CEO activism as communication to multiple audiences

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Abstract
CEO activism refers to corporate leaders taking a public stand on issues such as race relations, gender equality or climate change not directly related to their business. In this paper, we investigate under what conditions CEO activism can create firm value. We develop a model where consumers care about the type of firm they buy from. Taking a stand raises two issues. First, not all consumers share the same viewpoint, so while some may be more eager to buy from a firm with an activist CEO, others may be put off. Second, consumers may discount CEO communications if they perceive them to be profit motivated. We show that credibility requires CEO communications to be public and sufficiently controversial. CEO activism is more likely to create firm value when competition is strong, consumers care a lot about “symbolic” value and polarization is high. CEO activism is associated with niche product market strategies and high prices, while “strategic ambiguity” (not taking a stand) is associated with mass market strategies and low prices. The model sheds light on the costs and benefits of intrinsically motivated CEOs and the limits of corporate governance.

Keywords: CEO activism, strategic communication, corporate governance, cheap talk.

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1 Introduction

More and more companies expose values, missions and take public stances on socio-political issues. Starbucks and its former CEO Howard Schultz have been vocal in promoting marriage equality, gay rights, and racial justice. Nike recently run an advertising campaign featuring Colin Kaepernick, a NFL quarterback who lost his job after kneeling during America’s national anthems to protest against police racism. Many prominent corporate leaders, including Google CEO’s Sundar Pichai, Microsoft CEO’s Satya Nadella and Facebook CEO’s Mark Zuckerberg, have spoken against Trump’s policies on immigration. In the run-up to the 2016 Brexit Referendum, more than 300 business leaders called for Britain to leave the European Union, arguing that the country’s competitiveness was being undermined by EU membership. Many others, however, urged voters to stay, while others still took no public stance on this issue.

These examples illustrate “CEO activism”, the practice of corporate leaders to sometimes take public stances on issues such as race relations, gender equality or climate change that are not directly related to their business (Chatterji and Toffel, 2018, 2019; Larcker, Miles, Tayan and Wright-Violich, 2018).

In this paper, we investigate under what conditions CEO activism can create firm value. We develop a model of CEO communications where consumers care about the type of firm they buy from. The firm is personified by its CEO and her values and beliefs. The CEO can either take a stand on an issue or remain silent. We refer to a CEO taking a stand (on either side of a debate) as “CEO activism”, and to a CEO not taking a stand as “strategic ambiguity”. CEO messages are modelled as cheap talk: costless to produce and unverifiable (Crawford and Sobel, 1982; Farrell and Rabin, 1996).

From the firm’s perspective, taking a stand raises two issues. First, because not all consumers share the same worldview, taking a stand could make some consumers more eager to buy from the firm, but others may be put off (Chatterji and Toffel, 2018, 2019). For instance, in response to Nike’s advertising campaign featuring Colin Kaepernick, “[s]neakers were burnt, boycotts were threatened, Nike brand’s favourability plunged in surveys, and the company lost 3.2 per cent of its $130bn market value in a day” (Financial Times, 2018). However, “the company’s share price quickly rebounded and Nike’s sales rose as millennials showed they were more than happy to buy footwear that attracted the opprobrium.

\(^1\)Thus, in our model the notions of “firm type” and “CEO type” are conflated. This is of course a simplification, as firm type may capture elements of corporate culture other than the values of the firm’s CEO.
of President Donald Trump” (Economist, 2019). In our model we allow for multiple audiences, in the sense that not all consumers may agree with the CEO activist stance.

A second issue is that consumers may discount CEO statements if they perceive them to be profit motivated. We refer to this problem as the credibility problem of CEO communications. Skepticism about CEO and corporate communications is widespread. The term “greenwashing” refers to false or misleading environmental claims often made with the purpose of boosting brand image or increasing sales (Berrone, Fosfuri and Gelabert, 2017; Marquis, Toffel and Zhou, 2016). “Woke washing” refers to “corporations adopting the veneer of progressive values for profit” (Guardian, 2019). Skepticism is often justified. Volkswagen’s marketing campaign on emission reduction was crippled since it admitted cheating emissions tests in the US. “Don’t be evil” Google conspicuously engages in tax avoidance in many countries. ‘Activist’ Starbucks has been involved in a number of scandals, such as attempts to block efforts by Ethiopian government and farmers to trademark some of their coffees (Cornelissen, 2017).

We show that these two issues interact in interesting ways. The presence of multiple audiences can help mitigate the credibility problem of CEO communications. Credibility requires CEO communications to be public and sufficiently controversial. The information revealed must increase the willingness to pay of some consumers and decrease the willingness to pay of others (Farrell and Gibbons, 1989; Chakraborty and Harbaugh, 2010). Because one demographic (e.g., liberals) may be more valuable than another (e.g., conservatives), CEO activism will not in general be perfectly informative, but nevertheless some information can be transmitted in equilibrium. Far from being a “bug”, controversy is shown to be a useful rhetorical tool to facilitate meaningful communication, especially when information is nonverifiable.

We begin with a benchmark scenario where the CEO is only concerned about maximizing profits. In

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2 More generally, among Americans aware of CEO activism, a 2018 Weber Shandwick survey finds that 18 percent decided to buy more from activist firms, and 35 percent decided not to buy from or boycotted activist firms. An equal proportion (14%) also decided to post negative or positive comments on social media in response to CEO activism. Among employed Americans, 31% said they would be more loyal to their organization if their CEO took a public position on a hotly debated issue, and 23% said they would be less loyal. See “CEO activism in 2018: The purposeful CEO”, available at https://www.webershandwick.com/wp-content/uploads/2018/07/CEO-Activism-2018_Purposeful-CEO.pdf (last accessed 25/02/2019) for the full set of results.

3 In an experiment, Chatterji and Toffel (2019) find that, while CEO activism increases the propensity to buy from a company when consumers agree with the CEO activist stance, there is no corresponding reduction in the propensity to buy when the consumers do not agree with the CEO activist stance. The results of our model are robust to situations where the consumers’ willingness to pay decreases only marginally (an infinitesimal epsilon) when they disagree with the CEO activist stance. What matters in our model is in fact the willingness to pay of the firm’s targeted consumers, not the precise willingness to pay of non-targeted consumers (conditional on them not buying, the firm can simply ignore them). Section 3.1 discusses this issue in greater detail.
this case, CEO activism is best conceptualized as a non-market strategy used to increase sales (Baron, 1995; Flammer, 2015a). Our focus is on the connection between the CEO’s communication strategy and the firm’s product market strategy. We characterize when CEO activism occurs and show that, in equilibrium, CEO activism is associated with niche product market strategies and high prices. By contrast, not taking a stand (strategic ambiguity) is associated with mass market strategies and low prices.

In our model, communication affects beliefs, and hence consumers’ willingness to pay. Because consumers have different views, raising the willingness to pay of one type of customers may require lowering the willingness to pay of another type of customers. In equilibrium, the CEO takes a stand if this allows her to charge a sufficiently high price to one group of customers. Because the other group will not buy at this high price, the firm will only be able to serve one group (a niche strategy). Not taking a stand, by contrast, does not please or displease any group of consumers in particular. When using this strategy, therefore, the firm will charge a relatively low price and will serve both groups (a mass market strategy).

In an informative equilibrium, the two groups of customers with opposing worldviews must be of similar importance, because otherwise all CEO types (liberal and conservative) would pander to the most valuable group. In this sense, CEO activism must be sufficiently controversial. We show that CEO activism is more likely to occur and be profitable (relative to not taking a stand) when (i) competition is strong, (ii) consumers care a lot about “symbolic” value (the type of firm they buy from) and (iii) polarization is high. Under these conditions, the profits associated with a mass market strategy are low, but the firm can increase profit margins by creating symbolic value for some customers. Polarization ensures that taking a stand is controversial and hence CEO activism is credible.\footnote{When the CEO cares only about maximizing profits, we also show that perfectly informative communication is generically impossible, because one group of customers will in general be more valuable than the other. In any informative equilibrium, some uncertainty must therefore remain. We construct a Pareto-efficient, semi-separating equilibrium where, if liberals are the most valuable demographic, a liberal CEO always claims to be liberal, while a conservative CEO randomizes, sometimes mimicking the behavior of a liberal CEO.}

The theory helps explain why CEO activism has arguably become more widespread in recent times. Consider the evolution of Nike’s advertising strategy. In the 1980s and 1990s, Nike avoided controversy. The “Just do it” commercial first aired in 1988 featured “an 80-year-old long-distance runner jogging cheerfully across the Golden Gate Bridge. The sun shone, forgettable music plinked and nobody was
remotely offended” (Financial Times, 2018). In more recent times, however, Nike has been courting controversy. One possible explanation, as suggested by our model, is that greater competition and consumer polarization may have reduced the attractiveness of a mass market strategy. As the Financial Times (2018) notes: “A polarised populace [...] leaves [brands] with a choice: try to carry on catering to a vanishing mass-market middle ground, or stake out a position that will infuriate one side but excite the other”.\(^5\) According to our model, greater importance attached to symbolic factors, relative to more standard economic factors such as price and quality, should also push firms toward greater “symbolic differentiation”. This meshes well with the perception that consumers in many countries are moving up in Maslow’s hierarchy of needs and increasingly relish brands with a “purpose”.

Next, we consider a more general model where the CEO cares not only about profits, but is also intrinsically motivated to take a stand and reveal her type. Unsurprisingly, the more the CEO is intrinsically motivated (relative to maximizing profits), the more she engages in activism. More surprisingly, intrinsic motivation (and thus a lower weight attached to maximizing profits) can either increase or decrease firm profits. When strategic ambiguity is very profitable, intrinsic motivation tends to reduce firm profits because it induces the CEO to take an activist stance instead. The bright side of intrinsic motivation is that it improves the quality of communications. Different CEO types (liberal and conservative) can better differentiate themselves. This mitigates the credibility problem of CEO communications and, when CEO activism is a relatively profitable strategy, both types of firms (those run by a liberal CEO and those run by a conservative CEO) earn higher profits. Thus, perhaps counterintuitively, having a CEO that only cares about maximizing profits can be bad for profits. By enhancing the credibility of communications, intrinsic motivation facilitates symbolic differentiation and can create firm value.\(^6\)

Finally, we examine whether corporate governance can mitigate the deleterious consequences of CEO activism. We consider a setting where boards have the power to forbid CEOs from taking a stand, for instance by threatening dismissal. We show that, if boards have discretion as to whether use this power,\(^5\) the Financial Times (2018) also notes that “Nike needs the attention because Adidas has been nipping at its Jordans since the German group introduced its Yeezy line with Kanye West in 2015. Nike’s North American sales fell 2 per cent last year, and Adidas has made inroads with the market’s most influential buyers”.\(^6\) The analysis also reveals when having an intrinsically motivated CEO is good for profits. Profits are higher with intrinsic motivation when CEO activism is a relatively good strategy. This occurs when competition is strong, consumers care a lot about symbolic value and polarization is high. Thus, our analysis suggests that CEOs intrinsically motivated to take a stand (i.e., ‘authentic’ or ‘sincere’ CEOs) may have become good for business especially in recent times.
their ability to prevent profit-destroying activism can be severely limited. The problem occurs when CEO activism is not profit-destroying for both firm types. Specifically, letting a CEO take an activist stance can be beneficial to one type of firm (say the one with a liberal CEO) but not the other (with a conservative CEO). In terms of expected profits, the board may want to forbid its CEO from taking a stand. But in the end, a firm with a liberal CEO, with discretion to deviate from this plan, would allow its CEO to take an activist stance. Because consumers understand that a liberal CEO would be allowed to speak out, they would interpret not speaking out as a sign that the CEO is conservative for sure. Thus, without commitment, a board’s power to silence a CEO can be of limited value.

1.1 Related literature

**Contribution to the strategy literature.** To the best of our knowledge, this paper provides the first formal analysis of CEO activism. Insightful discussions can be found in Chatterji and Toffel (2018, 2019) and Larcker et al. (2018), who also present empirical evidence about the relevance of the phenomenon. Compared to these contributions, the present work puts greater emphasis on the issue of credibility of CEO communications. We also examine the connection between communication and product market strategy, the cost and benefits of CEO’s intrinsic motivation (as opposed to simply maximizing profits), and what boards can do to prevent profit-destroying CEO activism.

More broadly, the paper contributes to a literature analyzing CEO and corporate communications (Rindova, Becerra and Contardo, 2004; Fanelli, Misangyi and Tosi, 2009; Whittington, Yakis-Douglas and Ahn, 2016). Scholars have long emphasized that a key task of the CEO is to communicate her strategy to a wide variety of stakeholders and to be the “public face” of the company. For instance, Kotter (1999) argues that leadership involves the creation of organizational alignment behind a vision and, to achieve that alignment, the CEO must engage in extensive communications. CEO and corporate communications, however, may not be credible (Scott and Lane, 2000; Crilly, Hansen and Zollo, 2016). This is a concern especially for corporate social responsibility (CSR) claims, where incentives to exaggerate are strong and compliance is hard to verify (Crilly, Zollo and Hansen, 2012).\(^7\)

To identify which firms deliver on their sustainability claims (‘implementors’) and which ones do not

\(^7\)An extensive literature examines the link between CSR and firm performance. See for instance Flammer (2015b) and Hawn, Chatterji and Mitchell (2018).
Crilly et al. (2012: 706) argue that “[s]ubtle, often subliminal, choices about grammar provide important information about how social actors construe the world around them”. They find that implementors tend to use “exclusive language” (a category of words consisting mainly of conjunctions, prepositions, and negations, such as ‘versus,’ ‘but,’ ‘only,’ ‘not,’ ‘if,’) when defining sustainability. This language draws distinctions between ideas, qualifies statements, and sets priorities among competing stakeholders’ demands. Our theory provides a potential explanation for why exclusive language may be associated with credible communications. Our theory also requires at least some stakeholders to correctly interpret these linguistic nuances, also consistent with Crilly et al.’s (2012) empirical findings.

Lastly, this paper contributes to stakeholder theory. Stakeholder theory holds that firms should aim at satisfying the needs of all the stakeholders on which their success depends (Donaldson and Preston, 1995; Henisz, Dorobantu and Narbey, 2014). Frequently, this requires management to carefully balance the competing needs of different stakeholder groups. Tantalo and Priem (2016) point out that value may also be created through “stakeholder synergy”: by selecting actions that simultaneously benefits multiple stakeholders without reducing value for any other stakeholders. We suggests that, in some cases, firms may also exploit opposing stakeholders’ demands. By emphasizing alignment with one stakeholder group and not another (that is, by prioritizing stakeholders’ demands), the firm can credibly communicate its “purpose” and create symbolic value.

**Related work in game theory and industrial organization.** From a theoretical standpoint, our analysis builds on the cheap talk literature pioneered by Crawford and Sobel (1982). This literature studies communication between informed experts (‘senders’) and uninformed decision makers (‘receivers’). Given potential conflicts of interest between senders and receivers, a key question in this literature is how credible (and hence informative) communication can be. This literature formalizes the intuition that more congruent preferences between a sender and a receiver lead to more precise information being transmitted (e.g., Crawford and Sobel, 1982). Other factors that can enhance the credibility of communication include: reputational concerns (Sobel, 1985), multiple senders (Krishna and Morgan, 2001), multiple receivers (Farrell and Gibbons, 1989), extended debate (Krishna and Morgan, 2001) and multidimensional

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8 By contrast, deceivers tend to be prone to exaggeration and grand claims as expressed through “inclusive language” (another category of words, mainly including conjunctions, prepositions, and some adverbs such as “and” and “additionally”).

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information (Battaglini, 2002; Chakraborty and Harbaugh, 2007; 2010).

In particular, our setting shares a number of features with Farrell and Gibbons (1989): multiple audiences, binary sender type and receiver actions, and the distinction between private and public communication. Farrell and Gibbons (1989) show that public communication can be credible, even if private communication is not, because it can discipline the sender: a message that misleads one receiver into an action that helps the sender may induce the other receiver into an action that hurts. A key difference is that their expert’s preferences over receiver actions are state dependent, whereas the CEO’s preferences in our baseline model are not: the CEO simply aims at maximizing profits, regardless of her type. Moreover, unlike Farrell and Gibbons (1989), we consider not just whether or not full information revelation is possible in equilibrium, but also how much information can be revealed.

Our analysis is most closely related to Chakraborty and Harbaugh (2010), who consider a model of multidimensional cheap talk. In their framework, a sender with state independent preferences can credibly convey information by making comparative statements, which can push up receiver beliefs in some dimensions and push down beliefs in others, and may ultimately help the sender. Although we consider one-dimensional cheap talk, the presence of different consumer groups leads to a similar effect: the CEO can credibly convey her socio-political views by making statements that please some consumers while displeasing others. Formally, our equilibria feature an indifference condition, similar to Chakraborty and Harbaugh (2010), which leaves different CEO types willing to send different messages despite having identical preferences. Our work differs from Chakraborty and Harbaugh (2010) and the rest of the cheap talk literature in its focus on CEO activism. In particular, we shed light on how corporate communication relates to product market strategy, when CEO activism will create or destroy firm value, and whether corporate boards will be able to shut value-destroying activism.

The cheap talk literature assumes (i) conflicts of interests between agents and (ii) costless and nonverifiable communication. Other models make different assumptions and may therefore be more appropriate in different settings. For instance, information processing models (e.g., Radner, 1993; Patacconi, 2009)
assume that agents share a common objective but information transmission is costly. These models focus on the design of optimal communication networks. Verifiable disclosure models (e.g., Milgrom, 1981, Patacconi and Vikander, 2015) assume that messages are verifiable. An expert may refuse to give advice but, if she does, the message must be truthful. We assume that CEOs can lie about their worldviews when taking an activist stance.

In signaling models (e.g., Spence, 1973, 1977), a sender takes a costly observable action to signal to receivers that he is of a certain type. For instance, a student may enroll in a difficult course to signal to potential employers that he is smart, or a firm may offer a large warranty to signal to potential customers that its product is of high quality. Signalling is useful as a discriminating device if the cost of taking the signalling action is lower for some types than for others. In our model, the cost of making a statement is the same (for simplicity, zero) for all types.

A few papers explore the idea that consumers may be willing to pay more for products or services that they perceive as socially responsible (e.g., McWilliams and Siegel, 2001; Asmussen and Fosfuri, 2019). Arora and Gangopadhyay (1995) and Bagnoli and Watts (2003), for instance, study the effects of competition when firms can produce in more socially responsible ways. These models assume that more socially responsible production methods are observable, thus the issue of credibility of communications does not arise there.\textsuperscript{10} Mohliver, Crilly and Kaul (2019) examine how issue salience, polarization and competition affect the likelihood that firms will take opposing stances on an issue. In their model, firms have no type: consumers simply experience higher utility whenever they buy a product that takes a stance they agree with. Thus, in their model as well the issue of credibility of communications is absent.

Finally, Johnson and Myatt (2006) propose a general framework for analyzing rotations of the demand curve stemming from changes in the dispersion of consumers’ valuations. They show how optimal advertising and product design, by inducing rotations of the demand curve, are related to whether a firm pursues a niche or a mass market production strategy. We examine how cheap talk, by affecting consumers’ valuations, is related to the choice of niche or mass market production strategies (see Chakraborty and Harbaugh, 2010, Section II.D for a related application).

\textsuperscript{10}In Asmussen and Fosfuri (2019), CSR activities increase the profits of all the subsidiaries of a multinational organization; however, with some probability irresponsible behaviors by the subsidiaries are detected, which reduces the value of CSR investments.
2 Model

A firm serves a market with two types of consumers, \( T \in \{L, C\} \), who differ in their political views or social values. To be concrete, we will refer to type \( T = L \) consumers as liberals and type \( T = C \) consumers as conservatives. Let \( n_T > 0 \) denote the measure of type \( T \) consumers in the market.

The firm is run by a CEO. The CEO is also characterized by type \( t \in \{l, c\} \). For consistency, we will also refer to a CEO of type \( t = l \) as being liberal, and to a CEO of type \( t = c \) as being conservative. A key assumption of this paper is that liberal consumers prefer to buy from a firm run by a liberal CEO, and conservative consumers prefer to buy from a firm run by a conservative CEO. Ex ante both CEO types are equally likely, and the CEO type is private information.

The timing of the game is as follows. In period 1, the CEO makes a choice of corporate communication. Specifically, the CEO sends a costless message (or messages), the contents of which we interpret as providing support for a social or political position, or an expression of values. Let \( M = \{L, C, S\} \) denote the set of available messages, which respectively stand for ‘liberal’, ‘conservative’, and ‘stay silent’. If the CEO sends the message \( L \) or \( C \) in equilibrium, we will say that the CEO ‘takes a stand’ and will interpret this as ‘CEO activism’. If instead the CEO sends the message \( S \) in equilibrium, we will say that the CEO does not take a stand and will interpret this as ‘strategic ambiguity’.

If communication is private, then the CEO can send different messages to the different consumer types: message \( m_L \in M \) is only observed by consumers of type \( T = L \), and message \( m_C \in M \) is only observed by consumers of type \( T = C \). If communication is public, then the CEO is constrained to send a single message, \( m_L = m_C \equiv m \), which is observed by all consumers.\(^{11}\)

In period 2, consumers observe the CEO’s message \( m \) and update their beliefs about CEO type. Because consumers care about CEO type when making purchasing decisions, the updated (interim) belief,

\(^{11}\) Private communication might reflect a situation where potential customers receive their information through different online news sources (say liberals from Huffington Post, and conservatives from Breitbart News) with little overlap in readership. Public communication might reflect a situation where potential customers mainly access the mass media, so that the content of CEO messaging quickly reaches them all. In our formal analysis, we will take public versus private communication as an exogenous feature of the environment in which the firm operates. That being said, we will also comment on whether firm profits are higher under public or private information, with the background idea that public vs. private communication might in some circumstances reflect a CEO’s strategic choice. For instance, a CEO could opt for private communication, by giving two separate interviews, one to the New York Times (a liberal newspaper) and one to the Wall Street Journal (a conservative newspaper), if doing so is most profitable. If not, the CEO could opt for public communication, by writing a single press release and holding a single press conference, which would then be faithfully reported by all newspapers.
\( \mathbb{P}(t = l|m) \), also affects customers’ willingness to pay.

In period 3, the product’s price \( p \) is set at the level that maximizes firm profits, given interim willingness to pay from period 2. The firm might estimate this willingness to pay through market research, and an algorithm (or middle managers who do not hold private information about CEO type) might set the price. The price is uninformative about CEO type because type does not directly affect profits: \( \pi \) is just equal to \( p \) times the measure of consumers who buy, where we normalize the marginal cost of production to zero.\(^{12}\)

In period 4, consumers make their purchasing decisions and payoffs are realized. For the first part of the analysis (Section 3), we will assume the CEO’s payoff is equal to firm profits. For the second part of the analysis (Section 4), we will assume the CEO also cares directly about consumer beliefs regarding his type (say because she wants to influence consumers’ behaviors and hence ‘make a difference’). We leave a formal description of the CEO’s payoff function in the latter case to Section 4.

The consumer’s payoff from buying is equal to an intrinsic component plus a symbolic component which depends on consumer inference about firm type. Specifically, under private communication, a liberal (type-\( L \)) consumer’s payoff from buying at price \( p \), given message \( m_L \) is

\[
U_L(m_L, p) = \underbrace{v - p}_{\text{Intrinsic Payoff}} + \underbrace{2\lambda_L \Psi[\mathbb{P}(t = l|m_L) - 1/2]}_{\text{Symbolic Payoff}}
\]

(1)

and a conservative (type-\( C \)) consumer’s payoff from buying at price \( p \), given message \( m_C \) is

\[
U_C(m_C, p) = \underbrace{v - p}_{\text{Intrinsic Payoff}} - \underbrace{2\lambda_C \Psi[\mathbb{P}(t = l|m_C) - 1/2]}_{\text{Symbolic Payoff}}
\]

(2)

The higher the probability that consumers ascribe to the firm being liberal, the higher the symbolic payoff experienced by liberal buyers, but the lower symbolic payoff experienced by conservative buyers. Thus, our framework captures the idea that CEO communications can affect willingness to pay by affecting consumer beliefs. Since consumers have different views, raising the willingness to pay of one type of consumer may require lowering the willingness to pay of the other. The parameters \( \lambda_L > 0 \) and \( \lambda_C > 0 \)

\(^{12}\)The key assumption here is that the chosen price \( p \) does not affect consumer beliefs about CEO type: \( \mathbb{P}(t = l|m, p) = \mathbb{P}(t = l|m) \) for all \( m \) and \( p \). We believe this is a reasonable assumption for large corporations such as Nike or Starbucks that sell hundreds of products in many countries and where therefore pricing decisions are likely to be decentralized. Pricing is also affected by many factors other than CEO’s socio-political views, so it may not be easy or reliable for consumers to draw inferences on CEO type from product prices.
capture the importance that each consumer type attaches to symbolic consumption relative to the other, whereas the parameter $\Psi$ captures the overall extent to which symbolic consumption matters. The term $v - p$ represents the baseline (intrinsic) payoff from buying at price $p$. As $v$ reflects the maximum price the firm would be able to charge in the absence of symbolic value, we interpret a high level of $v$ as a low degree of competition in the market. We normalize a consumer’s payoff from choosing her outside option to zero.

Under public communication, given price $p$ and message $m$, consumer payoffs given by (1) and (2) reduce to

$$U_L(m, p) = v + 2\lambda_L \Psi \left[ \mathbb{P}(t = l|m) - 1/2 \right] - p \quad (3)$$

and

$$U_C(m, p) = v - 2\lambda_C \Psi \left[ \mathbb{P}(t = l|m) - 1/2 \right] - p. \quad (4)$$

In our analysis, we will restrict attention to equilibria with the following features. On the equilibrium path: (i) if consumers receive message $L$, then they infer it strictly more likely that the CEO is liberal, (ii) if consumers receive message $C$, they infer it strictly more likely that the CEO is conservative, (iii) if consumers receive message $S$, they infer it equally likely that the CEO is liberal or conservative (i.e. they maintain their prior beliefs). This approach reflects our interest in equilibria where words have their commonly understood meaning.\footnote{This approach is unrestrictive, other than that it implies the existence of at least one off-equilibrium-path message in the candidate equilibria we consider.}

Finally, we need to specify out-of-equilibrium beliefs, i.e. what do consumers believe about CEO type if the CEO sends a message that consumers did not expect to receive with strictly positive probability in a particular candidate equilibrium. For the benchmark analysis in Section 3, where the CEO cares only about maximizing profits, we assume that these beliefs are equal to the prior. For the subsequent analysis, where the CEO is intrinsically motivated to take a stand, we apply a refinement in the spirit of the Intuitive Criterion (Cho and Kreps, 1987). The analysis in Section 3 would remain unchanged if we applied the subsequent refinement; thus we postpone a precise description of this refinement until Section 4.\footnote{Footnote 22 explains why the refinement in Section 4 would not alter any of the results in Section 3. Footnote 19 provides a general discussion of the robustness of our results to different out-of-equilibrium beliefs.}
A strategy for the CEO consists of, for each type $t \in \{l, c\}$, a choice of message(s) $m_T$, with possible randomization in the case of mixed strategies. A strategy for consumers of type $T$ is a decision whether or not to buy, for any possible $m_T$ and price $p$ they could receive. We solve for a Perfect Bayesian Equilibrium, where the CEO maximizes profits given the strategy of consumers; consumers maximize their payoff for any possible message $m$ and price $p$, given their beliefs about CEO type; and these beliefs follow from Bayes’ Rule and the CEO’s equilibrium strategy whenever possible.

3 A benchmark where the CEO only cares about maximizing profits

Throughout our analysis, we will be interested in whether CEO activism can occur in equilibrium, and whether it can create firm value. We begin with a benchmark scenario where the CEO only cares about maximizing firm profits $\pi$. In this scenario, liberal and conservative CEOs have no intrinsic motivation to truthfully reveal their type, and incentives to pander to the most valuable demographic are very strong. If, say, liberals are very valuable customers (either because $n_L$ or $\lambda_L$ or both are very high), then even a conservative CEO may pretend to be liberal if that increases firm sales. Even in this extreme case, we will show that, under some conditions, CEO activism can occur in equilibrium. Some information transmission can occur and increases firm value; however, the possibility of pandering bounds the quality of communication and the amount of profits that the firm can obtain.

To begin, define

$$\pi_L = n_L(v + \lambda_L \Psi), \quad \pi_C = n_C(v + \lambda_C \Psi) \quad \text{and} \quad \pi_{LC} = (n_L + n_C)v.$$  \hspace{1cm} (5)$$

$\pi_L = n_L(v + \lambda_L \Psi)$ are the highest possible profits from adopting a niche product strategy of serving only liberals. To achieve this payoff, the CEO must convince liberal consumers that it itself is liberal for sure, which would imply a profit-maximizing price of $p = v + \lambda_L$. Similarly, $\pi_C = n_C(v + \lambda_C \Psi)$ are the highest possible profits from a niche strategy of serving only conservatives. The highest possible profits from following a mass market strategy, in which both consumer types hold the same beliefs, are $\pi_{LC} = (n_L + n_C)v$. To achieve these profits, both consumer types must believe the CEO is equally likely to be liberal or conservative (as given by the prior), so that they are both willing to buy at price $p = v$. We assume throughout that $\pi_L$, $\pi_C$, and $\pi_{LC}$ all differ from one another. Also, often we will assume, with
no loss of generality, that liberals are a more valuable demographic than conservatives. This means that \( \pi_L > \pi_C \).

**Definition.** We say that an equilibrium is uninformative if both consumer types \( T \in \{L, C\} \) hold beliefs \( \mathbb{P}(t = l|m) = \mathbb{P}(t = c|m) = 1/2 \), for all messages \( m \) sent on the equilibrium path. Otherwise we say that an equilibrium is informative.

An informative equilibrium involves at least one message that leads some consumers to update beliefs away from the prior, because it is more likely to be sent by one firm type (e.g. liberal). This means there must also be another message that is more likely to be sent by the other CEO type (e.g. conservative), which leads some consumers to update their beliefs in the opposite direction. We will say that an informative equilibrium is fully revealing if consumers are always perfectly able to infer both CEO types; otherwise we will say the equilibrium is partially revealing. As mentioned in the model description, we will restrict attention informative equilibria with CEO activism (with liberal messaging \( L \) and/or conservative messaging \( C \)), and on uninformative equilibria with strategic ambiguity (with only neutral messaging \( S \)).

We first consider private communication.

**Proposition 1.** Under private communication, the only equilibrium is uninformative, and it involves a mass market strategy: message \( m = S \) and price \( p = v \) regardless of CEO type. All consumers buy, and the firm earns profits \( \pi_{LC} \).

Under private communication, the CEO can effectively only opt for strategic ambiguity and a mass market product strategy. Consumers make no inference about CEO type, and profits are the same as in the absence of symbolic consumption (i.e., \( \lambda_L = \lambda_C = 0 \)).

Intuitively, the only equilibrium is uninformative because private communication makes CEO activism so attractive that it cannot be credibly used in equilibrium. If messaging did transmit information in equilibrium, then CEO would have an incentive to pander, and always tell each consumer type what it wants to hear. But sophisticated consumers would realize the CEO has an incentive to pander, regardless of type, and therefore fully discount CEO messaging.

\[15\] All the results can be restated in a completely symmetric fashion if conservatives are a more valuable demographic than liberals (i.e., \( \pi_C > \pi_L \)).
In an uninformative equilibrium, a mass market strategy of selling to both consumer types earns the firm the highest possible profits ($\pi_{LC}$). Strategic ambiguity is well suited to a mass market product strategy because, if communication transmitted information about CEO type, then this information would displease some consumers. Thus, the price at which the firm could serve the whole market would drop.

We now consider public communication.

**Proposition 2.** Under public communication:

(i) An uninformative equilibrium exists. This equilibrium involves a mass market strategy, with message $m = S$ and price $p = v$ regardless of CEO type. All consumers buy and the firm earns profits $\pi_{LC}$.

(ii) If $\pi_{LC} > \min\{\pi_L, \pi_C\}$, then the only equilibrium is uninformative. If $\pi_{LC} \leq \min\{\pi_L, \pi_C\}$, then informative equilibria exist, with profits $\pi$ regardless of CEO type, if and only if $\pi \in [\pi_{LC}, \min\{\pi_L, \pi_C\}]$. All informative equilibria are partially, rather than fully, revealing. Moreover, any informative equilibrium with profits $\pi \in (\pi_{LC}, \min\{\pi_L, \pi_C\})$ involves a niche product market strategy with probability one (i.e. never selling to all consumer types).

Part (i) says that an uninformative equilibrium with strategic ambiguity exists under public communication, just as it does under private communication. The CEO behaves just as it did according to Proposition 1 resulting in profits $\pi_{LC}$. Again, these are the highest possible profits from following a mass market strategy.

Part (ii) says that an informative equilibrium can exist under public communication. This equilibrium involves CEO activism, in the sense that a liberal CEO is more likely to use liberal messaging, and a conservative CEO is more likely to use conservative messaging, which results in these messages transmitting information. CEO activism is also associated with a niche product market strategy and creates firm value, compared to the case where the CEO remains silent (i.e., $\pi \geq \pi_{LC}$). Indeed, the mass market product strategy is never used in an informative equilibrium with $\pi > \pi_{LC}$, because doing so would reduce the willingness to pay of one type of consumers (liberals or conservatives) and would give lower profits than $\pi_{LC}$, which is the best the firm could earn from strategic ambiguity.
Together, Propositions 1 and 2 show that public communication can help increase firm profits by making CEO messaging credible. The reason is that public communication reduces the CEO’s incentive to pander. Any message sent in equilibrium that increases the willingness to pay of one type will decrease the willingness to pay of the other, which disciplines the CEO. That being said, public communication does not fully eliminate the CEO’s credibility problem, as the information transmitted in equilibrium is never fully revealing. To understand why, suppose that \( \pi_L > \pi_C \), so liberals are the more valuable demographic. In this case, if an equilibrium was perfectly revealing, then a conservative CEO would have an incentive to misrepresent its type. It could mimic a liberal CEO by using liberal messaging, serve liberal consumers, and earn higher profits: \( \pi_L \) rather than \( \pi_C \).\(^{16}\)

Note that the possibility of misrepresentation bounds the profits that a firm can obtain in any informative equilibrium: \( \pi \leq \min \{ \pi_L, \pi_C \} \). Even under public communication, sophisticated consumers discount CEO messages. This drives down consumers’ willingness to pay and profits in an informative equilibrium, and thus makes CEO activism weakly less attractive, compared to a hypothetical situation where the CEO could simply reveal her type. As a result, CEO activism often does not occur: The CEO uses a mass market strategy not only when it is very attractive, \( \pi_{LC} > \max \{ \pi_L, \pi_C \} \), but also when it is only somewhat attractive, \( \pi_{LC} \in (\min \{ \pi_L, \pi_C \}, \max \{ \pi_L, \pi_C \}) \). Conversely, Proposition 2 shows that CEO activism can only occur if the mass market strategy is very unattractive: \( \pi_{LC} \leq \min \{ \pi_L, \pi_C \} \). Moreover, profits in an informative equilibrium are such that \( \pi \in [\pi_{LC}, \min \{ \pi_L, \pi_C \}] \): therefore CEO activism increases firm profits and creates firm value, relative to not taking a stand.

Below we restate the necessary condition \( \pi_{LC} \leq \min \{ \pi_L, \pi_C \} \) for CEO activism to occur in terms of the primitives of the model.

**Corollary.** A necessary condition for CEO activism to occur and be profitable is that

\[
v < \min \left\{ \frac{n_L}{n_C} \lambda_L, \frac{n_C}{n_L} \lambda_C \right\} \Psi. \quad (6)
\]

For CEO activism to occur and be profitable, there must be both enough conservative and liberal consumers in the market. If the size of either demographic is too small, then the left-hand of (6) is

\(^{16}\)To summarize, under private communication, credibility problems completely rule out CEO activism. Public communication can make CEO activism profitable by reducing these credibility problems, but does not completely eliminate them.
close to zero and the condition is violated. Our interpretation of (6) that CEO activism can only help if messaging is controversial. If messaging creates symbolic value for one group (say liberals), there must be a substantial number of other consumers in the market (say conservatives) who react negatively to the same message. CEO activism is not credible when either demographic is relatively unimportant.

Condition (6) also helps identify the factors that make CEO activism more likely. First, polarization in the market (as measured by \( \min \left\{ \frac{n_L}{n_C} \lambda_L, \frac{n_C}{n_L} \lambda_C \right\} \)) must be sufficiently large. The relative sizes of the two consumer groups (\( \frac{n_C}{n_L} \) and \( \frac{n_L}{n_C} \)), weighted by the relative extent to which their beliefs affect willingness to pay (\( \lambda_L \) and \( \lambda_C \)) cannot be too small.\(^{17}\) Second, both consumer types must attach sufficient weight to the symbolic component of utility (\( \Psi \) large). That is, their purchasing behavior must be significantly affected by their socio-political values and beliefs. Third, competition in the market must be sufficiently strong (low \( v \)). Polarization—the fact that consumers disagree about what is right and wrong—is a feature we directly built into the model. Controversy is a condition which requires sufficiently many consumers to disagree enough that CEO activism can be credible (equation 6).

We now consider a situation where CEO activism can occur in equilibrium, with parameter values satisfying \( \pi_{LC} < \min \{ \pi_L, \pi_C \} \). Without loss of generality, we assume that liberals are a more valuable demographic than conservatives: \( \pi_L > \pi_C \), and construct an informative equilibrium with profits \( \pi_C \), which are the upper bound profits specified in Proposition 2. This equilibrium Pareto dominates any other, because profits are at their highest possible level, and consumers always earn an equilibrium payoff of zero.\(^{18}\)

**Proposition 3.** Suppose communication is public and that \( \pi_L > \pi_C > \pi_{LC} \). Then the following constitutes an informative equilibrium, with the highest possible equilibrium profits, \( \pi_C \):

(i) A type \( t = l \) CEO sends message \( m = \mathcal{L} \) for sure, with price \( p = v + \frac{1-\alpha}{1+\alpha} \lambda_L \Psi \) where \( \alpha \in [0, 1] \) is defined implicitly by \( n_L(v + \frac{1-\alpha}{1+\alpha} \lambda_L \Psi) = n_C(v + \lambda_C \Psi) \).

\(^{17}\)To see this, let \( \theta_L = \lambda_L \Psi \) and \( \theta_C = \lambda_C \Psi \) denote the total extent to which the beliefs of liberals and conservatives affect their willingness to pay, and interpret \( \Psi = (\theta_L + \theta_C)/2 \) as the average of the two. Then, interpret \( \lambda_L = 2\theta_L/(\theta_L + \theta_C) \) and \( \lambda_C = 2\theta_C/(\theta_L + \theta_C) \) as the relative extent to which their beliefs affect willingness to pay.

\(^{18}\)The Pareto dominant equilibrium is also most robust, in that it is the only informative equilibrium that survives if we assumed a liberal CEO enjoyed a small, direct benefit from consumers believing it was likely liberal, or a conservative CEO enjoyed a small, direct benefit from consumers believing is was likely conservative. We interpret this benefit as each CEO type being intrinsically motivated to take a stand, and in Section 4 we show how this benefit can influence equilibrium outcomes.
(ii) With probability \( \alpha \), a type \( t = c \) CEO sends message \( m = L \), with price \( p = v + \frac{\alpha}{1+\alpha} \lambda_L \Psi \); and with probability \( 1 - \alpha \), she sends message \( m = C \), with \( p = v + \lambda_C \Psi \).

(iii) Consumer beliefs are \( P(t = l|L) = \frac{1}{1+\alpha} \) and \( P(t = l|C) = 0 \). Only liberal consumers buy conditional on receiving \( m = L \), whereas only conservative consumers buy conditional on receiving \( m = C \).

Assuming the most profitable equilibrium will be the one that is played, we can state the following. For \( \pi_{LC} > \min\{\pi_L, \pi_C\} = \pi_C \), the CEO opts for strategic ambiguity and a mass market product strategy, as described in Proposition 1. For \( \pi_{LC} < \min\{\pi_L, \pi_C\} = \pi_C \), there is CEO activism and a niche product market strategy, as described in Proposition 3.

In the equilibrium described in Proposition 3, both CEO types engage in CEO activism but send different messages. A liberal CEO type always uses liberal messaging, whereas a conservative CEO type sometimes uses liberal messaging and sometimes uses conservative messaging.

Proposition 3 shows a close link between CEO communications and product market strategy. When the CEO sends a liberal message, the firm serves only liberal consumers. When the CEO sends a conservative message, the firm serves only conservative consumers. This is because the particular message sent increases the willingness to pay of consumers in the target niche market.

However, not all CEO communications are equally credible. Conservative messaging perfectly reveals that the CEO is indeed a conservative type, but liberal messaging leaves consumers unsure. Specifically, consumers realize that a conservative CEO uses liberal messaging with probability

\[
\alpha = \frac{\pi_L - \pi_C}{\pi_C - n_L v + n_L \lambda_L \Psi} = \frac{n_L (v + \lambda_L \Psi) - n_C (v + \lambda_C \Psi)}{n_C (v + \lambda_C \Psi) - n_L v + n_L \lambda_L \Psi},
\]

where \( \alpha \in (0, 1) \) by \( \pi_L > \pi_C > \pi_{LC} \).

Another implication of Proposition 3 is that CEO activism is associated with higher prices, compared to strategic ambiguity. Direct calculations show that the profit-maximizing price is \( p = \frac{n_C}{n_L} (v + \lambda_C \Psi) \) when serving liberals and \( p = v + \lambda_C \Psi \) when serving conservatives. Both of these prices are higher than the profit-maximizing price following a mass market strategy with strategic ambiguity. Moreover, in the equilibrium described in Proposition 3, the consumers paying the higher price will be those in the smaller niche market.

\[\text{We conclude by commenting on how our assumption on out-of-equilibrium beliefs (i.e., that they equal the prior) matters.}\]
3.1 Two variants of the benchmark model

We now briefly discuss two variants of the benchmark model that are motivated by empirical considerations.

**Asymmetric responses to CEO activist stances.** Our model assumes that consumers’ responses to CEO activist stances are similar in magnitude (but opposite in sign) when they agree with a stance and when they disagree with a stance. Consider for instance a liberal consumer. If a CEO convinces this consumer that she is liberal for sure, then his willingness to pay increases by $\lambda_L \Psi$. Conversely, if the CEO convinces this consumer that she is conservative for sure, his willingness to pay decreases by the same amount, $\lambda_L \Psi$. Clearly such symmetry may not always hold in practice. For instance, Chatterji and Toffel (2019) find that, while consumers appear to be more willing to buy from a firm whose CEO takes a stand they agree with, they do not seem to be put off if the CEO takes a stand they disagree with.

Here we briefly discuss the robustness of our results to asymmetries in consumers’ responses to CEO activist stances. To capture these asymmetries, we replace $T$ in consumers’ payoff functions (3) and (4) with $T^+ = (0, +\infty)$ if $P(t = l|m) > 1/2$ and $T^- = (0, +\infty)$ if $P(t = l|m) < 1/2$, where $T \in \{L, C\}$. We have asymmetries in consumers’ responses to CEO activist stances when $\lambda_T^+ \neq \lambda_T^-$. Chatterji and Toffel’s results suggest that $\lambda_T^+ > 0$, $\lambda_T^- \simeq 0$, $\lambda_C^+ \simeq 0$ and $\lambda_C^- > 0$.

It is not hard to see that the model’s results are robust to this type of asymmetries. The reason is that, despite the change, a message $m = S$ and the associated payoff $\pi_{LC}$ remain the best the firm can do when following a mass market product strategy. In any informative equilibrium with profits $\pi > \pi_{LC}$, selling to both types of consumers in this equilibrium would require setting a price $p < v$, which would yield $\pi < \pi_{LC}$. Furthermore, $\pi_L$ and $\pi_C$ remain the highest possible payoffs that the firm can obtain by following a niche product market strategy (with $\pi_L$ and $\pi_C$ now computed using $\lambda_L^+$ and $\lambda_C^-$, respectively).

for the results. Clearly, any candidate equilibria could be made (at least weakly) easier to sustain if we had instead chosen the out-of-equilibrium beliefs that make a deviation least attractive. In particular, choosing out-of-equilibrium beliefs to coincide with some beliefs induced on the equilibrium path would effectively rule out any potentially profitable deviation to an unexpected message. Doing so would expand the range of parameter values for which an informative equilibrium exists compared to Proposition 2: informative equilibria would exist that yield any profits $\pi \in [\max(n_L, n_C)v, \min(\pi_L, \pi_C)]$, rather than any profits $\pi \in [\pi_{LC}, \min(\pi_L, \pi_C)]$, where $\max(n_L, n_C)v < \pi_{LC}$ (this result follows immediately from the proof of Proposition 2). Even though these additional equilibria with CEO activism would give lower profits than strategic ambiguity, no CEO would deviate by staying silent, because consumers would take that as a sign that she is likely liberal or conservative. That being said, the range of parameter values for which CEO activism creates firm value, relative to strategic ambiguity, would remain just as described in Proposition 2, and the most profitable informative equilibrium would remain just as described in Proposition 3.
Because the key payoffs associated with different communication strategies remain essentially unchanged, all our qualitative results go through.

This discussion highlights an important point. In selecting a profit-maximizing communication strategy, the CEO must focus on maximizing consumers’ willingness to pay in her target market, rather than some notion of ‘average’ willingness to pay. The willingness to pay of potential customers who in equilibrium will not buy is immaterial. In discussing Nike’s advertising strategy, the Financial Times (2018) makes a similar point:

Unlike elected officials, a brand can win with far less than 50.1 per cent of the population behind it. (Nike chief executive Mark Parker told investors last year that it was looking to just 12 global cities to drive 80 per cent of its growth.) [...] Culture wars can be great for business — if you know which side of them your customers are on.

Thus, what really matters about controversy is raising the willingness to pay in the targeted niche market.

**Employees care about CEO type.** In many cases, CEO activism appears to be motivated by a desire to please employees rather than customers. For instance, Disney CEO Bob Iger recently warned that it would be “very difficult” for his company to continue working in the U.S. state of Georgia if a bill which outlaws terminations from six weeks comes into force, because “many people who work for us will not want to work there, and we will have to heed their wishes in that regard” (Telegraph, 2019).

Here we discuss a simple variant of the model where raising employee satisfaction is what drives CEO activism. In this model, producing one unit of output requires hiring one worker. Price per unit of output is $p$ and the worker’s wage is $w$. There are two types of workers: liberal workers and conservative workers. $n_L$ is the measure of liberal workers and $n_C$ is the measure of conservative workers. The fundamental assumption we make is that liberal workers experience higher non-pecuniary utility working for a firm with a liberal CEO, and conservative workers experience higher non-pecuniary utility working for a firm with a conservative CEO (see Turban and Greening, 1997 and Kim, Lee, Lee and Kim, 2010 for supporting evidence). Thus, the firm may be able to reduce its labor costs by providing non-pecuniary benefits to some of its employees.

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20 However, displeasing some consumers at least marginally is necessary, because if a message strictly increased the willingness to pay of all consumers, then all CEO types would use it, and the message would not be credible.

21 The Financial Times (2019) also provides an interesting discussion of the growing phenomenon of “employee activism”.

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Specifically, suppose the CEO sends a message $m \in \{L, C, S\}$ and the firm selects a wage $w$ (for brevity, we restrict attention to public communication). Then, a type-$L$ worker employed by the firm experiences utility

$$U_L(m, w) = w + 2\lambda_L \Psi \{\mathbb{P}(t = l|m) - 1/2\}$$

and a type-$C$ worker employed by the firm experiences utility

$$U_C(m, w) = w - 2\lambda_C \Psi \{\mathbb{P}(t = l|m) - 1/2\}.$$ 

A worker’s reservation utility is $u$. The objective of the CEO is to maximize firm profits, which are given by revenues minus the total wage bill.

The trade-offs in this setting are similar to the trade-offs in the baseline model of Section 3. If the CEO stays silent ($m = S$), the firm can employ both types of workers but must pay a relatively high wage $w = u$; profits are then $\pi_{LC} = (n_L + n_C) (p - u)$. Alternatively, the CEO may choose an activist stance that pleases either liberal or conservative workers. If the CEO convinces the workers that she is liberal for sure, she can hire $n_L$ liberal workers at the lower wage $w = u - \lambda_L \Psi$, earning profits $\pi_L = n_L (p - u + \lambda_L \Psi)$. Conversely, by taking a conservative stance, the CEO can earn $\pi_C = n_C (p - u + \lambda_C \Psi)$.

The same analysis as in Section 3 produces the following necessary condition for CEO activism to occur and be profitable:

$$p - u < \min\left\{\frac{n_L}{n_C} \lambda_C, \frac{n_C}{n_L} \lambda_L\right\} \Psi.$$  \hspace{2cm} (8)

This condition is the same as in equation (6), the only difference being that $v$ is replaced by $p - u$. The new insight from condition (8) is that CEO activism is more likely to occur and be profitable (relative to not taking a stand) when employees can extract a large fraction of the surplus from production ($p - u$ is small). Thus, other things equal, we would expect employee-driven CEO activism to be more common in industries where workers have significant bargaining power.

4 The CEO is intrinsically motivated to take a stand

In this section we assume that the CEO cares not only about profits, but is also intrinsically motivated to take a stand. Specifically, we assume that the CEO earns a non-pecuniary payoff that depends directly
on consumer beliefs. For a liberal (conservative) CEO, this extra payoff is zero under the prior, and is strictly increasing in the ex post belief that consumers ascribe to the CEO being liberal (conservative). Our interpretation is that the CEO wants to credibly communicate her own socio-political views to the general public because she wants to change people’s minds and influence society. An alternative interpretation is that the CEO has social image concerns, and wants the public to perceive her in ways consistent with her own views and values.

Throughout this section we focus on public communication and assume that liberals are a more valuable demographic than conservatives: \( \pi_L > \pi_C \). Furthermore, we assume that, conditional on message \( m \) and price \( p \), a liberal CEO earns a payoff of

\[
\begin{align*}
    u_l &= \pi + 2k[\mathbb{P}(t = l|m) - 1/2] \\
    u_c &= \pi - 2k[\mathbb{P}(t = l|m) - 1/2]
\end{align*}
\]

where \( \pi \) denotes profits and \( k > 0 \). The magnitude of \( k \) represents the relative importance that the CEO places on her intrinsic motivation to take a stand. This magnitude also captures the extent of the conflict between the CEO and the firm, assuming that the firm (i.e., the board and the shareholders) is only interested in maximizing profits. Setting \( k = 0 \) would mean that the CEO aims to maximize profits as in the previous section.

Our focus is on how the conflict of interest between the CEO and the firm created by \( k > 0 \) influences equilibrium outcomes. For the remainder of the analysis, we impose a refinement on out-of-equilibrium beliefs, in the spirit of the Intuitive Criterion, which we describe below. Given our setting with two types, this criteria will either precisely pin down beliefs (to \( \mathbb{P}(t = l|m) = 1 \) or \( \mathbb{P}(t = l|m) = 0 \)) or it will not restrict beliefs at all. In the latter case, we assume consumer beliefs following an unexpected message are given by the prior, as in Section 3.

Suppose the CEO deviates by sending message \( m = S \), which was unexpected in a particular candidate equilibrium. Then if there exists \( \mathbb{P}(t = l|m) = \mu’ \in [0, 1] \) that would make the deviation strictly profitable
for one particular CEO type, but there does not exist any \( \mathbb{P}(t = l|m) = \mu'' \in [0, 1] \) that would make the deviation strictly profitable for the other type, then consumers believe the CEO is the former type with probability one.

If the CEO deviates by sending message \( m \in \mathcal{L} \), which was unexpected in a particular candidate equilibrium, we apply the criterion as described in the paragraph above, but restrict attention to \( \mu', \mu'' \in [1/2, 1] \). Thus, we require that, when consumers reason about whether a particular CEO type could possibly benefit by sending an unexpected liberal message, they do not think that this liberal message could result in beliefs that the CEO is likely conservative (i.e., \( \mu', \mu'' \in [0, 1/2] \)). Similarly, if the CEO chooses an unexpected message \( m = \mathcal{C} \), we apply the criterion as described in the paragraph above, but restrict attention to \( \mu', \mu'' \in [0, 1/2] \). Thus, this refinement captures the idea that consumers who observe an unexpected message will think about what CEO type could potentially benefit from a deviation, but their interpretation of unexpected words will not be diametrically opposed to the words’ commonly understood meaning.

We begin by examining the set of parameter values for which an equilibrium with strategic ambiguity can exist. Recall that, in the benchmark scenario with \( k = 0 \), a strategic ambiguity equilibrium always existed. Proposition 4 shows that, if the CEO cares enough about making a difference (\( k \) large), it is no longer possible to sustain an equilibrium with strategic ambiguity.

**Proposition 4.** Under public communication, an uninformative equilibrium exists if and only if \( k \in [0, k^*] \), where

\[
\begin{align*}
(i) \quad k^* &= |\pi_C - \pi_{LC}| \quad \text{if} \quad \pi_{LC} < (\pi_L + \pi_C)/2 \\
(ii) \quad k^* &= |\pi_L - \pi_{LC}| \quad \text{if} \quad \pi_{LC} > (\pi_L + \pi_C)/2
\end{align*}
\]

\(^{22}\) If we instead considered any \( \mu', \mu'' \in [0, 1] \), following any unexpected message \( m \in \{\mathcal{L}, \mathcal{C}, \mathcal{S}\} \), this would have only a limited impact on our results. The only difference would be that an equilibrium with strategic ambiguity would then also exist for sufficiently large values of \( k \), as well as for the sufficiently small values of \( k \) described in Proposition 4.

\(^{23}\) We also stress that the above criteria could never restrict out-of-equilibrium beliefs in Section 3, where \( k = 0 \), because there CEO preferences were not state dependent: the CEO had the same incentives, regardless of her type. If there was a deviation from one of the equilibria described in Propositions 1-3 that could potentially increase the payoff of a CEO who is conservative, then it could also potentially increase the payoff of a CEO who is liberal, and vice versa. As such, any out-of-equilibrium beliefs would always satisfy this criteria when CEOs care only about maximizing profits, unlike in a situation where CEOs are also intrinsically motivated.
The intuition for Proposition 4 is as follows. When the CEO is not very intrinsically motivated to take a stand \((k \text{ small})\), then both CEO types earn a similar payoff for any given consumer beliefs. In that case, in a situation where one CEO type could possibly benefit from consumers believing she is liberal, or conservative, so could the other type. As such, if consumers observe a deviation to an unexpected message \(m \in \{L, C\}\), they reason that in principle it could make sense for either type (or for neither type), and therefore maintain their prior beliefs. This in turn means that the deviation has no impact on the CEO’s payoff.

By contrast, when the CEO is very intrinsically motivated \((k \text{ large})\), deviating from \(m = S\) to some \(m \in \{L, C\}\) will allow either a liberal or a conservative CEO to increase her payoff. When \(k\) exceeds the critical value in Case (i), a conservative CEO can benefit from using conservative messaging if it leads consumers to believe she is conservative, whereas a liberal CEO cannot. When \(k\) exceeds the critical value in Case (ii), a liberal CEO can benefit from using liberal messaging if it leads consumers to believe she is liberal, whereas a conservative CEO cannot. Either way, the deviating CEO will reveal her true type, resulting in both a higher price and higher non-pecuniary payoff.\(^{24}\)

Turning to CEO activism, we now show that when an informative equilibrium exists, it will be unique, and it will resemble the equilibrium described in Proposition 3. The main difference is that, because the CEO is now intrinsically motivated to take a stand \((k > 0)\), the probability \(\alpha\) that a conservative CEO will mimic a liberal CEO is lower.

The conservative CEO’s indifference condition as described in Proposition 3(i) implicitly defined its probability \(\alpha\) of using liberal messaging. With \(k > 0\), the corresponding indifference condition for a conservative CEO is

\[
n_L \left( v + \frac{1 - \alpha_k}{1 + \alpha_k} \lambda_L \Psi \right) - k \left( \frac{1 - \alpha_k}{1 + \alpha_k} \right) = n_C(v + \lambda_C \Psi) + k, \quad (9)
\]

\(^{24}\)The range of parameter values for which an uninformative equilibrium exists, captured by the critical value \(k^*\), depends in a subtle way on the attractiveness of a mass market strategy. When mass market profits are very low, \(\pi_{LC} \ll \pi_C < \pi_L\), then \(k^*\) will be quite high, so an uninformative equilibrium will often exist. A liberal CEO really needs to care a lot about making a difference, in order for conservative messaging to be so unattractive for her, that such messaging allows a conservative CEO to reveal her type. But an uninformative equilibrium will also often exist when mass market profits are very high, \(\pi_C < \pi_L \ll \pi_{LC}\). A liberal CEO then really needs to care about making a difference in order for liberal messaging to be so attractive for her that such messaging allows her to reveal her type. In contrast, for parameter values such that \(\pi_{LC} \equiv \pi_C\) and \(\pi_{LC} \equiv \pi_L\), an uninformative equilibrium will rarely exist \((k^* \approx 0)\).
where \( \alpha_k \) denote the equilibrium probability that this CEO uses liberal messaging given \( k > 0 \), and sells to liberal consumers. If a conservative CEO uses conservative messaging, then consumers infer that she is conservative with probability 1, resulting in a non-pecuniary payoff of \( k > 0 \). If instead she uses liberal messaging, then consumers infer that she is liberal with probability \( \frac{1}{1 + \alpha_k} > \frac{1}{2} \), resulting in a non-pecuniary payoff of \(-k\left\{\frac{1-\alpha_k}{1+\alpha_k}\right\} < 0 \). The notation \( \alpha_k \) makes explicit that a conservative CEO’s mixing probability depends on the importance of her non-pecuniary payoff \( k \), relative to firm profits.25

By a similar reasoning, the incentive constraint for a liberal CEO, which ensures that she is willing to use liberal messaging, is

\[
n_L \left( v + \frac{1 - \alpha_k}{1 + \alpha_k} \lambda_L \Psi \right) + k \left( \frac{1 - \alpha_k}{1 + \alpha_k} \right) \geq n_C(v + \lambda_C \Psi) - k. \tag{10}
\]

We are now in a position to state the following result.

**Proposition 5.** Under public communication, we have the following:

(i) If \( \pi_{LC} < \pi_C \), then an informative equilibrium exists for all \( k > 0 \). It is partially revealing for \( k \in (0, \frac{\pi_L - \pi_C}{2}) \) and fully revealing for \( k \geq \frac{\pi_L - \pi_C}{2} \).

(ii) If \( \pi_{LC} \in (\pi_C, \frac{\pi_L + \pi_C}{2}) \), then an informative equilibrium exists if and only if \( k \geq \pi_{LC} - \pi_C \). It is partially revealing for \( \pi_{LC} - \pi_C < k < \frac{\pi_L - \pi_C}{2} \) and fully revealing for \( k \geq \frac{\pi_L - \pi_C}{2} \).

(iii) If \( \pi_{LC} \in (\frac{\pi_L + \pi_C}{2}, \frac{3\pi_L - 3\pi_C}{2}) \), then an informative equilibrium exists if and only if \( k > \frac{\pi_L - \pi_C}{2} \) and is fully revealing.

(iv) If \( \pi_{LC} > \frac{3\pi_L - 3\pi_C}{2} \), then an informative equilibrium exists if and only if \( k > \pi_{LC} - \pi_L \) and is fully revealing.

No other informative equilibrium exists, other than that described in cases (i)-(iv). The partially revealing equilibrium corresponds to that in Proposition 3, but with \( \alpha \) replaced by \( \alpha_k \in (0, \alpha) \), defined by (9). The fully revealing equilibrium corresponds to that in Proposition 3, but with \( \alpha = 0 \).

\footnote{If \( k = 0 \), then \( \alpha_k \) reduces to \( \alpha \), the equilibrium mixing probability defined in Proposition 3.}
For the partially revealing equilibrium, the price liberals pay is increasing in \( k \), whereas the probability of serving liberals is decreasing in \( k \). Profits are increasing in \( k \) for a firm with a liberal CEO, but can be non-monotonic in \( k \) for a firm with a conservative CEO.

Proposition 5 shows that intrinsic motivation \((k > 0)\) makes it easier to sustain an informative equilibrium with CEO activism. When \( k > 0 \), an informative equilibrium analogous to that in Proposition 3 now exists for a larger range of parameter values: not only when \( \pi_{LC} < \pi_C (< \pi_L) \), but also when \( \pi_{LC} > \pi_C \) and \( k \) exceeds a threshold value. Moreover, if \( k \) is large, a fully revealing equilibrium now exists, with perfectly revealing messaging and niche product market strategies.

The key to understanding how intrinsic motivation influences equilibrium outcomes comes from the indifference condition (9). Conservative (liberal) messaging becomes more (less) attractive for a conservative CEO, because it suggests to consumers that she is a conservative (liberal) type. Thus, a conservative CEO is no longer willing to randomize between serving liberal and conservative consumers at the prices specified in Proposition 3. In equilibrium, the fact that \( k > 0 \) must push down the probability that a conservative CEO uses liberal messaging, in order to push up the price it can charge liberal consumers when it does so. This higher price, when \( k > 0 \), effectively compensates a conservative CEO enough to use liberal messaging, even though she suffers from the fact that consumers believe she is likely liberal.\(^{26}\)

While the fact that \( k > 0 \) makes a conservative CEO less likely to use liberal messaging, it does not affect the behavior of a liberal CEO. A liberal CEO now wants to be perceived as liberal, and this simply reinforces her incentive to use liberal messaging and sell to liberal consumers. The incentive constraint (10) holds when \( k = 0 \) as shown in Proposition 3, and continues to hold for \( k > 0 \). The reason is that a liberal CEO can use liberal messaging to more clearly reveal her type, which allows her to earn a higher non-pecuniary payoff. It also allows a liberal CEO to charge liberal consumers a higher price and generate higher profits.

To summarize, this section shows that intrinsic motivation \((k > 0)\) increases the likelihood that the CEO will engage in activism. Compared to the case when \( k = 0 \), the set of parameter values that supports

\(^{26}\)For this argument to hold, we require that \( k \) is not ‘too large’, so that the cost of the extra negative non-pecuniary payoff does not overwhelm the benefit of price increases. This will indeed be the case, for all relevant values of \( k \) in the partially revealing equilibrium.
a strategic ambiguity equilibrium shrinks (Proposition 4), and the set of parameter values that supports
a CEO activism equilibrium expands (Proposition 5).

4.1 The effects of intrinsic motivation on firm profits

We now address the question of whether the firm can benefit from CEOs’ intrinsic motivation to take
a stand. Specifically, we compare firm profits when the CEO is intrinsically motivated \( (k > 0) \), to firm
profits when the CEO is only motivated by profit \( (k = 0) \). When multiple equilibria exist, we assume
that the most informative equilibrium is selected.\(^{27}\) We refer to the most informative equilibrium when
\( k = 0 \) as the baseline equilibrium.

When the CEO is intrinsically motivated, Proposition 5 characterizes the unique informative equilib-
rium (with CEO activism) for different values of \( k \). The baseline equilibrium is either that described in
Proposition 3 (with CEO activism, when \( \pi_{LC} < \pi_C \) ) or that described in Proposition 1 (with strategic
ambiguity, when \( \pi_{LC} > \pi_C \) ). The baseline equilibrium yields profits \( \pi_{LC} \) in the former case and \( \pi_C \) in
the latter, regardless of CEO type.

We have the following.

**Proposition 6.** Consider the values of \( k \) for which an informative equilibrium exists, as described in
Proposition 5. Then in this informative equilibrium:

(i) If \( \pi_{LC} < \pi_C \), then the firm earns weakly more than in the baseline equilibrium, regardless of CEO
type, for all such \( k \). The result is strict if the firm is run by a liberal CEO for all \( k \), and if the firm
is run by a conservative CEO for \( k \in (0, \frac{\pi_L-\pi_C}{2}) \).

(ii) If \( \pi_{LC} \in (\pi_C, \frac{\pi_L+\pi_C}{2}) \), then a firm with a liberal CEO earns more than in the baseline equilibrium
for all such \( k \); a firm with a conservative CEO earns less for some such \( k \).

(iii’) If \( \pi_{LC} \in (\frac{\pi_L+\pi_C}{2}, \pi_L) \), then a firm with a liberal CEO earns more than in the baseline equilibrium,
but a firm with a conservative CEO earns less, for all such \( k \).

\(^{27}\) This is also the equilibrium that will result in the highest CEO payoff, regardless of type.
(iv') If $\pi_{LC} > \pi_L$, then the firm earns less than in the baseline equilibrium, regardless of CEO type, for all such $k$.

Moreover, for all remaining values of $k \in (0,k^*)$ for which an informative equilibrium does not exist, the firm earns the same profits as in the baseline equilibrium (i.e., $\pi_{LC}$), where $k^*$ is defined in Proposition 4.

Proposition 6 shows that a CEO’s intrinsic motivation ($k > 0$) can either increase or decrease firm profits, relative to the most informative equilibrium when the CEO is only motivated by profit ($k = 0$). When strategic ambiguity is a relatively profitable strategy (e.g., case (iv')), intrinsic motivation tends to reduce firm profits because an intrinsically motivated CEO is excessively prone to take a stand. Intrinsic motivation leads to excessive CEO activism, from the firm’s perspective. The firm would prefer that the CEO remained silent, so that it could obtain mass market profits $\pi_{LC}$ with strategic ambiguity (as described in Proposition 2).

However, when CEO activism is a relatively good strategy (e.g., case (i)), intrinsic motivation can increase firm profits. The reason is that intrinsic motivation improves the quality of communication. Different CEO types (liberal and conservative) are better able to differentiate themselves. This mitigates the credibility problem of CEO communications and the firm earns weakly higher profits, regardless of CEO type. This effect is most transparent when $\pi_{LC} < \pi_C$ and $k \geq \frac{\pi_L-\pi_C}{2}$. In this case, $k$ is high enough that the equilibrium is fully revealing (see Proposition 5); hence, a firm run by a liberal CEO earns $\pi_L$, and a firm run by a conservative CEO earns $\pi_C$. In either case, the firm earns profits weakly higher than $\pi_C$, the highest profit that the firm can make when $k = 0$.

More surprisingly, when $\pi_{LC} < \pi_C$ and $k \in (0,\frac{\pi_L-\pi_C}{2})$, both a firm run by a liberal CEO and a firm run by a conservative CEO earn strictly higher profits than in the baseline equilibrium. This is because the profits of the firm run by a liberal CEO rise with $k$, and the conservative CEO mimics the liberal CEO with some probability. In this partially revealing equilibrium, the conservative CEO obtains profits $\pi > \pi_C$ when she pretends to be liberal, and profits $\pi_C$ (plus private benefits) when she uses conservative messaging. The profits of a firm with a conservative CEO are thus non-monotonic in $k$: they start at $\pi_C$.
when $k = 0$, initially rise, and then return to $\pi_C$ for all $k \geq \frac{\pi_L - \pi_C}{2}$.

One surprising implication of our analysis is that having a CEO that only cares about maximizing profits ($k = 0$) can be bad for profits. The reason is that intrinsic motivation improves the credibility of communications and can increase sales and firm value. More importantly, our analysis also tells us *when* having an intrinsically motivated CEO is good for profits. Profits are higher with intrinsic motivation when CEO activism is a relatively good strategy (e.g., case (i)). This occurs when competition is strong, consumers care a lot about “symbolic” value and polarization is high. Thus, our analysis suggests that CEOs intrinsically motivated to take a stand (i.e., ‘authentic’ or ‘sincere’ CEOs) may have become good for business especially in recent times.

4.2 Preventing unprofitable CEO activism

Given that intrinsic motivation can lead to excessive CEO activism and reduce firm profits, we now consider how corporate governance may help. We examine a setting where the board has the power to forbid the CEO from taking a stand, for instance by threatening dismissal. This is arguably an extreme assumption, as boards may be reluctant in practice to use this power. We show that, even in this extreme scenario, if boards have discretion as to whether use this power, their ability to prevent profit-destroying activism is quite limited.

To examine these issues, we modify our formal framework as follows. Consider the end of period 1, after the CEO has chosen her message $m \in \{S, L, C\}$. We now assume the board observes CEO type, observes the CEO’s chosen message, and then chooses an unobserved action $a \in \{Silence, Allow\}$. If the firm chooses $a = Allow$, then consumers in period 2 observe the CEO’s chosen message $m$. If the firm chooses $a = Silence$, then consumers in period 2 observe the message $S$, regardless of which message the CEO chose. Consumers then update their beliefs about CEO type, and the rest of the game continues as in the earlier analysis.

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28 Cases (ii) and (iii’) are qualitatively similar but less clear-cut, because whether the firm benefits from CEOs’ intrinsic motivation is contingent on CEO type.

29 It is well-known that, in strategic situations, ‘irrationality’ (e.g., not maximizing profits) can be beneficial. In Cournot competition, for instance, a producer with a preference for maximizing a combination of profits and sales can make more profits than a producer with a preference for maximizing only profits, because other producers would then accommodate his more aggressive behavior (see, e.g., Saloner, 1991).
Consider a candidate informative equilibrium, corresponding to that described in Proposition 5, where the firm always chooses not to silence the CEO. That is, the firm selects \( a = \text{Allow} \) regardless of CEO type. We ask whether the board has an incentive to deviate from this candidate equilibrium and instead choose \( a = \text{Silence} \) for parameter values such that CEO activism reduces firm profits.

The key issue here is what consumers believe after seeing that the CEO stays silent. Consumers realize that either the CEO has deviated from the candidate equilibrium by choosing to stay silent, or the board has deviated from the candidate equilibrium by silencing the CEO. However, given that the firm’s action is unobservable, consumers cannot tell for sure which of the two occurred. The question is, in such a situation, what should consumers believe about CEO type?

To specify these out-of-equilibrium beliefs, we take an approach consistent with that used so far in the analysis. Specifically, suppose (i) there exists some belief \( \mathbb{P}(t = l|m) = \mu' \in [0,1] \) such that a deviation to \( m = S \) would strictly increase the payoff of a type \( t \) CEO or a deviation to \( a = \text{Silence} \) would strictly increase profits for a firm with a type \( t \) CEO; and (ii) there does not exist any belief \( \mathbb{P}(t = l|m) = \mu'' \in [0,1] \) such that a deviation to \( m = S \) would strictly increase the payoff of a type \( t' \neq t \) CEO or a deviation to \( a = \text{Silence} \) would strictly increase profits for a firm with a type \( t' \neq t \) CEO. Then, consumers who observe \( m = S \) believe that the CEO is of type \( t \) with probability 1.\(^{30}\) Otherwise, consumers maintain their prior beliefs after observing the deviation.

We can state the following result:

**Proposition 7.** Consider a candidate informative equilibrium, equivalent to that described in Proposition 5, where the board always chooses \( a = \text{Allow} \), regardless of CEO type. Now consider a deviation to \( a = \text{Silence} \). For parameter values satisfying Case (iv') of Proposition 6, this deviation increases profits, for both CEO types. However, for parameter values satisfying Case (iii') of Proposition 6, this deviation does not increase profits, for either CEO type.

Proposition 7 shows that, while the board’s power to silence the CEO can sometimes be valuable (Case

\(^{30}\)For example, if silence would never help a conservative CEO, and would never help a firm with a conservative CEO, but could possibly help either a liberal CEO or a firm with a liberal CEO, then consumers will believe that a CEO who stays silent is liberal.
(iv’)), it can also sometimes be completely ineffective (Case (iii’)). In Case (iv’), profits under strategic ambiguity exceed those under CEO activism for both CEO types. Thus, when consumers observe an unexpected message $S$, they reason that the board could have silenced either a liberal or a conservative CEO. Consumers maintain their prior beliefs and, as optimal from a profit-maximizing viewpoint, a strategic ambiguity equilibrium can be implemented.

However, the power to silence the CEO is not valuable to the firm when profits under strategic ambiguity exceed those under CEO activism for one CEO type but not the other, as in Case (iii’). The power to silence the CEO would in theory be valuable to a firm with a conservative CEO, because $\pi_C < \pi_{LC}$. However, a firm with a liberal CEO would not benefit from it, because $\pi_L < \pi_{LC}$. As a consequence, silencing the CEO is not a neutral signal. Consumers infer that a CEO who unexpectedly remains silent has been silenced, and is conservative. Thus, a firm that uses its discretion to silence a conservative CEO will earn at most $\pi_C$ in profits, which is no more than profits under CEO activism. The implication is that an informative equilibrium still exists, even though CEO activism hurts the firm’s bottom line if the CEO is conservative.$^{31}$

5 Enhancing the credibility of communications

This paper highlights controversy as a strategy to enhance the credibility of communications. In this section, we first illustrate the usefulness of this mechanism in practice. Then, we discuss alternative mechanisms.

5.1 A tale of two advertising campaigns

To illustrate how controversy can be used to enhance the credibility of communications, we compare two advertising campaigns: the Nike’s 2018 advertising campaign featuring Colin Kaepernick mentioned in the introduction and the Pepsi’s 2017 campaign featuring Kendall Jenner (see Figures 1A and 1B). Both campaigns targeted young, socially conscious consumers; however, while the Nike campaign was hailed as a great success, the Pepsi campaign was “possibly the worst ad of all time” (Independent, 2017).

$^{31}$The same conclusion would hold if the firm’s action to silence the CEO was observable to consumers.
In the Pepsi commercial, American television personality Kendall Jenner joins a bland protest of young and diverse people displaying “peace” and “Join the Conversation” signs. In an attempt to mitigate tensions, Jenner offers a can of Pepsi to a police officer, while the crowd erupts in cheers. The Pepsi commercial was criticized for appearing to trivialise demonstrations. For instance, Bernice King, the daughter of Martin Luther King, tweeted a photo of her father being confronted by a police officer with the caption: “If only Daddy would have known about the power of Pepsi”. The campaign was also widely perceived as inauthentic: a clumsy corporate attempt not to alienate anyone, young people and cops. By not taking a stand on any important (and controversial) social issue, observers were left with the impression that the only goal of the Pepsi commercial was to sell cans of soda.

By contrast, the Nike campaign featuring Colin Kaepernick was much more direct in its embrace of civil rights and Black Lives Matter. The commercial featured a portrait of American football player Colin Kaepernick with the message: “Believe in something, even if it means sacrificing everything”. The commercial was highly controversial: “To supporters, Kaepernick [was] showing respect for the victims of racial injustice; to critics, he [was] showing disrespect for the US anthem, its flag and its troops” (Financial Times, 2018). Most observers argue that Nike’s risky communication strategy paid off. Apex Marketing calculates that Nike generated exposure worth more than $163m even before its television version of the Kaepernick commercial was aired. “By being bold and divisive and taking on a subject they knew would be politically conflicted, [the Kaepernick commercial has] become the gold standard”, writes the Financial Times (2018).

5.2 Other credibility-enhancing mechanisms

Controversy, however, is not the only way to enhance the credibility of communications. For instance, several studies emphasize the credibility of the messenger and her situational incentives (Birnbaum and Stegner, 1979, Mercer, 2004). Although an audience may not believe the message per se, it may trust the source of the information. That is, the credibility of the message may depend on the reputation of the messenger. Reputation, however, usually takes a long time and significant resources before it can be
established. Thus, this mechanism may not be available to all the potential senders (for instance, young and small firms).

Situational incentives can also affect the incentives to lie and hence the credibility of communications. For instance, when rivalry is strong, unethical behaviors are more likely to emerge (Kilduff, Galinsky, Gallo and Reade, 2016), which reduces the credibility of communications. Financially distressed firms are also perceived as less credible than financially sound ones (Rogers and Stocken, 2005). In evaluating the credibility of communications, therefore, situational incentives must be taken into account.

Another stream of research has focused on the credibility of the message itself. If a firm is able to transform “soft” into “hard” information, then the credibility of the source is no longer an issue. Among the characteristics of the information, a major role is played by the amount and quality of the supporting evidence. In particular, quantitative, measurable information is generally believed to be more credible than qualitative one (Mercer, 2004; Scott and Lane, 2000). A problem with this mechanism, however, is that it may lead to a proliferation of metrics which may either be not relevant or reliable. Thus, although there may be an abundance of data, evaluating the credibility of communications may still not be easy.

Some messages may be easier to be believed. For instance, negative information is often deemed to be more credible than positive information, because the incentives to lie are absent (Hutton, Miller and Skinner, 2003). Public information, especially when exchange is two-way, also tends to be more credible, because stakeholders can contribute to debates and question claims that may not be truthful (Van Riel and Fombrun, 2007).

Finally, senders may use certifications to increase the credibility of a message (Dranove and Jin, 2010). Quality disclosure and other quality assurance mechanisms can be provided by bodies such as auditors, financial analysts, journalists, board of directors, audit committee and internal auditors (Mercer, 2004). Voluntary assurance of CSR information (e.g., sustainability reports) is generally used to ensure their credibility (Pflugrath, Roebuck and Simnett, 2011). However, previous studies have strongly questioned the efficacy of the current assurance process (Junior, Best and Cotter, 2014). Lacking quantitative and verifiable information, certifiers’ estimates may still be biased or inaccurate (Dranove and Jin, 2010).

To summarize, the literature has highlighted many mechanisms through which a sender may enhance
the credibility of a message. However, these mechanisms, such as reputation or certification, are not always available or may be expensive. Controversy, by reducing the incentives to lie through countervailing incentives, provides an additional mechanism that may be useful when information is unverifiable.

6 Conclusion

This paper develops a formal theory of CEO activism. We consider both a scenario where the CEO is motivated only by profit (so that CEO activism is a pure non-market strategy) and a scenario where the CEO is also intrinsically motivated to take a stand. We use the model to examine under what conditions CEO activism can create firm value. More specifically, we address the following sets of questions:

1. **Communication strategy.** Under what conditions will the CEO take a stand (CEO activism)? When will she instead remain silent (strategic ambiguity)? Can the model help explain why CEO activism appears to have become more common in recent times?

2. **Product market strategy.** What is the connection between the CEO’s communication strategy and the firm’s product market strategy?

3. **Corporate governance.** How does the CEO’s intrinsic motivation to take a stand affect firm value? If CEO activism destroys profits, can corporate governance mitigate this problem?

We find that, even when the CEO is motivated only by profits, CEO activism can occur in equilibrium. Credibility requires messages to be sufficiently controversial, but perfect information transmission is often impossible.

We show that, in some environments, the CEO will take an activist stance and, in other environments, she will prefer strategic ambiguity. However, the following tend to be associated with one another: CEO activism, niche product strategies (with high prices), public communication, high levels of competition, high symbolic value, and high political polarization. Conversely, the following tend to be associated with one another: strategic ambiguity, a mass market product strategy (with low prices), private communication, low levels of competition, low symbolic value, and low political polarization. In particular, our
model suggests that CEO activism is more likely when competition and political polarization are high and consumers place great value on “symbolic” considerations.

Interestingly, a CEO who is intrinsically motivated to take a stand can generate higher profits than a CEO whose only objective is to maximize profits. The reason is that intrinsic motivation, by mitigating credibility problems, improves the quality of communications and allows for greater “symbolic” differentiation. However, intrinsic motivation can also lead to excessive, profit-destroying activism. We find that, absent commitment, boards may be surprisingly ineffectual in mitigating this problem of profit-destroying activism.

The paper makes several contributions to the strategy literature. First, it highlights controversy as a rhetorical mode associated with credible communications and symbolic differentiation. Second, it shows that value can be created by prioritizing among the demands of competing stakeholders, because comparative statements can be more credibly communicated. More broadly, by focusing on the credibility of CEO communications, our analysis helps put the emerging literature on CEO activism on a more solid foundation.

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Appendix: Proofs

**Proof of Proposition 1.** Denote the beliefs of consumer $T \in \{L, C\}$, given message $m \in \{L, C, S\}$, by $\mu_T(m) \equiv P(t = l|m)$. Then let

$$p_L(m) \equiv v + 2\lambda_L[\mu_L(m) - 1/2]\Psi$$ \hspace{1cm} (11)

and

$$p_C(m) \equiv v - 2\lambda_C[\mu_C(m) - 1/2]\Psi$$ \hspace{1cm} (12)

denote the willingness to pay of liberals and conservatives, given message $m$, where $U_L(m, p_L(m)) = 0$ from (1) and $U_C(m, p_C(m)) = 0$ from (2). Given that pricing does not affect beliefs, and the price is set at the profit maximizing level, we can restrict attention to $p \in \{p_L(m), p_C(m)\}$, for $m \in \{L, C, S\}$.

Consider a candidate uninformative equilibrium, where both CEO types choose $(m_C, m_L) = (S, S)$ with probability one. Beliefs on the equilibrium path are $\mu_L(S) = \mu_L(L) = 1/2$ by Bayes’ Rule. Recall our assumption that beliefs off the equilibrium path are given by the prior: for any $m \neq S$, beliefs are also $\mu_T(m) = 1/2$ for $T \in \{L, C\}$. It then follows from (11) and (12) that $p_L(m) = p_C(m) = v$, for any message $m$: price $p = v$ is profit maximizing, with profits $\pi = (n_L + n_C)v$. Thus, deviating to any message pair $(m_C, m_L) \neq (S, S)$ is not profitable.

To show that an informative equilibrium does not exist, we proceed by contradiction. Consider a candidate equilibrium where liberals do not always maintain their prior beliefs, i.e. where the CEO sets $m_L = C$ and $m_L = L$ with positive probability, with $\mu_L(C) < 1/2$ and $\mu_L(L) > 1/2$. Equilibrium profits, when message $m_L = C$ is sent, are bounded above by $\max\{p_L(C)(n_L + n_C), p_C(C)n_C\}$, where (11) implies $p_L(C) < v$ and where $p_C(C) \geq v$.

Now consider a deviation where the CEO chooses message pair $(m_C = C, m_L = L)$ with probability 1. Deviation profits are then bounded below by $\min\{p_L(C), p_C(C)\}(n_L + n_C)$. These strictly exceed equilibrium profits given message $m_L = C$, since (11) implies $p_L(C) > v$; and since $n_L > 0, n_C > 0$. Hence, this is not an equilibrium. The proof for the case when liberals always maintain their prior beliefs, but conservatives do not, is entirely analogous. ■

**Proof of Proposition 2.** As argued in the proof of Proposition 1, in any candidate equilibrium, we can restrict attention to prices $p_L(m)$ and $p_C(m)$, defined by (11) and (12), for messages $m \in \{L, C, S\}$. Denote consumer beliefs given message $m$ by $\mu(m) = P(t = l|m)$, which must now the same for both consumer types.

For part (i) of Proposition 2, this follows immediately from the proof of Proposition 1.

For part (ii), first consider a fully revealing candidate equilibrium, where a liberal CEO sends $m = L$ with probability 1, and a conservative CEO sends $m = C$ with probability 1. We then have $\mu(C) = 1$ and $\mu(L) = 0$, by Bayes’ Rule, and recall that we assume out-of-equilibrium beliefs $\mu(S) = 1/2$. Thus, (11) implies $p_L(L) > p_L(S) > p_L(C)$, where $p_L(L) = v + \lambda_L\Psi$, $p_L(S) = v$, and $p_L(C) = v - \lambda_L\Psi$. Moreover, (12) implies $p_C(C) < p_C(S) < p_C(L)$, with $p_C(L) = v - \lambda_C\Psi$, $p_C(S) = v$, and $p_C(C) = v + \lambda_C\Psi$.

Suppose that, in this fully revealing equilibrium, given any message $m \in \{L, C\}$, only one consumer type buys. That is, the price given $m = L$ is $p = p_L(L)$, giving profits $\pi = n_L(v + \lambda_L) = \pi_L$ for a liberal CEO; and the price given $m = C$ is $p = p_C(C)$, giving profits $\pi = n_C(v + \lambda_C) = \pi_C$ for a conservative CEO. A conservative CEO can deviate to $m = L$ and earn $\pi_L$, whereas a liberal CEO can deviate to $m = C$ and earn $\pi_C$. By $\pi_C \neq \pi_L$, one of these deviations must be profitable.

Suppose instead that, in this fully revealing equilibrium, there is at least one message $m \in \{L, C\}$ such that both consumer types buy. The price, given $m$, must satisfy $p < v$, by $p_L(L) < v$ and $p_C(C) < v$, and
giving profits \( \pi < v(n_L + n_C) \). The CEO sending \( m \) can instead deviate to message \( S \), which along with price \( p = v \), results in strictly higher profits: \( \pi = v(n_L + n_C) = \pi_{LC} \). Thus, a fully revealing equilibrium cannot exist.

We now consider candidate equilibria that are partially revealing. Suppose a liberal CEO sends message \( m = S \) with probability \( \gamma \), message \( m = L \) with probability \( \alpha(1-\gamma) \), and message \( m = C \) with probability \( (1-\alpha)(1-\gamma) \), with \( \gamma \in [0,1] \) and \( \alpha \in [0,1] \); and a conservative CEO sends message \( m = S \) with probability \( \gamma \), message \( m = L \) with probability \( \beta \in [0,1] \), and message \( m = C \) with probability \( 1 - \beta \).

We will show that, for any belief pair \( (\mu_1, \mu_2) \), with \( \mu_1 > \frac{1}{2} \) and \( \mu_2 < \frac{1}{2} \), we can find \( (\alpha, \beta) \in [0,1] \times [0,1] \) such that \( \mu(L) = \mu_1 \) and \( \mu(C) = \mu_2 \), i.e., so that these beliefs follow from Bayes’ Rule and CEO strategies for any \( \gamma < 1 \).

This amounts to showing, that we can find \( \alpha \) and \( \beta \) such that

\[
\mu_1 = \frac{\alpha}{\alpha + \beta}
\]

and

\[
\mu_2 = \frac{1 - \alpha}{(1 - \alpha) + (1 - \beta)}
\]

Expressing \( \alpha \) and \( \beta \) in terms of \( \mu_1 \) and \( \mu_2 \) gives:

\[
\alpha(\mu_1, \mu_2) = \frac{\mu_1(1 - 2\mu_2)}{\mu_1 - \mu_2}, \quad (13)
\]

and

\[
\beta(\mu_1, \mu_2) = \frac{(1 - \mu_1)(1 - 2\mu_2)}{\mu_1 - \mu_2}, \quad (14)
\]

The denominator of (13) and (14) is strictly positive, by \( \mu_1 > \frac{1}{2} \) and \( \mu_2 < \frac{1}{2} \); the numerator of (13) is strictly positive, by \( \mu_2 < \frac{1}{2} \); and the numerator of (14) is non-negative, by \( \mu_2 < \frac{1}{2} \). To establish \( \alpha(\mu_1, \mu_2) \in [0,1] \), it remains to show that \( \mu_1(1 - 2\mu_2) \leq \mu_1 - \mu_2 \), which indeed holds by \( 2\mu_1\mu_2 > \mu_2 \). To establish \( \beta(\mu_1, \mu_2) \in [0,1] \), it remains to show that \( (1 - \mu_1)(1 - 2\mu_2) \leq \mu_1 - \mu_2 \), which indeed holds by \( (1 - \mu_1)(1 - 2\mu_2) < \mu_1(1 - 2\mu_2) \leq \mu_1 - \mu_2 \). Thus, for any \( \mu_1 > \frac{1}{2} \) and \( \mu_2 < \frac{1}{2} \), beliefs \( (\mu_1, \mu_2) \) can be induced through an appropriately chosen CEO (mixed) strategy, with \( \alpha = \alpha(\mu_1, \mu_2) \) and \( \beta = \beta(\mu_1, \mu_2) \).

Given \( (\alpha(\mu_1, \mu_2), \beta(\mu_1, \mu_2)) \), liberal consumers are willing to pay \( p_L(\mathcal{L}) > v \) conditional on receiving message \( \mathcal{L} \), and \( p_L(\mathcal{C}) < v \) conditional on receiving message \( \mathcal{C} \), where \( p_L(\mathcal{L}) = v + 2\lambda_L(\mu_1 - \frac{1}{2})\Psi \) and \( p_L(\mathcal{C}) = v + 2\lambda_L(\mu_2 - \frac{1}{2})\Psi \). Conservative consumers are willing to pay \( p_C(\mathcal{L}) < v \) conditional on receiving message \( \mathcal{L} \) and \( p_C(\mathcal{C}) > v \) conditional on receiving message \( \mathcal{C} \), where \( p_C(\mathcal{L}) = v + 2\lambda_C(\mu_1 - \frac{1}{2})\Psi \) and \( p_C(\mathcal{C}) = v + 2\lambda_C(\mu_2 - \frac{1}{2})\Psi \).

Hence, the optimal price given message \( \mathcal{L} \), if the firm only wants to serve only one consumer type, is \( p_L(\mathcal{L}) \), such that only liberals buy. Denote the corresponding profits by \( \pi(\mu_1) = n_L p_L(\mathcal{L}) \). The optimal price given message \( \mathcal{C} \), if the firm wants to serve only one consumer type, is \( p = p_C(\mathcal{C}) \), such that only conservatives buy. Denote the corresponding profits by \( \pi(\mu_2) = n_C p_C(\mathcal{C}) \).

We can rule out a candidate equilibrium with \( (\alpha = 1, \beta = 0) \), since messages \( \mathcal{L} \) and \( \mathcal{C} \) would then be perfectly revealing. For mixed strategy equilibria, note that by inducing the appropriate beliefs \( \mu_1 \in (\frac{1}{2}, 1] \), we can obtain any profits \( \pi(\mu_1) = n_L[v + 2\lambda_L(\mu_1 - \frac{1}{2})\Psi] \in (n_L v, \pi_L] \). By inducing the appropriate beliefs \( \mu_2 \in (0, \frac{1}{2}) \), we can obtain any profits \( \pi(\mu_2) = n_C[v - 2\lambda_C(\mu_2 - \frac{1}{2})\Psi] \in (n_C v, \pi_C] \). It follows that, for any \( \pi \in (\max\{n_L v, n_C v\}, \min\{\pi_L, \pi_C\}] \), there is \( (\alpha, \beta) \), such that both messages \( m = \mathcal{L} \) and \( m = \mathcal{C} \) are sent with strictly positive probability, and the CEO is indifferent between these messages (and thus willing to mix).
Consider such a candidate equilibrium, with given profits $\pi \in (\max\{n_L v, n_C v\}, \min\{\pi_L, \pi_C\})$. If $\gamma \in (0, 1)$ in this candidate equilibrium, so that the message $m = S$ is sent with positive probability, then we need to check that the CEO is indifferent between any $m \in \{L, C, S\}$. Message $m = S$ induces prior beliefs $\mu(S) = 1/2$; the profit maximizing price is $p = v$, so that all consumers buy, and profits are $\pi_{LC} = (n_L + n_C)v$. Thus, equilibrium profits $\pi$, given $m \in \{C, L\}$, must equal $\pi_{LC}$. Notice that $\pi_{LC} > \max\{n_L v, n_C v\}$. Hence, an informative equilibrium with profits $\pi = \pi_{LC}$, where the firm sometimes serves both consumer types, exists if and only if $\pi_{LC} \leq \min\{\pi_L, \pi_C\}$. In any equilibrium with $\pi > \pi_{LC}$, then we must have $\gamma = 0$, so that a niche strategy is indeed used with probability 1.

If $\gamma = 0$ in the candidate equilibrium, we must still rule out that the CEO might deviate by sending message $m = S$, and earning $\pi_{LC} = (n_L + n_C)v$. Again $\pi_{LC} > \max\{n_L v, n_C v\}$, so we have the result stated in the proposition: if $\pi_{LC} \leq \min\{\pi_L, \pi_C\}$, then there exists an informative equilibrium where both CEO types earn $\pi$ if and only if $\pi \in [\pi_{LC}, \min\{\pi_L, \pi_C\}]$. If $\pi_{LC} > \min\{\pi_L, \pi_C\}$, then an informative equilibrium does not exist. ■

**Proof of Proposition 3.** Consumer beliefs $\mu_L = P(t = l|L) = \frac{1}{1+\alpha}$, and $\mu_C = P(t = l|C) = 0$, follow immediately from Bayes’ Rule and the CEO’s equilibrium strategy. Given these beliefs, (11) and (12) imply $p_L(L) = v + 2(\frac{1}{1+\alpha} - \frac{1}{2})\lambda_L \Psi = v + \frac{1}{1+\alpha} \lambda_L \Psi > v - \frac{1}{1+\alpha} \lambda_C \Psi = p_C(L)$ along with $p_C(C) = v + \lambda_C \Psi > v - \lambda_L \Psi = p_L(C)$. Thus, the consumer behavior as stated in the proposition is optimal, given pricing and consumer beliefs. Profits given $m = L$ are $n_L(v + \frac{1}{1+\alpha} \lambda_L \Psi)$, and profits given $m = C$ are $n_C(v + \lambda_C \Psi)$. Thus, by the definition of $\alpha$, the firm is indifferent between sending the two messages; it earns profits of $n_C(v + \lambda_C \Psi) = \pi_C$ with probability one. Notice, moreover, that $\alpha > 0$, by $\pi_L = n_L(v + \lambda_L \Psi) > n_C(v + \lambda_C \Psi) = \pi_C$, and that $\alpha < 1$, by $\pi_C > \pi_{LC} > n_L v$. It remains to check that there is no profitable deviation involving a price for which all consumers buy. The most profitable such deviation would be $m = S$, i.e. deviate to the message of staying silent, so that consumers maintain their prior beliefs, with $p = v$ equal to the willingness to pay of both types. Doing so yields profits $\pi = \pi_{LC}$. Hence, this deviation is not profitable, by $\pi_{LC} < \pi_C$. ■

**Proof of Proposition 4.** Consider a candidate uninformative equilibrium, where both CEO types earn $\pi_{LC} = (n_L + n_C)v$. A necessary condition for a deviation to be profitable is that it leads consumers to update their beliefs away from the prior. Notice from (3) and (4) that consumer willingness to pay is linear in beliefs $P(t = l|m)$. Moreover, the non-pecuniary payoff for the firm, $\pm 2k[P(t = l|m) - 1/2]$ is also linear in these same beliefs.

In particular, this linearity means that when considering a deviation for a liberal CEO, we can restrict attention to message $m = L$ and beliefs $\mu(L) = P(t = l|L) = 1$. The payoff for a liberal CEO, given these beliefs and the resulting optimal price $p = v + \lambda_L$, is $\pi_L + k$. The corresponding payoff for a conservative firm is $\pi_L - k$. Thus, the deviation is equilibrium dominated for a conservative CEO, but not a liberal CEO, if and only if both $\pi_L + k \geq \pi_{LC}$ and $\pi_L - k < \pi_{LC}$ hold. This is equivalent to

$$k > \max\{\pi_{LC} - \pi_L, \pi_L - \pi_{LC}\} \tag{15}$$

Thus, applying the our restriction on out-of-equilibrium beliefs, the deviation to $m = L$ reveals the CEO to be liberal, i.e. $\mu(L) = 1$, making the deviation profitable for a liberal CEO, if and only if (15) holds. Similarly, a deviation to $m = C$ reveals the CEO to be conservative, i.e. $\mu(C) = 0$, making the deviation profitable for a conservative CEO, if and only if

$$k > \max\{\pi_{LC} - \pi_C, \pi_C - \pi_{LC}\} \tag{16}$$

Recall that $\pi_L > \pi_C$. We have four relevant cases, depending on the value of $\pi_{LC}$:
Proof of Proposition 5. First consider a partially revealing candidate equilibrium as described in Proposition 3, but with \( \alpha \) replaced by \( \alpha_k \), defined by (9). Given the CEO’s equilibrium strategy, (11) and (12) imply \( p_L(\mathcal{L}) = v + \frac{1-\alpha_k}{1+\alpha_k} \lambda_L \Psi > v - \frac{1-\alpha_k}{1+\alpha_k} \lambda_C \Psi = p_C(\mathcal{L}) \) along with \( p_C(\mathcal{C}) = v + \lambda_C \Psi > v - \lambda_L \Psi = p_L(\mathcal{C}) \).

By the definition of \( \alpha_k \), a conservative CEO is indifferent between \( m = \mathcal{L} \) and \( m = \mathcal{C} \). Moreover, comparing condition (9) with Proposition 3 (i) shows that \( \alpha_k = \alpha \) when \( k = 0 \). Holding \( \alpha_k \) constant, the right-hand side of (9) is increasing in \( k \), whereas the left-hand side of (9) is decreasing in \( k \). The left-hand side of (9) is decreasing in \( \alpha_k \), for all \( k > \frac{\pi_L - \pi_C}{2} \) given that Case i or ii of Proposition 5 applies (i.e. \( \pi_C > 2\pi_{LC} - \pi_L \)), since \( 2\pi_{LC} - \pi_L > n_L(v - \lambda_L \Psi) \). Thus, it must be that \( \alpha_k \) is decreasing in \( k \) for all \( k < \frac{\pi_L - \pi_C}{2} \). Direct substitution shows that \( \alpha_k = 0 \) if \( k = \frac{\pi_L - \pi_C}{2} \). Hence, \( \alpha_k \in (0, \alpha) \) for all \( 0 < k < \frac{\pi_L - \pi_C}{2} \). Moreover, for \( k \geq \frac{\pi_L - \pi_C}{2} \), there is no \( \alpha_k \in (0, 1) \) that satisfies (9), so the partially revealing equilibrium does not exist for such large \( k \).

To check when the partially revealing equilibrium will exist, given \( 0 < k < \frac{\pi_L - \pi_C}{2} \), consider the incentives of a liberal CEO. A liberal CEO prefers \( m = \mathcal{L} \) to \( m = \mathcal{C} \) if (10) holds. The right-hand side of (10) is smaller than the right-hand side of (9), and the left-hand-side of (10) is larger than the left-hand side of (9), for all \( k > 0 \). Thus, since (9) holds whenever \( 0 < k < \frac{\pi_L - \pi_C}{2} \), (10) must hold as well.

Moreover, in this candidate equilibrium, the payoff of a conservative CEO is \( u_c = \pi_C + k \), given by the right-hand side of (9). The payoff of a liberal CEO is \( u_l = n_L(v + \frac{1-\alpha_k}{1+\alpha_k} \lambda_L \Psi) + k \frac{1-\alpha_k}{1+\alpha_k} \), given by the left-hand-side of (10). Comparing conditions (10) and (9) shows that \( u_l > u_c \).

Now consider a deviation from the partially revealing candidate equilibrium that involves an unexpected message, that of staying silent, \( m = \mathcal{S} \). If consumers believe the deviating CEO is liberal for sure, \( \mu(\mathcal{S}) = 1 \), then a liberal CEO can earn \( \pi_L + k > u_l \), given price \( p = v + \lambda_L \Psi \), which is profitable. If consumers believe the deviating CEO is liberal for sure, \( \mu(\mathcal{S}) = 1 \), then a conservative CEO can earn \( \pi_L - k \), given price \( p = v + \lambda_L \Psi \), which is profitable if \( \pi_L - k > \pi_C + k \). If consumers maintain their prior beliefs following the deviation, \( \mu(\mathcal{S}) = 1/2 \), then a conservative CEO can earn \( \pi_{LC} \). This is profitable if \( \pi_{LC} > \pi_C + k \). Thus, our restriction on out-of-equilibrium beliefs will imply that the deviation reveals the CEO as liberal (and thus makes the deviation profitable for a liberal CEO), if \( k < (\pi_L - \pi_C)/2 \) and \( k > \pi_{LC} - \pi_C \). We showed above that \( k < \frac{\pi_L - \pi_C}{2} \) must hold in the partially revealing equilibrium, so the relevant condition for a deviation to be profitable is \( k < \pi_{LC} - \pi_C \).

If the deviation does not reveal the CEO as liberal, and instead induces prior beliefs \( \mu(\mathcal{L}) = 1/2 \), then the resulting profits are \( u_c = u_l = (n_L + n_C)v = \pi_{LC} \). Thus, given \( 0 < k < \frac{\pi_L - \pi_C}{2} \), the relevant condition for a deviation from the partially revealing equilibrium to be profitable, for a conservative CEO, is \( \pi_{LC} > \pi_C + k \), i.e. again \( k < \pi_{LC} - \pi_C \), as stated in the Proposition.

Now suppose that \( k \geq \frac{\pi_L - \pi_C}{2} \), so a partially revealing equilibrium does not exist. Consider a fully revealing candidate equilibrium, corresponding to the equilibrium in Proposition 3 but with \( \alpha = 0 \). In
this equilibrium, for a liberal CEO, we have $m = L$ i.e. selling to liberal consumers; for a conservative CEO, we have $m = C$, i.e. selling to conservative consumers. Let $k' \equiv k - \frac{\pi_L - \pi_C}{2} \geq 0$. Then the incentive constraint for a conservative CEO can be written as

$$n_L(v + \lambda_L \Psi) - k' - \left(\frac{\pi_L - \pi_C}{2}\right) \leq n_C(v + \lambda_C \Psi) + k' + \left(\frac{\pi_L - \pi_C}{2}\right),$$

which reduces to $k' \geq 0$. Similarly, the incentive constraint for a liberal CEO can be written as

$$n_L(v + \lambda_L \Psi) + k' + \left(\frac{\pi_L - \pi_C}{2}\right) \geq n_C(v + \lambda_C \Psi) - k' - \left(\frac{\pi_L - \pi_C}{2}\right),$$

which reduces to $k' > \pi_C - \pi_L$, where $\pi_C - \pi_L < 0$. Thus, for both incentive constraints to hold, the relevant condition is $k' \geq 0$, i.e. $k \geq \frac{\pi_L - \pi_C}{2}$.

Now consider a deviation from the fully revealing candidate equilibrium, where a CEO sends $m = S$. A conservative CEO earns $u_c = \pi_L + k$ in this candidate equilibrium, whereas a liberal CEO earns $u_l = \pi_L$. Since $u_l > u_c$, a liberal CEO can only possibly profit from a deviation if $\pi_{LC} > \pi_L + k$. Since $\pi_L - k < \pi_L + k$ for $k \geq \frac{\pi_L - \pi_C}{2}$, a conservative CEO can only possibly profit from a deviation if $\pi_{LC} > \pi_C + k$. Thus, if $\pi_{LC} < \frac{\pi_L + \pi_C}{2}$, then no CEO type could possibly profit from a deviation, for all $k$ $\geq \frac{\pi_L - \pi_C}{2}$. Consumers will therefore maintain their prior beliefs $\mu(S) = 1/2$. As a result, given the deviation to $m = S$, all consumers buy at price $p = v$, resulting in payoff $u_e = u_l = (n_L + n_C)v = \pi_{LC} < \pi_L + k < \pi_L$. Hence, if $\pi_{LC} < \frac{\pi_L + \pi_C}{2}$, then no CEO type can have a profitable deviation from the fully revealing equilibrium, given out of equilibrium beliefs $\mu(S) = 1/2$. This establishes the result in parts (i) and (ii).

Now suppose $\frac{\pi_L + \pi_C}{2} < \pi_{LC} < \frac{3\pi_L - \pi_C}{2}$. Then, a liberal CEO cannot possibly profit from a deviation, because $\pi_{LC} < \pi_L + k$ for all $k \geq \frac{\pi_L - \pi_C}{2}$, and because the deviation payoff is bounded above by $\max\{\pi_L + K, \pi_{LC}\}$. For given $k \geq \frac{\pi_L - \pi_C}{2}$, it is either the case that a conservative CEO can possibly profit from a deviation, or cannot do so. In the former case, consumers infer the CEO is conservative for sure, $\mu(S) = 0$, when observing an unexpected message. As a result, the highest payoff a conservative CEO can earn by deviating to an unexpected message is $\pi_C + k$, which is equal to his equilibrium payoff. In the latter case, by definition, a deviation will not be profitable. It follows that, for $\frac{\pi_L + \pi_C}{2} < \pi_{LC} < \frac{3\pi_L - \pi_C}{2}$, a sequentially causal equilibrium exists for all $k$ $\geq \frac{\pi_L - \pi_C}{2}$, as stated in part (iii).

Now suppose instead $\frac{3\pi_L - \pi_C}{2} < \pi_{LC}$. Then, a liberal CEO can possibly benefit from a deviation if $\frac{\pi_L - \pi_C}{2} < k < \pi_{LC} - \pi_L$, because $\pi_{LC} > \pi_L + k$ holds for these values of $k$, but not for any $k > \pi_{LC} - \pi_L$. A conservative CEO can also possibly benefit from a deviation if $\frac{\pi_L - \pi_C}{2} < k < \pi_{LC} - \pi_L$, because $\pi_{LC} > \pi_L + k > \pi_C + k$. As a result, for $\frac{\pi_L - \pi_C}{2} < k < \pi_{LC} - \pi_L$, consumers who observe an unexpected message will maintain their prior beliefs, $\mu(S) = 1/2$. Thus, after the deviation, all consumers buy, yielding a payoff of $\pi_{LC}$. This deviation is profitable for both CEO types, $\pi_{LC} > \pi_L + k > \pi_C + k$. Thus, the fully revealing equilibrium does not exist, for $\frac{3\pi_L - \pi_C}{2} < k < \pi_{LC} - \pi_L$.

For $k > \pi_{LC} - \pi_L$, it is either the case that a conservative CEO can possibly profit from a deviation, or cannot do so. In the former case, consumers infer the CEO is conservative for sure, $\mu(S) = 0$, when observing an unexpected message. As a result, the highest payoff a conservative CEO can earn by deviating to an unexpected message is $\pi_C + k$, which is equal to his equilibrium payoff. In the latter case, by definition, a deviation will not be profitable. It follows that, for $\frac{3\pi_L - \pi_C}{2} < \pi_{LC}$, a fully revealing equilibrium exists for all $k > \pi_{LC} - \pi_L$.

We now show that no other informative equilibrium exists, other than that identified in the Proposition. Consider a partially informative candidate equilibrium where both CEO types mix, with message-price pairs given by $(m, p) = (L, p_L(L))$ and $(m, p) = (C, p_C(C))$. Denote consumer beliefs, conditional on
receiving these messages, by $\mu(\mathcal{L}) \equiv \mathbb{P}(t = l|\mathcal{L})$ and $\mu(\mathcal{C}) \equiv \mathbb{P}(t = l|\mathcal{C})$. Then the indifference condition for a liberal CEO is

$$n_{LPL}(\mathcal{L}) + 2k \left( \mu(\mathcal{L}) - \frac{1}{2} \right) = n_{CPC}(\mathcal{C}) + 2k \left( \mu(\mathcal{C}) - \frac{1}{2} \right),$$

and the indifference condition for a conservative CEO is

$$n_{LPL}(\mathcal{C}) - 2k \left( \mu(\mathcal{C}) - \frac{1}{2} \right) = n_{CPC}(\mathcal{C}) - 2k \left( \mu(\mathcal{C}) - \frac{1}{2} \right).$$

These conditions cannot hold simultaneously, for $k > 0$, unless $\mu_1 = \mu_2 = 1/2$, which would contradict the fact that the equilibrium is informative.

Now consider a partially informative candidate equilibrium, where a liberal CEO mixes, with message-price pairs $(m, p) = (\mathcal{L}, p_L(\mathcal{L}))$ and $(m, p) = (\mathcal{C}, p_C(\mathcal{C}))$, and where a conservative CEO chooses $(m, p) = (\mathcal{C}, p_C(\mathcal{C}))$ for sure. Then Bayes’ rule implies $\mu(\mathcal{L}) = \mathbb{P}(t = l|\mathcal{L}) = 1$, so that $p_L(\mathcal{L}) = v + \lambda_L \Psi$, and $\mu(\mathcal{C}) \in (0, 1/2)$. Then we can write the indifference condition for a liberal CEO as

$$n_L(v + \lambda_L \Psi) + k = n_{CPC}(\mathcal{C}) + 2k \left( \mu(\mathcal{C}) - \frac{1}{2} \right).$$

The left-hand side is strictly larger than $\pi_L = n_L(v + \lambda_L \Psi)$, by $k > 0$. The right-hand side is strictly less than $\pi_C = n_C(v + \lambda_C \Psi)$, by $p_C(\mathcal{C}) \leq v + \lambda_C \Psi$, $k > 0$ and $\mu(\mathcal{C}) \in (0, 1/2)$. It follows that the indifference condition for a liberal CEO must be violated. Thus, there exists no informative equilibrium where both CEO types send both $m = \mathcal{L}$ and $m = \mathcal{C}$ with positive probability; or where a liberal CEO sends both $m = \mathcal{L}$ and $m = \mathcal{C}$ with positive probability, and a conservative sends $m = \mathcal{C}$ (but not $m = \mathcal{L}$) with positive probability. Notice that this is the case regardless of whether both CEO types send message $m = \mathcal{S}$ with probability $\gamma \in (0, 1)$ in equilibrium, or with probability zero.

As a result, the only informative equilibrium has a liberal CEO send $m = \mathcal{L}$ (but not $m = \mathcal{C}$) with positive probability, and a conservative CEO send both $m = \mathcal{L}$ and $m = \mathcal{C}$ with positive probability. It cannot be that both CEO types also send message $m = \mathcal{S}$ with probability $\gamma \in (0, 1)$ in equilibrium, because the resulting profits, $\pi_{LC}$, cannot equal both $u_l$ and $u_c < u_l$ that follow from Proposition 5. Thus, the informative equilibrium described in the Proposition is unique.

In the partially revealing equilibrium, firm profits, given a liberal CEO, are $\pi = n_{LPL}(L)$, where

$$p_L(\mathcal{L}) = v + \left( \frac{1 - \alpha_k}{1 + \alpha_k} \right) \lambda_L \Psi.$$ 

Thus, both $p_L(\mathcal{L})$ and $\pi = n_{LPL}(\mathcal{L})$ are increasing in $k$, since $\alpha_k$ is decreasing in $k$. The ex ante probability of serving liberal consumers, $\frac{1}{2}(1 + \alpha_k)$, is decreasing in $k$, again because $\alpha_k$ is decreasing in $k$.

To complete the proof, we show that profits for a firm with a conservative CEO can be non-monotonic in $k$. Consider Case i. These profits are

$$\alpha_k n_L \left( v + \frac{1 - \alpha_k}{1 + \alpha_k} \lambda_L \Psi \right) + (1 - \alpha_k) n_C(v + \lambda_C \Psi).$$

If $k = 0$, then $\alpha_k = \alpha$ as given by (7), or equivalently as stated in Proposition 3 (i). Thus, profits when $k = 0$ reduce to $n_C(v + \lambda_C \Psi) = \pi_C$. If $k = \frac{\pi_L - \pi_C}{2}$, then $\alpha_k = 0$, so that profits again reduce to $n_C(v + \lambda_C \Psi) = \pi_C$. Moreover, since $n_L(v + \frac{1 - \alpha_k}{1 + \alpha_k} \lambda_L \Psi) > \pi_C$ for all $\alpha_k \in (0, \alpha)$, profits strictly exceed $\pi_C$. 

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for all \( k \in (0, \frac{\pi_L - \pi_C}{2}) \). Hence, it must be that profits, given a conservative CEO, are non-monotonic in \( k \), in the partially revealing equilibrium.

**Proof of Proposition 6.** For Case (i), with \( \pi_{LC} < \pi_C \), the baseline equilibrium is that described in Proposition 3, with profits \( \pi_C \) regardless of CEO type. In the informative equilibrium described in Proposition 5, profits given a liberal CEO exceed profits given a conservative CEO. If \( k > \frac{\pi_L - \pi_C}{2} \), then the equilibrium is fully revealing and these profits are \( \pi_L \) and \( \pi_C \), respectively. If \( k \in (0, \frac{\pi_L - \pi_C}{2}) \), then the equilibrium is partially revealing and the proof of Proposition 5 showed that profits given a conservative CEO strictly exceed \( \pi_C \). This establishes the result for Case (i).

For Cases (ii) and (iii'), with \( \pi_C < \pi_{LC} < \pi_L \), the baseline equilibrium exhibits strategic ambiguity with profits \( \pi_{LC} \) regardless of CEO type. For the fully revealing equilibrium, with \( k > \frac{\pi_L - \pi_C}{2} \), profits are \( \pi_L \) and \( \pi_C \) given, respectively, a liberal and a conservative CEO, so we directly have that a firm with a liberal CEO earns more than in the baseline, but a firm with a conservative CEO does not. Proposition 5 showed that a partially revealing equilibrium does not exist when \( \frac{\pi_L + \pi_C}{2} < \pi_{LC} < \pi_L \), which establishes the result for Case (iii'). For Case (ii), Proposition 5 showed there is a partially revealing equilibrium when \( \pi_{LC} - \pi_C \leq k < \frac{\pi_L - \pi_C}{2} \). Profits given a liberal CEO, in this equilibrium, are equal to \( n_L \left( v + \frac{1 - \alpha_k}{1 + \alpha_k} \lambda_L \Psi \right) \). They are increasing in \( k \), since \( \alpha_K \) is decreasing in \( k \). Thus, these profits are bounded below by their level when evaluated at \( k = \pi_{LC} - \pi_C \).

When \( k = \pi_{LC} - \pi_C \), (9) implies that the equilibrium payoff of a conservative CEO is

\[
n_L \left( v + \frac{1 - \alpha_k}{1 + \alpha_k} \lambda_L \Psi \right) - k \left( 1 - \alpha_k \right) = n_C(v + \lambda_C \Psi) + (\pi_{LC} - \pi_C) = \pi_{LC}.
\]

Thus, by \( \frac{1 - \alpha_k}{1 + \alpha_k} > 0 \), it must be that

\[
n_L \left( v + \frac{1 - \alpha_k}{1 + \alpha_k} \lambda_L \Psi \right) > \pi_{LC},
\]

i.e. profits given a liberal CEO exceed \( \pi_{LC} \). This establishes the result for Case (ii).

For Case (iv'), with \( \pi_{LC} > \pi_L > \pi_C \), notice that in an informative equilibrium, profits given a liberal CEO are bounded above by \( \pi_L \), and profits given a conservative CEO are bounded above by \( \pi_C \). This immediately implies the result for this case.

Finally, consider a value of \( k > 0 \) for which an informative equilibrium does not exist. Then, by Proposition 5 (i), it must be that \( \pi_{LC} > \pi_C \); otherwise an informative equilibrium would exist for all \( k > 0 \). Thus, it follows from Proposition 2 that the only equilibrium when \( k = 0 \) is uninformative, with profits \( \pi_{LC} \) regardless of CEO type. Proposition 4 showed that for all \( 0 < k < k^* \), an uninformative equilibrium exists, again with profits \( \pi_{LC} \) regardless of CEO type. Thus, for any \( k \in (0, k^*) \), for which an informative equilibrium does not exist, equilibrium profits are equal to those in the baseline.

**Proof of Proposition 7.** Consider Case (iii') and Case (iv') in Proposition 6, that is, parameter values so that \( \pi_{LC} > \frac{\pi_L + \pi_C}{2} \). For these parameter values, the informative equilibrium in question is fully revealing (by Proposition 5), so profits given a liberal CEO are \( \pi_L \), and profits given a conservative CEO are \( \pi_C \).

First suppose that \( \pi_{LC} > \pi_L \), so that Case (iv') of Proposition 6 applies. Then equilibrium profits, regardless of CEO type, are strictly less than \( \pi_{LC} \), by \( \pi_{LC} > \pi_L > \pi_C \). Now suppose the board deviates from the candidate equilibrium with action Allow and selects Silence. Notice there exist consumer beliefs that would make this deviation profitable for the firm, regardless of CEO type. Namely, prior beliefs \( P(t = l) = 1/2 \), so that the deviation would result in profits \( \pi_{LC} \). As a result, consumers will
indeed retain their prior beliefs following the deviation, \( P(t = l) = 1/2 \), and the deviation will yield profits \( \pi_{LC} \). Thus, as stated in Proposition 7, this deviation will increases profits, for both CEO types.

Now suppose instead that \( \frac{\pi_L + \pi_C}{2} < \pi_{LC} < \pi_L \), so that Case (iii') of Proposition 6 applies. Then equilibrium profits strictly exceed \( \pi_{LC} \) given a liberal CEO, by \( \pi_{LC} > \pi_L \), but are strictly less than \( \pi_{LC} \) given a conservative CEO, by \( \pi_C < \frac{\pi_L + \pi_C}{2} < \pi_{LC} \). Now suppose the board deviates to the action Silence. Notice there exist consumer beliefs that would make this deviation profitable for the firm with a conservative CEO, namely beliefs \( P(t = l) = 1/2 \), which would result in profits \( \pi = \pi_{LC} > \pi_C \). However, there are no beliefs that would make this deviation profitable for a firm with a liberal CEO, since deviation profits are bounded above by \( \max\{\pi_L, \pi_C, \pi_{LC}\} \leq \pi_L \). Similarly, there are no beliefs that would make the deviation \( m = S \) profitable for a liberal CEO, whose equilibrium payoff is \( \pi_L + K \). As a result, consumers who observe the deviation will believe that the firm in question has a conservative CEO, \( P(t = l) = 0 \), and the resulting profits will be \( \pi_C \). Thus, the firm deviation to Silence will not increase profits, for either CEO type. ■
Figure 1A: Pepsi-Jenner  
Figure 1B: Nike-Kaepernick