Assessing the Impact of CEO Activism

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CEO activism refers to corporate leaders speaking out on social and environmental policy issues not directly related to their company's core business. Distinct from nonmarket strategy and traditional corporate social responsibility, the recent wave of CEO activism focuses on social issues unrelated to their core business, ranging from environmental issues to LGBTQ rights and race relations. In the first study of this phenomenon, we implement two framed field experiments to provide evidence on how CEO activism can influence public opinions about government policies and consumer attitudes about the CEO's company.

Keywords: business and society, corporate social policy, leadership, social activism, values

INTRODUCTION

Business leaders are increasingly engaging in "CEO activism" by taking public stands on social and environmental issues that are not directly related to their company's core business (Chatterji and Toffel, 2015; 2018) on topics ranging from climate change to lesbian, gay, bisexual, transgender, and queer (LGBTQ) rights to race relations to gender equality. For example, Apple CEO Tim Cook, Indianapolis-based Angie's List CEO Bill Oesterle, and a number of other business leaders spoke out publicly against Indiana's Religious Freedom Restoration Act (RFRA) before and immediately after it was signed into law on March 26, 2015 (e.g., Cook, 2015). Several multinational corporation CEOs publicly encouraged world leaders to secure "an ambitious climate deal" at the 2015 Paris climate

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conference (*World Economic Forum*, 2015), urged President Trump to remain in the Paris Climate Agreement (Stokols, 2017), and subsequently pledged to abide by that agreement despite the US's withdrawal (Gustin, 2017). Unilever CEO Paul Polman has long encouraged CEOs to push for policies to address climate change, and Salesforce CEO Mark Benioff holds periodic dinners to explain why he views public activism as part of the modern CEO's job. And Merck CEO Ken Frazier stepped down from one of President Trump's business advisory councils to protest what he viewed as an equivocal response to racial violence in Charlottesville, Virginia.

In an era of dwindling trust in politicians and big business in the United States (*Gallup*, 2016) but rising expectations that CEOs should publicly engage on public policy debates (*Edelman*, 2018), it is unclear whether CEO activism can sway public opinion. Recent scholarship has identified public policies aimed at driving sustainability transitions (Delmas, Lyon, and Maxwell, 2019) as one domain where CEOs could play an important role. Our work focuses on these policies, specifically policies related to enhancing environmental sustainability and improving human rights. We also explore whether CEO activism will bolster brand loyalty or trigger a backlash against the CEO's company. In this study, we examine whether CEO activism can influence political and consumer attitudes. Our research is, to our knowledge, the first study to examine the potential impacts of CEO activism, complementing the literature that has explored the strategic implications of corporate social responsibility (CSR) (e.g., McWilliams, Siegel, and Wright, 2006) and the influence of companies' nonmarket strategies (e.g., Eesley and Lenox, 2006; Dahan, Hadani, and Schuler, 2013; Hadani, Bonardi, and Dahan, 2017). Moreover, our research addresses the call for more attention on how the private sector is influencing public policy, especially with regard to CSR and sustainability topics (Lyon et al., 2018).

Although some customers might view CEO activism favorably, others might be alienated by it, as was the case when protests erupted after Chick-fil-A CEO Dan Cathy spoke out against gay marriage in 2012 and when Starbucks CEO Howard Schultz was ridiculed for his Race Together campaign. We assess whether CEO activism can positively or negatively influence consumers' purchasing intent, and explore whether this effect is moderated by the alignment of consumers' political preferences with the CEO's.

We view the statements of Cook, Oesterle, Frazier, Cathy, and other corporate leaders as distinct from nonmarket strategy (Baron, 2012; Hadani, Dahan, and Doh, 2015; Rudy and Johnson, 2016), strategic CSR (Mazutis, 2013; McWilliams, Siegel, and Wright, 2006), and other kinds of corporate engagement with the public sphere (e.g., Su and Sauerwald, 2018). As we discuss below, CEO activism focuses on the CEO (as opposed to the organization) as the agent and on public activity rather than on the blend of public and private activities that characterizes related phenomena.

Further, CEO activism entails corporate leaders speaking out on issues that are largely *unrelated* to their company's core business. Although race relations and gay marriage are certainly relevant to the employees of Merck and Chick-fil-A, it is challenging to directly tie gains in these areas to those companies' operating performance. As such, CEO activism differs from firms pursuing nonmarket strategies intended to shape the rules of the marketplace to promote their bottom line.

We conducted a framed field experiment (Harrison and List, 2004; Delmas and Aragon-Correa, (2016)[1] to investigate the effects of CEO activism on public opinion and consumer attitudes in the specific context of Cook's statements on Indiana's RFRA and in the efforts of several corporate leaders to shape public opinion on regulation to mitigate the effects of climate change. While RFRA was then a new topic, climate change had been in the news for more than a decade. We adopt broadly similar approaches in studying both RFRA and climate change, with some important distinctions.

To investigate the influence on public opinion with respect to human rights, we designed a set of one-question surveys on RFRA that asked respondents to indicate their support for the law.[2] In our baseline condition, we simply asked respondents whether they supported RFRA. In another condition, we prefaced this question with an unattributed statement indicating that some were concerned that this law would allow discrimination. We ran other conditions attributing this concern to Cook, to another business leader, or to particular politicians. We crafted our research design to discern whether mentioning the

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[1] Framed field experiments use experimental methods from laboratory studies with non-standard subject pools in the field context.

[2] As described below, our alternative versions of this question were randomly inserted as "question 2" of a three-question survey deployed by CivicScience.

discrimination concern—and who expressed it—affected public support for the law. We developed a second set of one-question surveys to assess the influence of Cook's CEO activism on consumers' intent to purchase Apple products in the near future. We primed each respondent with a statement describing Cook's generic management philosophy, or with one describing Cook's opinion of RFRA, or with no statement at all. We then asked respondents to indicate their intent to purchase Apple products. We created these alternative versions to evaluate whether informing respondents about Cook's opinions affected their intent to purchase Apple products and whether the content of his opinions (generic management philosophy versus CEO activism) mattered. As described below, we randomly deployed these various survey conditions amongst respondents.

We find that exposure to Cook's statement that RFRA may allow discrimination resulted in 40 percent of respondents supporting the law, substantially less than the 50-percent support reported by respondents who were not prompted with this statement; this was a statistically significant difference. We observed similar lower levels of support, ranging from 38 percent to 42 percent, among respondents who were presented with statements containing language identical to Cook's but attributed to another CEO or to a politician or not attributed to anyone. These results reveal that CEO activism can shape public opinion by framing the public discourse and suggest that they can do so as effectively as statements by politicians or unattributed remarks. The power of framing arguments to persuade audiences has been demonstrated in other settings (Grewal, Gotlieb, and Marmorstein 1994; Lakoff 2004; Scheufele and Tewksbury 2007), but not every activist commands a large audience. However, since the media often widely report CEO statements (c.f. Westphal and Deephouse, 2011)—especially on contentious topics—our results imply that when CEOs frame public discourse, they have the potential to shape public policy. We also find suggestive evidence that the effect of framing depends on the audience. Our subsample analysis reveals that Cook's discrimination remarks erode RFRA support among advocates of same-sex marriage, but not among opponents. By contrast, the unattributed statements of concern that RFRA would allow discrimination do erode support for the law even among same-sex-marriage opponents.

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Turning to the potential influence of CEO activism on consumers, we find higher intent to purchase Apple products among respondents who were exposed to Cook's CEO activism than among those who were not. (Even if respondents in the control group were aware of Cook's advocacy through other channels, it would introduce bias against finding a difference between the groups.) We find strong evidence indicating that Cook's CEO activism, and not simply the mention of him, drives this effect. Moreover, we find that same-sex-marriage supporters drive this effect; we find no evidence that Cook's statements altered the purchase intent of same-sex-marriage opponents. These results suggest that CEO activism can serve as a signal, letting consumers know where a company leader stands on a controversial issue and potentially galvanizing support and generating goodwill for the company, especially among those who already support the CEO's stance.

Next we test whether CEO activism can have an influence on attitudes towards climate change. Employing the same approach as above, we use the Civic Science platform to ask users the following baseline question: "Do you think the U.S. government is doing too much, too little, or about the right amount in terms of addressing climate change?" We then run several variations of treatments, prefacing this question with preambles stating that "CEOs from many S&P 500 companies", "many award winning actors" and "some" individuals believe that climate change is one of the biggest threats confronting various entities, including our country, our economy and the next generation. We find no statistically significant impacts from these treatments and no evidence that CEOs as an unnamed group are more effective advocates than others, including celebrities. Moreover, we find no evidence that the influence of climate change messages varies depending on whether the issue is framed in economic, nationalistic or moral terms. As we detail below, we reflect on the extent to which these results might relate to our choice of unnamed groups of individuals as opposed to a single, identifiable CEO and the underlying differences between climate change and LGBTQ rights.

Our results provide some evidence that CEOs can shape public opinion and purchasing intent. However, the findings, particularly of study 2, should also remind us of the limitations of this approach to sparking transformative change, such as the sustainability transitions discussed further below. Next, we

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expand on the motivation for the study and discuss our experimental design. After presenting our results, we formulate implications for CEOs and other business leaders seeking to promote political and social change.

MOTIVATION

Firms have long pursued nonmarket strategies that aim to shape the rules of the marketplace; for example, by seeking to influence government policies on taxation, subsidies, trade, human resources, the environment, and other issues (e.g., Baron 1995; Bonardi, Holburn, and Vanden Bergh 2006; Baron 2012). CEOs are sometimes the key principals in executing nonmarket strategies, as when Microsoft CEO Satya Nadella lobbied Congress to change US immigration policy to allow in more high-skilled workers, the very kind his firm relies on (Romm 2014). Many firms have also embarked on nonmarket strategies to promote environmental sustainability, such as when General Electric CEO Jeffrey Immelt advocated that the US government adopt clean energy policies (Behr 2010) that would promote his firm's large wind-turbine business, or when wind and solar company leaders encouraged ever higher renewable portfolio standards to encourage more environmentally-friendly sources of electricity generation, and Dupont's public support for the Montreal Protocol to phase out many ozone-depleting substances. Because these are nonmarket strategies, these instances constituted "win-wins": firms were attempting to change the rules of the game as part of their profit motive, and the rules changes they were advocating would also improve environmental quality.

Beyond efforts to shape the rules of the marketplace in ways that directly increase corporate profits, firms sometimes take public stances on issues that shape society more broadly that concern corporations and their leaders. For example, many companies rallied during the 1980s to defend affirmative action programs by filing amicus briefs in court cases and testifying to Congressional bodies (Kelly and Dobbin 1998). Some firms conduct ambitious programs to help underserved communities, such as Goldman Sachs's 10,000 Women program, which provides business training to women around the world (Goldman Sachs 2016).

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While the non-market strategy literature typically studies private and public actions by firms to shape institutions to their advantage, CEO activism is a public stand by the CEO on a controversial political and social issue. There are at least three points of differentiation between non-market strategy and CEO activism to emphasize. First, the locus of action in CEO activism is the individual not the firm. Second, CEO activism is always public. Third, the audience for CEO activism is not only regulators and politicians, as is typically assumed in non-market strategy, but also employees, consumers, and the public at large. In this manner, CEO activism is aimed at communicating a CEO's values to important stakeholders as opposed to trying to change a policy that is directly impacting the bottom line. In doing so, the CEO may use public forums like social media, opinion editorials, interviews, or a public meeting with politicians to make their views known.

Such actions, however, face two kinds of critique. First, the literature on "strategic CSR" (Lantos 2001; McWilliams, Siegel, and Wright 2006; Porter and Kramer 2006) argues that if these efforts are not closely aligned with the organization's core business, their social impact will be limited. Second, these corporate initiatives suffer enduring suspicion that they are thinly veiled attempts to enhance brand equity and attract customers, rather than good-faith efforts to translate corporate values into social impact (e.g., Hess and Warren 2008; Karnani 2010; Lyon and Maxwell 2011).

These concerns make it challenging for companies to become "activists" for social causes. Business leaders, however, have the opportunity to speak out as individuals to try to influence social issues. We view the statements of Cook, Cathy, Schultz, Sandberg, Blankfein, and other corporate leaders as examples of this kind of activity—that is, as CEO activism—which is distinct from nonmarket strategy, strategic CSR, and other kinds of corporate engagement with the public sphere.

As noted, these corporate leaders are speaking out on issues that are largely *unrelated* to their core businesses. Although race relations, gender equality, and LGBTQ rights are certainly relevant to the employees of Starbucks, Facebook, and Goldman Sachs, policy changes in these areas have not traditionally been thought to drive those companies' short-term operating performance. When Apple CEO Tim Cook spoke out against Indiana's RFRA, Apple was already perceived as providing an attractive

working environment for LGBTQ employees (Frank 2013) and the company is primarily located in California, where there was no threat of similar legislation (Berry 2014). Moreover, Cook's rationale was rooted in ethical objections as opposed to an immediate business imperative. This example could be contrasted with the Apple CEO opposing tariffs on Chinese imports, which he argued would directly impact firm performance.[3]

However, the relationship between such political and social issues and company performance is more complex. Simply because RFRA is unrelated to Apple's core business does not necessarily mean that taking a stand against the law will not affect Apple's profits. By taking a stand on an unrelated political issue, Tim Cook could be communicating his values to consumers and employees, which could forge a strong bond between Apple and stakeholders who agree with his position. To the extent that consumers weigh the political positions of CEOs, CEO activism on unrelated political and social issues could affect performance. We will test this notion below.

Although numerous studies have examined corporate campaign contributions (e.g., Ansolabehere, Figueiredo, and Snyder, Jr. 2003), lobbying (e.g., Hillman, Keim, and Schuler 2004), and CSR (e.g., Margolis and Walsh 2003), we know of no research that has directly explored CEO activism, although two recent studies found that consumers' willingness to buy products and services might be affected by whether they support the political and social stances associated with the firm (Dodd and Supa 2014; Mikeska and Harvey, 2015). Our study focuses on the role of individual leaders and not only examines the influence of CEO activism on purchasing intent, but also compares the influence that business and political leaders' social statements have on public opinion on a given issue.

Ascribing causality from a relationship between CEO activism and particular outcomes is especially difficult using traditional empirical methods because business leaders might champion causes that are already popular or might simply add their voices to a chorus of advocates already promoting the same position. To explore these questions while overcoming such methodological challenges, we

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[3] Salinas, Sara. 2018. "Apple says Trump's China tariffs are going to hurt the company." *CNBC*, September 7th https://www.cnbc.com/2018/09/07/proposed-tariff-list-covers-wide-range-of-apple-products-report.html

deployed a framed field experiment (described below)—a technique rarely used in research on strategy or business and public policy (Chatterji et al. 2016).

DATA AND MEASURES

Study 1

We developed a survey to gather data on how CEO activism affects an individual's (a) views on the relevant policy issue and (b) intention to purchase the company's products. To avoid cross-contamination, we asked each subject a single question about *either* public policy preference *or* purchase intent.

RFRA Policy Support. To assess a respondent's public policy preference, we developed six versions of a question that inquired about the respondent's views on RFRA, the Indiana legislation discussed above. Our treatment condition provided the following preamble and question: "Apple CEO Tim Cook recently expressed his concern about Indiana's new law about religious freedom because he believes the law may allow discrimination against gays and lesbians in that state. Do you support this law?" For this and all other versions of the question, the variable *RFRA policy support* was coded 1 for yes and 0 for no.[4] To assess whether respondents' views were shaped by the particular individual to whom the statement was attributed, other respondents received a version of this question in which we replaced "Apple CEO Tim Cook" with one of the following corporate or political leaders: "Indiana-based Angie's List CEO Bill Oesterle," "The Republican mayor of Indianapolis," and "The mayor of Indianapolis." Each of these people actually did speak out against the law: Indianapolis's Republican mayor, Greg Ballard, issued statements opposing it before and after it passed (Terkel 2015).[5] To assess whether attribution in itself shaped respondents' views, another group of respondents received the

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[4] The survey also included a "not sure" option to avoid forcing respondents to make an arbitrary yes-or-no choice when they were unsure. We excluded those responses from our primary analysis and coded *policy support* as a dummy variable. As a robustness test, we recoded *policy support* by including "not sure" responses, which we coded with the intermediate value of 0.5, and then conducted the policy support analysis using two-sample t-tests. The results of this alternative approach were very similar to those of our primary analysis.

[5] No deception was involved in framing the alternative scenarios, survey respondents were anonymous, and no questions were asked that risked harming respondents. Our study received a determination of exemption from the Harvard University Committee on the Use of Human Subjects under Category 2 (that is, 45 CFR 46.101(b)(2)).

following version, which provided no attribution: "Indiana recently passed a law about religious freedom, and some believe the law may allow discrimination against gays and lesbians in that state. Do you support this law?" This unattributed version is akin to a traditional political or product advertisement, or re-tweet on Twitter, when the author is ambiguous or unrecognized.[6] We asked one group of respondents a baseline version of the question that omitted the preamble about discrimination and simply asked, "Do you support Indiana's new law protecting religious freedom?"

We acknowledge that mentioning the term "discrimination" might trigger social-desirability bias that could erode expressed support for the religious freedom policy and that this could explain the difference in policy support between those exposed to the unframed condition (which does not mention discrimination) and those exposed to any of the conditions that do mention discrimination. However, because all conditions that mention discrimination are subject to the same social-desirability bias, such bias ought not to influence our comparisons between conditions that differ only in terms of *who* frames the law as discriminatory.

Purchasing Intent. To proxy for consumer response to CEO activism, we rely on "intent to purchase," a dependent variable commonly used in the marketing literature to measure the likelihood that a consumer will eventually purchase a product (Fishbein and Ajzen 1975; Sewall 1978; Silk and Urban 1978; Infosino 1986; Morwitz and Schmittlein 1992; Bemmaor 1995; Cobb-Walgren, Ruble, and Donthu 1995). We address the limitations of this measure—namely, that we cannot observe actual purchases in our data—in the discussion section. We developed three versions of a question about the intention to purchase Apple products. Our treatment condition provided the same preamble described above along with a purchase-intent question: "Apple CEO Tim Cook recently expressed his concern about Indiana's new law about religious freedom because he believes the law may allow discrimination against gays and lesbians in that state. How likely are you to buy Apple products in the near future?" For this and all other versions of this question, we asked participants to respond based on the following five-point Likert scale:

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[6] A 2002 law in the United States, the Bipartisan Campaign Reform Act, includes a provision that requires some political ads to identify their sponsor, commonly adding the phrase "I approve this message."

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"Definitely not" (coded 1) "Not likely" (2), "Not sure" (3), "Likely" (4), or "Very likely" (5). We assign

these values to the variable *purchase intent*. Other respondents faced an alternative question that provided

a preamble about Cook's management philosophy: "Apple CEO Tim Cook recently said his management

philosophy was to focus on people, strategy, and execution. How likely are you to buy Apple products in

the near future?" A different set of respondents faced our control condition, which omitted any preamble

and simply asked about purchase intent: "How likely are you to buy Apple products in the near future?"

To summarize the design of Study 1, each respondent to this study replied to one of the following

nine questions, which were deployed randomly to respondents.

Exhibit 1: The nine conditions of Study 1.

Condition	Survey question
Policy support question with unframed condition	Do you support Indiana's new law protecting religious freedom?
Policy support question with Cook condition	Apple CEO Tim Cook recently expressed his concern about Indiana's new law about religious freedom because he believes the law may allow discrimination against gays and lesbians in that state. Do you support this law?
Policy support question with Oesterle condition	Indiana-based Angie's List CEO Bill Oesterle recently expressed his concern about Indiana's new law about religious freedom because he believes the law may allow discrimination against gays and lesbians in that state. Do you support this law?
Policy support question with Rep. mayor condition	The Republican mayor of Indianapolis recently expressed his concern about Indiana's new law about religious freedom because he believes the law may allow discrimination against gays and lesbians in that state. Do you support this law?
Policy support question with Mayor condition	The mayor of Indianapolis recently expressed his concern about Indiana's new law about religious freedom because he believes the law may allow discrimination against gays and lesbians in that state. Do you support this law?
Policy support question with Unattributed condition	Indiana recently passed a law about religious freedom, and some believe the law may allow discrimination against gays and lesbians in that state. Do you support this law?
Intention to purchase question with no framing (unframed condition)	How likely are you to buy Apple products in the near future?
Intention to purchase question with Cook discrimination framing	Apple CEO Tim Cook recently expressed his concern about Indiana's new law about religious freedom because he believes the law may allow discrimination against gays and lesbians in that state. How likely are you to buy Apple products in the near future?
Intention to purchase question with Cook business-philosophy framing	Apple CEO Tim Cook recently said his management philosophy was to focus on people, strategy, and execution. How likely are you to buy Apple products in the near future?

Study 2

Support for Government Policy to Mitigate Effects of Climate Change. Our second study explores the extent to which CEO activism can influence public opinion on the extent to which the United States federal government should combat climate change. Following the same general approach as in Study 1, we used the following baseline question: "Do you think the U.S. government is doing too much, too little, or about the right amount in terms of addressing climate change?" We coded these responses based on a three-point Likert scale: "Too much" (coded 1), "About the right amount" (2), or "Too little" (3). We assign these values to the variable *climate change policy support*. We then randomly presented participants with either the baseline question alone, or the question prefaced with one of nine different preambles to explore the mechanisms by which CEO activism could impact public opinion. The preamble cites one group—either "CEOs from many S&P 500 companies", "Many award winning actors", or "Some"—who "believe that climate change is one of the biggest threats confronting…" either "our country", "our economy" or "the next generation".

 To summarize the design of Study 2, each respondent to this study replied to one of the following 10 questions, which were deployed randomly to respondents:

Exhibit 2: The ten conditions of Study 2.

Condition groupings	Agent is "CEOs"	Agent is "actors"	Agent is "some"
Threat to economy	**CEOs/economy condition** CEOs from many S&P 500 companies believe that climate change is one of the biggest threats confronting our economy. Do you think the U.S. government is doing too much, too little, or about the right amount in terms of addressing climate change?	**Actors/economy condition** Many award winning actors believe that climate change is one of the biggest threats confronting our economy. Do you think the U.S. government is doing too much, too little, or about the right amount in terms of addressing climate change?	**Some/economy condition** Some believe that climate change is one of the biggest threats confronting our economy. Do you think the U.S. government is doing too much, too little, or about the right amount in terms of addressing climate change?
Threat to country	**CEOs/country condition** CEOs from many S&P 500 companies believe that climate change is one of the biggest threats confronting our Country. Do you think the U.S. government is doing too much, too little, or about the right amount in terms of addressing climate change?	**Actors/country condition** Many award winning actors believe that climate change is one of the biggest threats confronting our country. Do you think the U.S. government is doing too much, too little, or about the right amount in terms of addressing climate change?	**Some/country condition** Some believe that climate change is one of the biggest threats confronting our country. Do you think the U.S. government is doing too much, too little, or about the right amount in terms of addressing climate change?
Threat to next generation	**CEOs/next generation condition** CEOs from many S&P 500 companies believe that climate change is one of the biggest threats confronting the next generation. Do you think the U.S. government is doing too much, too little, or about the right amount in terms of addressing climate change?	**Actors/next generation condition** Many award winning actors believe that climate change is one of the biggest threats confronting the next generation. Do you think the U.S. government is doing too much, too little, or about the right amount in terms of addressing climate change?	**Some/next generation condition** Some believe that climate change is one of the biggest threats confronting the next generation. Do you think the U.S. government is doing too much, too little, or about the right amount in terms of addressing climate change?

	Unframed condition Do you think the U.S. government is doing too much, too little, or about the right amount in terms of addressing climate change?

By attributing the statement to different groups, we seek to isolate the general impact of CEO activism, avoiding any confounding factors directly related to a particularly well-known CEO such as Tim Cook. Moreover, including "many award winning actors" in some conditions enables us to distinguish the influence of CEOs and such actors, whom some view as celebrities. Furthermore, by randomizing the focal point of the statement between "country", "economy" and "the next generation", we seek to understand whether CEO activism is more effective when framed in economic terms, which aligns with their public image as business leaders, than when they refer to national pride or moral arguments.

Survey Implementation

We worked with market research firm CivicScience to gather data on our survey questions. CivicScience collects over 300,000 survey responses each day via approximately 250 third-party websites in categories such as newspapers, television and radio stations, and entertainment (Pierce, Rogers, and Snyder 2015). CivicScience installs a "survey widget" on these websites to conduct surveys that consist of a series of three questions: an "engagement" question, then a "value" question, and finally a "profile" question.[7] CivicScience maintains lists of these questions and draws from each list at random so that the three questions it poses to any given user are the result of three random draws.

CivicScience designs engagement questions to attract a user's attention. Engagement questions typically ask about current events or other topics relevant to the website on which the survey is being conducted. The value question, presented second, is most important for market research and is the one that clients typically pay CivicScience to ask, such as "What are the most important features you will look for in buying your next smartphone?" The alternative versions of our questions were positioned as value questions. Civic Science reported that among respondents who completed an engagement question and then viewed one of our value questions, more than 95 percent responded to it across both studies, giving us an attrition rate of less than five percent. Given that our value question randomly appears after respondents answer the first question and that the attrition rate is so low, it seems unlikely that individuals are "selecting" into answering our question because of existing political beliefs or other factors.

CivicScience designs the third and final question, the profile question, to ask for a demographic characteristic such as gender, age bracket, income bracket, or a psychographic trait. CivicScience randomly selects the particular profile question to ask from a pool of many alternatives. As described below, our analysis used data from one of these profile questions: "Do you support or oppose the legalization of same-sex marriage in your state?"[8] CivicScience accumulates information about people

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[7] In some instances, CivicScience deployed a four-question survey, in which our value question appeared second or third, but always after an engagement question and before a profile question. To avoid confusion, in discussing the survey below, we use the three-question format as a point of reference.

[8] Note that we posed this question before the U.S. Supreme Court's June 2015 decision in *Obergefell v Hodges,* requiring states to provide marriage licenses to same-sex partners.

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who respond to several of its surveys if their Web browsers have cookies enabled. This process enabled us to obtain CivicScience data on multiple demographic variables for people who had previously answered CivicScience surveys before our questions were deployed.

CivicScience began administering the survey for study 1 on April 2, 2015, the day Indiana's governor signed the revised version of RFRA. We asked the firm to gather data for two weeks, ceasing on April 15. CivicScience administered the survey for study 2 over the two-week period of December 16, 2016 through January 1, 2017. Sample sizes are reported in Tables 1 and 3 for each group of study 1 respondents, and in Table 7 for each group of study 2 respondents.

CivicScience stratifies its target respondents based on gender and age strata and makes real-time adjustments while surveys are underway to ensure that respondents are nationally representative along these dimensions.[9] As a result, the distributions of these demographic characteristics are very similar between each of our samples and the U.S. population.

Females make up 48 percent of our study 1 sample and 47 percent of our study 2 sample, both of which are very similar to 51 percent of the U.S. population according to the 2010 Census. The distributions in our two samples also closely approximate to the U.S. population in terms of age groups [10] and household income.[11] In terms of race, our sample has a slightly higher proportion of whites (84% for study 1; 79% for study 2), and thus fewer minorities, than the national population that is 72% white according to the 2010 Census.

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[9] For example, once our survey respondents include a sufficient number of millennial males (that is, once their proportion of the intended total number of respondents is commensurate with their national representation), CivicScience would only display our value question to other demographic groups until the data collection is complete.

[10] 18-to-29 year olds constitute 25% of respondents in our study 1 sample and 18% of our study 2 sample, compared to 24% of the U.S. population. 30-to-44 year olds constitute 29% of our study 1 sample and 26% of our study 2 sample, compared to 26% of the U.S. population. 45-to-64 year olds constitute 33% of our study 1 sample and 37% of our study 2 sample, compared to 34% of the population. Those 65 and older constitute 13% of our study 1 sample and 18% of our study 2 sample, compared to 17% of the population.

[11] Those reporting household income under $50,000 make up 41% of our study 1 sample and 38% of our study 2 sample, compared to 47% of the population according to U.S. Census Bureau's Current Population Survey, 2015 Annual Social and Economic Supplement. Those reporting $50,001-$100,000 make up 35% of our study 1 sample and also 35% of our study 2 sample, compared to 29% of the population. Those reporting $100,001-$150,000 make up 15% of our study 1 sample and 17% of our study 2 sample, compared to 13% of the population. Those reporting more than $150,000 make up 10% of our study 1 sample and 11% of our study 2 sample, compared to 11% of the population.

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We believe that the method by which Civic Science collects survey responses is an appropriate methodological approach for answering our research questions. First, while Civic Science does not know who views the engagement questions and then chooses not to answer them, we do know that conditional on answering the engagement question that preceded our survey questions, which were randomly deployed, nearly all individuals who were then presented with one of our survey questions provided a response (95 percent for both studies). These statistics imply that attrition is not introducing significant bias in the responses. Second, because Civic Science constructs samples to approximate the American population as a whole, the demographic characteristics of our respondents do not appear to be biased in a way that would affect the interpretation of our results.

ANALYSIS AND RESULTS

Study 1: RFRA Policy Support

To analyze whether CEO activism influenced public support for RFRA, we conducted several two-sample tests of proportions that assess whether the average level of *RFRA policy support* differed amongst the groups of respondents who received our alternative questions.[12] Table 1 reports mean levels of *RFRA policy support* along with 95-percent Agresti-Coull binomial confidence intervals[13] and the results of the two-sample tests of proportions. Compared to the 50 percent *RFRA policy support* among respondents to the unframed question, the 40.2 percent *RFRA policy support* among respondents to the question following Tim Cook's discrimination framing was statistically significantly less ($z = 3.29$, $p < 0.01$). Additional results in Table 1 indicate indistinguishable *RFRA policy support* levels across all discrimination framing conditions, whether the discrimination concern was attributed to Cook, Angie's List CEO Bill Oesterle, the Republican mayor of Indianapolis, or just the mayor of Indianapolis—or was

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[12] We test the difference between two proportions for two samples (1 and 2) using *prtest* in Stata version 13.1, using the following test statistic:

$z = \frac{(\hat{p}_1 - \hat{p}_2)}{\sqrt{\hat{p}_p \hat{q}_p \left(\frac{1}{n1} + \frac{1}{n2}\right)}}$, where $\hat{q} = 1 - \hat{p}$, $\hat{p}_p = \frac{x_1 + x_2}{n_1 + n_2}$, where n_i is the number of respondents in sample *i* who responded yes or no and x_i is the number of respondents in sample *i* who responded yes.

[13] Agresti-Coull binomial confidence intervals are suitable for dichotomous variables and are recommended by Brown, Cai, and DasGupta (2001).

not attributed to anyone in particular. These results indicate that the discrimination framing, irrespective of which of these individuals did the framing—or even whether the framed statement was attributed to anyone at all—drove the decrease in public support. These results also suggest that CEOs and politicians have commensurate ability to influence the public debate by framing issues in a particular manner. Figure 1 depicts *RFRA policy support* levels associated with three of our conditions: unframed, the Cook discrimination framing, and the unattributed discrimination framing.

To explore potential heterogeneity in how public opinion might be swayed by CEO activism, we explored whether and how *RFRA policy support* differed between respondents who indicated support or opposition in response to the following question: "Do you support or oppose the legalization of same-sex marriage in your state?" Table 2 reports these results. Among supporters of same-sex-marriage legalization, the RFRA garnered only 14.3 percent *RFRA policy support* from those responding to the unframed question, which fell significantly to zero support from those responding to the question framed by Cook as discrimination ($z = 2.32$, $p = 0.02$). This unanimous opposition associated with the Cook discrimination framing condition represents less backing than the 8.3 percent *RFRA policy support* exhibited by the group primed with the unattributed discrimination statement ($z = -1.74$, $p = 0.08$). Although these results are based on small samples (approximately 30 respondents per cell), they suggest that CEO activism can be more persuasive than unattributed messages among those who are likely to agree with the CEO activist's message. In contrast, among those who are likely to disagree with the CEO activist's message—here, opponents of same-sex-marriage legalization—CEO activism can backfire. In our study, same-sex marriage opponents in the unframed condition were very supportive of RFRA: *RFRA policy support* averaged 91.7 percent. Same-sex marriage opponents' support for RFRA was nearly identical (90.0 percent) among those responding to the discrimination condition associated with Cook, whereas support was a much lower 70.2 percent among those who responding to the unattributed discrimination framing; this different was statistically significant ($z = 2.53$, $p = 0.01$). That same-sex-marriage opponents were more persuaded by the *unattributed* message than by the same message attributed to Cook reveals that CEO activism can sometimes be counterproductive and that CEOs wishing

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to persuade some groups might be more effective funding unattributed messages rather than speaking out themselves.[14] Together, these heterogeneous results suggest that the influence of CEO activism depends on the audience. In this case, Cook may be more credible and persuasive to same-sex-marriage supporters—especially given his public statement in 2014 that he is gay—than he is to same-sex-marriage opponents.

Study 1: Purchasing Intent and RFRA

A one-way ANOVA indicates that *purchasing intent* differed significantly across the three groups of survey respondents whom we asked ($F = 10.21$; $p < 0.01$).[15] To further analyze the effects of CEO activism on consumers' intent to purchase the company's products, we conducted a series of two-sample t-tests comparing groups of survey respondents. Table 3 reports these results. *Purchase intent* among those primed with Cook's discrimination framing averaged 3.02, significantly higher than both (a) the group of respondents who answered the unframed question (average 2.70, $t = -4.42$, $p < 0.01$) and (b) the group of respondents who were primed with Cook's business philosophy (average 2.87, $t = -2.08$, $p = 0.04$). Interestingly, the 2.87 average *purchasing intent* among those primed with Cook's business philosophy was significantly higher than the 2.70 average among respondents to the unframed question ($t = -2.46$, $p = 0.01$). Together, these results indicate that merely mentioning Tim Cook increased consumers' intention to purchase Apple products and that Cook's CEO activism increased it further. Figure 2 illustrates purchase-intent levels associated with the unframed condition, the Cook discrimination framing, and the Cook business-philosophy framing.

Table 4 reports how these framing effects differed between those who supported the legalization of same-sex marriage and those who opposed it. Among supporters, *purchase intent* averaged 2.47 for

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[14] All of our results on RFRA policy support are robust in regression analyses with basic controls for income, age and gender.

[15] ANOVA might not be appropriate in the analysis of our data because Bartlett's test for homogenous variance across groups indicates that this assumption should be rejected ($\chi^2 = 6.68$; $p = 0.04$). We therefore also used OLS to regress *purchase intent* on two dummies indicating whether a participant was subjected to the discrimination framing or the business philosophy framing (the unframed group was the omitted category), using White robust standard errors that are robust to heteroscedasticity. The resulting F-statistic of 9.84 ($p<0.01$) yields the same conclusion as ANOVA: that the *purchasing intent* significantly differs across the three groups of respondents.

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those responding to the unframed question but 3.48, significantly higher (t = -4.50, p < 0.01), for those responding to Cook's discrimination-framed statement. *Purchase intent* among supporters primed by Cook's business-philosophy statement averaged 3.20, also significantly higher than the 2.47 average for unframed responses (t = -3.20, p < 0.01) and statistically indistinguishable from the 3.48 average among those primed by the Cook discrimination framing (t = -1.29, p = 0.20). In summary, for same-sex-marriage supporters, Cook's framing bolstered purchasing intent, especially when he described RFRA as discriminatory toward gays and lesbians.

A different pattern emerged among opponents of same-sex marriage. *Purchase intent* averaged 2.47 for those responding to the unframed question, statistically indistinguishable from the 2.29 average for those primed by Cook's discrimination statement (t = 1.05, p = 0.30) and the 2.66 average for those primed by Cook's business philosophy (t = -1.21, p = 0.22). While our results fail to find statistically significant evidence that same-sex marriage opponents reduce their purchasing behavior once exposed to the Cook discrimination frame, the average purchase intent does decline (from 2.47 to 2.29), which is directionally consistent. It is possible that limited power due to our small subsamples here (120 and 107 respondents) thwarts our ability to detect a significant difference. Moreover, the difference between the two Cook conditions is statistically significant (t = -2.09, p = 0.04), which indicates that when Apple products are associated with the company's CEO, Cook's CEO activism can backfire by eroding purchasing intent amongst those who disagree with his position.[16]

In summary, our subsample analyses suggest that CEO activists may have considerably more influence on some audiences than others and that CEO activism is a double-edged sword that can promote or erode purchasing intent, depending on the audience.

Study 2: Climate Change Policy Support

Tables 5-7 report the results of study 2. The respondents in our baseline condition, who were simply asked the question without being primed with any of our framing conditions, exhibited a moderate

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[16] All of our results on purchasing intent are robust in regression analyses with basic controls for income, age and gender.

preference for more government policy. Their average *climate change policy support* was 1.74 [95% confidence interval of 1.68-1.79], between "too little" (coded 1) and "about the right amount" (coded 2) but closer to the latter.

Table 5 displays aggregate results (across all three agents) for the conditions that refer to each threat target: "the economy," "our country," and "the next generation." Referring to climate change as on the biggest threats to the next generation yielded the exact same average *climate change policy support* as the unframed condition (2.26). Referring to climate change as one of the biggest threats to the economy or our country each yielded slightly higher average support for policy intervention (2.30), but none of the groups exposed to these threat target frames exhibit statistically significant different average levels of *climate change policy support* than the unframed condition. Turning to comparisons between the threat target frames, we find that average *climate change policy support* is 2.30 for those whose messages were framed by threats to the economy or to our country, and is slightly lower at 2.26 for those whose messages were framed by the next generation; the difference between the latter and each of the former groups is marginally statistically significant (t-test p = 0.08). In other words, referring to climate change as one of the biggest threats to the economy or country engenders more support for policy intervention than referring to climate change as one of the biggest threats to the next generation.

Table 6 displays aggregate results (across all three threats) for the conditions that refer to each agent: "CEOs from many S&P 500 companies," "Many award winning actors," and "Some."

Average levels of *climate change policy support* is 2.32 for those exposed to messages referring to actors, 2.31 for the "some" group, 2.26 for the unframed group, and 2.24 for the CEOs group. T-tests indicated that average support between each group that referred to an agent was statistically indistinguishable from the unframed group, and that the actors and "some" groups were also statistically indistinguishable. However, those exposed to the messages that referred to CEOs exhibited statistically significantly lower levels of support for additional climate policy intervention than those exposed to messages that referred to either actors (t = -3.06, p < 0.01) or "some" (t = -2.90, p < 0.01).

Table 7 shows that average levels of *climate change policy support* are remarkably stable across all ten conditions, ranging from 2.20 to 2.32. Looking across all nine framed conditions in Table 7, t-tests revealed that none of these groups' average levels of *climate change policy support* significantly differed from the unframed group, with one exception: The group told that "some" believed the climate change is one of the biggest threat to the economy exhibited marginally stronger support for more climate policy than those in the unframed condition (average 2.34 vs. 2.26; t = -1.76, p = 0.08).

We then focused on the three conditions that mentioned CEOs. Average levels of *climate change policy support* among these three conditions was lowest when CEOs framed climate change as one of the biggest threats to the next generation [average = 2.20; 95% CI = 2.16 – 2.25], intermediate when CEOs framed it as one of the biggest threats to the economy [average = 2.25; 95% CI = 2.18 – 2.32], and highest when CEOs framed it as one of the biggest threats to our country [average = 2.30; 95% CI = 2.23 – 2.36]. T-tests indicated that support among these three CEO groups was statistically distinguishable only between the next generation and country groups (t = 2.38, p = 0.02). In other words, CEOs appear to be more influential in encouraging individuals to seek more government action on climate policy when they referred to climate change as being one of the biggest threats to our country, rather than one of the biggest threats to the next generation.

We also compared the average *climate change policy support* level among those exposed to the condition in which CEOs referred to climate change as an economic threat (average = 2.25) to average policy support levels for each of the other conditions. The only condition that exhibited a significant difference was the group who were exposed to the statement that "some" believed that climate change is one of the biggest threat to the economy (average of 2.25 vs. 2.34; t = -1.85, p = 0.06). In other words, when climate is cast as one of the biggest threat to the economy, "some" saying this is apparently more convincing than major CEOs saying this. Moreover, we find no evidence that describing climate change as one of the biggest threats to the economy is any more convincing when CEOs make the case than when actors do (average of 2.25 vs. 2.32, t = -1.36, p = 0.17).

DISCUSSION

This study presents the first analysis of CEO activism, whereby corporate leaders speak out on social or environmental issues that are largely unrelated to their companies' core businesses. Despite numerous recent examples of corporate leaders speaking out, it is an open question as to how effective this kind of activism is. Using a framed field experiment that examines the effects of Apple CEO Tim Cook's statements opposing Indiana's religious freedom law, we demonstrate that Cook's views decrease public support for the law, but no more so than identical statements attributed to other business and political leaders or than an identical but unattributed statement. These results suggest that there is considerable power in how political or social issues are framed (Grewal, Gotlieb, and Marmorstein 1994; Lakoff 2004; Scheufele and Tewksbury 2007) and that corporate leaders—whose activism often attracts media attention—can use this power to their advantage when advocating in the public domain.

Further, we find that Cook's contention that the religious freedom law legalizes discrimination against gays positively influenced consumers' intent to purchase Apple products, particularly among people who supported same-sex marriage. This finding implies that when CEOs take public stands on controversial issues, they can galvanize support for their company from those who share the same viewpoint. In this manner, CEO activism's primary effect is through signaling which side of a public debate CEOs and, by implication, their companies are on. At the same time, CEO activism risks alienating consumers who disagree with the CEO's public stance.

In our second study however, we find no evidence that a group of (unnamed) CEOs influence public opinion on climate change policy, irrespective of how the issue is framed. While more research is needed to better understand the circumstances under which CEO activism is likely to influence support for the policies these CEOs are advocating, we suggest several factors to consider. First, our results suggest that the impact of CEO activism might differ depending on whether it is attributed to individual, well-known CEOs like Tim Cook versus groups of unnamed CEOs. For example, reports of an op-ed written by one well known CEO might be more convincing than of an op-ed co-signed by a group of CEOs. Second, the divergent results of our two studies might be due to the different societal issues they

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examine. For example, special interests have converted the issue of climate change in the U.S. from a scientific one to a highly partisan one (Oreskes and Conway 2010), where public perceptions now differ drastically based on political identity and deeply held values (Corner, Markowitz, and Pidgeon 2014; Gromet, Howard Kunreuther, and Larrick, 2013; McCright and Dunlap, 2011). This has led public opinion to be largely immune to the provision of information that contradicts their view (Kahan et al., 2012), an obstacle that CEO activism might not be able to overcome. In contrast, religious freedom laws have attracted much less media and political attention, leaving public support contested between whether such laws are appropriately viewed as consistent or undermining basic American values of religious freedom and freedom from discrimination—and thus more vulnerable to the influence of CEO activism. We encourage future research to identify the circumstances under which various individual CEOs or groups of CEOs are more influential, and how their influence varies by sustainability topic.

Our focus on CEOs and their decisions to speak out contributes to the literature examining how the personal preferences of C-level executives and board members influence firm behavior. While the bulk of this literature focuses on how CEO beliefs and preferences affect firm strategy and performance (e.g., Hambrick and Mason 1984; Finkelstein and Hambrick 1996; Waldman and Yammarino 1999, Plambeck and Weber, 2009; Chen, Crossland, and Luo 2014), our study relates more closely to the few recent articles on the role of CEOs' political attitudes on business decisions, which find associations between a CEO's attitude and (a) the firm's corporate social responsibility practices (Chin, Hambrick, and Trevino 2013; Di Giuli and Kostovetsky 2014) and (b) employees' tendency to engage in activism (Briscoe, Chin, and Hambrick 2014). Our work supplements this literature by examining the influence of a CEO's political and social attitudes on citizens' attitudes and consumers' purchasing intent.

Our work also contributes to research on sustainability transitions. In particular, Delmas, Lyon, and Maxwell (2019) defined sustainability transitions as "firms adopting more sustainable behaviors" in ways that "accumulat[e] to create actual sectoral sustainability" along a wide array of environmental domains such as air pollution and ecosystem preservation, spanning industries from construction to agriculture to fishing. CEO activism can foster sustainability transitions if it encourages more firms to

pursue more environmentally benign behaviors if it effectively sways consumer and investor preferences toward firms exhibiting such behaviors and/or by increasing public support for more stringent environmental laws. Moreover, because sustainability often also refers to improving human conditions, we believe sustainability transitions can also refer to policies that reduce inequality and discrimination.[17] As such, our results showing that CEO activism can sway public opinion against a policy viewed as discriminatory, and that such an opinion can attract brand loyalty, can be viewed as demonstrating the potential effectiveness of CEO activism fostering a sustainability transition.

Our results provide some of the first insights into the phenomenon of CEO activism, but much remains unexplored. For example, our first study focused on a single famous CEO of a world-renowned company and a single policy issue. Moreover, Cook had already announced he was gay in a *Bloomberg Businessweek* article in 2014, the year before he made his remarks about RFRA, and was the first CEO of a *Fortun*e 500 company to do so. Given that opponents of the Indiana law were already framing it as being anti-LGBTQ, Cook's statements might have been particularly influential because of his own sexual orientation (Jenni and Loewenstein 1997) and notoriety. Future work that spans multiple named CEOs and multiple policy issues can shed light on the generalizability of our results.

The role of the media in CEO activism is also an important topic to explore in future work. Some CEOs have announced their public stands directly via Twitter, which has attracted media coverage, while others have worked with the media to write op-eds and participate in interviews. Moreover, the tone of the media coverage could impact how CEO activism is received, and tone can be influenced by the extent to which the CEO's position is aligned with a given media outlet's editorial position. For example, CEO activism could be cynically framed as an attempt to distract from scandals or exorbitant executive pay (Vergne et al., 2018), or as enlightened leadership that focuses on a wider set of stakeholders beyond just shareholders. Understanding the role of the media in CEO activism may inform the divergent results we

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[17] For example, one United Nations Sustainable Development Goal calls for reducing inequality by enacting policies that "should be universal in principle, paying attention to the needs of disadvantaged and marginalized populations." United Nations, United Nations Sustainable Development Goals, https://www.un.org/sustainabledevelopment/sustainable-development-goals/ accessed January 2019.

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found between climate change and LGBTQ rights, and can guide future research on new topics such as why politically liberal CEOs appear more willing to speak out than their conservative peers.

CEO activism could also be an important tool is driving large transformations in business and society (Delmas, Lyon, and Maxwell, 2019). For example, some have called for a sustainability transition to mitigate the effects of climate change. CEO activism could play a role at various stages of the policy lifecycle, which is comprised of four stages: initiation, early adoption, diffusion, and standardization. Today, CEO activism is typically occurring in the early adoption and diffusion stages. Some instances of CEO activism involve pushing for specific legislation during the early adoption stage, such as when Duke Energy's then-CEO Jim Rogers spearheaded the U.S. Climate Action Partnership to advocate for legislation on greenhouse emissions.[18] In other cases, CEO activism has taken the form of advocating against pending legislation, such as when Bill Oesterle, then CEO of Angie's List and well-connected to Indiana's politicians, personally lobbied against RFRA just *before* it became law. Similarly, Whole Foods Market CEO John Mackey wrote an op-ed in the *Wall Street Journal* to support alternative health reform measures as Congress was debating whether to pass the Affordable Care Act."[19]

In other cases, CEO activism occurs after legislation has been passed, particularly to build political will to repeal or oppose specific pieces of legislation, in some instances aiming to prevent diffusion. For example, days after the Indiana law was passed, Apple CEO Tim Cook wrote an op-ed in the *Washington Post* that criticized the Indiana law and a similar one recently enacted in Arkansas as "dangerous" and argued that similar bills, "introduced in more than two dozen states, would allow people to discriminate against their neighbors".[20] Two days later, nine CEOs from some of Indiana's largest employers, including Eli Lilly and Anthem Health signed an open letter urging the governor and

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[18] Mulkern, Anne C. 2010. "USCAP, Opponents Craft Rival Energy Strategies for New Congress." December 13th, 2010. (http://www.nytimes.com/gwire/2010/12/13/13greenwire-uscap-opponents-craft-rival-energy-strategies-60804.html?pagewanted=all) Last accessed December 12th, 2016.

[19] John Mackey. 2009. "The Whole Foods Alternative to ObamaCare." The Wall Street Journal. August 11th, 2009. (http://www.wsj.com/articles/SB10001424052970204251404574342170072865070) Last accessed December 12th, 2016.

[20] Tim Cook. 2015. "Tim Cook: Pro-discrimination 'Religious Freedom' Laws are Dangerous." *Washington Post*, March 29. https://www.washingtonpost.com/opinions/pro-discrimination-religious-freedom-laws-are-dangerous-to-america/2015/03/29/bdb4ce9e-d66d-11e4-ba28-f2a685dc7f89_story.html?utm_term=.a4589e2f4263

legislative leaders to modify the law to ensure it "will not sanction or encourage discrimination against any residents or visitors to our state by anyone."[21] This example is also notable because CEOs are also able to act as a group rather than individuals, an issue that we address directly in our experiment. Interestingly, CEO activism might be directed at influencing other CEOs to advocate for the same position, as demonstrated by Sales Force CEO Marc Benioff's efforts to influence other CEOs to support a local ordinance on homelessness in San Francisco.[22]

Many other examples of CEO activism occurred soon after legislation was passed. Thomas Monaghan, founder and former CEO of Domino's Pizza, sued the federal government on behalf of his business over provisions in the Affordable Care Act ("ObamaCare") that required companies to provide employees with contraception coverage,[23] arguing that contraception was "gravely immoral" and that mandatory provision violated his religious beliefs.[24]

Although CEO activism can have costs as well as benefits, our results suggest that under some conditions the benefits can outweigh the costs for individual CEOs and their companies. In our case, the increase in purchasing intent for Apple products among respondents strongly supportive of same-sex marriage occurs with no commensurate decline among those opposed to same-sex marriage. However, the benefits and costs of CEO activism will likely vary with the issue, with the nature of the corporate leader's involvement, and with the elasticity of demand for the company's products. Finally, purchase intent proxies for actual purchasing behavior that we cannot reliably observe. It is possible that the effects of CEO activism fade by the time the consumer is actually making a purchasing decision. These are all areas for future study.

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[21] Jeff Swiatek and Tim Evans. 2015. "9 CEOs call on Pence, Legislature to Modify 'Religious Freedom' Law." *Indianapolis Star*, March 31. http://www.indystar.com/story/money/2015/03/30/nine-ceos-call-pence-legislature-modify-religious-freedom-law/70689924/, accessed August 26, 2016.

[22] Debter, Lauren. 2018. "Tech Billionaires Benioff, Dorsey Square Off Over How To Deal With Homelessness." Forbes, October 12th. https://www.forbes.com/sites/laurengensler/2018/10/12/marc-benioff-jack-dorsey-proposition-c-homelessness-san-francisco/#6d580d193877

[23] "Domino's Founder Sues Government Over Mandatory Contraception Coverage Required by Obama's New Health Care Law," *New York Daily News*, December 15, 2012, http://www.nydailynews.com/news/national/domino-founder-sues-feds-mandatory-contraception-coverage-article-1.1221007, accessed May 1, 2016.

[24] "Domino's Founder Sues Government Over Mandatory Contraception Coverage Required by Obama's New Health Care Law," *New York Daily News*, December 15, 2012, http://www.nydailynews.com/news/national/domino-founder-sues-feds-mandatory-contraception-coverage-article-1.1221007, accessed May 1, 2016.

We believe that CEO activism is a fertile area of inquiry and we hope that future research will investigate when such activism is most likely to arise, whether it serves as a substitute or complement to strategic CSR and nonmarket strategies, and what influence it has on public opinion, public policy, and the company's various stakeholders.

REFERENCES

Ansolabehere, S., J. M. de Figueiredo, and J. M. Snyder, Jr. 2003. Why is there so little money in politics? National Bureau of Economic Research (NBER) Working Paper No. 9409.

Baron, D. P. 1995. Integrated strategy: Market and nonmarket components. *California Management Review* 37(2): 47–65.

Baron, D. P. 2012. *Business and Its Environment*. Upper Saddle River, NJ: Prentice Hall.

Behr, P. 2010. GE's Immelt says U.S. policy deadlock holds back clean energy development. *New York Times*, September 10.

Bemmaor, A. C. 1995. Predicting behavior from intention-to-buy measures: The parametric case. *Journal of Marketing Research* 32(7): 176–191.

Berry, S. 2014. As Tim Cook announces he's gay, other workplaces lack equality. *SFGate*, October 30. http://www.sfgate.com/opinion/openforum/article/Tim-Cook-s-announcement-he-is-gay-doesn-t-end-5858861.php (accessed February 2016).

Bonardi, J.-P., G. L. F. Holburn, and R. G. Vanden Bergh. 2006. Nonmarket strategy performance: Evidence from US electric utilities. *Academy of Management Journal* 49(6): 1209–1228.

Briscoe, F., M. K. Chin, and D. C. Hambrick. 2014. CEO ideology as an element of the corporate opportunity structure for social activists. *Academy of Management Journal* 57(6): 1786–1809.

Brown, L. D., T. T. Cai, and A. DasGupta. 2001. Interval estimation for a binomial proportion. *Statistical Science* 16(2): 101–117.

Chatterji, A. K., M. Findley, N. M. Jensen, S. Meier, and D. Nielson. 2016. Field experiments in strategy research. *Strategic Management Journal* 37(1): 116–132.

Chatterji, A., and M. Toffel. 2015. Starbucks' "Race Together" campaign and the upside of CEO activism. *Harvard Business Review*, March 24. https://hbr.org/2015/03/starbucks-race-together-campaign-and-the-upside-of-ceo-activism (accessed February 2016).

Chatterji, A., and M. Toffel. 2018. The new CEO activists. *Harvard Business Review* 96(1): 78–89.

Chen, G., C. Crossland, and S. Luo. 2014. Making the same mistake all over again: CEO overconfidence and corporate resistance to corrective feedback. *Strategic Management Journal* 36(10): 1513–1535.

Chin, M. K., D. C. Hambrick, and L. K. Trevino. 2013. Political ideologies of CEOs: The influence of executives' values on corporate social responsibility. *Administrative Science Quarterly* 58(2): 197–232.

Cobb-Walgren, C. J., C. A. Ruble, and N. Donthu. 1995. Brand equity, brand preference, and purchase intent. *Journal of Advertising* 24(3): 25–40.

Cook, T. 2015. Tim Cook: Pro-discrimination "religious freedom" laws are dangerous. *Washington Post*. March 29.

Corner, A., E. Markowitz, and N. Pidgeon. 2014. Public engagement with climate change: the role of human values. *WIREs Climate Change* 5: 411–422.

Dahan, N. M., M. Hadani, and D. A. Schuler. 2013. The governance challenges of corporate political activity. *Business & Society* 52(3): 365–387.

Delmas, M. A., and J. A. Aragon-Correa. 2016. Field experiments in corporate sustainability research: Testing strategies for behavior change in markets and organizations. *Organization & Environment* 29(4): 391–400.

Delmas, M. A., T. P. Lyon, and J. W. Maxwell. 2019. Understanding the role of the corporation in sustainability transitions. *Organization & Environment*. Di Giuli, A., and L. Kostovetsky. 2014. Are red or blue companies more likely to go green? Politics and corporate social responsibility. *Journal of Financial Economics* 111(1): 158–180.

Dodd, M. D., and D. W. Supa. 2014. Conceptualizing and measuring "corporate social advocacy" communication: Examining the impact on corporate financial performance. *Public Relations Journal* 8(3): 2–23.

Edelman. 2018. 2018 Edelman Trust Barometer: Expectations for CEOs. May 1. Retrieved from https://www.edelman.com/post/trust-barometer-expectations-for-ceos

Eesley, C., and M. J. Lenox. 2006. Firm responses to secondary stakeholder action. *Strategic Management Journal* 27(8): 765–781.

Finkelstein, S., and D. C. Hambrick. 1996. *Strategic Leadership: Top Executives and Their Effects on Organizations*. Minneapolis/St. Paul, MN: South-Western College Publishing.

Fishbein, M., and I. Ajzen. 1975. *Belief, Attitudes, Intention, and Behavior. An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.

Frank, B. H. 2013. Microsoft, Apple and other tech titans get top marks in survey of LGBT inclusion policies. *Geek Wire*, November 19. http://www.geekwire.com/2014/microsoft-apple-tech-titans-get-top-marks-survey-lgbt-inclusion-policies/ (accessed February 2016).

Gallup. 2016. In depth: Topics A-Z – Confidence in institutions. June 1. Retrieved from http://www.gallup.com/poll/1597/confidence-institutions.aspx.

Goldman Sachs. 2016. About us. http://www.goldmansachs.com/citizenship/10000women/about-the-program/index.html (accessed February 2016).

Grewal, D., J. Gotlieb, and H. Marmorstein. 1994. The moderating effects of message framing and source credibility on the price-perceived risk relationship. *Journal of Consumer Research* 21(1): 145–153.

Gromet, D. M., H. Kunreuther, and R. P. Larrick. 2013. Political ideology affects energy-efficiency attitudes and choices. *Proceedings of the National Academy of Sciences of the United States of America (PNAS)* 110 (23) 9314–9319.

Gustin, G. 2017. Over 1,400 U.S. cities, states and businesses vow to meet Paris climate commitments. *Inside Climate News*. June 6. Retrieved from https://insideclimatenews.org/news/05062017/paris-climate-agreement-trump-bloomberg-cities-states-businesses.

Hadani, M., J. P. Bonardi, and N. M. Dahan. 2017. Corporate political activity, public policy uncertainty, and firm outcomes: A meta-analysis. *Strategic Organization 15*(3): 338–366.

Hadani, M., N. M. Dahan, and J. P. Doh. 2015. The CEO as chief political officer: Managerial discretion and corporate political activity. *Journal of Business Research* 68(11): 2330–2337.

Hambrick, D. C., and P. A. Mason. 1984. Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review* 9(2): 193–206.

Harrison, G. W., and J. A. List. 2004. Field experiments. *Journal of Economic Literature* 42(4): 1009–1055.

Hess, D., and D. E. Warren. 2008. The meaning and meaningfulness of corporate social initiatives. *Business and Society Review* 113(2): 163–197.

Hillman, A. J., G. D. Keim, and D. Schuler. 2004. Corporate political activity: A review and research agenda. *Journal of Management* 30(6): 837–857.

Infosino, W. J. 1986. Forecasting new product sales from likelihood of purchase ratings. *Marketing Science* 5(4): 372–384.

Jenni, K., and G. Loewenstein. 1997. Explaining the identifiable victim effect. *Journal of Risk and Uncertainty* 14(3): 235–257.

Kahan, D. M., E. Peters, M. Wittlin, P. Slovic, L. L. Ouellette, D. Braman, and G. Mandel. 2012. The polarizing impact of science literacy and numeracy on perceived climate change risks. *Nature Climate Change* 2: 732–735.

Karnani, A. 2010. The case against corporate social responsibility. *Wall Street Journal,* August 23.

Kelly, E., and F. Dobbin. 1998. How affirmative action became diversity management: Employer response to antidiscrimination law, 1961 to 1996. *American Behavioral Scientist* 41(7): 960–984.

Lakoff, G. 2004. *Don't Think of an Elephant! Know Your Values and Frame the Debate: The Essential Guide for Progressives, Including Post-election Updates*. White River Junction, VT: Chelsea Green.

Lantos, G. P. 2001. The boundaries of strategic corporate social responsibility. *Journal of Consumer Marketing* 18(7): 595–632.

Lyon, T. P., M. A. Delmas, J. W. Maxwell, P. Bansal, M. Chiroleu-Assouline, P. Crifo, R. Durand, J.-P. Gond, A. King, M. Lenox, M. Toffel, D. Vogel, and F. Wijen. 2018. CSR needs CPR: Corporate sustainability and politics. *California Management Review* 60(4): 5–24.

Lyon, T. P., and J. W. Maxwell. 2011. Greenwash: Corporate environmental disclosure under threat of audit. *Journal of Economics & Management Strategy* 20(1): 3–41.

Margolis, J. D., and J. P. Walsh. 2003. Misery loves companies: Rethinking social initiatives by business. *Administrative Science Quarterly* 48(2): 268–305.

Mazutis, D. D. 2013. The CEO effect: A longitudinal, multilevel analysis of the relationship between executive orientation and corporate social strategy. *Business & Society* 52(4): 631–648.

McCright, A. M., and R. E. Dunlap. 2011. The politicization of climate change and polarization in the American public's views of global warming, 2001–2010. *Sociological Quarterly* 52(2): 155–194.

McWilliams, A., D. S. Siegel, and P. M. Wright. 2006. Corporate social responsibility: Strategic implications. *Journal of Management Studies* 43(1): 1–18.

Mikeska, J., and E. J. Harvey. 2015. The political CEO: An event study comparing consumer attributions of CEO behavior. *Social Science Quarterly* 96(1): 76-92.

Morwitz, V. G., and D. Schmittlein. 1992. Using segmentation to improve sales forecasts based on purchase intent: Which "intenders" actually buy? *Journal of Marketing Research* 29(4): 391–405.

Oreskes, N. and E. M. Conway. 2010. *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming*. New York: Bloomsbury Press

Pierce, L., T. Rogers, and J. A. Snyder. 2015. Losing hurts: The happiness impact of partisan electoral loss. *Journal of Experimental Political Science*, forthcoming.

Plambeck, N., and K. Weber. 2009. CEO ambivalence and responses to strategic issues. *Organization Science*, 20(6): 993–1010.

Porter, M. E., and M. R. Kramer. 2006. Strategy and society: The link between competitive advantage and corporate social responsibility. *Harvard Business Review* 84(12): 78–85.

Romm, T. 2014. Microsoft CEO in D.C. for immigration, patents. *Politico*, December 8. http://www.politico.com/story/2014/12/with-immigration-privacy-ahead-microsoft-ceo-reaches-out-to-hill-113409.html (accessed February 2016).

Rudy, B.C. and A.F. Johnson. 2016. The chief political officer: CEO characteristics and firm investment in corporate political activity. *Business & Society*, forthcoming.

Scheufele, D. A., and D. Tewksbury. 2007. Framing, agenda setting, and priming: The evolution of three media effects models. *Journal of Communication* 57(1): 9–20.

Sewall, M. A. 1978. Market segmentation based on consumer ratings of proposed product designs. *Journal of Marketing Research* 15(4): 557–564.

Silk, A. J., and G. L. Urban. 1978. Pre-test-market evaluation of new packaged goods: A model and measurement methodology. *Journal of Marketing Research* 15(2): 171–191.

Stokols, E. 2017. Donald Trump withdraws from Paris climate deal despite allies' opposition. *Wall Street Journal*. June 2.

Su, W., and S. Sauerwald. 2018. Does corporate philanthropy increase firm value? The moderating role of corporate governance. *Business & Society* 57(4): 599–639.

Terkel, A. 2015. GOP mayor of Indianapolis signs executive order protecting LGBT community. *Huffington Post*, March 30. http://www.huffingtonpost.com/2015/03/30/greg-ballard_n_6972928.html (accessed May 4, 2016).

Vergne, J. P., G. Wernicke, and S. Brenner. 2018. Signal incongruence and its consequences: A study of media disapproval and CEO overcompensation. *Organization Science* 29(5): 755–774.

Waldman, D. A., and F. J. Yammarino. 1999. CEO charismatic leadership: Levels-of-management and levels-of-analysis effects. *Academy of Management Review* 24(2): 266–285.

Westphal, J. D., and D. L. Deephouse. 2011. Avoiding bad press: Interpersonal influence in relations between CEOs and journalists and the consequences for press reporting about firms and their leadership. *Organization Science* 22(4): 1061–1086.

World Economic Forum. 2015. Open letter from CEOs to world leaders urging climate action. November 23. Retrieved from https://www.weforum.org/agenda/2015/11/open-letter-from-ceos-to-world-leaders-urging-climate-action/.

Figure 1. Policy support after three alternative framing conditions
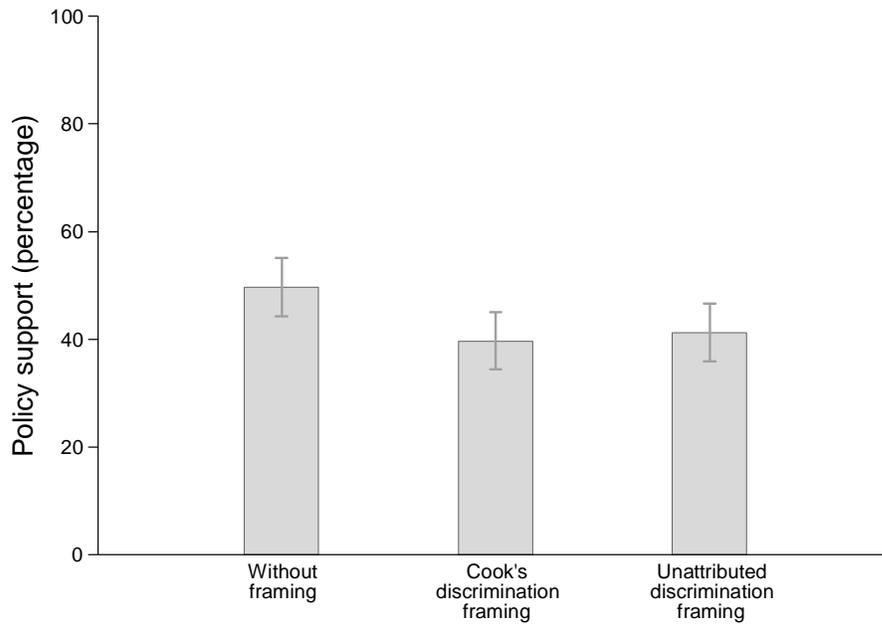
Note: This figure reports average levels of *policy support* after each framing condition, along with 95% Agresti-Coull binomial confidence intervals that accommodate the dichotomous nature of this variable.

Figure 2. Intent to purchase after three alternative framing conditions
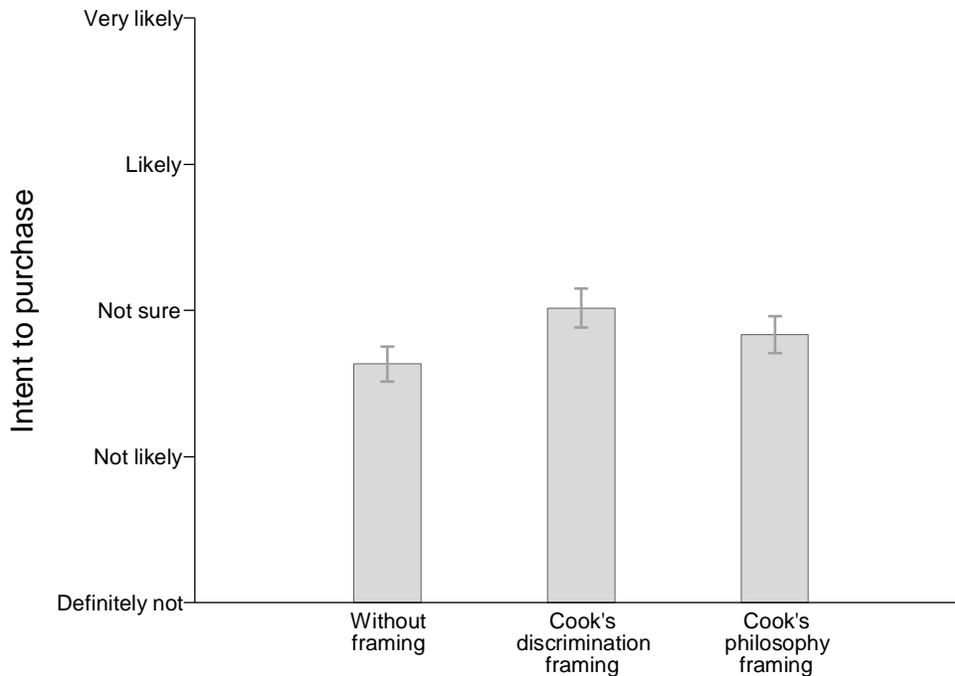
Note: This figure reports average levels of *purchase intent* after each framing condition, along with 95% confidence intervals.

Table 1. Policy support for RFRA under alternative framings

Framing condition	Survey question	Mean *RFRA policy support*, [95% confidence interval], sample size (N)	Two-sample tests of proportions Comparison to Cook condition	Comparison to unattributed condition
Unframed	Do you support Indiana's new law protecting religious freedom?	50.0% [45.9 – 54.2%] N = 557	z = 3.29 p < 0.01	z = 3.42 p < 0.01
Cook	Apple CEO Tim Cook recently expressed his concern about Indiana's new law about religious freedom because he believes the law may allow discrimination against gays and lesbians in that state. Do you support this law?	40.2% [36.1 – 44.2%] N = 549	(benchmark)	z = -0.11 p = 0.91
Oesterle	Indiana-based Angie's List CEO Bill Oesterle recently expressed…	41.1% [37.0 – 45.3%] N = 540	z = 2.88 p = 0.77	z = -0.40 p = 0.69
Rep. mayor	The Republican mayor of Indianapolis recently expressed…	41.5% [37.8 – 45.2%] N = 687	z = 0.44 p = 0.66	z = -0.56 p = 0.58
Mayor	The mayor of Indianapolis recently expressed…	37.7% [33.6 – 41.9%] N = 519	z = -0.84 p = 0.40	z = 0.73 p = 0.47
Unattributed	Indiana recently passed a law about religious freedom, and some believe the law may allow discrimination against gays and lesbians in that state. Do you support this law?	39.9% [35.9 – 44.0%] N = 566	z = -0.11 p = 0.91	(benchmark)

Note: Two-sample tests of proportions were conducted using Stata's *prtest* command. 95% CI refers to Agresti-Coull binomial confidence intervals, used here to accommodate the dichotomous nature of *RCRA policy support*.

Table 2. Policy support under alternative framings, by respondents' opinion on legalizing same-sex marriage in their state

Framing condition	Support legalizing same-sex marriage Mean *RFRA policy support*, [95% CI], N=sample size	Two-sample tests of proportions	Oppose legalizing same-sex marriage Mean *RFRA policy support*, [95% CI], N=sample size	Two-sample tests of proportions
Unframed	14.3% [5.8 – 29.9%] N = 35	} z = 2.32 p = 0.02	91.7% [81.5 – 96.8%] N = 60	} z = 0.30 p = 0.76
Cook	0.0% [0.0 – 11.8%] N = 35	} z = -1.74 p = 0.08	90.0% [78.2 – 96.1%] N = 50	} z = 2.53 p = 0.01
Unattributed	8.3% [1.2 – 27.0%] N = 24		70.2% [57.3 – 80.5%] N = 57	

Note: Two-sample tests of proportions were conducted using Stata's *prtest* command. 95% CI refers to Agresti-Coull binomial confidence intervals, used here to accommodate the dichotomous nature of *RFRA policy support*.

Table 3.   Intention to purchase Apple products under alternative framings

Framing condition	Framing preceding question: "How likely are you to buy Apple products in the near future?"	Mean *purchase intent*, [95% CI], N=sample size	Comparison to unframed condition	Comparison between Cook conditions
			Two-sample t-tests	
Unframed	(none)	2.70 [2.60 – 2.80] N = 738	(benchmark)	
Cook discrimination framing	Apple CEO Tim Cook recently expressed his concern about Indiana's new law about religious freedom because he believes the law may allow discrimination against gays and lesbians in that state.	3.02 [2.92 – 3.12] N = 727	t = -4.42 p < 0.01	t = -2.08 p = 0.04
Cook business-philosophy framing	Apple CEO Tim Cook recently said his management philosophy was to focus on people, strategy, and execution.	2.87 [2.78 – 2.97] N = 711	t = -2.46 p = 0.01	

Table 4.   Intention to purchase Apple products under alternative framings, by respondents' opinion on legalizing same-sex marriage in their state

Subsample:	Same-sex-marriage supporters			Same-sex-marriage opponents		
	Mean *purchase intent*, [95% CI], N=sample size	Two-sample t-tests		Mean *purchase intent*, [95% CI], N=sample size	Two-sample t-tests	
Framing condition		Comparison to unframed condition	Comparison between Cook conditions		Comparison to unframed condition	Comparison between Cook conditions
Unframed	2.47 [2.13 –2.80] N = 62	(benchmark)		2.47 [2.26 – 2.68] N = 120	(benchmark)	
Cook discrimination framing	3.48 [3.18 – 3.78] N = 84	t = -4.50 p < 0.01	t = -1.29 p = 0.20	2.29 [2.03 – 2.55] N = 107	t = 1.05 p = 0.30	t = -2.09 p = 0.04
Cook business-philosophy framing	3.20 [2.88 – 3.51] N = 61	t = -3.20 p < 0.01		2.66 [2.42 – 2.91] N = 98	t = -1.21 p = 0.22	

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Table 5. Public support for climate change policy, by threat

Framing conditions aggregated by threat target	Framing preceding question: "Do you think the U.S. government is doing too much, too little, or about the right amount in terms of addressing climate change?"	Mean *climate change policy support*, [95% confidence interval], sample size (N)	Two-sample t-tests		
			Comparison to baseline condition	Comparison to "threat to economy" conditions	Comparison to "threat to country" conditions
Unframed	(none)	2.26 [2.21 – 2.32] N = 921	(benchmark)	t = -1.19 p = 0.24	t = -1.15 p = 0.25
Threat to economy	[*Agent*] believe that climate change is one of the biggest threats confronting our economy.	2.30 [2.26 – 2.34] N =1,877	t = -1.19 p = 0.24	(benchmark)	t = 0.05 p = 0.96
Threat to country	[*Agent*] believe that climate change is one of the biggest threats confronting our country.	2.30 [2.26 – 2.34] N =2,002	t = -1.15 p = 0.25	t = -0.05 p = 0.96	(benchmark)
Threat to next generation	[*Agent*] believe that climate change is one of the biggest threats confronting the next generation.	2.26 [2.22 – 2.29] N =2,705	t = 0.15 p = 0.88	t = -1.76 p = 0.08	t = -1.73 p = 0.08

Note: [*Agent]* refers to "CEOs from many S&P 500 companies," "Many award winning actors," or "Some.

Table 6. Public support for climate change policy, by agent

Framing conditions aggregated by agent	Framing preceding question: "Do you think the U.S. government is doing too much, too little, or about the right amount in terms of addressing climate change?	Mean *climate change policy support*, [95% confidence interval], sample size (N)	Two-sample t-tests		
			Comparison to baseline condition	Comparison to "CEOs" conditions	Comparison to "actors" conditions
Unframed	(none)	2.26 [2.21 – 2.32] N = 921	(benchmark)	t = -0.73 p = 0.46	t = 1.60 p = 0.11
CEOs	CEOs from many S&P 500 companies believe that climate change is one of the biggest threats confronting [*target*].	2.24 [2.21 – 2.27] N = 2,694	t = 0.73 p = 0.46	(benchmark)	t = 3.06 p < 0.01
Actors	Many award winning actors believe that climate change is one of the biggest threats confronting [*target*].	2.32 [2.28 – 2.36] N = 1,969	t = -1.60 p = 0.11	t = -3.06 p < 0.01	(benchmark)
Some	Some believe that climate change is one of the biggest threats confronting [*target*].	2.31 [2.28 – 2.35] N = 1,921	t = -1.50 p = 0.13	t = -2.90 p < 0.01	t = 0.11 p = 0.91

Note: [*target*] refers to "our economy," "our country," or "the next generation.

Table 7. Public support for climate change policy under alternative framings

Framing condition	Framing preceding question: "Do you think the U.S. government is doing too much, too little, or about the right amount in terms of addressing climate change?	Mean *climate change policy support*, [95% confidence interval], sample size (N)	Two-sample t-tests	
			Comparison to unframed condition	Comparison to CEO/ economy condition
Unframed	(none)	2.26 [2.21 – 2.32] N = 921	(benchmark)	t = -0.32 p = 0.75
CEOs/economy	CEOs from many S&P 500 companies believe that climate change is one of the biggest threats confronting our economy.	2.25 [2.18 – 2.32] N = 565	t = 0.32 p = 0.75	(benchmark)
CEOs/country	CEOs from many S&P 500 companies believe that climate change is one of the biggest threats confronting our Country.	2.30 [2.23 – 2.36] N = 761	t = -0.81 p = 0.42	t = -1.01 p = 0.31
CEOs/next generation	CEOs from many S&P 500 companies believe that climate change is one of the biggest threats confronting the next generation.	2.20 [2.16 – 2.25] N = 1,368	t = 1.63 p = 0.10	t = 1.03 p = 0.30
Actors/economy	Many award winning actors believe that climate change is one of the biggest threats confronting our economy.	2.32 [2.25 – 2.38] N = 643	t = -1.20 p = 0.23	t = -1.36 p = 0.17
Actors/country	Many award winning actors believe that climate change is one of the biggest threats confronting our country.	2.32 [2.25 – 2.39] N = 597	t = -1.35 p = 0.18	t = -1.49 p = 0.14
Actors/next generation	Many award winning actors believe that climate change is one of the biggest threats confronting the next generation.	2.31 [2.25 – 2.38] N = 729	t = -1.20 p = 0.23	t = -1.36 p = 0.17
Some/economy	Some believe that climate change is one of the biggest threats confronting our economy.	2.34 [2.27 – 2.4] N = 669	t = -1.76 p = 0.08	t = -1.85 p = 0.06
Some/country	Some believe that climate change is one of the biggest threats confronting our country.	2.29 [2.22 – 2.36] N = 644	t = -0.59 p = 0.56	t = -0.82 p = 0.41
Some/next generation	Some believe that climate change is one of the biggest threats confronting the next generation.	2.31 [2.24 – 2.38] N = 608	t = -1.13 p = 0.26	t = -1.30 p = 0.19