? The impact of injunctive and descriptive norms on environmental intentions. *Journal of Environmental Psychology*, 32(4), 353-361.

different versions of Action Button text: three norm framing conditions and a control condition that used no added normative language. Speakable randomly presented one of the four Action Button versions in the article titled *America's homeless population rises for the first time since the Great Recession*. (For a depiction of the four Action Button variants as seen by readers, see Table 1.)

Action initiation was slightly higher in the “moral only” and the “social and moral” combination conditions, compared with the control and “social only” conditions. This suggests that the inclusion of the moral component of a norm frame may increase initiation rates.

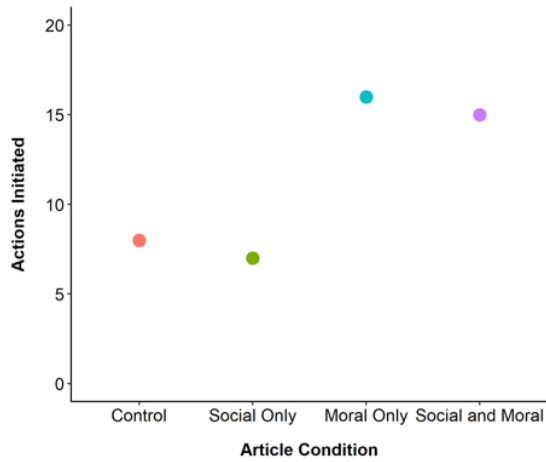
However, the results of the logistic regression analysis yielded no inferentially meaningful differences when comparing each test condition to the control condition.

Table 2

 <p>1. Control</p>	 <p>2. Social Only</p>
 <p>3. Moral Only</p>	 <p>4. Social and Moral</p>

“Action initiation was slightly higher in the ‘moral only’ and the ‘social and moral’ combination conditions, compared with the control and ‘social only’ conditions. This suggests that the inclusion of the moral component of a norm frame may increase initiation rates.”

Figure 5



EFFICACY

The second test we ran examined the impact of efficacy enhancing messages on audience engagement with the Action Button. Self-efficacy is essentially an individual's belief that one can succeed at an intended goal, and response efficacy is an individual's belief that the action one takes will have the intended effect. Therefore, by enhancing someone's sense of self efficacy and response efficacy, they should feel more empowered that they are able to take action and that the action they take will make a difference.⁷ To conduct the efficacy test, Speakable utilized another article from the *Outside in America* series, titled *The Silicon Valley paradox: one in four people are at risk of hunger* (Figure 6). As with the norms test, the efficacy test involved three efficacy frames as well as a control condition (see Table 2).


Statistical analyses found no inferentially meaningful statistical differences between the control and efficacy-related frames. As with the norms frame, there were low action initiation rates overall and a substantial amount of variability in the statistical results due to the limited number of cases and actions initiated in contrast to the total number of views.

Figure 6



⁷ Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215.; Lewis, I. M., Watson, B., & White, K. M. (2010). Response efficacy: The key to minimizing rejection and maximizing acceptance of emotion-based anti-speeding messages. *Accident Analysis & Prevention*, 42(2), 459-467.

Table 3

 **ACTION
BUTTON**

Help the homeless in the Bay Area with **Mercy Housing**

Please give \$10 to help fight homelessness.

\$10

MOST POPULAR

\$50

\$100

Want to donate more? [Click here](#) to select a custom amount.

[Terms & Conditions](#)

ACTION
BUTTON

Help the homeless in the Bay Area with **Mercy Housing**


Please give \$10 to help fight homelessness. Every dollar counts!

\$10
MOST POPULAR

\$50

\$100

Want to donate more? [Click here to select a custom amount.](#) [Terms & Conditions](#)

 **ACTION
BUTTON**

Help the homeless in the Bay Area with **Mercy Housing**

Please give \$10 to help fight homelessness. If just 5% of people who read this article give \$10, Mercy Housing can provide a month of after-school snacks for 870 kids.

\$10

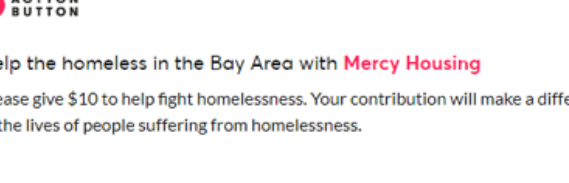
MOST POPULAR

\$50

\$100

Want to donate more? [Click here](#) to select a custom amount.

[Terms & Conditions](#)



**ACTION
BUTTON**

Help the homeless in the Bay Area with **Mercy Housing**

Please give \$10 to help fight homelessness. Your contribution will make a difference in the lives of people suffering from homelessness.

\$10

MOST POPULAR

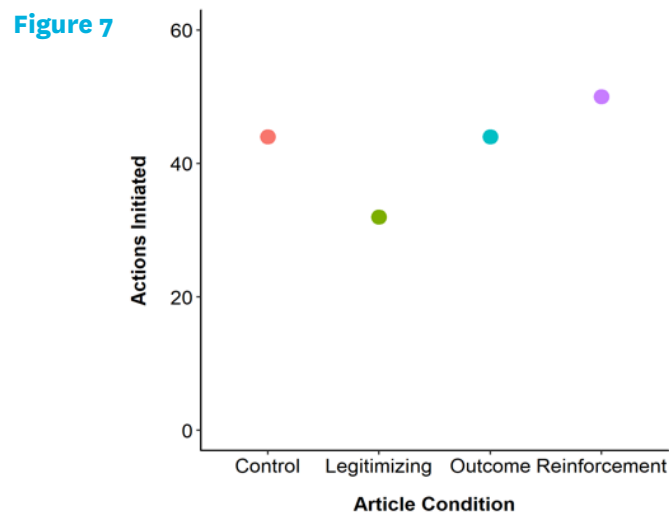
\$50

\$100

Want to donate more? [Click here to select a custom amount.](#)

[Terms & Conditions](#)

4. Reinforcement




ABSTRACT VS. CONCRETE LANGUAGE

In the language test, readers of an article called *Homelessness at Christmas: “The kids believe Santa’s coming, just not by the chimney”* (Figure 8) saw an Action Button that included either an abstract or concrete framing of a charity organization focused on aiding homeless. Table 4 includes the Action Buttons in the format in which participants saw them. Although the concrete language condition was associated with more actions initiated than the abstract condition; as with the other two A/B tests, there were no inferentially significant effects of language framing (abstract vs. concrete) on users’ action initiation rates.

Figure 8



Table 4



Help the homeless with **Back on My Feet**

Back on My Feet combats homelessness through the power of running with employment and housing resources.


\$25
MOST POPULAR

\$50

\$100

Want to donate more? Click here to select a custom amount. [Terms & Conditions](#)

1. Abstract



Help the homeless with **Back on My Feet**

Back on My Feet combats homelessness through the power of running, employment & housing resources. Since 2007 they've helped over 6000 people obtain jobs and homes.

\$25
MOST POPULAR

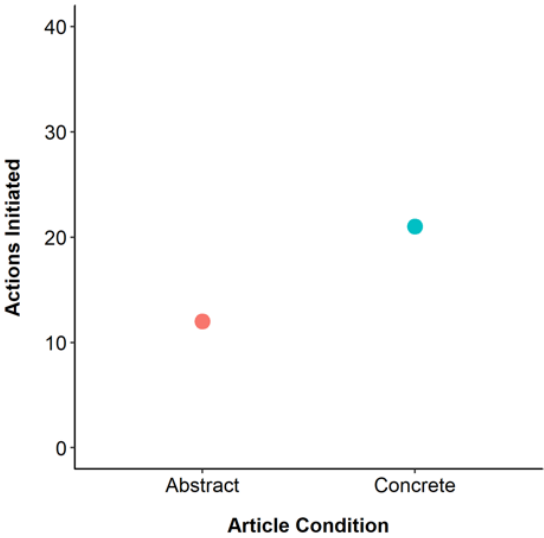
\$50

\$100

Want to donate more? Click here to select a custom amount. [Terms & Conditions](#)

2. Concrete

Figure 9



DISCUSSION

This report studied the use of Action Buttons in the Guardian's *Outside in America* series to identify features that could have a positive effect on initiating audience engagement. We drew on psychology and communications research to examine the role of specific social science theories in informing this engagement.

Our results suggested that variables related to the Action Button itself, such as placement, number of action options provided, donation scales and the operation level of key organizations, may impact audience response to online news content. To further investigate these findings, particularly the placement and number of Action Buttons provided, we suggest conducting additional research to determine the robustness of these effects. For example, Action Buttons placement may be more effective when the button is placed at both the middle and bottom or top and bottom of the article rather than in one place only.

Additionally, we feel it is important to address two peculiarities with our findings regarding donation scales and organization level. Specifically, while our results suggest that the presence of a donation scale leads to fewer actions initiated, extant research⁸ suggests that donation scales should have a real, although limited, positive impact on either the frequency or the amount of donations. This is because a preset donation amount, like a donation scale, provides a reference price against which people can base their intended donation amount. One potential cause for these seemingly discrepant findings is the value of the listed donations. Researchers⁹ argue that if the amount suggested is less than a potential donor's intended donation, then they may be more likely to contribute, as the donation is easy to justify. However, if the initially suggested donation is higher than expected or what the donor has given in the past, they may deny the request. Consequently, we would suggest additional testing to better determine the relative influence of donation scale presence and preset donation amounts.

The highly variant results we found for the effect of organization level reflects the complicated role of organization level and location on donor decisions. For example, psychological research suggests that in general, the closer (geographically, temporally, psychologically) the impacts of an action, the greater the likelihood that an individual will take an action.¹⁰ Yet, others have found that individuals are more likely to donate to specific people when the impacts are close to them personally (e.g., in the same city), but more likely to donate to organizations when that organization is helping people and causes distant from them.¹¹ Thus, while the current findings do not yield robust conclusions, we emphasize that the organization listed in the Action Button likely does influence action initiation given this past research.

Results of the A/B testing indicated that messages using "moral norms" — what someone ought to do — and both "social and moral norms" — what others are currently doing and what one ought to do — were related to greater audience engagement with the Action Buttons as opposed to the control message and the message using only social norms. Results also indicate no significant differences between efficacy messages and the control non-efficacy message. However, messages using concrete framing rather than abstract framing were related to somewhat greater audience engagement.

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⁸ Goswami, I., & Urminsky, O. (2016). When Should the Ask Be a Nudge? The Effect of Default Amounts on Charitable Donations. *Journal of Marketing Research*, 53(5), 829-846.; Desmet, P., & Feinberg, F. M. (2003). Ask and ye shall receive: The effect of the appeals scale on consumers' donation behavior. *Journal of Economic Psychology*, 24(3), 349-376.

⁹ ADe Bruyn, A., & Prokopec, S. (2013). Opening a donor's wallet: The influence of appeal scales on likelihood and magnitude of donation. *Journal of Consumer Psychology*, 23(4), 496-502.

¹⁰ Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological review*, 117(2), 440.

¹¹ Ein-Gar, D., & Levontin, L. (2013). Giving from a distance: putting the charitable organization at the center of the donation appeal. *Journal of Consumer Psychology*, 23(2), 197-211.

CONCLUSION

Social science represents a potentially powerful, yet underutilized tool that can improve messaging content aiming for social benefit. Further, when such elements are including in campaigns, evaluation should be performed to better understand what does and does not work for a given audience. At the same time, research is needed to firmly establish the validity of this perspective. Novel methods may need to be developed to adequately examine social scientific insights in the context of news media content where the goal is also to have societal impact. A balance must also be struck between artistic choices and the suggestions of social science research. The work described here was an initial attempt at informing such an approach; we hope future research can build on this work and continue the conversation.