Optimism and Bias When Evaluating a Prosocial Initiative

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Objective. This study examines how people evaluate prosocial initiatives—in particular, whether they exhibit optimism bias when asked to consider the outcomes of a hypothetical initiative that is described to take place in the nonprofit, business, or government sector. It also assesses the conditions under which optimism bias is malleable. Methods. We use a survey with an experimental component to compare subjects’ evaluations of a hypothetical initiative across a set of priming (positive prime, negative prime, no prime) and sector (nonprofit, government, business, social business) conditions. Results. We find evidence that optimism bias is widespread, regardless of the sector in question. Subjects are only inclined to alter their assessments when provided with new information that is positive (in contrast to new information that is negative). Conclusion. The findings offer qualified support for the blurring hypothesis, suggesting that sector may be losing its status as a defining characteristic of the organizational landscape.

How do people evaluate the merits of organized efforts to address social problems? Understanding how people do evaluate, not just how they should evaluate, is a critical if often overlooked aspect of successfully implementing and managing such initiatives. Sometimes, organizations and their programs survive not because they are effective but because they are popular (Scott, 2003). Project DARE (Ennett et al., 1994; Lynam et al., 1999; Wysong and Wright, 1995), Scared Straight prison aversion initiatives (Klenowski, Bell, and Dodson, 2010; Petrosino, Turpin-Petrosino, and Buehler, 2003), and various prevention programs for teen sexual activity and pregnancy (Kohler, Manhart, and Lafferty, 2008; Silva, 2002; Underhill, Montgomery, and Operario, 2007) all enjoyed widespread support and garnered considerable resources despite ultimately being judged ineffective at achieving the desired outcomes. To the extent that unwarranted optimism for ineffective programs is a concern, scholars would do well to study not only what makes programs more effective but, also, what drives opinions about them.

We address these issues through the lens of optimism and, of particular concern, optimism bias. Our research builds on other studies of optimism bias (Bain, 2009; Campbell et al., 2007; Dalziel and Job, 1997; Gregg et al., 2004; Prokhorov et al., 2003; Son and Rojas, 2010) by examining it in the context of prosocial initiatives, a term we use to refer to various types of government, nonprofit, and corporate responsibility (CR) efforts to produce or increase social value. Perhaps surprisingly, the question of optimism bias has been little explored within this context.

Using an experimental design, we find, first, that subjects exhibited optimism bias when predicting the impacts of a prosocial initiative. Second, bias extends to initiatives across
sectors of the economy, suggesting that subjects have a hard time imagining the downsides of all types of prosocial efforts. Finally, presentation of new information influences optimism asymmetrically. Including a description of the pros and cons of an initiative led to an increase in optimism among subjects who had initially been primed to regard it negatively, but it caused only a limited decrease in optimism among those who had been primed to regard it positively.

Background

Optimism and Optimism Bias

There are two aspects of optimism that we consider here: optimism and optimism bias. If optimism is a sense of hope about a successful outcome, then optimism bias is an unwarranted sense of hope about a successful outcome. Scholars variously refer to optimism bias as unrealistic optimism (Kahneman, 2011) or positive asymmetry—“the inability to envision and specify the worst” (Cerulo, 2006:2). It is “a way of seeing that foregrounds or underscores only the best characteristics and potentials of people, places, objects, and events” (Cerulo, 2006:6). Accordingly, we examine not only the presence (or lack) of optimism about prosocial initiatives but whether people are subject to biases when they evaluate these initiatives. Doing so permits an exploration not only of where people place their hopes but, perhaps more importantly, whether they do so in problematic ways.

To date, scholars have observed optimism bias in several contexts—for example, among smokers (Prokhorov et al., 2003), individuals at risk of natural disaster (Gregg et al., 2004), traffic forecasters (Bain, 2009), drivers (Dalziel and Job, 1997), and so forth—but our understanding of how optimism bias shapes perceptions of prosocial initiatives is limited. While past research gives us reason to suspect that optimism bias may influence how people think about prosocial initiatives, there is little research to substantiate that suspicion.

More than examining optimism bias generally, we explore whether bias varies across sectors. Thus, we compare how the same initiative is evaluated when described as being in the nonprofit, government, or business sectors. On the one hand, we expect that optimism bias may be unique to CR because of the generally sanguine view of CR initiatives and prosocial business ventures (Gardberg and Fombrun, 2006; Orlitzky, 2009; Orlitzky and Benjamin, 2001; Porter and Kramer, 2011). Consistent with this view, opinion research (O’Neill, 2009) shows that the American public has varying levels of confidence in different types of institutions (governments, large corporations, small businesses, nonprofits, etc.), which suggests that variation in optimism may follow suit.

On the other hand, it may be that optimism bias is so pervasive when it comes to making judgments about prosocial initiatives that it exists regardless of the sector in which the initiative is located. Optimism bias may be such a basic feature of cognition (Sharot, 2011a) that variations across sector would be unlikely. If this is the case, then we should find evidence for bias regardless of whether an initiative is described as a government, nonprofit, or business venture. The extensive research on optimism bias suggests that this may, indeed, be the case (Kahneman, 2011).

We also examine how bias changes when subjects are provided with additional information about the initiative. How malleable is optimism, and is that malleability similar across the different sectors? Whereas learning theory suggests that subjects would update their predictions based on new information (Sharot, 2011b), cognitive psychologists have recently argued that most people revise their optimism unevenly, depending on the kind
of new information received. In Sharot’s experiment (Sharot, 2011a; Sharot, Korn, and Dolan, 2011), when new information was seen as positive, then subjects adjusted their predictions accordingly. When new information was seen as negative, however, they were less prone to modify their predictions. Applied to the context at hand, we expect that receiving new information about the benefits of the proposed initiative will increase the level of optimism about it. Conversely, new negative information about the drawbacks of an initiative will be discounted.

**Sector Theory and the Blurring Hypothesis**

Beyond the practical question of whether people are biased in their judgments of prosocial initiatives and what that means for managing them, the research presented here offers the added benefit of weighing into a debate about whether and how organizational sector matters. From one perspective, the “blurring hypothesis” (Child, Witesman, and Spencer, 2016) calls into question the primacy of sector as one of the principal orienting features of contemporary scholarship on organizations, suggesting that sector boundaries are becoming increasingly less relevant than they once were (Bromley and Meyer, 2017; Meyer and Bromley, 2013). As a result, instead of using sector boundaries as the starting point for analysis, some scholars are inclined to examine broader developments, such as social enterprise (Ebrahim, Battilana, and Mair, 2014; Kerlin, 2009) or trends in marketization (Eikenberry and Kluver, 2004) and accountability (Ebrahim, 2005), which very often transcend sector distinctions.

The blurring hypothesis flies in the face of a second, more deeply engrained, perspective that suggests that sector boundaries are one of the central features of the organizational landscape. “Sector theory,” as we call it here—and commonly used in fields such as public management and nonprofit studies—holds that scholarship ought to be devoted to understanding why and how the different sectors came to be, how they vary, and the consequences of organizations existing in one sector rather than another (Hansmann, 1980, 1987; Salamon, 1987; Salamon and Anheier, 1998; Steinberg, 2006; Young, 1983). In short, this perspective suggests that sector is a useful orienting construct for scholarship and practice.

These two traditions—represented here as the blurring hypothesis and sector theory—operate parallel to each other but do not often engage one another directly, which creates problems for scholars. Examining how sector relates to optimism, then, is useful because of the practical insight it provides when thinking about why some initiatives garner more support than others. Perhaps more importantly, it helps inform a discussion about whether and how sector is a relevant concept. At stake in researching sector boundaries, then, is an accurate conceptualization of the organizational landscape and how scholars ought to employ sector in their research.

**Data and Method**

**Procedure**

To understand optimism as it relates to sector, we utilized a web-based survey with an experimental component. In the survey, subjects were first provided with a brief description of a hypothetical initiative, called Prison to Work, and asked to make a prediction about the initiative’s likely impacts on the organization’s finances. Next, subjects were required
to make a prediction about the initiative’s impacts on the subject’s local community. They did so for both by using a sliding scale, ranging from −100 to +100, with labels indicating “Large losses” (at −100), “No impact” (at 0), and “Large gains” (at +100). Subjects were instructed that the numeric values did not represent dollar values or any specific metrics. The score from the sliding scale predicting impacts to the community is the main dependent variable. The score from the sliding scale predicting impacts to the organization’s finances is used for comparison.

Using a 4 (government, nonprofit, business, social business) × 3 (positive prime, negative prime, no prime) factorial design, subjects were randomly assigned to one of 12 experimental conditions. First, subjects were assigned to a sector condition in which Prison to Work was described variously as a government agency, a nonprofit, a business, or a social business. Second, within each of these sector conditions, subjects received a positive prime, extolling the virtues of the initiative, a negative prime, warning of concerns about the initiative, or no prime at all.

We use the Prison to Work initiative in order to provide subjects an opportunity to reflect concretely on a specific scenario (instead of asking them to reflect abstractly on how they evaluate prosocial initiatives generally). Prison to Work is the kind of initiative that could plausibly exist in each sector and for which the benefits and drawbacks are readily identifiable for a nonexpert audience, making it an ideal candidate for our purposes. (In a preliminary study, we examined different types of scenarios; details available upon request.)

Typically, scholars rely on a tripartite view of sectors: government, business, and nonprofit. Although not a fully realized sector in its own right, we include “social business” as one of the sector conditions in order to differentiate in the subjects’ minds conventional businesses from those that have a social mission. Subjects may exhibit optimism bias toward activities that generally fall under the label of corporate social responsibility, so separating “social business” from “business” will allow us to determine whether that optimism is unique to businesses described as being explicitly prosocial or whether it extends to more conventional businesses as well.

After making an initial judgment about the impact to the organization’s community and to its finances, subjects then read five additional questions on two pages (as well as an attention question) that asked them to make similar predictions. These questions (e.g., about the effect of changing the name of the initiative) were intended only as distractions, meant to engage the subjects without addressing the central concerns of the study.

Once these questions were completed, subjects were provided with another brief description of the initiative, using the same language as when it was first introduced at the beginning of the survey. The difference here was that all subjects now received both the positive and negative primes. They then made, again, a prediction about its likely impact in the community and to the organization’s finances (Table 1).

**Analytic Strategy**

We make three comparisons. First, we examine the initial predictions about impacts to the community across the sector conditions. Using data from only those subjects in the no prime condition, we regress the predicted outcome on sector dummy variables. This is useful to understand whether subjects in the sample are more or less optimistic when the sector of the organization is the only part of the vignette that changes.

Second, we incorporate a comparison among the primes in each sector to determine whether there is evidence of optimism bias in any of the sectors. We start with the assumption that priming shapes perceptions. In our case, negative primes should reduce
TABLE 1
Prison to Work Vignette and Priming Conditions

A local [nonprofit | government | business | social business] initiative, called Prison to Work, is being established to help individuals who have been released from prison find stable employment in your area. The released prisoners will work for Prison to Work, which will provide skills training and aid the released prisoners as they search for permanent employment.

(No prime condition) (Negative prime condition) (Positive prime condition)

Two major concerns are that Prison to Work might lose money on the initiative and put the safety of other employees and community members at risk.

Two major benefits are that Prison to Work might be able to save money on the cost of labor and also improve the likelihood that these workers will avoid criminal activity and stay out of prison.

Please indicate the most likely outcome for the gains and losses you might expect from Prison to Work’s efforts.

optimism compared to being subjected to no prime, and positive primes should increase optimism compared to being subjected to no prime. But if optimism bias is present, then we should expect that subjects who are not primed will make predictions that resemble subjects who were positively primed.

To test for optimism bias empirically, we compare the means of subjects in the different priming conditions within each sector condition. If there is no optimism bias, we expect that the means for the negative prime, no prime, and positive prime variables will be statistically distinguishable. If there is optimism bias, however, we expect that the no prime and positive prime means will not be statistically distinguishable—there will be no difference between the no prime and positive prime conditions because subjects in the no prime condition are as optimistic as those in the positive prime condition—but that the means for the positive and no prime groups will be distinguishable from the negative prime group.

To produce the means and make comparisons among them, we first regress the prediction score on the prime conditions for each of the sector groups. Next, we use these models to predict the mean scores across the conditions. Finally, we use Wald tests to compare the means directly.

Third, we compare the initial predictions about the likely impacts of the Prison to Work initiative with the second predictions, which were made after receiving more complete information about the initiative (the original vignette plus both positive and negative primes). Our purpose here is to understand, generally, how malleable subjects’ assessments are to new information. Empirically, we compute the difference in the initial and second prediction scores and use these values as the dependent variable. We regress this variable on variables for sector and prime to see if the changes in scores are different for subjects in the different conditions.

Participants

For data, we employed 1,800 workers from an online labor market, Amazon Mechanical Turk (Berinsky, Huber, and Lenz, 2012; Paolacci and Chandler, 2014). Because the sample
is not random, we make no claims of generalizability to a larger population. Rather, we use the subjects’ responses to test causal assertions within our sample.

We posted a link to the survey experiment at Amazon Mechanical Turk in November 2016. Subjects were limited to those who had completed at least 1,000 tasks previously and had high approval ratings (>95 percent). They received $1.40 for completing the survey, which, based on the average time to completion, was comparable to a $9 hourly wage. (See descriptive statistics for the sample in Online Appendix A.)

We took several precautionary steps to ensure high-quality data. For example, subjects had to pass a CAPTCHA question and a practice question successfully at the start of the survey. Moreover, we placed two attention questions at different points in the survey to identify subjects who were not paying close attention to the questions they were asked (resulting in 156 dropped observations). We also exclude from analysis 290 subjects who completed the survey in fewer than five minutes, since reading the survey’s text could scarcely be completed in that amount of time.

Results

**Optimism and Bias**

Subjects who were assigned to the no prime condition (i.e., those who received neither the positive nor the negative information associated with the explanation of the Prison to Work initiative) were quite optimistic about Prison to Work’s impacts on their community. The average predicted impact to the community, on a scale of $-100$ to $+100$, was 33, with less than 13 percent of subjects predicting a negative value. Although this does not address the issue of bias, it does suggest that most subjects felt positively toward the initiative. Optimism varied only modestly depending on whether the initiative was described as a business, social business, nonprofit, or government venture (Figure 1).

In order to address the issue of bias, we turn to information provided by the priming condition, here comparing predictions across the negative prime, no prime, and positive prime conditions in each of the sector conditions. The results provide evidence for bias regardless of the sector (Figure 2). (The full models are available in Online Appendix B.) In every sector condition, the difference between the no prime and positive prime groups are not statistically distinguishable, but the differences between the no prime and negative prime groups are (all Wald tests at $p < 0.05$). This suggests that subjects who were not positively primed were as optimistic as those who were. In other words, it suggests that the subjects in the no prime condition are subject to optimism bias.

It is possible, of course, that the reason for the patterns shown in Figure 2 is that the positive prime is simply not working the way we expected it to. To rule out this possibility, we ran a similar set of analyses using predictions about the financial impacts to the organization as the dependent variable. The results show that, in three of the four sectors, the primes work as expected, suggesting that optimism bias is not necessarily connected to all aspects of these initiatives, including their finances (Figure 3).

**The Malleability of Optimism**

Finally, we examine how the second predictions about the likely outcome of Prison to Work’s efforts compare to the first. The effect of more information about the pros and cons of the initiative on the prediction is made clear if we look at the differences between
FIGURE 1
Predictions About Prison to Work’s Impact on the Community Vary Modestly Across the Different Sectors

NOTE: Circles are the predicted means, with 95 percent confidence intervals for each.

FIGURE 2
Subjects Who Were Not Positively Primed Were as Optimistic About the Outcomes to the Community as Those Who Were Positively Primed, Suggesting Optimism Bias

NOTE: Circles are the predicted means, with 95 percent confidence intervals for each.
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FIGURE 3
In Three of the Four Sector Conditions, Positively Primed Subjects Were More Optimistic About Outcomes to the Organization’s Finances than Subjects Who Received No Prime

The results provide qualified support for our expectation that positive information would increase optimism. Most subjects who were initially primed to consider only the positive aspects of the initiative did not reduce their optimism in meaningful ways when presented later with negative information about the initiative. This is consistent with Sharot, Korn, and Dolan’s notion of selective updating (2011); the newly introduced negative information did not cause subjects to revise their predictions downwards in a significant manner.

Perhaps the most interesting result is that for subjects initially assigned to the negative prime condition. For them, receiving both the positive and negative information about Prison to Work prior to the second prediction caused them to become, on average, more optimistic. This is also consistent with the theory of Sharot, Korn, and Dolan (2011) of selective updating. For subjects who had received only negative information about the initiative, receiving new, positive information resulted in adjusting predictions more optimistically.

The reason these data provide only qualified support for the theory is because of the middle condition, in which subjects received initially no prime (i.e., no information about the possible positive or negative effects of the initiative). When these subjects later received new information—both positive and negative—they did not revise their estimates significantly in either direction. Selective updating theory would have predicted that, if anything, subjects in this condition would revise their predictions upward. However, if subjects were already biased optimistically, then it is perhaps not surprising that new positive
FIGURE 4
Differences in First and Second Predictions Are Greatest for Subjects Who Initially Received the Negative Prime

First Priming Condition

No Prime

Pos. Prime

Neg. Prime

NOTE: Circles are the predicted means, with 95 percent confidence intervals for each.

Discussion and Conclusion

Results from an experiment, designed to detect optimism bias when subjects evaluated a prosocial initiative, suggest three main findings. First, subjects exhibited optimism bias when predicting the impacts of a prosocial initiative. That is, subjects who received descriptive information only about the Prison to Work initiative were as optimistic as those who received only positive information praising its virtues. In other words, without any primes given, subjects made judgments as if they were actually primed. Second, optimism bias about the prosocial initiative was sector irrelevant. The bias was widespread, applicable to all types of organizations. Third, more complete information did not reduce optimism bias. Additional information—including a description of the pros and cons of the
initiative—increased optimism among subjects who had initially been negatively primed but had little effect on subjects who had initially received no prime or had been positively primed.

To be clear, these findings do not indicate that subjects do not have any opinions whatsoever based on sector. Figure 1, for example, suggests that there is some, albeit modest, variation in the degree of optimism that subjects attach to sector. Likely because subjects tend to view prison work as a government responsibility, subjects were more optimistic about a government-run Prison to Work initiative than a business-run initiative. Our argument, instead, is that there is little discernible evidence that optimism bias differs across the sector conditions. For instance, even though subjects are more optimistic about a government-run initiative than a business-run one, subjects are equally likely to be biased optimistically when making predictions about either.

This research suggests several practical takeaways. One is that managers and policy advocates, not to mention constituents and beneficiaries, would be wise to exercise caution in the way they promote prosocial initiatives or evaluate popular opinions because prevailing attitudes may differ from observed outcomes. The research presented here suggests that prosocial initiatives may garner unwarranted support. People are prone to be optimistic.

As to contributions to theory, one way to frame this research is in terms of the scholarship on sectors. Contrary to some scholars’ preoccupations, the data suggest that sector boundaries are not salient in the minds of nonexperts who make judgments about prosocial initiatives. The fact that the sector condition did little to alter subjects’ optimism or their bias is a qualified vote in favor of the blurring hypothesis (Child, Witesman, and Spencer, 2016). Although arguably hidden in plain sight, organizational sectors and the boundaries that differentiate them are fundamental to researchers’ understanding of the social world. Yet notwithstanding sector’s enduring position in the collective minds of scholars (Brody, 1996; Dees and Anderson, 2003; Eikenberry and Kluver, 2004; Young, Salamon, and Grinsfelder, 2012), scholars typically ignore whether and how sector matters to everyday people. The research presented here is an effort to rectify that oversight.

In conclusion, the first step in a research program to understand how optimism bias shapes evaluations of prosocial initiatives is to establish whether, in fact, optimism bias helps explain judgments about such initiatives. Only then can the equally important task of specifying what factors exacerbate or curtail bias begin. Now that a case for optimism bias as it relates to prosocial initiatives has been made in at least one setting, future research might usefully examine the issue more analytically. This could be done by using prior scholarship on optimism bias in other settings to predict what factors might increase or decrease optimism and bias—factors such as the riskiness of the initiative, the proximity of the consequences to those making the judgments, and so on. A preliminary study (details available on request) suggested that, indeed, different types of scenarios produce variation in optimism bias. By thinking through these issues, scholars might better provide guidance to managers on how to encourage more realistic thinking about prosocial initiatives.

REFERENCES


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**Supporting Information**

Additional supporting information may be found online in the Supporting Information section at the end of the article.

**Appendix A:** Descriptive Statistics on Research Subjects

**Appendix B:** Regression Models

**Appendix C:** On why there is only limited sector variation