

AQ: 1 **Anti-Profit Beliefs: How People Neglect the Societal Benefits of Profit**

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Profit-seeking firms are stereotypically depicted as immoral and harmful to society. At the same time, profit-driven enterprise has contributed immensely to human prosperity. Though scholars agree that profit can incentivize societally beneficial behaviors, people may neglect this possibility. In 7 studies, we show that people see business profit as necessarily in conflict with social good, a view we call *anti-profit beliefs*. Studies 1 and 2 demonstrate that U.S. participants hold anti-profit views of real U.S. firms and industries. Study 3 shows that hypothetical organizations are seen as doing more harm when they are labeled “for-profit” rather than “non-profit,” while Study 4 shows that increasing harm to society is viewed as a strategy for increasing a hypothetical firm’s long-run profitability. Studies 5–7 demonstrate that carefully prompting subjects to consider the long run incentives of profit can attenuate anti-profit beliefs, while prompting short run thinking does nothing relative to a control. Together, these results suggest that the default view of profits is zero-sum. While people readily grasp how profit can incentivize firms to engage in practices that harm others, they neglect how it can incentivize firms to engage in practices that benefit others. Accordingly, people’s stereotypes of profit-seeking firms are excessively negative. Even in one of the most market-oriented societies in history, people doubt the contributions of profit-seeking industry to societal progress.

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AQ: 4 Is profit-seeking good for the world? Ancient folklore and religious scriptures across Western and Eastern cultures warn of the corrosive effects of profit-seeking behavior (Caplan, 2007; Kuran, 2004), and themes in literature and art have long portrayed profit seeking as inherently evil. Plays like Shakespeare’s *Merchant of Venice* and modern films like *It’s a Wonderful Life*, *Wall Street*, and *The Wolf of Wall Street* routinely depict profit-seeking capitalists and organizations as ruthless and depraved (Ribstein, 2009; Stein, 1979). On the other hand, it would be difficult to find a film celebrating how profit-seeking firms contribute to societal progress. Likewise, media portrayals and public discourse of profit-seeking firms often focus on how corporate greed harms

society (Gregoire, Laufer, & Tripp, 2010; Taibbi, 2010). In short, there are clear negative stereotypes about for-profit firms and corresponding beliefs about their effects on society (Aaker, Vohs, & Mogilner, 2010).

Importantly, these negative associations with profit may result in perverse outcomes. For instance, Daniel Pallotta ran Pallotta TeamWorks, an organization that successfully raised money for nonprofit charities whose causes included AIDS and cancer research. But while it raised money for charities, Pallotta TeamWorks was a for-profit company. Once this became public knowledge, the resulting outrage forced charities to stop hiring Pallotta TeamWorks, ultimately causing the company to fold. Tragically, without the company’s involvement, the charities they had served experienced dramatic reductions in donations (Pallotta, 2008). In other words, the perceived incompatibility of profit-seeking and societal good turned a win-win scenario into a lose-lose scenario.

We propose that people tend to hold *anti-profit beliefs*, characterized by perceptions that profit-seeking is necessarily in conflict with beneficial outcomes for consumers and society. Such perceptions of selfish motives fundamentally shape judgments of firms as well as individuals (Aaker et al., 2010; Fiske, Cuddy, & Glick, 2007), and concerns about excessive self-interest producing harmful outcomes may help protect people from being exploited in zero-sum situations (Vohs, Baumeister, & Chin, 2007). However, applying these judgments may be problematic in competitive market contexts, where profit motives can (though do not always) result in better outcomes for consumers and society at large (Caplan, 2007; Gordon & Dahl, 2013). Indeed, scholars across several academic disciplines recognize that profit-driven enterprise has

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contributed immensely to the explosive increase in human prosperity over the last few centuries (Kasser, Cohn, Kanner, & Ryan, 2007; Orlitzky, Schmidt, & Rynes, 2003; Rubin, 2003; Shermer, 2008).

Though harnessing the selfish motive for profit to promote the common good has been described as “perhaps the most important social invention mankind has yet achieved” (Schultze, 1977), the insight that self-interest can be directed to serve society is very recent in our intellectual heritage and remains unintuitive. People often infer that selfish intentions correspond to bad outcomes even when this is not the case (e.g., Cushman, 2008; Inbar, Pizarro, & Cushman, 2012), and it may be difficult for people to appreciate the benefits they gain from exchanges with self-interested actors (Lunt & Furnham, 1996; Pinker, 2003; Rubin, 2003). Even when exchanges with profit-seeking firms are voluntary and mutually beneficial, people may see them as zero-sum situations with a winner and a loser and neglect the possibility that both sides can benefit (Baron, Bazerman, & Shonk, 2006).

We argue that though firms can profit through both harmful and beneficial business practices, the harmful aspects of profit are more immediate, visible, and intuitive to people than the beneficial aspects of profit. Consequently, people readily consider the bad outcomes created by profit while failing to recognize the potential for profit to incentivize societally beneficial behaviors. As such, profit may be seen as *necessarily* coming at the expense of others. We predict that people will exhibit anti-profit beliefs and regard profit seeking as inherently harmful unless they are explicitly prompted to consider how profit can incentivize good behaviors.

### Intentions as a Heuristic for Judging Outcomes

Judgments of individuals or groups depend heavily on whether they are perceived to have good or bad intentions toward the observer (Fiske et al., 2007; Goodwin, Piazza, & Rozin, 2014; Koch et al., 2016; Malle & Knobe, 1997). In complex social environments, intentions often serve as a heuristic to guide expectations of behavioral outcomes and facilitate social interactions (Fehr & Schmidt, 1999; Hertwig, Fischbacher, & Bruhin, 2013). In social groups, excessive self-interest can undermine cooperation and harm interpersonal relationships (Clark & Mills, 1979; Heyman & Ariely, 2004). Accordingly, moral norms typically limit selfish individual behavior to promote cooperation and greater social good (Haidt, 2008; Henrich et al., 2001; Mellers, Haselhuhn, Tetlock, Silva, & Isen, 2010), and selfish intentions are judged to result in harmful outcomes.

A variety of work suggests that outcome judgments are disproportionately sensitive to bad intentions and harmful behaviors, compared with good intentions and beneficial behaviors (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Kahneman & Tversky, 1979; Rozin & Royzman, 2001). For instance, people punish others for having bad intentions regardless of whether their actions actually lead to harmful observable outcomes (Cushman, 2008; Inbar et al., 2012). And unintended harmful outcomes are seen as intentional and deserving of moral blame, whereas actions that result in unintended benefits to others are seen as less intentional and less worthy of moral credit (Knobe, 2003).

Hence, people may be especially likely to use intentions as a heuristic for judging outcomes when they are bad, whereby selfish intentions are thought to lead to harmful social outcomes. Consis-

tent with this possibility, self-interested motives are often regarded as fundamentally incompatible with social good. Altruistic actors are carefully scrutinized for the presence of selfish motives (Barasch, Levine, Berman, & Small, 2014; Critcher & Dunning, 2011; Fein, 1996), and any evidence that they have attained personal benefits can lead to negative judgments and devaluation of their good deeds (Newman & Cain, 2014). Accordingly, people are careful to ensure that their prosocial behaviors are perceived as authentic rather than motivated by material rewards (Ariely, Bracha, & Meier, 2009).

### The Intention Heuristic in Markets

Interpersonal norms also shape judgments of marketplace actors (Aaker, 1997; Fournier, 1998), which has important implications for interactions with profit-seeking firms. Though firms are not seen as deserving of sympathy like individuals, they are subjected to heavier scrutiny for excessive self-interest and harm toward others (Critcher & Dunning, 2011; Rai & Diermeier, 2015). Because the motives of profit-seeking firms run counter to moral norms against excessive self-interest, people may be especially suspicious of their actions and wary of potentially harmful consequences (Aaker et al., 2010; Friestad & Wright, 1994).

Moreover, the precise cost-benefit analyses that characterize market exchange may be difficult to reconcile with good deeds, which are often associated with selfless sharing (Clark & Mills, 1979; Fiske, 1992; McGraw & Tetlock, 2005; Tetlock et al., 2000). Accordingly, firms that benefit from performing good deeds or operating in communal domains can be severely criticized (Forehand & Grier, 2003; McGraw, Schwartz, & Tetlock, 2012; Yoon, Gurhan-Canli, & Schwarz, 2006), often even more so than firms who engage in purely selfish behavior (Newman & Cain, 2014). Monetary incentives themselves may be seen as fundamentally antisocial, such that reminders of money may reduce behaviors that benefit others (Vohs, Mead, & Goode, 2008; Zhou, Vohs, & Baumeister, 2009). In short, the perceived conflict between profit seeking and the desire to benefit others appears fundamental, and may be strongly rooted in people’s reliance on intentions as a heuristic for judging outcomes.

### Zero-Sum Market Exchange: When Firm Intentions Correspond to Market Outcomes

Concerns about the harmful effects of profit-seeking motives are well-founded in many individual transactions. In any one-off transaction between a buyer and a seller, the benefits are *zero-sum*: even though both sides may benefit from the exchange, more benefit to one party means less benefit to the other. For example, when a dealership sells an individual car to a buyer, its profits come directly at the expense of the buyer. Because the only way for a seller to increase profit in a zero-sum exchange is to capture more value from the buyer, profit incentivizes socially harmful behavior. For instance, the seller can profit from deceiving the buyer about the quality of the car and making them overpay.

In such zero-sum settings, vigilance against excessive seller selfishness can help buyers avoid harm. Since people are strongly motivated to avoid being duped or exploited in these situations (Vohs et al., 2007), awareness of others’ selfish motives triggers defensive measures against persuasive tactics or potential dishon-

esty (Campbell & Kirmani, 2000; Fein, Hilton, & Miller, 1990; Friestad & Wright, 1994). Moral norms against excessive self-interest are highly adaptive in these settings, because selfish intentions reliably indicate harm to others, whereas selfless intentions reliably signal benefits to others (cf., Olivola & Shafir, 2013).

However, these intuitions may be misleading when intentions do not align with outcomes. As the case of Dan Pallotta illustrates, neglecting the possibility that profit can motivate beneficial outcomes may have steep societal costs.

### Positive-Sum Market Exchange: When Profit-Seeking Can Motivate Good Behavior

In competitive markets, motives for profit may not reliably indicate harmful outcomes for others. Because firm profits in these contexts are based on voluntary choices by consumers, deceiving or overcharging consumers may be a short-sighted strategy. For instance, a firm with deceptive practices will develop a bad reputation and lose repeat and future business. A firm that sets excessively high prices or offers poor quality products will lose business to competitors with lower prices or higher quality products. Accordingly, to attract their own customers, firms must either charge lower prices or make better products than their competitors. To continue to profit while charging lower prices, firms must find ways to produce and distribute products more cheaply by conserving resources and reducing inefficiency. To profit by making better products, firms must understand what consumers need and innovate to develop products that they will value. In a competitive environment, profits can thus motivate firms to make consumers and society better off by providing incentives for conservation and innovation.

Importantly, firms' incentives to create value depend on consumers' choices. When consumers are free to choose the products they value most, their demands determine the products that firms supply and the prices they can charge. In this sense, competitive markets align the selfish motives of profit-seeking firms with outcomes that are valued by society, and profit reflects the "net contribution that the firm makes to the social good" (Arrow, 1973).

The societal benefits of profit thus depend on market conditions that enable consumers to make meaningful choices. Facing choices between different offerings from competing firms lets consumers find the products and services that best match their preferences and to pay more for those they value most (e.g., Botti & Iyengar, 2004; Mochon, 2013). Across repeated exchanges, consumers can identify the firms they like best and share this information with others. Hence, firms must develop better offerings and better reputations than their competitors in order to maximize their long-term profitability: strong competitive and reputational constraints in markets incentivize firms to provide consumers what they value. However, if consumers face few choices, cannot tell good products from bad products, or cannot share reputational information about firms, then firms can profit without needing to engage in good business practices that benefit society. In markets with weak competitive constraints, firms can profit from bad practices that harm society.

Of course, markets are not perfectly competitive and consumers are not perfectly informed. While economists may debate the prevalence of market conditions under which firms can profit from good vs. bad practices (Akerlof & Shiller, 2015), they agree that supply and demand typically determine prices. In other words,

consumers usually have choices, which in turn dictates how firms must behave in order to profit. Thus, profit also provides firms with good incentives to create value for consumers and society (Caplan, 2007; Gordon & Dahl, 2013).

### Neglect of Incentives for Societal Good in Positive-Sum Market Exchange

We propose that it is far easier to understand and observe how profit can motivate bad behaviors than it is to understand and observe how profit can motivate good behaviors that create value for society, such as innovation and resource conservation.

A large body of evidence demonstrates that the intentions of actors are thought to correspond to the outcomes of their behaviors (e.g., Rosset, 2008; Spunt, Meyer, & Lieberman, 2015). Relative to the role of situational factors, the role of intentions and internal characteristics is typically overemphasized in explaining outcomes (Gilbert & Malone, 1995; Heider, 1958). Because firms' selfish intentions seem aligned with harmful outcomes for others, this possibility may be highly intuitive and easy for people to understand. On the other hand, firms' selfish intentions do not seem aligned with beneficial outcomes for others, disrupting this intuitive link. The competitive constraints that force firms to produce good outcomes for others in order to profit depend on a complex array of situational factors that may be difficult to appreciate and may not be apparent from people's experiences.

The bad side of profit is readily accessible. Most people participate in a vast array of market exchanges throughout their lives, but experience them mostly from the consumer perspective. Each one of these experiences is zero-sum when considered in isolation: the more a firm profits from a given purchase, the less value consumers receive. Even when people do experience the selling side of exchange, it is most often when they resell something they own, such as a car or a house. Notably, these situations are also zero-sum and lack any component of value creation: resellers do not invent anything new or produce anything more efficiently to benefit buyers. Earning more profit depends only on obtaining a higher price from the buyer. Additionally, because sellers typically know more about the actual quality of the goods they own than buyers, most people's limited experiences with selling will make them aware that harmful practices like deception can increase their profits at the expense of the buyer.

Thus, people have firsthand experience with the bad side of profit. However, the way profit incentivizes firms to conserve and innovate is nearly invisible. Few people directly experience the process of investing in the production and distribution of products that consumers value in order to earn profits. In a single transaction, the firm's profit is dictated by how much it can charge. But the competitive forces limiting the prices a firm can charge are a complex set of factors that are not apparent from that transaction. The repeated exchanges and investments that led the firm to innovate and efficiently produce its current marketplace offerings are far removed from any single transaction. Consumers may never directly experience their influence in shaping current market outcomes. Thus, the way profits incentivize firms to create value are far less accessible, and may require effortful abstract thought to fully appreciate.

Hence, relative to the harmful incentives posed by profit, incentives for beneficial behavior are counterintuitive and largely invis-

ible in everyday experience, resulting in a stark asymmetry. In complex systems like markets, people tend to focus on direct, immediate effects. They may routinely neglect to consider effects that are indirect or that unfold over time, even when these effects are much larger in magnitude or more important (Baron et al., 2006; Diehl & Serman, 1995; McCaffery & Baron, 2006). Because the good incentive effects of profit are not immediate and direct, they may be consistently neglected when people judge individual market exchanges in isolation (cf., Idson et al., 2004; Jones et al., 1998; Legrenzi, Girotto, & Johnson-Laird, 1993).

Accordingly, interpreting profit as the result of a zero-sum competition with a winner and a loser may be more intuitive than considering it as reflective of a positive-sum increase in value (Baron et al., 2006; Bazerman, 1983; Rubin, 2003). Complex questions about how consumer choice and market competition have shaped a firm's incentives over time (e.g., "How have this firm's investments in value creation contributed to its current profitability today?") may be substituted with a simpler question about the immediate present (e.g., "Would I be better off today if this firm charged me less and accepted less profit?"; cf., Kahneman & Frederick, 2002).

### Anti-Profit Beliefs

We propose that this asymmetry in understanding the incentives faced by firms results in *anti-profit beliefs*, or perceptions that profit-seeking necessarily motivates behaviors that harm consumers and society. We expect that people will overgeneralize from zero-sum settings and judge profit-seeking firms based on the perceived selfishness of their motives across contexts (cf. Aaker et al., 2010; Fiske et al., 2007). If this is the case, then they will view profit-seeking motives as inherently harmful and profits as necessarily coming at the expense of others.

In positive-sum competitive market contexts, using profit motives to make inferences about outcomes in this way may be misleading (Baron et al., 2006; Newman & Cain, 2014; Pallotta, 2008). As noted by Adam Smith (1776): "It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own self-interest" (p. 2). However, the notion that selfish motives for profit can incentivize good outcomes for others is deeply counterintuitive, and the societal contributions of profit-seeking firms may be very difficult to appreciate (Caplan, 2007; Krugman, 1996; Lunt & Furnham, 1996; Pinker, 2003; Rubin, 2003).

We expect that anti-profit beliefs will result in excessively negative judgments about market outcomes, such as the relationship between firms' profit and their value to society. Since firms not only create products, but also employ people, impact the environment, and affect society more broadly, their overall value to society may be difficult to define. Accordingly, our definition of *societal value* includes the entirety of a firm's overall impact on society, and we do not differentiate between particular notions of good or particular recipients of that good (e.g., consumers, society at large). Our theorizing concerns the overall direction of this net effect: we expect that people will perceive additional profit as necessarily negative overall.

Our definition of societal value aligns with the literature in *corporate social responsibility* (CSR), a growing body of empirical research that seeks to measure firms' overall impact on society

(Pava & Krausz, 1996). The most recent and comprehensive meta-analyses in this literature find overwhelming empirical evidence for a positive association between firm profit and societal value creation (Margolis, Elfenbein, & Walsh, 2007; Orlitzky et al., 2003). In fact, the scholarly debate has shifted away from *whether* this association is positive to *how* positive this association is in different contexts, and to explaining what makes firms adopt more beneficial practices (Aguilera, Rupp, Williams, & Ganapathi, 2007; Mackey, Mackey, & Barney, 2007).

Hence, examining the perceived relationship between profit and societal value allows us one way to assess how well anti-profit beliefs reflect reality. If stereotypes about profit-seeking firms do not reflect their actual impact on society, then they may be especially important to investigate and understand (cf., Jussim, 2012). We expect that people's judgments of firm profit will be negatively correlated with their perceptions of firms' value to society, contrary to the consensus within the corporate social responsibility literature.

Because we expect that these effects are rooted in neglecting how profit incentivizes firms to create value for society, they will be attenuated only when people are led to understand these good incentive effects. A full understanding of the incentives faced by profit-seeking firms may require effortful, methodical perspective-taking for most people (Epley, Keysar, Van Boven, & Gilovich, 2004). In the absence of these efforts, people's judgments may rely heavily on stereotypes about firms' intentions and motives (Gallinsky & Moskowitz, 2000).

### Predictions and Study Overview

We expect that people maintain a zero-sum view of profit when judging profit-seeking firms. Hence, we expect that they will neglect the situational factors that lead firms to create value in order to profit in competitive contexts.

If this is the case, we should observe the following: (a) Perceptions of firm profit are negatively correlated with perceptions of the societal value a firm provides; (b) A profit motive is seen as inherently harmful and expected to reduce value for society; (c) Harmful firm practices (e.g., overcharging, underpaying employees, polluting the environment, reducing safety standards) are viewed as an effective way to increase profit; (d) These beliefs are rooted in a neglect of the market conditions that lead firms to engage in good practices in order to profit; and (e) Prompting people to consider how profit incentivizes good firm behaviors can attenuate anti-profit beliefs.

Seven studies test these predictions. Study 1 demonstrates that the profit of actual Fortune 500 firms is strongly negatively correlated with perceptions of their social value, providing initial evidence for anti-profit beliefs. This relationship holds whether profit is measured by respondents' perceptions or by actual publicly reported firm incomes. Moreover, this result runs counter to the positive correlation between profit and expert measures of societal impact for the same firms, demonstrating that these perceptions might be inaccurate. Study 2 demonstrates similar effects for entire industries, suggesting that this negative association does not depend on particular prominent firms. Study 3 suggests that the same organizational practices are judged as more harmful in the presence of a profit motive, suggesting profit seeking is seen as inherently harmful. Building on these findings, Study 4 shows that

a firm is expected to be able to increase its future profits by adopting harmful business practices.

Our final three studies investigate people's neglect of firm incentives and the malleability of anti-profit beliefs. Study 5 finds that prompting subjects to consider the role of voluntary consumer choice in strongly competitive markets can attenuate anti-profit beliefs by encouraging a better understanding of how firm incentives are constrained. Study 6 demonstrates the same pattern of results in markets with freely available information about firm reputation. Finally, Study 7 finds that prompting subjects to consider how profits help guide future production decisions can also attenuate anti-profit beliefs.

In all studies our sample sizes were determined in advance, and no analyses were conducted prior to the completion of data collection. No conditions or participants were dropped from any analyses or reported results, and we report all measures assessed.

### Study 1: Greater Firm Profit Is Seen as Socially Harmful

Our first study was intended to explore how people view the relationship between profit and societal value. We expected that firms perceived to be more profitable would be seen as less valuable to society. Moreover, we expected that higher profits would be seen as less deserved, coming at others' expense, and reflective of more selfish motives.

#### Method

North American adults ( $N = 85$ , 34% male, mean age = 45) were recruited through a web panel to complete the study for payment.

**Materials and procedure.** Subjects rated their perceptions of 40 firms sampled from the Fortune 500 list of highest-grossing public corporations. The purpose of using Fortune 500 firms was twofold: First, because these are publicly held firms, their actual revenues and profits are observable. Second, many of these firms are sufficiently recognizable that subjects would have opinions about their value to society. We randomly sampled 8 firms from each quintile of the list, subject to the constraints that the firms were recognizable to nonexperts and profitable in the past year. A short description was included with each firm (e.g., "Kraft Foods Inc. manufactures and markets snacks, confectionery, and quick meal products worldwide."). The order of presentation of firms was randomized for each subject.

For each firm, subjects first indicated their familiarity on a 3-point scale (1 = *never heard of it*, 3 = *familiar*). We omitted responses to firms for which the subject expressed no familiarity ( $n = 319$ , or 9%, of 3400 total subject-firm responses were omitted).

**Anti-profit beliefs.** Subjects then rated their perceptions of firm profit ("How much profit do you think this business made on average (of businesses in general) in the last year?"; 0 = *zero or less*, 5 = *a lot more than average*). Next, they rated the perceived value of the firm to society ("What do you think about the value of this business to society, on the whole?"; 0 = *it would be better if it did not exist*, 3 = *it is important and useful*).

**Bad business practices.** Subjects then indicated whether they thought these profits came from bad business practices: "Is this

amount of profit deserved or not?" (1 = *less than what is deserved*, 3 = *more than what is deserved*); "Do profits for [this business] (if any) come at the expense of others?"; "Do these profits (if any) result from lack of sufficient competition?"; *yes/no*). Finally, they indicated the perceived motives underlying these practices: "What are the most important motives of those who run this business?" (1 = *to serve society or consumers*, 3 = *to make money, regardless of the effect on others*).

#### Results

**Anti-profit beliefs.** As predicted, mean ratings of profit and societal value were highly negatively correlated across firms,  $r(38) = -.62$ ,  $p < .001$  (see Figure 1). Substituting the log of actual profit for perceived profit yielded a similarly strong correlation,  $r(38) = -.57$ ,  $p < .001$ .<sup>1</sup> Given that ratings of perceived profit and societal value have some measurement error, these results suggest that, in the aggregate, profit is viewed as a virtual proxy for societal harm.

We examined individual differences by calculating within-subject correlations between perceived profit and societal value. Overall, 40% ( $n = 34$  of 85) of subjects exhibited a significant negative correlation ( $p < .05$ , uncorrected), indicating anti-profit beliefs, while 11% ( $n = 9$ ) showed a significant positive correlation, both greater than would be expected by chance ( $p < .001$  and  $p = .026$  in one-sided exact binomial tests). Thus, although most subjects held anti-profit beliefs, a few held pro-profit beliefs.

**Bad business practices.** It is possible that these perceptions do not necessarily reflect a zero-sum view of profit. Moreover, though value to society was explicitly defined by the scale endpoints, subjects' interpretations of this construct might differ from ours. To assess this possibility, we examined the aggregate correlations between perceived profit and items reflecting zero-sum market exchange. As expected, more profitable firms were rated as less deserving of their profits,  $r(38) = .75$ ,  $p < .001$ , profiting more at the expense of others,  $r(38) = .76$ ,  $p < .001$ , more lacking in competition,  $r(38) = .55$ ,  $p < .001$ , and more strongly motivated to pursue profit regardless of the effect on others,  $r(38) = .61$ ,  $p < .001$ .

All effects held at the individual level in linear mixed-effects regressions with crossed random effects for each subject and firm (Baayen, Davidson, & Bates, 2008; see Table 1).

**Perceived relationship between profit and societal value.** These results provide strong initial evidence consistent with our predictions. But what drives these judgments, and are they actually excessively negative? For instance, one possibility is that larger firms receive more bad media coverage. Another is that the effect is driven by firms being too large, and thus more able to manipulate markets. Though firm size is a poor measure of societal harm (since good practices also increase growth), we used public revenue data to test this possibility. Actual log revenue of firms was negatively correlated with perceived societal value,  $r(38) = -.52$ ,  $p = .001$ , suggesting that firm size indeed affects subjects' judgments of societal value. However, even when controlling for log revenue, the partial correlation of perceived profit with perceived societal value remained strongly neg-

<sup>1</sup> Perceived profit was strongly correlated with the log of actual profit,  $r(38) = .78$ ,  $p < .001$ , suggesting that subjects' judgments of relative firm profitability were accurate.

**Study 1: Relation between Perceived Profit and Perceived Societal Value across Firms**

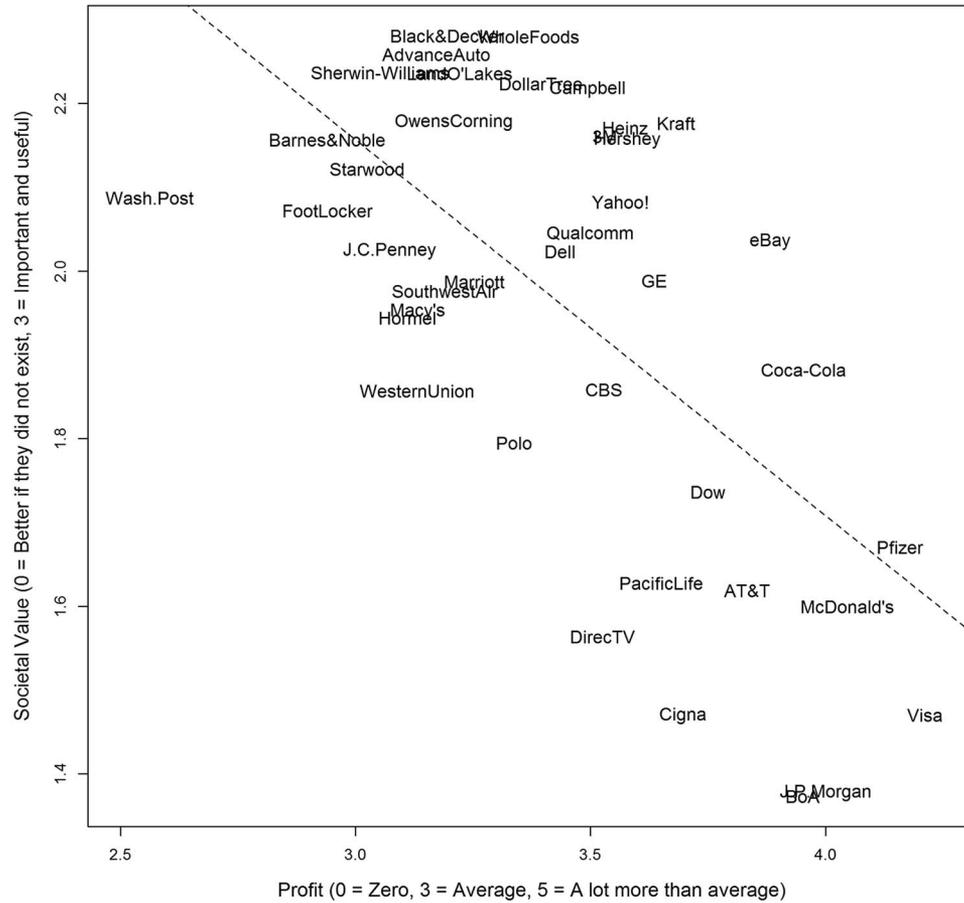


Figure 1. Mean ratings of societal value and perceived profit for individual firms in Study 1. The dashed line shows the least squares linear fit.

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ative,  $r(37) = -.48, p = .002$ , as did our supporting measures of bad business practices (see Table 1).

A more typical way to measure the degree of imperfection in a market is to observe the amount of profit for a given amount of revenue (Elzinga & Mills, 2011). Higher profit margins (i.e., net

profit divided by total revenue), though still a noisy measure, can be used as an indicator of how much firm profits are checked by market competition, with larger margins suggesting less competition. We used public data to calculate each firm's profit margin as a proxy for market constraints on bad practices. Actual profit

Table 1  
Aggregate and Individual-Level Relations of Perceived Profit With Perceived Societal Value Across Firms (Study 1)

Measure	Individual-level regression	Bivariate correlation	Partial w/log revenue	Partial w/profit margin	Partial w/KLD score
Societal value	-.058***	-.62***	-.48**	-.56***	-.65***
Not deserved	.183***	.75***	.66***	.65***	.76***
Others' expense	.114***	.76***	.66***	.69***	.77***
No competition	.033***	.55***	.51***	.30*	.55***
Profit motive	.094***	.61***	.47**	.51***	.62***

Note. Aggregate bivariate and partial correlations use average ratings of perceived profit, societal value, and bad business practices for each firm. Individual-level regression results are coefficients from linear mixed-effects models with crossed random effects that regress perceived profit on each measure, with  $p$ -values generated via MCMC simulation.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

margin correlated negatively with perceived societal value,  $r(38) = -.34, p = .032$ , suggesting that subjects do have some acumen in identifying bad practices. Nevertheless, the partial correlation of perceived profit with perceived societal value remained strong when controlling for actual profit margin,  $r(37) = -.56, p < .001$ , as did its associations with all our supporting measures. Subjects' perceptions of the negative association between firm profit and good societal outcomes cannot be explained by this measure of market imperfection (i.e., insufficient constraints on bad business practices).

As a final robustness check, we tested our data against the measures of overall societal impact most commonly used within the CSR literature: the annual ratings released by Kinder, Lydenberg and Domini (KLD; Cheng, Hong, & Shue, 2014). These measures are intended to capture a firm's total impact on society along dimensions of community relations, corporate governance, diversity, environmental impact, employee relations, human rights, and product characteristics. In our sample of firms, overall KLD scores had small *positive* correlations with actual log income,  $r(38) = .20, p = .242$ , actual profit margin,  $r(38) = .16, p = .329$ , and perceived profit,  $r(38) = .07, p = .681$ , consistent with both the direction and the approximate magnitude of the positive relationship between good societal impact and profitability identified in prior research (Orlitzky et al., 2003). Somewhat unintuitively, overall KLD scores also had a weak positive correlation with perceived societal value,  $r(38) = .21, p = .199$ . However, the partial correlation between perceived profit and perceived societal value, controlling for KLD ratings, was slightly *stronger*,  $r(35) = -.65, p < .001$ , and the same was true of our measures of bad business practices. Thus, the negative association between firm profit and perceived societal value appears excessively negative relative to analyses using actual expert measures of overall societal impact.

## Discussion

As expected, our findings demonstrate a strong negative association between perceptions of firms' profit and firms' value to society. These judgments contradict the positive association between actual firm profit and objective expert measures of firm societal value, casting doubt on the notion that subjects' negative stereotypes of profit-seeking firms reflect those firms' actual impact on society (cf., Jussim, 2012).

Our supporting measures provide further evidence of our account: subjects perceived greater profits as less deserved and coming more at the expense of others. These findings are consistent with beliefs that market exchange is zero-sum, whereby profit can only motivate harmful outcomes. However, we found some heterogeneity: while many more subjects exhibited the expected negative association, about a tenth of our subjects actually held pro-profit beliefs. One possibility is that this heterogeneity is rooted in subjects' experiences with or exposure to news about particular firms, rather than their beliefs about firm profit in general. We conducted Study 2 to assess this possibility and improve several features of our measurement strategy in Study 1.

### Study 2: Greater Industry Profit Is Seen as More Harmful and Less Beneficial

To look beyond particular firms with whom people may have had variable personal experiences, Study 2 tested types of firms (i.e.,

entire industries). If the negative association between perceived profit and perceived societal value depends on certain firms, then we would expect a much weaker correlation for judgments of entire industries. Conversely, if profit is viewed as inherently harmful, as we predict, then we should still observe a strong negative relationship between perceived profit and perceived societal value. We expected that even entire industries perceived as more profitable would be seen as less valuable to society.

Study 2 also used a more concrete measurement strategy than Study 1, allowing us to address some additional objectives: (a) To measure beliefs about specific harmful business practices, beneficial business practices, and *externalities*, or costs or benefits imposed on society as byproducts of a firm's business practices. While the responses in Study 1 suggest a zero-sum view of profit, subjects did not have the opportunity to differentiate between good and bad business practices, both of which might be present for many firms. By including more concrete measures of both good and harm, we allowed subjects to give more nuanced responses. (b) To ensure that the results of Study 1 are not an artifact of question order. For example, judging profit first may have influenced ratings of societal value. Hence, we counterbalanced the order of presentation for all items in this study. (c) To test whether economic knowledge or political ideology can explain anti-profit beliefs. We included these potential moderators at the end of the study.

## Method

North American adults ( $N = 92$ , 31% male, mean age 46) signed up through a web panel to complete the study for financial payment. Subjects rated 40 industries, each of which was listed with typical examples (e.g., "Investment banks (such as Morgan Stanley, Citigroup)"; "Metal producers (such as U.S. Steel, Alcoa)"). As in Study 1, subjects first indicated their familiarity with each industry. We omitted responses to industries for which the participant expressed no familiarity ( $n = 112$ , or 3%, of 3680 total subject-industry responses were omitted).

**Anti-profit beliefs.** Subjects then rated each industry on perceived profit and its perceived value to society, with the order of these items counterbalanced across subjects: half the subjects rated profit first, while half the subjects rated societal value first. These measures were identical to those used in Study 1, except with industries replacing individual firms.

**Bad vs. good business practices.** Next, subjects rated each industry on perceptions of specific harmful business practices ("This type of business overcharges consumers."; "This type of business underpays employees."; "This type of business takes safety shortcuts."; "This type of business exploits loopholes in regulations."), beneficial practices ("This type of business provides valuable goods and services."; "This type of business contributes important innovations to society."), and negative and positive externalities ("This type of business makes our culture worse."; "This type of business makes cultural contributions to society."). All eight measures had the same response options (*disagree, not sure, agree*). Presentation order for industries was randomized for each subject, and the order of the measures was counterbalanced across subjects.

**Individual economic knowledge and political ideology.** After the industry ratings, subjects completed several individual difference measures. First, they answered nine questions testing their

economic understanding of profit (*true, false, not sure*). Five items were adapted from an economic enlightenment scale (e.g., “All other things being equal, mandatory licensing of professional services increases the prices of those services.” [*true*]; “Rent-control laws make housing more available.” [*false*]; Klein & Buturovic, 2011), while the remaining four items were created to apply to profit more specifically (e.g., “If a company makes a profit selling some product and another company does not, the profitable company must be giving the consumer a worse deal.” [*false*]; “If musicians cannot make money from selling recordings, fewer musicians will make recordings at all.” [*true*]).

Finally, subjects reported their political orientation (“Which description best represents your political ideology?”; 1 = *very liberal*, 2 = *liberal*, 3 = *moderate*, 4 = *conservative*, 5 = *very conservative*, 6 = *libertarian*, 7 = *not sure*). Responses of “not sure” were recoded to “moderate” for analysis. Only four subjects reported libertarian beliefs, and including these responses separately, recoding them to “very conservative,” or omitting them from analyses did not affect our results. One subject did not answer the question and was omitted from these analyses.

## Results

**Anti-profit beliefs.** Mean profit and societal value ratings of industries were highly negatively correlated,  $r(38) = -.60$ ,  $p < .001$  (see Figure 2). These results held at the individual level in a linear mixed-effects regression: higher ratings of profit were associated with lower ratings of societal value, even with random slopes for profit for each subject,  $b = -0.114$ ,  $t = 5.91$ ,  $p < .001$ .

To examine individual differences, we calculated within-subject correlations between perceived profit and societal value. Overall, 49% ( $n = 45$  of 92) of subjects exhibited a significant negative correlation, indicating significantly greater anti-profit beliefs than would be expected by chance (one-sided binomial  $p < .001$ ). Only 8% ( $n = 7$ ) of subjects showed a significant positive correlation, no greater than chance expectations ( $p = .177$ ). Thus, anti-profit beliefs are more pronounced in judgments of entire industries.<sup>2</sup> Question order had no effect.

**Bad business practices.** Perceived profit was also correlated with perceptions of specific harmful business practices. More profitable industries were rated as overcharging consumers more,  $r(38) = .69$ ,  $p < .001$ , taking more safety shortcuts,  $r(38) = .35$ ,  $p = .029$ , and exploiting more regulatory loopholes,  $r(38) = .63$ ,  $p < .001$ . Perceived industry profit was negatively but not significantly related to underpaying workers more,  $r(38) = -.17$ ,  $p = .289$ . All significant results held and supported predictions in individual-level analyses using linear mixed-effects models (see Table 2). Even across industries, subjects associated profit with harmful business practices.

**Good business practices.** We also examined whether people view profit as motivating beneficial business practices. More profitable industries were rated as providing fewer valuable goods and services,  $r(38) = -.39$ ,  $p = .013$ , and profitability was negatively but not significantly associated with contributing important innovations,  $r(38) = -.12$ ,  $p = .468$ . As before, all results held in linear mixed-effects regressions (see Table 2). In addition to associating profit with more harmful practices, subjects also viewed profit as motivating fewer beneficial business practices.

**Bad vs. good externalities.** Next, we tested whether anti-profit judgments also apply to broader externalities on society. Higher profits were positively associated with making culture worse,  $r(38) = .67$ ,  $p < .001$ , and negatively but not significantly associated with making cultural contributions,  $r(38) = -.20$ ,  $p = .217$ . Both effects were significant in analyses using linear mixed-effects models (see Table 2). Subjects viewed profits as related to more harmful and fewer beneficial externalities on society.

**Individual economic knowledge and political ideology.** Finally, we examined two potential moderators of anti-profit beliefs. Contrary to expectations, our economic knowledge measure was weakly positively correlated with anti-profit beliefs (i.e., individual subjects' correlations of profit and societal value;  $r(90) = .13$ ,  $p = .23$ ). No individual items were significantly related to anti-profit beliefs. These results provide no evidence that anti-profit beliefs relate to general economic knowledge on this measure within this population.

Political ideology was weakly correlated with individual anti-profit beliefs,  $r(90) = -.16$ ,  $p = .140$ , such that self-described conservatives had weaker anti-profit beliefs than self-described liberals. More importantly, a set of regressions found that the intercept for anti-profit beliefs remained significant for subgroups of subjects along the political spectrum: liberal respondents (responses  $< 3$ ),  $b = 0.26$ ,  $t(27) = 4.89$ ,  $p < .001$ , moderates and those unsure of their beliefs (responses = 3),  $b = 0.26$ ,  $t(35) = 5.17$ ,  $p < .001$ , and conservative and libertarian respondents (responses  $> 3$ ),  $b = 0.14$ ,  $t(26) = 2.34$ ,  $p = .027$ . All subgroups exhibited significant anti-profit beliefs when examined separately. Thus, variation in anti-profit beliefs cannot be explained by political ideology alone, and anti-profit beliefs appear robust across the political spectrum.

## Discussion

Our findings indicate a strong and robust negative association between perceived profit and perceived societal value. These findings cannot be explained by measurement artifacts such as question order, items that imprecisely define societal value, or items that do not allow two-sided responses. Subjects perceived strong negative incentive effects of profit, but not positive incentive effects: perceived profit was positively correlated with harmful business practices and negatively correlated with beneficial business practices. Together with Study 1, these findings indicate that people judge profit as if market exchange is zero-sum: while they attend to its role in motivating harmful practices, they overlook the possibility that it can motivate societal good.

Variation in anti-profit beliefs cannot be fully explained by political ideology or general economic knowledge, though the range of these differences may have been restricted in our sample (e.g., economic knowledge might be predictive of anti-profit beliefs if our sample also included experts with economics PhDs).

Though Studies 1 and 2 provide important initial evidence of anti-profit beliefs, this evidence is limited by its correlational nature. To investigate whether perceived profit has a causal impact

<sup>2</sup> A replication including a broader set of industries found an even greater proportion of subjects reporting significant anti-profit beliefs (73%,  $n = 59$  of 81). Again, the proportion of subjects reporting significant pro-profit beliefs (2%,  $n = 2$ ) was no greater than chance.

**Study 2: Relation between Perceived Profit and Perceived Societal Value across Industries**

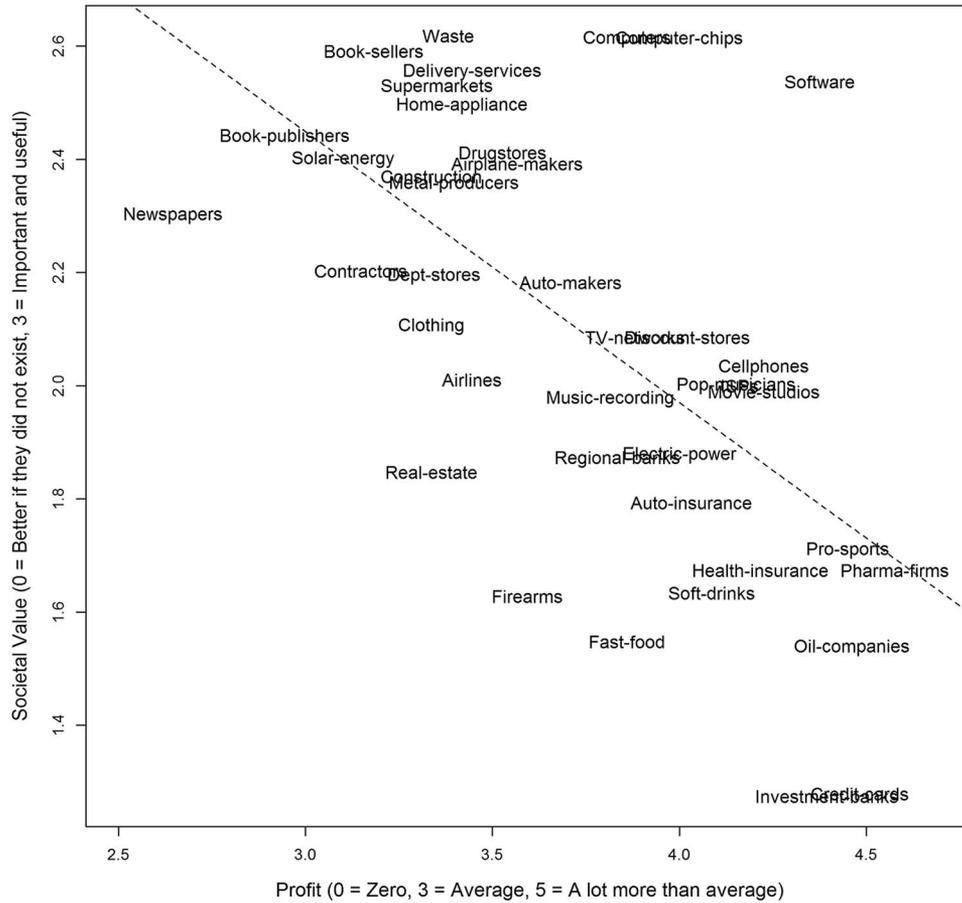


Figure 2. Mean ratings of societal value and perceived profit for entire industries in Study 2. The dashed line shows the least squares linear fit.

on perceived societal value, we manipulated the profit motive of hypothetical firms in our next study.

**Study 3: A Profit Motive Increases Perceived Harm**

Our first two studies suggest that profit is thought to motivate more bad business practices and fewer good business practices. In Study 3, we investigated the perceived causal impact of profit-seeking motives themselves. Following Aaker et al. (2010), we held the practices of an organization constant and manipulated only its nonprofit or for-profit motives, allowing us to see if a profit motive alone affected the perceived outcomes of the same practices.

To distinguish negative effects of profit motives from positive effects of nonprofit motives, we also included a baseline condition in which the motives of the organization were unspecified. Though our theorizing does not directly address when people infer the presence of profit motives, this design allowed us to explore whether people would make these inferences on their own from the practices described. Because we selected practices that could plausibly apply to both nonprofit and for-profit organizations, we did

not expect that people would assume the presence of selfish profit motives in the absence of explicit cues.

Our theorizing does focus on the outcomes people expect once they know a profit motive is present. We expected that specifying a profit motive would reduce perceptions of good societal outcomes, relative to both specified nonprofit motives and unspecified motives, consistent with prior findings that harmful motives are stronger than prosocial motives in driving judgments (Baumeister et al., 2001; Critcher & Dunning, 2011; Knobe, 2003; Vohs et al., 2007). These findings would indicate that profit-seeking motives are viewed as inherently harmful and necessarily produce less good for society.

To reflect our theorizing and the evidence from Studies 1 and 2, we adapted the measures used by CSR experts to assess overall societal impact (Cheng et al., 2014; Orlitzky et al., 2003). We thus included items corresponding to the same dimensions (e.g., effects on the environment, communities and human rights, employee pay and working conditions, product safety and quality, ethical management practices) used to capture the entirety of firms' impact on society.

Table 2  
*Aggregate and Individual-Level Relations of Perceived Profit With Industry Practices (Study 2)*

Industry practice	Societal Impact	Aggregate correlation	Individual-level regression
Overcharging	Bad	.69***	.200***
Underpaying employees	Bad	-.17	-.021
Taking safety shortcuts	Bad	.35*	.088***
Exploiting regulatory loopholes	Bad	.63***	.155***
Providing valuable goods	Good	-.39*	-.024*
Providing important innovations	Good	-.12	-.027
Making culture worse	Externality (Bad)	.67***	.142***
Making cultural contributions	Externality (Good)	-.20	-.036*

*Note.* Aggregate correlations use average ratings of perceived profit and perceived business practices for each industry. Individual-level regression results are coefficients from linear mixed-effects models with crossed random effects that regress perceived profit on each measure, with  $p$ -values generated via MCMC simulation. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

## Method

Adults recruited through Amazon Mechanical Turk ( $N = 360$ , 56% male, mean age = 37) completed the study for payment. To examine how a profit motive impacts perceived societal value, we used a 3-group (Firm Motives: For-Profit vs. Non-Profit vs. Unspecified) between-subjects design.

**Materials and procedure.** Each subject read four brief hypothetical scenarios describing the practices of different organizations, with presentation order counterbalanced. To make our manipulation plausible, we chose four industries in which both for-profit firms and nonprofit organizations operate. The scenarios described the following: (a) an organization that buys quality handmade jewelry and crafts from poor artisans in developing nations and sells them at high margins in retail outlets in developed nations; (b) an organization that helps firms transition to more sustainable and energy-efficient production processes; (c) an organization that collects surplus healthy food and produce and distributes it in underprivileged areas; and (d) an organization that buys the rights to promising new medical technologies from the inventors, and then develops and sells the technologies to hospitals (see Appendix for full scenarios).

In the Unspecified condition, subjects received no further information. In the Non-Profit condition, they read that “The organization operates as a non-profit. Its leadership decides how to allocate resources to best pursue its mission,” whereas in the For-Profit condition, they read that “The organization operates as a for-profit. Its leadership decides how to allocate resources to best pursue its mission by trying to maximize its profits.”

**Societal good.** For each organization, subjects rated their general perceptions of its contribution to societal harm or good (“How much societal harm or good does the organization accomplish?”; 1 = *great harm*, 3 = *no harm or good*, 5 = *great good*).

**Overall societal impact.** They then indicated specific beliefs about the organization’s overall societal impact using five items adapted from the CSR literature (Cheng et al., 2014; Orlitzky et al., 2003): effects on the environment, communities and human rights, employee pay and working conditions, product safety and quality, and ethical management practices (1 = *great harm*, 3 = *no harm or good*, 5 = *great good*). These items were combined to create a measure of overall societal impact ( $\alpha = .89$ ).

**Effectiveness.** Finally, subjects rated the overall effectiveness of the organization (“Overall, how effective is the organization in achieving its goals?”; 1 = *not at all*, 4 = *very effective*).

## Results

A repeated measures ANOVA found that presentation order of these scenarios had no effect on our dependent variables ( $ps > .38$ ), and we do not discuss this factor further.

**Societal good.** Combining across the four organizational descriptions, a repeated measures ANOVA found a significant main effect of firm motives on perceived good to society,  $F(2, 348) = 11.42$ ,  $p < .001$ ,  $\eta_p^2 = .062$ . Pairwise comparisons found that a Profit motive reduced the perceived societal good accomplished by the firm ( $M = 3.84$ ,  $SD = 0.62$ ), relative to both Non-Profit motives ( $M = 4.16$ ,  $SD = 0.58$ ,  $t(236) = 4.11$ ,  $p < .001$ ,  $d = 0.53$ ) and Unspecified motives ( $M = 4.16$ ,  $SD = 0.53$ ,  $t(237) = 4.29$ ,  $p < .001$ ,  $d = 0.55$ ). Describing the firm as a Nonprofit did not affect perceptions of societal good relative to the Unspecified motive baseline ( $t < 1$ ,  $p = .953$ ,  $d = 0$ ).

We also found a significant firm motive  $\times$  industry interaction,  $F(6, 1044) = 2.99$ ,  $p = .007$ ,  $\eta_p^2 = .017$ . Though the effects were directionally consistent across industries, pairwise comparisons found no significant contrasts in the artisan craft scenario ( $ps > .68$ ).

**Overall societal impact.** Across scenarios, a repeated ANOVA also found a significant main effect of firm motives on overall societal impact,  $F(2, 348) = 11.83$ ,  $p < .001$ ,  $\eta_p^2 = .064$ . Pairwise comparisons found that a Profit motive reduced perceptions that the organization’s practices had a good overall impact on society ( $M = 3.46$ ,  $SD = 0.50$ ), relative to both an organization with Non-Profit motives ( $M = 3.76$ ,  $SD = 0.48$ ),  $t(236) = 4.72$ ,  $p < .001$ ,  $d = 0.61$ , and one with the same practices but Unspecified motives ( $M = 3.66$ ,  $SD = 0.44$ ),  $t(237) = 3.29$ ,  $p = .001$ ,  $d = 0.42$ . In contrast, Non-Profit motives did not affect perceptions of societal impact relative to Unspecified motives ( $t(241) = 1.69$ ,  $p = .126$ ,  $d = 0.22$ ; see Figure 3).

The firm motive  $\times$  industry interaction was not significant,  $F(6, 1044) = 1.32$ ,  $p = .132$ ,  $\eta_p^2 = .008$ , indicating that these effects were consistent across industries. However, they were again directionally weaker in the artisan craft scenario.

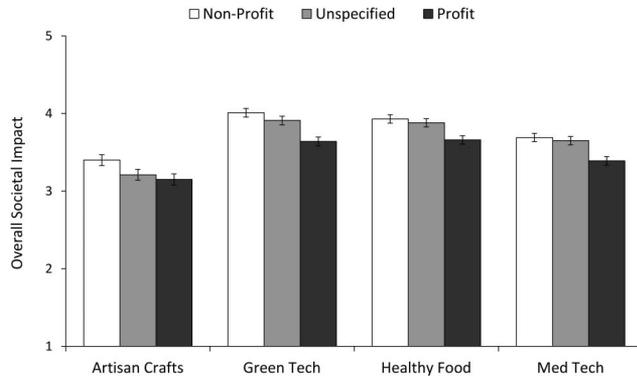


Figure 3. Mean perceptions of the overall societal harm or good accomplished by each organization in Study 3 (1 = great harm, 3 = no harm or good, 5 = great good). Error bars show standard errors.

**Effectiveness.** A repeated measures ANOVA found a marginal effect of firm motives on perceived effectiveness  $F(2, 348) = 2.66, p = .072, \eta_p^2 = .015$ . Pairwise comparisons found that a Profit motive reduced perceptions of overall effectiveness ( $M = 2.99, SD = 0.54$ ), relative to a firm with identical practices and Unspecified motives ( $M = 3.13, SD = 0.48, t(237) = 2.12, p = .037, d = 0.27$ ). A Profit motive also marginally reduced perceived effectiveness relative to Non-Profit motives ( $M = 3.12, SD = 0.50, t(236) = 1.93, p = .060, d = 0.25$ ). Again, there was no difference in perceived effectiveness between a firm with Non-Profit motives and one with Unspecified motives ( $t < 1, p = .836, d = 0.02$ ).

We also found a significant firm motive  $\times$  industry interaction,  $F(6, 1044) = 4.65, p < .001, \eta_p^2 = .026$ , whereby no contrasts were significant in the artisan craft scenario ( $ps > .13$ ).

## Discussion

As expected, across four different organizations, subjects viewed the presence of a profit motive as more harmful than its absence, even with business practices held constant, indicating the presence of anti-profit beliefs. A profit motive was also thought to reduce an organization's ability to achieve its objectives. In light of prior findings that for-profit corporations are seen as less warm but more competent than nonprofit organizations (Aaker et al., 2010), it is possible that in this study, the perceived incompatibility between profit motives and motives for societal good overwhelmed any perceived competence advantage ascribed to for-profit firms.

Importantly, these findings also help establish the direction of these effects. People held anti-profit beliefs even relative to a baseline in which motives were not specified, supporting the presence of anti-profit beliefs, but not the presence of pro-non-profit beliefs.

Though our theorizing does not directly address the conditions under which people infer the presence of profit motives, it may be the case that organizations are not assumed to have selfish profit motives when they have good practices that plausibly reflect nonprofit motives. The weaker effects within the artisan crafts scenario, in which the organization's practices were not perceived as favorably as those in the other scenarios, indicate that assump-

tions about firm motives might depend on how good or bad their practices seem. Study 4 used a different approach to further investigate how good or bad practices affect inferences about firm motives.

## Study 4: Intended Societal Harm Is Thought to Increase Future Profit

Our first three studies provide consistent evidence that a profit motive is thought to necessarily result in outcomes that are less beneficial for society. If profit is thought to specifically incentivize societal harm, then firms should be able to increase profits by adopting bad business practices rather than good business practices. To test this possibility, we inverted our methodological approach: in Study 4, we manipulated whether a firm planned to adopt more good business practices or bad business practices, and assessed how these changes were expected to affect the firm's long-term future profitability.

To maintain consistency with our theorizing and the measures used in Studies 1–3, our manipulations were adapted from the business practices used by CSR experts to assess firms' overall impact on society (Cheng et al., 2014; Orlitzky et al., 2003). Changing these practices (e.g., service quality, safety standards, employee welfare, environmental impact, deceptive marketing) should directly result in a more harmful or beneficial impact on society.

Because our previous studies indicate that perceptions of societal good and profitability vary significantly across firms and industries, Study 4 also provided a cleaner test of anti-profit beliefs by varying the same firm's plans to engage in good vs. bad practices. We predicted that plans to adopt bad practices would be expected to increase long-term profitability, while plans to adopt good practices would not necessarily be expected to affect future profits.

Finally, in this study, we asked subjects to take the perspective of the firm CEO to see what they might do if they were in charge of the firm. Because people might find self-interested profit motives more acceptable when they themselves are in charge, these instructions were intended to provide a more conservative test for the presence of anti-profit beliefs. We predicted that even when adopting the perspective of the CEO, subjects would perceive trade-offs between firm profits and good outcomes for consumers and society, consistent with anti-profit beliefs.

## Method

American adults ( $N = 239, 62\%$  male, mean age = 35) were recruited through Amazon Mechanical Turk to complete the study for financial payment. We manipulated firm intentions and used two industry replicates in a 2 (Proposed Changes: Adopt Good Business Practices vs. Adopt Bad Business Practices)  $\times$  2 (Industry: Dining Services vs. Delivery Services) between-subjects design.

**Materials and procedure.** Subjects read about a hypothetical for-profit firm in one of two industries that were expected to have relatively neutral existing associations: "Sigma Industries is a for-profit corporation that provides casual dining and catering services [delivery services and logistics solutions]. Sigma is considering entering the market in a new region, which would involve changes to their current operations."

They then read about a proposal to either adopt more Good Business Practices or Bad Business Practices in the new market [Bad Business Practices condition in brackets]:

An executive at the firm has submitted a proposal recommending an increased [reduced] investment in socially responsible practices.

In particular, compared to Sigma's current practices, the proposal calls for higher [lower] levels of service quality, stricter [lower] safety standards, and avoidance of [the use of] potentially deceptive marketing practices. Under the new plan, Sigma would also increase [decrease] employee pay and reduce [worsen] its impact on the environment.

Though Sigma's current practices are close to the overall industry average, the new proposal recommends practices that would be more [less] socially responsible than 82% of firms in the industry.

**Firm motives.** Subjects first rated what the proposed changes revealed about the firm's motives. Two items assessed the extent to which the proposed changes were thought to be motivated by a desire to contribute to society, relative to the firm's current practices: "Compared with its current practices, how moral are the new proposed practices?"; "Compared . . . how much do the new proposed practices reflect a desire to contribute value to society?" ( $-3 = \text{much less than current practices}$ ,  $0 = \text{no difference}$ ,  $3 = \text{much more than current practices}$ ). These items were combined to create a measure of good societal motives ( $r = .93$ ).

They also indicated the extent to which the proposed changes were motivated by a desire for profit, relative to current practices: "Compared with its current practices, how much do the new proposed practices reflect a strong desire for profit?" ( $-3 = \text{much less than current practices}$ ,  $0 = \text{no difference}$ ,  $3 = \text{much more than current practices}$ ).

**Expected profit.** Next, subjects were asked to imagine they were Sigma's CEO. On two items, they indicated their expectations of how these proposed changes would affect long-term profitability: "Compared with its current practices, how would the new proposed practices affect Sigma's profits over the next 5 years?"; "As Sigma's CEO, what would be the best way to maximize profits for the firm?" ( $-3 = \text{much more profitable to keep current practices}$ ,  $0 = \text{no difference}$ ,  $3 = \text{much more profitable to adopt new practices}$ ). These two items were combined to create an index of expected long-term profit ( $r = .52$ ).

**CEO choice.** Finally, subjects indicated what they thought was the right course of action. The first measure was continuous ("As Sigma's CEO, what would be the best way to do the right thing for the firm?";  $-3 = \text{much better to keep current practices}$ ,  $0 = \text{no difference}$ ,  $3 = \text{much better to adopt new practices}$ ), while the second was a binary choice ("As Sigma's CEO, would you adopt the new proposed practices?"; *Yes/No*).

## Results

A two-way ANOVA found no main effect of industry and no industry  $\times$  proposal interaction on any of the dependent variables ( $ps > .17$ ). Hence, we do not discuss this factor further.

**Firm motives.** A two-way ANOVA found a significant main effect of the proposed business practices on perceptions of firms' motives to do good for society,  $F(1, 235) = 672.50$ ,  $p < .001$ ,  $\eta_p^2 = .741$ . We conducted a one-sample  $t$ -test to examine how plans to adopt Bad Business Practices vs. Good Business Practices

were perceived relative to current practices (against a null hypothesis of no difference from the scale midpoint of 0). Relative to current practices, plans to adopt Bad Business Practices were seen as significantly less reflective of good societal motives ( $M = -2.08$ ,  $SD = 1.29$ ),  $t(121) = -17.79$ ,  $p < .001$ ,  $d = -1.61$ . Relative to current practices, plans to adopt Good Business Practices were perceived as significantly more reflective of good societal motives ( $M = 1.95$ ,  $SD = 1.08$ ),  $t(116) = 19.51$ ,  $p < .001$ ,  $d = 1.81$ .

A two-way ANOVA also found a significant main effect of the proposed business practices on perceptions of firm profit motives,  $F(1, 235) = 129.21$ ,  $p < .001$ ,  $\eta_p^2 = .355$ . A one-sample  $t$ -test found that relative to current practices, plans to adopt Bad Business Practices were seen as significantly more reflective of a strong profit motive ( $M = 2.30$ ,  $SD = 1.26$ ),  $t(121) = 20.16$ ,  $p < .001$ ,  $d = 1.83$ . However, relative to current practices, plans to adopt Good Business Practices did not significantly affect perceptions of the strength of firm profit motives ( $M = 0.19$ ,  $SD = 1.57$ ),  $t(116) = 1.29$ ,  $p = .198$ ,  $d = 0.12$ .

**Expected profit.** We found a significant main effect of proposed business practices on expectations of long-term profitability,  $F(1, 235) = 12.80$ ,  $p < .001$ ,  $\eta_p^2 = .052$ .

A one-sample  $t$ -test found that relative to current practices, plans to adopt Bad Business Practices were expected to significantly increase long-term profits for the firm ( $M = 0.91$ ,  $SD = 1.58$ ),  $t(121) = 6.38$ ,  $p < .001$ ,  $d = 0.58$ . Conversely, plans to increase Good Business Practices were not expected to significantly affect long-term profits relative to current practices ( $M = 0.17$ ,  $SD = 1.59$ ),  $t(116) = 1.16$ ,  $p = .248$ ,  $d = 0.11$  (see Figure 4).

**CEO choice.** We also found a significant main effect of the proposed changes on perceptions of the right choice for subjects to make as CEO,  $F(1, 235) = 567.78$ ,  $p < .001$ ,  $\eta_p^2 = .707$ , as well as on their binary choices to adopt or reject the proposal,  $\chi^2(1) = 128.52$ ,  $p < .001$ .

When the firm planned to adopt Bad Business Practices, a one-sample  $t$ -test found that maintaining current practices was seen as the right thing for the firm to do ( $M = -2.15$ ,  $SD = 1.58$ ),  $t(121) = -14.98$ ,  $p < .001$ ,  $d = -1.36$ , and 84% of subjects indicated they would keep current practices in place as CEO (binomial  $p < .001$ ). When the firm planned to adopt Good Business Practices, adopting these new practices was seen as the right thing to do ( $M = 2.18$ ,  $SD = 1.16$ ),  $t(116) = 20.25$ ,  $p < .001$ ,  $d = 1.88$ , and 89% of subjects reported that they would choose accordingly as CEO (binomial  $p < .001$ ).

**Association between profit motive and expected profit.** To examine the perceived relationship between profit motive and expectations of profit, we examined correlations between these measures in both conditions. Perceptions of profit motive were significantly associated with expected profitability, both when the firm planned to adopt Bad Business Practices,  $r(120) = .39$ ,  $p < .001$ , and when the firm planned to adopt Good Business Practices,  $r(115) = .59$ ,  $p < .001$ . Across conditions, firms' expected long-term profits were thought to reflect the strength of their desire for profit.

## Discussion

Our results show that people believe that deliberately adopting bad business practices is a reliable way for firms to increase their

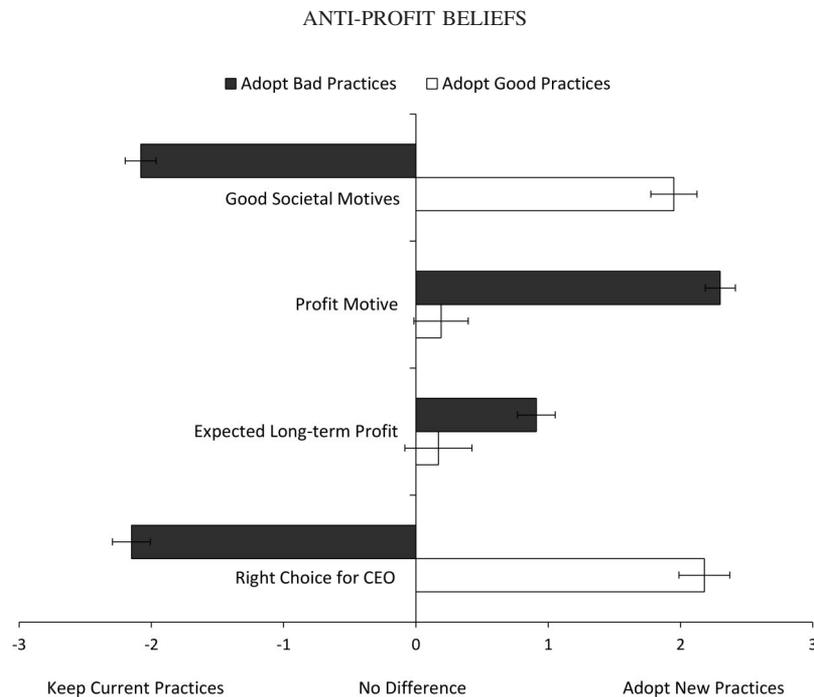


Figure 4. Mean perceptions of proposed changes in practice compared to current practices in Study 4. Error bars show standard errors.

long-term profits. On the contrary, adopting good business practices that impact society more positively was not seen as a good strategy for increasing firm profitability. Even when asked to adopt the perspective of the firm's CEO, people viewed profit as fundamentally at odds with good outcomes for consumers and society. Though the overwhelming majority of subjects expressed a desire to adopt good practices and avoid bad practices, they believed that doing so would entail sacrificing their own firms' profits.

While this perspective-taking instruction arguably provided a more conservative test of the presence of anti-profit beliefs, it came after the firm motive measures and directly preceded judgments about profit, potentially limiting its effectiveness. In addition, because our single-item measure of profit motive may have limited the reliability of our results, we added an additional item in the subsequent studies.

Our findings also suggest that bad practices are thought to indicate profit motives, whereas good practices do not clearly signal a strong desire for profit, consistent with judgments in the control condition of Study 3. More importantly for our purposes, these findings suggest that the strength of firms' desire for profit is thought to determine the business practices they adopt. In other words, firms are thought to face few external constraints that prevent them from profiting through bad business practices that harm consumers and society. It is true that firms may be free to profit from bad practices when market conditions do not provide consumers with meaningful choices. However, when market conditions allow consumers to choose between competing firms and determine which firms profit, their choices constrain firms to adopt better practices if they want to profit. Our next study investigated whether people consider how competitive constraints lead firms to create value.

### Study 5: Neglecting Firm Incentives Under Competition Drives Anti-Profit Beliefs

Our first four studies show that people view profit-seeking motives as fundamentally in conflict with good outcomes for society: our subjects consistently neglected the possibility that profit can incentivize firms to create value for others. Consistent with a zero-sum view of market exchange, the selfish intentions of firms were thought to correspond to market outcomes: greater profit for firms and more harmful outcomes for consumers and society.

However, competitive markets also impose *situational* constraints on firm behavior. Under market conditions that allow consumers to choose between competing firms, these choices determine which firms profit and thus constrain firms' behaviors. These constraints do not necessarily affect firms' internal motivations (i.e., to maximize their profits), but alter the way they must behave to pursue them. Although people may intuitively link selfish intentions to harmful market outcomes (Fehr & Schmidt, 1999; Rosset, 2008; Spunt et al., 2015), they may be less likely to consider the situational constraints introduced by competitive markets that affect how firms must act in order to profit (Gilbert & Malone, 1995; Heider, 1958). Because competitive constraints disrupt the intuitive link between firm intentions and outcomes, and because the effects of these constraints are less readily observable (e.g., Baron et al., 2006), people may neglect how they lead firms to provide what consumers value in order to profit. Study 5 investigated whether people neglect to consider these competitive market constraints.

In particular, we manipulated the strength of competitive constraints within the market. We adapted the scenario from Study 4 to examine these possibilities. Because competitive markets are

especially instrumental in constraining harmful firm behaviors, we used only the condition in which the firm planned to adopt bad business practices. We then prompted subjects to consider the role of consumer choice under different market conditions to examine whether this affected their judgments of profit.

In one condition, we prompted subjects to consider consumer choice in the market under Weak Competitive Constraints (i.e., when competition is low or absent). Under these conditions, consumers have few choices and cannot reward the firms that provide what they value, making it easier for firms to profit from bad practices. We expected that people would understand that these conditions limit consumer choice and increase expected profitability from bad practices.

In another condition, we prompted subjects to consider consumer choice under Strong Competitive Constraints. Under these conditions, consumers have many choices and can easily select competing products if a firm leaves them dissatisfied, making it difficult for firms to profit from bad practices. We expected that people would understand that these market conditions reduce firms' ability to profit from bad practices, thus attenuating their anti-profit beliefs.

Most importantly, we also included a No Prompt control condition to understand subjects' baseline beliefs about how much the market conditions allowed consumers to make meaningful choices. In this condition, the consumer choice measures were presented only *after* their judgments of profit. Accordingly, we were able to observe whether subjects took their own perceptions of these market conditions into account in their judgments of profit when they were not prompted to do so. In other words, this allowed us to test whether their expectations of firms' ability to profit through bad practices were consistent with their own perceptions of consumer choice in this market. We predicted that subjects would perceive the market as allowing significantly greater consumer choice than a market with Weak Constraints, and to more closely resemble a market with Strong Constraints. In contrast, we predicted that they would expect bad practices to increase firm profit significantly more than a market with Strong Constraints, and more closely resemble a market with Weak Constraints. In other words, we expected an inconsistency between subjects' perceptions of choice and their judgments of profit, indicating that they neglect how consumer choice under market competition keeps firms from profiting through bad practices and incentivizes them to adopt good practices.

## Method

American adults ( $N = 300$ , 47% male, mean age = 37) were recruited through Amazon Mechanical Turk to complete the study for financial payment, and randomly assigned to one of three prompts in a 3-group (Market Conditions for Consumer Choice: Strong Competitive Constraints vs. Weak Competitive Constraints vs. No Prompt) between-subjects design.

**Materials and procedure.** Subjects read the same description used in Study 4 about a casual dining firm that is considering adopting bad business practices in a new market. In the No Prompt control condition, no further information about the market conditions was presented. In the other two conditions, we presented an additional description of a market with either Weak [vs. Strong] Competitive Constraints:

Firms in this region operate within separate geographical areas [the same geographical area] and face very little [strong] competition. Accordingly, consumers have very few [many] choices between competing firms. Firms in this industry rarely [often] fail when consumers are dissatisfied.

**Consumer choice.** Subjects then answered three questions intended to assess their beliefs about the role of consumer choice in this market: "How much can consumers in this industry choose the services they find most valuable?"; "How much can consumers in this industry select the service providers that satisfy them most?"; "How much can consumers in this industry make different choices if they are dissatisfied?" (0 = *not at all*, 3 = *a great deal*). These items were averaged to create a consumer choice index ( $\alpha = .94$ ).

**Firm motives.** Subjects responded to the same firm motive measures used in Study 4, starting with a two-item measure of how much the proposed practices reflected good societal motives: "Compared with its current practices, how moral are the new proposed practices?"; "Compared . . . how much do the new proposed practices reflect a desire to contribute value to society?" ( $-3 = \textit{much less than current practices}$ , 0 = *no difference*, 3 = *much more than current practices*;  $r = .83$ ).

They then indicated how much the proposed practices reflected firm profit motives on a two-item measure: "Compared . . . how much do the new proposed practices reflect a strong desire for profit?"; "Compared with its current practices, how much are the new proposed practices motivated by profit?" ( $-3 = \textit{much less than current practices}$ , 0 = *no difference*, 3 = *much more than current practices*;  $r = .89$ ).

**Expected profit.** The key dependent variable was a two-item index of expected profit: "Compared with its current practices, how would the new proposed practices affect Sigma's profits over the next 5 years?"; "As Sigma's CEO, what would be the best way to maximize profits for the firm?" ( $-3 = \textit{much more profitable to keep current practices}$ , 0 = *no difference*, 3 = *much more profitable to adopt new practices*;  $r = .71$ ).<sup>3</sup>

Fn3

In the Strong and Weak Competitive Constraints conditions, the measures followed this order, with the prompt describing market conditions preceding the key dependent measures. However, in the No Prompt control condition, no description of the market conditions was presented, and the consumer choice measures were presented *after* the key dependent measures, so as not to affect their responses. This allowed us to assess subjects' unprompted judgments of profit and compare them to their beliefs about the extent of consumer choice in this market.

## Results

**Firm motives.** A one-way ANOVA found that the prompt did not affect perceptions of how much the firm's new practices reflected good societal motives,  $F(2, 297) = 1.26$ ,  $p = .286$ ,  $\eta_p^2 = .008$ . A one-sample  $t$ -test found that relative to existing practices, increasing bad business practices was seen as less reflective of good societal motives across conditions ( $M = -2.00$ ,  $SD = 1.26$ ),

<sup>3</sup> As in Study 4, we also included a continuous measure and a binary measure assessing what subjects perceived as the right thing for the company to do. Results were fully consistent with those of Study 4, and responses were not affected by the prompts.

$t(299) = -27.62, p < .001, d = -1.59$ , compared with the neutral scale midpoint.

A one-way ANOVA found that the prompt also did not affect perceptions of how much the firm's new practices were motivated by a desire for greater profit,  $F < 1, p = .521, \eta_p^2 = .004$ . A one-sample  $t$ -test revealed that relative to maintaining its existing practices, increasing bad business practices was thought to indicate a significantly stronger profit motive ( $M = 2.01, SD = 1.52$ ),  $t(299) = 23.03, p < .001, d = 1.32$ , compared with the scale midpoint.

**Consumer choice.** A one-way ANOVA found a significant effect of the prompt on perceptions of consumers' ability to choose what they valued,  $F(2, 297) = 91.33, p < .001, \eta_p^2 = .381$ . For the Strong Competitive Constraint and Weak Competitive Constraint conditions, this measure served as a manipulation check. As expected, pairwise comparisons found that describing a market with Strong Competitive Constraints resulted in significantly greater perceptions that consumers could choose firms that provided the most value ( $M = 2.27, SD = 0.80$ ) than a market with Weak Competitive Constraints ( $M = 0.95, SD = 0.49$ ),  $t(198) = 14.07, p < .001, d = 1.99$ , supporting the success of our manipulation.

Next, we examined the No Prompt condition to assess how people perceived the market in the absence of any prompts. Perceptions of consumer choice ( $M = 1.78, SD = 0.77$ ) were significantly greater than those in the Weak Competitive Constraints condition,  $t(198) = 9.09, p < .001, d = 1.29$ , but significantly lower than those in the Strong Competitive Constraints condition ( $t(198) = 4.41, p < .001, d = 0.62$ ; see Figure 5). Importantly, these effects differed significantly in magnitude: perceptions of consumer choice in the Control condition differed significantly more from the Weak Competitive Constraints condition than the Strong Competitive Constraints condition ( $z = 2.96, p = .002$ ). In other words, unprompted perceptions of the market were more consistent with a strongly competitive market than one with weak competition.

**Expected profit.** A one-way ANOVA found a significant effect of the prompt on beliefs about the long-term profitability of adopting bad business practices,  $F(2, 297) = 7.96, p < .001, \eta_p^2 = .051$ . Pairwise comparisons found that prompting subjects to con-

sider a market with Strong Competitive Constraints significantly reduced the expected profitability of bad practices ( $M = -0.09, SD = 1.70$ ), relative to both the Weak Competitive Constraints condition ( $M = 0.85, SD = 1.73$ ),  $t(198) = 3.88, p < .001, d = 0.55$ , as well as the No Prompt condition ( $M = 0.60, SD = 1.76$ ),  $t(198) = 2.82, p < .001, d = 0.40$ ; see Figure 5). These results indicate an attenuation of anti-profit beliefs.

In contrast, describing a market with Weak Competitive Constraints did not change perceptions of the long-term profitability of bad practices, relative to the No Prompt control condition,  $t(198) = 1.01, p = .317, d = 0.14$ .

One-sample  $t$ -tests found that responses were significantly greater than zero (indicating significant anti-profit beliefs about the profitability of bad practices) in the No Prompt condition,  $t(99) = 3.42, p = .001, d = 0.34$ , as well as in the Weak Competitive Constraints condition,  $t(99) = 4.87, p < .001, d = 0.49$ . In contrast, those prompted to consider Strong Competitive Constraints gave responses no different from zero,  $t(99) = -0.56, p = .577, d = -0.05$ , indicating no significant anti-profit beliefs.

**Association between profit motive and expected profit.** To examine how the prompt affected beliefs about the relationship between firms' profit motive and their ability to profit from bad practices, we tested the correlations between these measures in each condition. Profit motive was strongly correlated with expected profit under Weak competition,  $r(98) = .58, p < .001$ , but much less so under Strong competition,  $r(98) = .15, p = .134$ . More importantly, when subjects had no information about market conditions, their perceptions of profit motive correlated strongly with the expected profits from bad practices,  $r(98) = .41, p < .001$ .

These findings suggests that in the absence of a prompt, subjects' perceptions of firm profit motives were associated with their expectations of firm profit. Unless prompted, they judged profit as they would in a market with weak competitive constraints. Prompting them to consider consumer choice in a market with strong competitive constraints may have disrupted the intuitive link between firm intentions and market outcomes.

## Discussion

Our results show that prompting consideration of market conditions that provide consumers with meaningful choices can change the way subjects evaluate the incentive effects of profit, attenuating their anti-profit beliefs. Making people think through how consumers would respond to bad firm behavior under these competitive constraints reduced their expectations that firms could increase profit by adopting bad practices.

More importantly, the No Prompt control condition highlights an internal inconsistency in subjects' judgments: though they believed that the extent of choice in these markets resembled a market with Strong competition, they judged firms' ability to profit from bad practices as if these constraints were very weak (i.e., similar to a market with Weak competition). This inconsistency demonstrates people's neglect of their own beliefs about consumer choice under current market conditions: they do not judge profit with these market conditions in mind unless explicitly prompted to do so. These findings suggest that people either do not consider or do not understand how firm incentives for good are shaped by consumer choice under competitive market conditions. Study 6 was intended to build on these

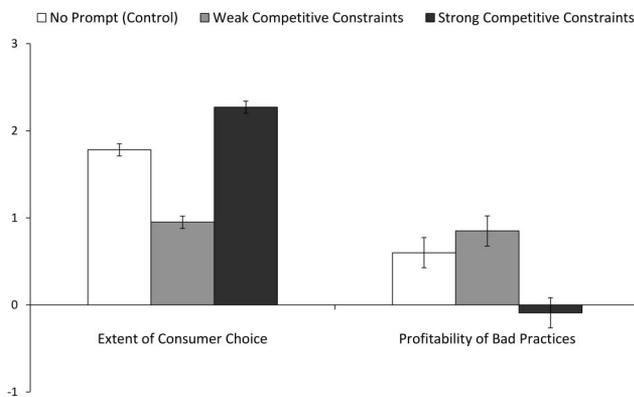


Figure 5. Mean perceptions of consumer choice (0 = none at all, 3 = a great deal) and expected long-term profit from bad practices (-3 = much lower, 0 = no different, 3 = much higher) in Study 5. Error bars show standard errors.

results and investigate whether these effects are rooted in neglecting to consider how profit can incentivize good firm behaviors, failing to understand how it does so, or both.

### Study 6: Neglecting Firms' Reputational Incentives Drives Anti-Profit Beliefs

Study 5 suggests that people neglect how consumer choice under market competition constrains firms' profit-seeking behavior, incentivizing firms to create value. Study 6 built on the same approach, again manipulating market conditions that affect consumers' ability to make meaningful choices. For consumers to incentivize firms to create the products they value, they must be able to easily distinguish good firms from bad firms by accessing and sharing information about firms' reputations. When reputational information is unavailable and exchanges mostly consist of one-time sales, consumers cannot make informed decisions about the firms that will best meet their needs and provide them the offerings they value. Under these conditions, firms can profit from deceptive or harmful practices without significantly reducing their future business. On the contrary, when reputational information is readily available across repeated exchanges, consumers can easily avoid firms that are likely to leave them dissatisfied. Hence, markets with strong reputational constraints create incentives for firms to adopt good practices to profit: investing in a good reputation by creating value can help firms maximize their own profits in the long run (Dreber, Fudenberg, & Rand, 2014; Elfenbein, Fisman, & McManus, 2015).

We used the same approach as Study 5, prompting consideration of consumer choice in a market with Weak Reputational Constraints vs. Strong Reputational Constraints in separate conditions. We again included a No Prompt control condition in which subjects completed the consumer choice items *after* their judgments of profit, to provide insights about their baseline beliefs about market conditions.

Study 6 also included an additional baseline condition. In this condition, subjects were prompted to answer the consumer choice items *before* judging profit, but market conditions were left Unspecified. This allowed us to directly compare how judgments of profit would be affected by simply prompting consideration of consumer choice, versus both prompting consideration of consumer choice and explicitly describing the presence of strong reputational constraints (as in the Strong Constraints condition).

We expected that in the Unspecified Constraints condition, perceptions of consumer choice would be consistent with the No Prompt condition, and resemble a market with Strong Constraints. We further expected that merely prompting consideration of consumer choice would attenuate anti-profit beliefs relative to the Weak Constraints condition, highlighting the role of neglecting how choice shapes firm incentives to engage in good practices. However, we expected that this prompt would not reduce anti-profit beliefs to the same extent as explicitly describing Strong Constraints, because a lack of understanding about how these factors incentivize firms to adopt good practices may also contribute to anti-profit beliefs.

### Method

American adults ( $N = 400$ , 60% male, mean age = 35) were recruited through Amazon Mechanical Turk to complete the study for financial payment, and randomly assigned to one of four

prompt conditions in a 4-group (Market Conditions for Consumer Choice: Strong Reputational Constraints vs. Weak Reputational Constraints vs. Unspecified Constraints vs. No Prompt) between-subjects design.

**Materials and procedure.** Subjects read a version of the same description used in Studies 4 and 5, about a casual dining and catering services firm that is planning to adopt bad business practices in a new market. In the Unspecified Constraints condition and the No Prompt condition, no further description of the market conditions was provided. In the other two conditions, we presented an additional description of a market with either Weak [vs. Strong] Reputational Constraints:

Firms in this industry depend mostly on one-time [repeated] sales to consumers rather than repeat [one-time] purchases. Consumers cannot [can easily] access information comparing firms on service quality and socially responsible practices. Accordingly, they know very little about [exactly] which firms have good or bad reputations, and cannot [regularly] share this information with other consumers.

**Consumer choice.** Subjects answered the same three measures about the role of consumer choice under these market conditions: "How much can consumers in this industry choose the services they find most valuable?"; "How much can consumers in this industry select the service providers that satisfy them most?"; "How much can consumers in this industry make different choices if they are dissatisfied?" (0 = *not at all*, 3 = *a great deal*;  $\alpha = .91$ ).

**Firm motives.** Subjects responded to the same measures from Study 5, starting with a two-item measure of the extent to which the proposed practices reflected good societal motives: "Compared with its current practices, how much are the new proposed practices motivated by moral ideals?"; "Compared . . . how much do the new proposed practices reflect a desire to contribute value to society?" ( $-3 = \textit{much less than current practices}$ , 0 = *no difference*, 3 = *much more than current practices*;  $r = .84$ ).

They then completed a two-item measure of the extent to which the proposed practices reflected firm profit motives: "Compared . . . how much do the new proposed practices reflect a strong desire for profit?"; "Compared with its current practices, how much are the new proposed practices motivated by profit?" ( $-3 = \textit{much less than current practices}$ , 0 = *no difference*, 3 = *much more than current practices*;  $r = .83$ ).

**Expected profit.** Again, the key dependent variable was a two-item index of expected profit: "Compared to its current practices, how would the new proposed practices affect Sigma's profits over the next 5 years?"; "As Sigma's CEO, what would be the best way to maximize profits for the firm?" ( $-3 = \textit{much more profitable to keep current practices}$ , 0 = *no difference*, 3 = *much more profitable to adopt new practices*;  $r = .73$ ).<sup>4</sup>

As in Study 5, the consumer choice items were presented before the key dependent variables in the Strong Reputational Constraints and Weak Reputational Constraints conditions, allowing them to shape subjects' subsequent judgments of profit. Again, in the No

<sup>4</sup> As in Studies 4 and 5, we also included two items assessing what subjects perceived as the right thing for the company to do. Results were fully consistent, and responses were not affected by the prompts.

Prompt condition, the consumer choice measures were presented *after* the key dependent measures, so as not to affect their judgments of profit.

Importantly, subjects in the Unspecified Constraints condition also received no description of market conditions, but completed the consumer choice measures *before* the key dependent measures. This allowed us to test how simply prompting consideration of consumer choice would affect their judgments of profit, even without any explicit description of the market conditions.

## Results

**Firm motives.** A one-way ANOVA found that the prompt did not affect perceptions of how much the firm's new practices reflected good societal motives,  $F < 1$ ,  $p = .470$ ,  $\eta_p^2 = .006$ . A one-sample  $t$ -test found that relative to its existing practices, increasing bad business practices was seen as less reflective of good societal motives across conditions ( $M = -2.14$ ,  $SD = 1.24$ ),  $t(399) = -34.69$ ,  $p < .001$ ,  $d = -1.73$ , compared with the scale midpoint.

A one-way ANOVA found that the prompt also did not affect perceptions of how much the firm's new practices were motivated by a desire for greater profit,  $F < 1$ ,  $p = .898$ ,  $\eta_p^2 = .001$ . A one-sample  $t$ -test revealed that relative to maintaining its existing practices, increasing bad business practices was thought to indicate a stronger profit motive ( $M = 2.27$ ,  $SD = 1.11$ ),  $t(399) = 40.91$ ,  $p < .001$ ,  $d = 2.05$ , compared with the scale midpoint.

**Consumer choice.** A one-way ANOVA found a significant effect of the prompt on perceptions of consumers' ability to choose what they valued,  $F(3, 396) = 82.14$ ,  $p < .001$ ,  $\eta_p^2 = .384$ . For the Strong Reputational Constraints and Weak Reputational Constraints conditions, this measure served as a manipulation check. As expected, pairwise comparisons found that describing a market with Strong Reputational Constraints resulted in significantly greater perceptions that consumers could choose firms that provided the most value ( $M = 2.46$ ,  $SD = 0.63$ ) than a market with Weak Reputational Constraints ( $M = 1.03$ ,  $SD = 0.73$ ),  $t(202) = 14.99$ ,  $p < .001$ ,  $d = 2.10$ , supporting the success of our manipulation.

Next, we examined the two baseline conditions to assess how subjects perceived consumer choice in this market in the absence of any information about the availability of reputational information. In the No Prompt condition, perceptions of consumers' ability to choose what they valued were significantly greater than a market with Weak Reputational Constraints ( $M = 2.09$ ,  $SD = 0.69$ ),  $t(200) = 10.61$ ,  $p < .001$ ,  $d = 1.49$ , but significantly less than a market with Strong Reputational Constraints,  $t(202) = 4.00$ ,  $p < .001$ ,  $d = 0.56$ . Replicating Study 5, these effects differed significantly in magnitude: perceptions of consumer choice in the No Prompt condition differed significantly more from the Weak Reputational Constraints condition than the Strong Reputational Constraints condition ( $z = 4.16$ ,  $p < .001$ ; see Figure 6).

In the Unspecified Constraints condition, perceptions of consumers' ability to choose what they valued were also significantly greater than a market with Weak Reputational Constraints ( $M = 2.19$ ,  $SD = 0.73$ ),  $t(194) = 11.12$ ,  $p < .001$ ,  $d = 1.59$ , but significantly less than a market with Strong Reputational Constraints,  $t(196) = 2.79$ ,  $p < .001$ ,  $d = 0.40$ . Again, these effects differed significantly in magnitude: perceptions of consumer

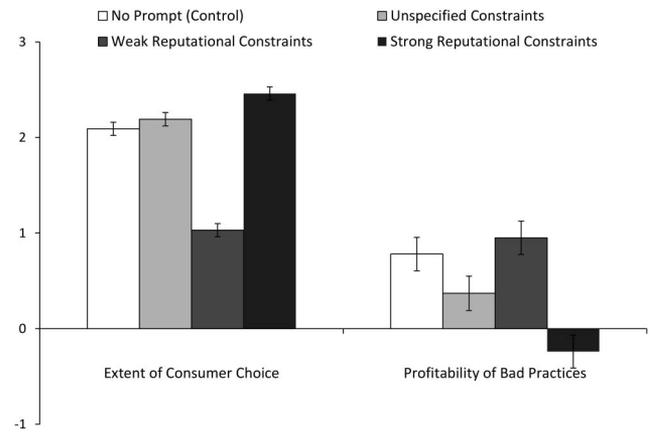


Figure 6. Mean perceptions of consumer choice (0 = none at all, 3 = a great deal) and expected long-term profit from bad practices ( $-3 = much lower$ , 0 = no different, 3 = much higher) in Study 6. Error bars show standard errors.

choice in the Unspecified Constraints condition differed significantly more from the Weak Reputational Constraints condition than the Strong Reputational Constraints condition ( $z = 5.25$ ,  $p < .001$ ).

Perceptions of consumer choice in the market did not differ between the No Prompt and Unspecified Constraints conditions,  $t < 1$ ,  $p = .297$ ,  $d = 0.14$ . In both conditions, unprompted beliefs about the presence of consumer choice in the market were more consistent with strong effects of firm reputation than weak effects of firm reputation.

**Expected profit.** A one-way ANOVA found a significant effect of the prompt on beliefs about the long-term profitability of adopting bad business practices,  $F(3, 396) = 9.21$ ,  $p < .001$ ,  $\eta_p^2 = .065$ .

Replicating Study 5, pairwise comparisons found that describing a market with Strong Reputational Constraints significantly reduced the expected profitability of adopting bad practices ( $M = -0.24$ ,  $SD = 1.82$ ), relative to both the Weak Reputational Constraints condition ( $M = 0.95$ ,  $SD = 1.65$ ),  $t(202) = 4.89$ ,  $p < .001$ ,  $d = 0.69$ , and the No Prompt condition ( $M = 0.77$ ,  $SD = 1.80$ ),  $t(202) = 3.98$ ,  $p < .001$ ,  $d = 0.56$ ; see Figure 6), indicating an attenuation of anti-profit beliefs. In contrast, describing a market with Weak Reputational Constraints did not change perceptions of the long-term profitability of bad practices relative to the No Prompt condition,  $t < 1$ ,  $p = .484$ ,  $d = 0.10$ .

Next, we examined the Unspecified Constraints condition to understand the effects of simply prompting consideration of consumer choice, even without providing any information about the market. Importantly, relative to a market with Weak Reputational Constraints, prompting consideration of consumer choice reduced the expected profitability of adopting bad business practices ( $M = 0.37$ ,  $SD = 1.75$ ),  $t(194) = 2.39$ ,  $p = .022$ ,  $d = 0.34$ , indicating an attenuation of anti-profit beliefs. However, describing a market with Strong Reputational Constraints further reduced the expected profitability of bad practices compared to the Unspecified Constraints condition,  $t(196) = 2.40$ ,  $p = .015$ ,  $d = 0.34$ , indicating that explicitly describing the availability of firm reputational information attenuated anti-profit beliefs to a greater extent. Expec-

tations of profit from bad business practices did not significantly differ between the No Prompt condition and the Unspecified Constraints condition,  $t(194) = 1.58$ ,  $p = .109$ ,  $d = 0.23$ , indicating that prompting consideration of consumer choice without explicitly describing market conditions did not attenuate anti-profit beliefs to the same extent.

One-sample  $t$ -tests found that responses were significantly greater than zero (indicating significant anti-profit beliefs about the profitability of bad practices) in the No Prompt condition,  $t(100) = 4.35$ ,  $p < .001$ ,  $d = 0.43$ , the Unspecified Constraints condition,  $t(94) = 2.08$ ,  $p = .041$ ,  $d = 0.21$ , and the Weak Reputational Constraints condition,  $t(100) = 5.79$ ,  $p < .001$ ,  $d = 0.58$ . In contrast, those prompted to consider consumer choice in a market with Strong Reputational Constraints gave responses no different from zero,  $t(102) = -1.33$ ,  $p = .188$ ,  $d = -0.13$ , indicating no significant anti-profit beliefs.

**Association between profit motives and expected profit.** To examine how the prompts affected the perceived relationship between firms' profit motive and their ability to profit from bad practices, we examined correlations between these measures in each condition. In a market with Weak Reputational Constraints, judgments of profitability were significantly correlated with perceptions of profit motive,  $r(99) = .23$ ,  $p = .021$ . In a market with Strong Reputational Constraints, judgments of profit correlated only weakly with perceptions of profit motives,  $r(101) = .04$ ,  $p = .700$ .

When subjects received No Prompt about consumer choice or firm reputation, expected profits were significantly associated with profit motives,  $r(99) = .25$ ,  $p = .011$ , mirroring the Weak Constraints condition. When subjects were prompted to consider consumer choice before judging profit in the Unspecified Constraints condition, the expected profitability of bad practices correlated weakly with perceived profit motives,  $r(94) = .16$ ,  $p = .130$ .

These findings suggest that in the absence of a prompt, subjects' perceptions of firm profit motives were associated with their expectations of firm profit. Hence, they judged profit as if the market had only weak constraints. Prompting them to consider consumer choice before judging profit, with or without an explicit description of market conditions, was enough to disrupt this link between firm intentions and market outcomes.

## Discussion

Replicating our findings from Study 5, these results show that prompting consideration of market conditions that provide consumers with meaningful choices can attenuate anti-profit beliefs. Making people think through how consumers would respond to bad firm behavior in a competitive market reduced their expectations that firms could profit by adopting bad practices.

Again, the No Prompt control condition identified an internal inconsistency in our subjects' judgments: though they believed that the extent of choice in these markets resembles a market with strong reputational constraints, they judged firms' ability to profit from bad practices as if these constraints were very weak (i.e., similar to a market with weak reputational constraints). This inconsistency demonstrates that people neglect their own perceptions of consumer choice under current market conditions: people do not judge profit with these market constraints in mind unless explicitly prompted to do so.

The additional baseline condition allowed us to assess the effects of prompting consumer choice under unspecified market conditions. Simply prompting subjects to consider consumer choice, even without specifying the presence of strong constraints, did reduce their expectations of firms' ability to profit from bad practices. Considering their own perceptions of choice within the market attenuated their anti-profit beliefs relative to the Weak Reputational Constraints condition, indicating a neglect of firm incentives for good under market constraints.

However, the Unspecified Constraints prompt did not reduce anti-profit beliefs relative to the No Prompt control condition. Thus, it was not as effective in attenuating anti-profit beliefs as explicitly describing Strong Constraints. Hence, it is possible that people do not fully understand how market conditions allow consumers' choices to incentivize good firm behavior without an explicit description. Both neglect and limitations in understanding how market constraints incentivize firms to engage in good practices may contribute to anti-profit beliefs. Study 7 further investigated this distinction by manipulating consideration of long-term incentive effects and measuring the effect on anti-profit beliefs.

## Study 7: Considering Incentives for Production Attenuates Anti-Profit Beliefs

Studies 5 and 6 found that unless people are explicitly prompted, they neglect how profit incentivizes good practices and limits bad practices in competitive markets. We propose that this asymmetry occurs because the good outcomes incentivized by profit are less immediate, direct, and observable than the bad outcomes incentivized by profit. In other words, we expect that anti-profit beliefs involve neglecting how profit incentivizes firms to invest in future value creation. Accordingly, our final study examined whether prompting consideration of future production decisions could affect anti-profit beliefs (cf., Fernbach, Rogers, Fox, & Sloman, 2013; McCaffery & Baron, 2006).

In particular, we compared how subjects would evaluate a law affecting company profit under normal circumstances or after one of two different prompts meant to affect their thinking. One prompt involved a set of questions about immediate changes the company might make in response to the law. The other prompt involved a set of questions about the long-term changes the company, and other companies, might make in response to the law.

Because we expect that subjects already emphasize the immediate effects of profit on the distribution of value between firms and consumers (Rubin, 2003), we predicted that prompting immediate thinking would not alter evaluations of the law, relative to control. In contrast, because we expected that subjects would neglect to consider the value of profit in incentivizing future production decisions, we predicted that prompting consideration of long-term production would attenuate anti-profit beliefs.

## Method

American adults from Amazon Mechanical Turk ( $N = 300$ , 60% male, mean age = 35) completed the study for payment. We used a 3-group (Market Incentive Prompt: None vs. Immediate Incentive Effects vs. Long-Term Incentive Effects) between-subjects design with two replicate scenarios.

**Materials and procedure.** Subjects read two hypothetical scenarios, each about a foreign company that had developed an

innovation with clear benefits to society: (a) a vaccine for a severe respiratory illness that afflicted children, and (b) a new lithium-ion battery that stored energy more efficiently. Each innovation was described to be much more effective than existing products and to introduce advances that might be used in similar future products (see Appendix for full scenarios).

We then mentioned a new law that removed limits on company profits in industries related to public health and environmental sustainability, respectively. While existing laws had limited the company to “moderate profits,” the new law removed limits to allow for “unlimited profits from each unit” sold. This approach let us test how an external factor that allowed for higher profit was expected to affect consumers and society. The order of the vaccine and battery scenarios was counterbalanced.

**Societal impact of profit.** Our main dependent variable assessed beliefs about the overall societal impact of the law on a five-point scale: “All things considered, will the new law leave consumers better or worse off in the long run?” ( $-2 = \text{much worse off}$ ,  $0 = \text{no clear effect}$ ,  $2 = \text{much better off}$ ).

**Immediate and long-term effects of profit.** We used two sets of questions to prompt subjects to consider how the law would change firm incentives. One set of questions prompted subjects to consider the “immediate changes” the company would make in response to the new law on a four-point scale ( $0 = \text{definitely not}$ ,  $3 = \text{definitely}$ ). Separate items assessed potential product changes that were beneficial or harmful (harmful items in brackets): “Reduce [increase] the prices it charges to consumers,” “Make the product safer [less safe],” “Pay its employees more [less],” and “Increase [reduce] the quality of the product.” Subjects responded consistently to the four items assessing beneficial immediate effects ( $\alpha = .79$ ) and the four items assessing harmful immediate effects ( $\alpha = .69$ ), and these items were averaged to create two index measures. In the Immediate Incentive Effects condition, this set of items directly preceded the main dependent variable about the overall effects of the law, as well as all of the other items.

A second set of items prompted subjects to consider the “long-term changes” the company or other companies would make over time in response to the law. Again, separate items assessed beneficial or harmful changes, using the same scale (harmful items in brackets): “This company will do more [less] research on products like this” and “This company will produce more [fewer] products like this.” These items were repeated for “Other companies.” Responses were consistent for the four items assessing beneficial long-term effects ( $\alpha = .90$ ) and the four items assessing harmful long-term effects ( $\alpha = .86$ ), and these items were averaged to create two index measures. In the Long-Term Incentive Effects condition, this set of items directly preceded the main dependent variable about the overall effects of the law, as well as all of the other items.

The No Prompt condition served as a control. Subjects in this condition answered the main dependent variable about the overall effects of the law immediately after reading the scenarios, so their responses were unaffected by the prompt items. They completed the questions about immediate and long-term effects afterward, with the order of these items counterbalanced. Hence, subjects completed all of the items in all three conditions, with question order manipulated between subjects to prompt their thinking.

## Results

A repeated measures ANOVA found no differences across industries or effects of presentation order ( $ps > .13$ ). Hence, we report results collapsed across industries.

**Societal impact of profit.** A one-way ANOVA revealed a significant effect of the prompt on beliefs about the overall effects of the law on consumers and society,  $F(2, 297) = 7.98, p < .001, \eta_p^2 = .051$ . Pairwise comparisons found that prompting consideration of Immediate Incentive effects did not influence the perceived consequences of increased profit ( $M = -0.42, SD = 0.91$ ), relative to the No Prompt control condition ( $M = -0.45, SD = 0.96$ ),  $t < 1, p = .784, d = 0.03$ .

In contrast, prompting subjects to consider Long-Term Incentive effects resulted in more positive evaluations of the law ( $M = 0.04, SD = 1.01$ ), relative to both the Immediate effects condition ( $t(199) = 3.38, p = .001, d = 0.48$ ) and the No Prompt condition ( $t(203) = 3.56, p < .001, d = 0.50$ ). These results indicate an attenuation of anti-profit beliefs.

One-sample  $t$ -tests revealed that responses were significantly less than zero (indicating significant anti-profit beliefs about the harmful effects of the law allowing increased firm profits) in the No Prompt condition,  $t(98) = -4.71, p < .001, d = -0.47$ , as well as in the Immediate Incentives prompt condition,  $t(94) = -4.47, p < .001, d = -0.46$ . In contrast, those prompted to consider Long-Term Incentive effects gave responses no different from zero,  $t < 1, p = .716, d = 0.04$ , indicating no significant anti-profit beliefs (see Figure 7).

**Immediate and long-term effects of profit.** To understand subjects’ perceptions of the immediate and long-term incentives provided by profit, we compared the harmful and beneficial changes they expected the firm to make in response to the law. A paired  $t$ -test found that subjects expected the firm’s pursuit of profit to result in more harmful immediate changes ( $M = 1.02, SD = 0.51$ ) than beneficial immediate changes ( $M = 0.88, SD = 0.54$ ),  $t(299) = -2.88, p < .001, d = -0.26$ . In contrast, subjects expected that allowing greater profit would incentivize more beneficial long-term changes ( $M = 1.92, SD = 0.75$ ) than harmful

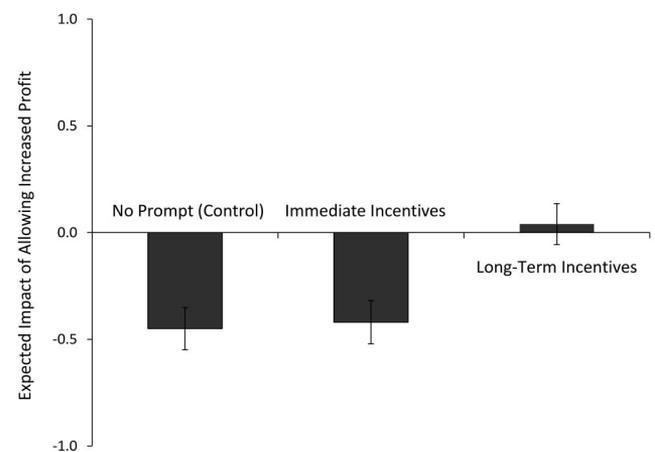


Figure 7. Mean expectations of the overall societal impact of a law allowing increased profit ( $-2 = \text{much worse off}$ ,  $0 = \text{no clear effect}$ ,  $2 = \text{much better off}$ ) in Study 7. Error bars show standard errors.

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long-term changes ( $M = 1.63, SD = 0.69, t(299) = 16.72, p < .001, d = 1.80$ ).

**Neglect of long-term incentive effects.** Finally, a series of linear regressions tested how the perceived immediate and long-term incentive effects of profit informed subjects' judgments of the overall effects of the law. Overall, subjects' judgments of the law were significantly influenced by the good immediate changes they expected the firm to make,  $\beta = .36, t(295) = 6.29, p < .001$ , as well as the bad immediate changes they expected,  $\beta = -.27, t(295) = -4.66, p < .001$ , but not by perceptions of the good or bad long-term changes they expected ( $ts < 1.3, ps > .19$ ). Entering dummy-coded terms for each prompt indicates that prompting consideration of immediate incentive effects did not affect evaluations of the law,  $\beta = .01, t < 1, p = .814$ , but prompting consideration of long-term incentives for future production led to more favorable judgments about the consequences of allowing increased profits,  $\beta = .20, t(293) = 3.24, p = .001$  (see Table 3). No higher-order interactions were significant. Regardless of how the model was specified, beliefs about good and bad immediate effects significantly affected judgments of the law while beliefs about long-term effects did not. These results suggest that even though subjects appreciated the potential for profit to incentivize beneficial firm behaviors in the long run, they consistently neglected this possibility when judging the overall desirability of a policy allowing firms to increase profit.

**Discussion**

Subjects overlooked the long-term positive incentive effects of profit and emphasized its immediate negative incentive effects. They viewed the long-term incentives of profit as much more beneficial than harmful, on average, suggesting that they are capable of understanding the role of profit in incentivizing production decisions when explicitly prompted. Prompting consideration of the immediate effects of profit did not affect anti-profit judgments relative to control, suggesting that people already judge profit in terms of its immediate, potentially negative distributive

effects. In contrast, prompting consideration of the dynamic long-term effects of profit attenuated anti-profit judgments of the law, suggesting that people do not consider on their own that profit can incentivize firms to invest in beneficial products in the future. At least in these simple abstract scenarios, people appear open to revising their anti-profit beliefs.

**General Discussion**

People express little faith in the power of markets to create and reward value for society. Across judgments of actual Fortune 500 firms (Study 1) and entire industries (Study 2), our subjects strongly associated greater profits with business practices that produced more harmful outcomes for society. These results demonstrate the presence and prevalence of anti-profit beliefs, such that firm profit is thought to come directly at the expense of consumers and society. These judgments starkly contradict the overwhelming empirical support for a positive relationship between firm profitability and overall societal impact (Gordon & Dahl, 2013; Orlitzky et al., 2003). Moreover, the actual profits of the firms in our sample exhibited a positive association with expert measures of their overall impact on society (Study 1).

These judgments reflect perceived variation in firm motives, whereby firms are assumed to choose between seeking to benefit society and seeking to maximize their own profits (Study 1, Study 3). Organizations with good practices may be assumed to have honorable motives unless a profit motive is explicitly specified, and those same good practices may be expected to benefit society less when a profit motive is present (Study 3).

Accordingly, profit is thought to incentivize harmful societal outcomes but not beneficial societal outcomes. Greater profits are believed to result from engaging in more harmful business practices (e.g., overcharging consumers, lowering product safety standards, exploiting legal loopholes) and fewer beneficial business practices (e.g., creating what society values, producing high-quality products; Study 2). Likewise, deliberately adopting bad practices (e.g., lower quality, deceptive marketing, lower employee pay, worse environmental impact) is expected to increase long-term firm profits (Studies 4–6), while adopting better practices along these dimensions to impact society more positively is not expected to be profitable (Study 4).

Anti-profit beliefs may persist because any individual market exchange is zero-sum in isolation; more profit for the firm comes at the expense of the buyer and thus, the harmful outcomes incentivized by profit are immediately apparent. On the contrary, appreciating how profit incentivizes firms to benefit society is far more difficult, and requires consideration of the complex interplay of consumer choice and competitive firm behaviors across repeated exchanges. Hence, judgments of profit are heavily influenced by its mostly negative immediate incentive effects, but largely neglect its mostly positive long-term incentive effects (Study 7). Even when people are aware that consumers are free to choose the products they value most, and that firms' behavior is subject to competitive and reputational constraints, they neglect how these factors incentivize firms to adopt good practices in order to profit (Studies 5–6). Instead, their baseline judgments of profit resemble the judgments they make when they are explicitly told that consumers face few choices between competing firms and have little information about firms' reputations. Explicitly prompt-

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Table 3  
*Immediate and Long-Term Incentive Effects of Profit (Study 7)*

Firm behaviors	$\beta$ (1)	$\beta$ (2)	$\beta$ (3)
Good immediate changes	.36***	.34***	.39**
Bad immediate changes	-.27***	-.29***	-.25*
Good long-term changes	.11	.02	.01
Bad long-term changes	.10	.08	.06
Immediate effects prompt		.01	.25
Long-term effects prompt		.20***	.12
Immediate prompt $\times$ Good immediate			-.15
Immediate prompt $\times$ Bad immediate			-.08
Immediate prompt $\times$ Good long-term			-.12
Immediate prompt $\times$ Bad long-term			.11
Long-term prompt $\times$ Good immediate			-.02
Long-term prompt $\times$ Bad immediate			-.12
Long-term prompt $\times$ Good long-term			.24
Long-term prompt $\times$ Bad long-term			-.03

Note. Overall impact of law increasing profit regressed on perceived incentive effects of profit, with dummy variables representing prompts. Coefficients are standardized, with  $p$ -values corresponding to regression  $t$  statistics.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

ing subjects to consider how the firm behaviors incentivized by profit are shaped by strong competition (Study 5), reputational information (Study 6), and the need to inform future production decisions (Study 7) can attenuate anti-profit beliefs.

These findings support the notion that people's reasoning often proceeds from simplified mental models (Baron et al., 2006; Jones et al., 1998; Legrenzi et al., 1993; McCaffery & Baron, 2006). Even as people enjoy the benefits of living in a market society (Baumeister, 2005), they may maintain a zero-sum model of profit because of the greater accessibility and intuitive appeal of its negative aspects. The sheer number of personal experiences that inform people's beliefs about the marketplace may keep them from questioning whether these experiences are one-sided or incomplete, thus helping reinforce an illusory understanding of its complex dynamics (Fernbach et al., 2013; Sloman & Fernbach, 2017).

### AQ: 8 Limitations and Future Directions

Though the current research demonstrates some implications of anti-profit beliefs, many open questions remain that warrant further exploration. For instance, a great deal of prior work finds that people are skeptical of profit-seeking firms and suspicious of any seemingly generous behaviors by these actors (e.g., Campbell, 2007; Friestad & Wright, 1994; Kirmani & Campbell, 2004). However, many of the studies documenting these effects use explicit cues that make profit-seeking motives salient. The current findings suggest that people perceive ample variation in organizational motives and believe that some firms seek to serve society while others selfishly seek to maximize their own profits. Hence, in the absence of existing suspicions or explicit cues about selfish motives, people may give organizations the benefit of the doubt. In other words, they may be receptive to messages or stories that highlight the genuine passions or intrinsic motives of firms, as illustrated by the success of brand narratives and relational appeals in the marketplace (Deighton, 2002; Fournier, 1998; Newman & Cain, 2014; Paharia, Keinan, Avery, & Schor, 2011). Exploring the conditions under which people are willing to humanize profit-seeking firms or view their motives as unselfish may lead to important insights (cf., Critcher & Dunning, 2011; Rai & Diermeier, 2015).

Similarly, a great deal of research in social psychology highlights how social relationships conflict with market relationships, or how marketplace actors violate interpersonal norms against self-interested motives (e.g., Aaker et al., 2010; Clark & Mills, 1979; Fiske, 1992; Heyman & Ariely, 2004; McGraw & Tetlock, 2005; Newman & Cain, 2014; Vohs et al., 2008). However, little prior research has investigated how people perceive the underlying conditions that govern interpersonal versus marketplace interactions. Importantly, these conditions may affect the accuracy of assumptions that self-interested motives necessarily lead to harmful outcomes for others. For instance, contexts involving repeated exchanges create selfish incentives for cooperative behavior: signaling altruistic motives and investing in a good reputation can help actors maximize their own payoffs in the long run (Dreber, Fudenberg, & Rand, 2014; Elfenbein, Fisman, & McManus, 2015). This alignment between self-interest and incentives for good behavior also characterizes marketplace contexts in which consumers can voluntarily choose between competing firms across repeated exchanges. The current research provides initial evidence

that people seem to understand how consumer choice, competition, and reputational information directionally affects firm incentives, but may neglect to consider these factors when judging the consequences of firm profit motives for consumers and society. However, misunderstanding firm incentives for good behavior and neglecting these incentives may both contribute to anti-profit beliefs. Better distinguishing the relative importance of these mechanisms, how they apply in interpersonal versus market contexts, and how they interact may require further investigation. Despite the volume of work in this area, little research addresses when motive-centered judgments are likely to be accurate and when they are likely to err.

These possibilities suggest that the nature and extent of anti-profit beliefs may depend on how people perceive societal and marketplace norms. Though the current research exclusively examines North American adults, a diverse body of research indicates the importance of investigating these beliefs in different populations. The prevalence of selfish behavior in economic allocation tasks differs widely across cultures (e.g., Henrich et al., 2001; Mellers et al., 2010), and the acceptability of profit-seeking motives may depend on the strength of societal institutions, the prevalence of corruption, and beliefs about the state of the world (Peysakhovich & Rand, 2016; Różycka-Tran, Boski, & Wojciszke, 2015). Though some findings suggest that industrialized market societies promote selfish value orientations (e.g., Kasser et al., 2007), an emerging body of research finds that economic development strengthens institutions, reduces cheating and corruption, and promotes more collaborative views of market exchange (Ariely, Garcia-Rada, Godker, Hornuf, & Mann, 2017; Mazar & Agarwal, 2011). People in developing societies that are currently experiencing dramatic wealth gains through profit-seeking enterprise may endorse the societal benefits of profit more readily than people in wealthy, developed societies that experienced these wealth gains in the past (Inglehart & Welzel, 2005). Further research may help illuminate how anti-profit beliefs and views of market exchange vary with economic development and shifting values.

Even within societies, there may be considerable individual variation in anti-profit beliefs. Our first two studies find that while the majority of our subjects exhibited anti-profit beliefs, there was ample heterogeneity across individuals, with a small minority exhibiting pro-profit beliefs. However, our current findings provide little insight into the drivers of this heterogeneity. Though the current studies find relatively weak associations with individual political orientation and economic knowledge, the range of these individual differences may be strongly restricted in these samples. Prior research suggests that economic education does increase the perceived acceptability of self-interest maximization (Frank, Gilovich, & Regan, 1993). Given the consensus among economic experts on the societal benefits of profit-seeking enterprise and marketplace exchange (Caplan, 2002, 2007; Gordon & Dahl, 2013), examining samples with wider variation in economic knowledge may help clarify its association with anti-profit beliefs.

The current research identifies factors that can attenuate anti-profit beliefs. However, despite the individual variation in anti-profit beliefs, we find little evidence that the majority of people are open to endorsing pro-profit beliefs, or significantly positive views about the societal benefits of profit. Though our evidence focuses on the cognitive complexity of understanding how selfish profit-seeking motives can

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incentivize good behaviors, the moral relevance of anti-profit beliefs may also make them more resistant to change. Because selfish behavior is often seen as immoral, information that promotes the acceptability of selfish profit maximization may be perceived to threaten people's moral values (Haidt, 2008, 2012; Skitka, 2010; Tetlock et al., 2000). While few people bother to challenge the views of the scientific establishment on the physical laws governing the movements of objects, many people feel that their economic intuitions capture something that experts miss. Given the clear moral significance of economic policies concerning the fair distribution of resources in society, the need to signal appropriate motives and express views that increase social acceptance may shape policy preferences much more strongly than the actual consequences of those policies (Kahan, 2017; Kahan et al., 2012; Olivola & Shafir, 2013). Though understanding the consequences of such policies often requires expertise and systematic study, an illusory understanding of these complex issues may nonetheless result in highly certain beliefs that persist regardless of the evidence supporting them (Fernbach et al., 2013; Sloman & Fernbach, 2017).

Importantly, erroneous anti-profit beliefs may lead to systematically worse economic policies for society, even as they help people satisfy their social and expressive needs on an individual level (Caplan, 2007; Kahan, 2017). People's intuitive policy preferences might not reflect the policies they would choose if they could properly anticipate the outcomes (e.g., Althaus, 2003; Caplan, 2002). Policies that generate repugnance or intuitive resistance may lead to more desirable outcomes than intuitively appealing policies with the same objectives (Roth, 2007; Zwolinski, 2007). Similarly, despite the perceived incompatibility of practices associated with profit-seeking and those associated with societal good, the same tactics and pricing mechanisms might greatly enhance the effectiveness of charitable organizations that seek to help the world (Singer, 2015; MacAskill, 2015; Pallotta, 2008).

## Conclusion

Perhaps most simply, these findings suggest that people may not understand the factors responsible for their prosperity. This is especially notable given that the subjects in our studies live in one of the most market-oriented societies in human history, in which market norms not only govern exchange, but also shape many aspects of cultural life and everyday behavior (Baumeister, 2005; Fiske, 1992; Sandel, 2012). Even as they experience the benefits of market exchange, people express little faith in the power of markets to create and reward value for society.

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## Appendix

### Study Stimuli

AQ: 16

#### Study 1

Firm	Revenue	Income	Perceived profit	Perceived social value	CSR score
Kraft	40,386.00	3,021.00	3.68	2.18	5
AT&T	123,018.00	12,535.00	3.83	1.62	0
Dow Chemical	44,945.00	648	3.75	1.74	0
GE	156,779.00	11,025.00	3.64	1.99	0
Pfizer	50,009.00	8,635.00	4.16	1.67	0
J.P. Morgan	115,632.00	11,728.00	4.00	1.38	-1
Bank of America	150,450.00	6,276.00	3.95	1.37	3
Dell	52,902.00	1,433.00	3.44	2.02	5
DirecTV	21,565.00	942	3.53	1.56	-2
Cigna	18,414.00	1,302.00	3.70	1.47	-1
Coca-Cola	21,645.00	731	3.95	1.88	-3
3M	23,123.00	3,193.00	3.53	2.16	3
J.C. Penney	17,556.00	251	3.07	2.02	2
McDonald's	22,744.70	4,551.00	4.05	1.60	2
CBS	13,014.60	226.5	3.53	1.86	-7
Macy's	23,489.00	350	3.13	1.95	1
Qualcomm	10,416.00	1,592.00	3.50	2.05	3
Whole Foods	8,031.60	1643	3.37	2.28	7
Land O'Lakes	10,408.50	209.1	3.22	2.24	0
Heinz	10,148.10	923.1	3.57	2.17	6
eBay	8,727.40	383	3.88	2.04	6
Southwest Air	10,350.00	99	3.19	1.98	5
Marriott	49,403.00	1,463.00	3.25	1.99	4
Campbell	5,223.20	475.5	3.49	2.22	1
Visa	6,911.00	2,353.00	4.21	1.47	0
Dollar Tree	5,231.20	320.5	3.39	2.22	-2
Advance Auto	5,412.60	270.4	3.17	2.26	-4
Yahoo!	6,460.30	598	3.56	2.08	2
Hormel	6,533.70	342.8	3.11	1.94	2
Hershey	5,298.70	436	3.58	2.16	3
Barnes & Noble	5,596.30	66.7	2.94	2.16	0
Sherwin-Williams	7,094.20	435.8	3.05	2.24	-2
Pacific Life	5,211.00	434	3.65	1.63	0
Western Union	5,083.60	848.8	3.13	1.86	0
Polo	5,018.90	406	3.34	1.80	-2
Foot Locker	4,854.00	48	2.94	2.07	-3
Owens Corning	4,803.00	64	3.21	2.18	1
Black & Decker	4,775.10	132.5	3.20	2.28	0
Starwood	4,712.00	73	3.02	2.12	0
Washington Post	4,569.70	92.8	2.56	2.09	1

(Appendix continues)

### Study 3 Scenarios

**Artisanal crafts.** An organization helps artisans in developing nations market their handmade products. The organization buys traditional handmade jewelry and crafts from poor artisans in developing nations and distributes them in retail outlets in developed nations at significantly higher prices.

**Green tech.** An organization helps firms improve the energy efficiency of their production processes. The organization helps firms transition to manufacturing practices that draw on more sustainable energy technologies to reduce their energy costs and environmental impact.

**Healthy food.** An organization provides affordable healthy food options to underprivileged areas. The organization collects surplus healthy food and produce from businesses and distributes them to retailers in areas where healthy food options are scarce.

**Medical tech.** An organization develops new medical technologies for hospitals. The organization buys the rights to promising new undeveloped technologies and manufactures them on a large scale to distribute to hospital systems.

### Studies 4–6 Scenarios

Sigma Industries is a for-profit corporation that provides casual dining and catering services [delivery services and logistics solutions]. Sigma is considering entering the market in a new region, which would involve changes to their current operations.

Because this market entry is an opportunity for Sigma to reevaluate its current practices, an executive at the firm has submitted a proposal recommending changes. Relative to the firm's current practices, this proposal involves a reduced [increased] investment in socially responsible practices.

In particular, compared with Sigma's current practices, the proposal calls for lower [higher] levels of service quality, lower [higher] safety standards, and the use [avoidance] of potentially

deceptive marketing practices. Under the new plan, Sigma would also decrease [increase] employee pay and worsen [reduce] its impact on the environment.

Though Sigma's current practices are around overall industry average, the new proposal recommends practices that would be less [more] socially responsible than 82% of firms in the industry.

### Study 7 Scenarios

A technology company in another country produced a new lithium-ion battery. This battery was much more effective than existing technology in storing energy efficiently, and used a new class of techniques to address serious challenges in this area. Under existing laws, the company was limited to moderate profits above the costs of developing and producing this product. The battery moderately increased company profits. Suppose that a new law was just passed to remove limits on company profits on products related to environmental sustainability. Under the new law, the company can earn unlimited profits from each unit of the battery it sells.

A pharmaceutical company in another country produced a vaccine for a respiratory virus. The vaccine was much more effective than existing treatments in preventing this virus, part of a class of serious diseases that commonly affects children. Under existing laws, the company was limited to moderate profits above the costs of developing and producing this product. The vaccine moderately increased company profits. Suppose that a new law was just passed to remove limits on company profits on products related to public health. Under the new law, the company can earn unlimited profits from each unit of the vaccine it sells.

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