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# Who wants to reopen the economy during the COVID-19 pandemic? The daring and uncaring

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ABSTRACT

Economic shutdowns, which refer to disallowing employees to work on site, are among the most contentious approaches to reduce the spread of COVID-19. While economic shutdowns save lives, their large economic costs have caused some people to develop strong attitudes and even break government-issued mandates, which incurs health risks and often the need to extend the economic shutdowns. In the current article, we argue that the interaction of two personality characteristics, risk-taking tendencies and prosocial tendencies, is a strong determinant of attitudes toward economic shutdowns, and we assess the impact of this interaction on three different attitudes toward economic shutdowns that differ by their focal target: employees, customers, and organizations. The results demonstrate that this interaction significantly predicted economic shutdown attitudes toward customers and organizations but not employees. We suggest that these results can be understood via the lens of behavioral decision-making theories as well as a recent framework on antisocial risk takers, both of which provide several subsequent directions for future research. We conclude with recommendations for the development of effective messages to curb defiant behaviors toward economic shutdowns, such as focusing on those most likely to perform these problematic behaviors – the daring and uncaring.

## 1. Introduction

The COVID-19 pandemic has now spread to over 20,000,000 people, resulting in over 750,000 deaths (Wood, Adeline, & Talbot, 2020). The relatively high infection and mortality rates of COVID-19 has forced countries to take unique approaches to prevent, contain, and reduce the spread of the virus. Widespread strategies include face mask wearing (Howard, 2020), contact tracing (Ferretti et al., 2020), and economic shutdowns (Baveja, Kapoor, & Melamed, 2020; Crayne, 2020).

Of these strategies, economic shutdowns are among the most contentious. Economic shutdowns refer to prohibiting employees to work on site, which aids in preventing the spread of COVID-19 by reducing airborne transmission (Baveja et al., 2020; Omary et al., 2020). During an economic shutdown, some employees can still work from home, particularly those in white-collar occupations; but many are unable to work altogether, particularly those in blue-collar occupations. Whereas face mask wearing or contact tracing provide few detriments (Ferretti et al., 2020; Howard, 2020), economic shutdowns cause a great amount of lost manhours and have resulted in the largest global recession since the Great Depression (IMF, 2020). These detriments are exacerbated for certain occupations, as the most frequently disadvantaged employees, blue collar workers, are also those least likely to possess substantial monetary savings (Aguila, 2011; Griffin & Tippins, 2016; Sunden & Surette, 1998).

Many researchers have attributed the success of countries able to prevent, contain, and reduce the spread of coronavirus, in part, to economic shutdowns, and it is undeniable that economic shutdowns indeed save lives; however, they also have large economic costs, which spur other detrimental outcomes in a ripple-effect (e.g. poor psychological well-being; Crayne, 2020; Omary et al., 2020). For this reason, people have developed strong attitudes on economic shutdowns during the COVID-19 pandemic, such that forceful arguments can be seen both for and against economic shutdowns in popular press outlets, social media, and beyond (Austin, 2020; Frayer, Schmitz, & Kahn, 2020; Tankersley, 2020). These attitudes collectively shift policy decisions, but they also spur individual action. Notably, economic shutdowns are most effective if everyone adheres to government mandates, but strong attitudes on the topic have caused many individuals to disobey shutdown orders (Bogel-Burroughs & Peters, 2020; NPR, 2020). This civil disobedience ranged from working on site to widescale public protests. Regardless of beliefs about the appropriateness of economic shutdowns, they are exponentially less effective when people refuse to follow guidelines, causing the spread of disease to continue and the possibility of economic shutdowns being extended. Thus, it is important to understand attitudes toward economic shutdowns, given the powerful

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impact of resultant behaviors.

In the current article, we propose that personality plays a key role in forming these attitudes – specifically the interaction of risk-taking tendencies and prosocial tendencies. Our proposal is based on two theoretical perspectives. Many behavioral decision-making theories assert that people are rational actors, wherein they form attitudes by weighing associated risks and benefits (e.g. expectancy theory, value-belief-norm theory; Kanfer, Frese, & Johnson, 2017; Kiatkawsin, & Han, 2017; Wright, 2016; Vroom, 1959). The defining feature of the COVID-19 pandemic is its widescale effect on health and seeming ability to infect anyone with relative ease – with certain subpopulations being more at risk (e.g. elderly, diabetics; Drucker, 2020; Wang et al., 2020). Therein, the primary concern with reopening the economy is the potential for large numbers of people to become infected and die, and people's perceptions of this detrimental outcome may be influenced by their risk-taking tendencies and prosocial tendencies.

The link with risk-taking tendencies is clear; those who are more willing to take risks are more likely to devalue the likelihood of infection. Likewise, because reopening the economy puts large numbers of people at risk, those with lower prosocial tendencies may be less concerned with detrimental effects on the wellbeing of others, and the tendency to care for others (or lack thereof) may also determine whether people are accepting of economic shutdowns. When joined together, those who are more willing to take risks as well as care less about others may have particularly strong attitudes toward economic shutdowns, as these individuals both devalue risks and the detrimental outcomes that may occur to others. In other words, these individuals are unfazed by the likelihood of a detrimental outcome as well as the detrimental outcome itself. To these people, reopening the economy poses very little – if any – risks.

Further, these proposals adhere to the framework proposed by Do, Moreira, and Telzer (2017). As stated by the authors, “Recent work combining theoretical and methodological approaches from the developmental science, cognitive neuroscience, and social psychology illustrate that negative, risk-taking behaviors and positive, prosocial behaviors rely on overlapping neural circuitry” (Do et al., 2017, p. 261). After reviewing ample evidence to support this claim and showing that risk-taking tendencies and prosocial tendencies both develop in adolescence, the authors then argue that these two personality dimensions are inherently intertwined, and they propose a two-by-two framework. This framework suggests that assessing combinations of risk-taking tendencies and prosocial tendencies is more important than assessing one or the other independently, and, with relevance to the current article, the combination of high risk-taking tendencies and low prosocial tendencies results in antisocial risk takers. Do et al. (2017) argue that these individuals are most likely to endorse behaviors that put others at risk (e.g. aggression, rule-breaking), more so than those high in risk-taking tendencies or low in prosocial tendencies alone. In line with the arguments of Do et al. (2017), we likewise argue that these individuals hold more positive attitudes toward social policies that put others at risk, such as reopening the economy.

Lastly, we conceptualize and operationalize attitudes toward economic shutdowns in three different manners based on the focal target (employees, customers, and companies). The most direct attitude toward economic shutdowns concerns whether employees can work on site. Next, while allowing customers to patronize may be effectively identical to allowing employees to work on site for many businesses, the two are not the same for all businesses. For this reason, attitudes toward allowing customers to patronize may produce differing results. Finally, organizations may be disallowed to operate on site unless they enforce certain policies, such as mask wearing or social distancing, which represents a type of partial economic shutdown. By studying attitudes toward all three, the current article provides a more complete understanding of the relation between personality and attitudes toward economic shutdowns.

**Hypothesis 1.** *Risk-taking tendencies and prosocial tendencies interact in predicting attitudes toward economic shutdowns regarding (a) employees, (b) customers, and (c) companies.*

Before presenting our study, we first emphasize the primary benefits to research and practice offered by the current article. First, we assess whether the basis of many behavioral decision-making theories is applicable to attitudes toward economic shutdowns, providing an avenue to explore this application more fully in future research. Second, we provide an important empirical investigation into the newly developed theoretical framework proposed by Do et al. (2017), which tests the validity of the framework and potential for future research. Third, we assess the relations of three different attitudes toward shutdowns, which can support their multifaceted nature. If these attitudes indeed produce different relations, future research should likewise assess them in a multifaceted manner. Fourth, the current results can provide insights for policymakers to best understand approaches that effectively encourage people to follow lockdown guidelines, such as by creating messages relevant to those with certain personality characteristics or attitudes that would otherwise cause them to be noncompliant. Thus, identifying whether the daring and uncaring indeed have strong attitudes against economic shutdowns can further associate these attitudes with theoretical models and aid policymakers in determining approaches to encourage these individuals to adhere to government mandates.

## 2. Method

### 2.1. Participants

Participants (N = 332, $M_{age}$ = 37.07, $SD_{age}$ = 11.36, 36% female, 79% United States)[1] were recruited from Amazon's MTurk and provided monetary compensation. Prior research has supported the validity of findings obtained from MTurk participants, and we applied exclusion guidelines from these sources to ensure sufficient data quality (Barends & de Vries, 2019; Buchheit, Dalton, Pollard, & Stinson, 2019). Only participants that had completed more than 50 MTurk tasks with greater than 95% lifetime approval were included. We excluded those that failed any attention checks (e.g. “Please mark disagree to show that you are paying attention”). All statistics, including the reported sample sizes, reflect the sample after excluding these participants.

### 2.2. Procedure

Initially, 332 participants signed up for the study via MTurk on April 21st, and all surveys were completed online. The first survey (Time 1) was taken immediately, and it included demographic questions alone. One week after the first survey (Time 2), 196 participants completed the second survey, and it included measures of prosocial tendencies and risk-taking tendencies. One week after the second survey (Time 3), 159 participants completed a third survey, and it included all attitude measures.

### 2.3. Measures

**Prosocial Tendencies** was measured with O'Reilly and Chatman's (1986) four-item measure. The measure assesses participants' tendency to perform prosocial behaviors at work. An example item is, “I volunteer for tasks that are not required”. Its Cronbach's alpha was 0.78.

**Risk Taking Tendencies** was measured with Westaby and Lee's

[1] These descriptive statistics represent all Time 1 participants, whether they also completed the Time 2 and/or Time 3 surveys or not. The descriptive statistics for the Time 2 (N = 196, Mage = 37.53, SDage = 11.31, 39% female, 76% United States) and Time 3 (N = 159, Mage = 38.09, SDage = 11.64, 43% female, 76% United States) participants were very similar.

(2003) five-item measure. The measure assesses participants' tendency to take risks in general. An example item is, "I would rather take risks than be overly cautious". Its Cronbach's alpha was 0.84.

**Attitudes toward Employees** was measured with a four-item, self-created measure. The measure assesses participants' attitudes toward employees working on site despite the risk of exposure to COVID-19. An example item was, "If someone was worried about catching coronavirus, they should still go to work". Its Cronbach's alpha was 0.85.

**Attitudes toward Customers** was measured with a nine-item, self-created measure. The measure assesses participants' attitudes toward customers being allowed to patronize a variety of stores and services. The instructions told participants to respond as if each item began with, "Despite coronavirus,.. .". Example items were, "People should be allowed to eat in restaurants", and, "People should be allowed to go to the movies". Its Cronbach's alpha was 0.97.

**Attitudes toward Companies** was measured with an 11-item, self-created measure. The measure assesses participants' attitudes toward companies not implementing preventative measures. The instructions told participants to respond as if each item began with, "Despite coronavirus,.. .". Example items were, "Limiting store capacity is NOT needed", and, "There is NO need to test employee temperature before coming to work". Its Cronbach's alpha was 0.96.

## 3. Results

Table 1 provides Correlations and Cronbach's alphas. Prosocial tendencies were not significantly associated with any outcome (all $p > .05$), but risk taking tendencies were significantly associated with attitudes toward employees working despite exposure ($r = 0.26$, $p < .01$) and companies not implementing preventative measures ($r = 0.18$, $p = .03$). Its association with attitudes toward customers being allowed to patronize was not statistically significant ($r = 0.11$, $p = .18$).

All regression results are provided in Table 2, which were used to assess interaction effects. To calculate these results, we first mean-centered our predictors and calculated our interaction term. Then, we performed a series of two-step regression analyses, wherein the first step only included the mean-centered predictors and the second step introduced the interaction term. While the effect of risk-taking tendencies was still significant in predicting attitudes toward employees working despite exposure ($\beta = 0.24$, $t = 3.00$, $p < .01$), the interaction term was not statistically significant ($\beta = 0.02$, $t = 0.25$, $p = .80$). On the other hand, the interaction term was significant in predicting both attitudes toward customers being allowed to patronize ($\beta = -0.17$, $t = -2.06$, $p = .04$) as well as companies not implementing preventative measures ($\beta = -0.22$, $t = -2.80$, $p < .01$). These results support Hypotheses 1b and 1c, but they do not support Hypothesis 1a.

Further, we probed the nature of these interaction effects by performing simple slopes tests, which are visually represented in Fig. 1. In predicting attitudes toward customers, the slope for high prosocial tendencies was not statistically significant ($t = -0.03$, $p = .98$), whereas the slope for low prosocial tendencies was statistically significant ($t = 2.571$, $p = .01$). In predicting attitudes toward companies, the slope for high prosocial tendencies was again not statistically significant ($t = 0.29$, $p = .78$), whereas the slope for low prosocial tendencies was statistically significant ($t = 3.76$, $p < .01$). These results indicate, in both cases, that risk-taking tendencies did not have an influence on attitudes when prosocial tendencies were high, but risk-taking tendencies did have an influence on attitudes when prosocial tendencies were low. These effects were consistent with the proposed direction provided by our theoretical rationale.

**Table 1**
Study correlations and Cronbach's alphas.

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1.) Prosocial Tendencies | 0.78 | | | | |
| 2.) Risk-Taking Tendencies | 0.23** | 0.84 | | | |
| 4.) Attitudes toward Employees | 0.12 | 0.26** | 0.85 | | |
| 5.) Attitudes toward Customers | −0.04 | 0.11 | 0.50** | 0.97 | |
| 6.) Attitudes toward Companies | −0.05 | 0.18* | 0.64** | 0.67** | 0.96 |

† $p < .10$.
* $p < .05$.
** $p < .01$.

## 4. Discussion

Identifying predictors of attitudes against economic shutdowns can help identify those most likely to be noncompliant and guide policymakers toward appropriate messages to curb these problematic behaviors. For this reason, the goal of the current article was to identify whether the interaction of risk-taking tendencies and prosocial tendencies predicted attitudes toward reopening, as guided by behavioral decision-making theories and the framework proposed by Do et al. (2017). Two of our three hypotheses were supported. The interaction of risk-taking tendencies and prosocial tendencies significantly predicted attitudes toward customers patronizing and companies not implementing protective measures, but this interaction did not significantly predict attitudes toward employees working on site. For both significant effects, those with the strongest attitudes in favor of reopening were those with high risk-taking tendencies and low prosocial tendencies – the daring and uncaring.

These results have several implications for theory, future research directions, and practice. First, the current results can be interpreted via theories associated with behavioral decision making – particularly those that assert people are rational actors (Kanfer et al., 2017; Vroom, 1959; Wright, 2016). These theories assert that individuals weigh the costs and benefits of their possible choices, and they perform behaviors with the most desirable cost-to-benefit ratio. When interpreted through this lens, the current results support that those high in risk-taking tendencies and low in prosocial tendencies see few risks in reopening the economy, and therefore they have positive attitudes toward it. Future research should further apply these theories to determine whether their broader assertions hold true for the study of attitudes toward economic shutdowns. Notably, Kiatkawsin and Han (2017) recently supported a theoretical integration of expectancy theory and value-belief-norm theory, wherein their propositions could be extended more fully in the future study of attitudes toward economic shutdowns.

Second, the current results provide support for the framework proposed by Do et al. (2017). Due to its relative recency, few authors have empirically supported the veracity of its claims, and thereby the current investigation represents a pivotal initial step in its continued study. Like behavioral decision-making theories, the broader claims of this framework may be useful in understanding attitudes toward economic shutdowns. Notably, the authors suggested that antisocial risk takers engage in certain regulatory processes (e.g. activation, promotion) and fulfill specific social roles (e.g. bully). Not only can future research determine whether these suggestions indeed apply to the current contexts, but they may also be useful in developing messages to encourage proper economic shutdown behaviors for antisocial risk takers. For instance, these individuals may be more receptive to active rather than avoidant messages, such as "stay at home to actively help" rather than "stay at home to avoid illness". Further research is needed, however, to support this notion before it could be put into practice.

Third, our findings highlight the nuance associated with attitudes regarding reopening the economy, as the interaction of risk-taking tendencies and prosocial tendencies significantly predicted two of three attitudes. We believe that these results arose because attitudes toward employees is more forceful or severe compared to attitudes toward customers or organizations. That is, attitudes toward employees refers to forcing employees to work despite risk of COVID-19, which may be

**Table 2**
Study regression results.

| | Attitudes toward Employees | | Attitudes toward Customers | | Attitudes toward Companies | |
|---|---|---|---|---|---|---|
| | β | t | β | t | β | t |
| Constant | | 23.05** | | 21.64** | | 19.13 |
| 1.) Prosocial Tendencies | 0.06 | 0.71 | −0.07 | −0.86 | −0.09 | −1.12 |
| 2.) Risk-Taking Tendencies | 0.25 | 3.11** | 0.12 | 1.52 | 0.20 | 2.44* |
| $\Delta R^2$ | | 0.07 | | 0.02 | | 0.04 |
| Constant | | 22.26** | | 21.72** | | 19.65 |
| 1.) Prosocial Tendencies | 0.06 | 0.74 | −0.10 | −1.23 | −0.13 | −1.63 |
| 2.) Risk-Taking Tendencies | 0.24 | 3.00** | 0.16 | 1.89 | 0.24 | 2.98** |
| 3.) Interaction Term | 0.02 | 0.25 | −0.17 | −2.06* | −0.22 | −2.80** |
| $R^2$ | | 0.00 | | 0.03 | | 0.05 |

† $p < .10$.
* $p < .05$.
** $p < .01$.

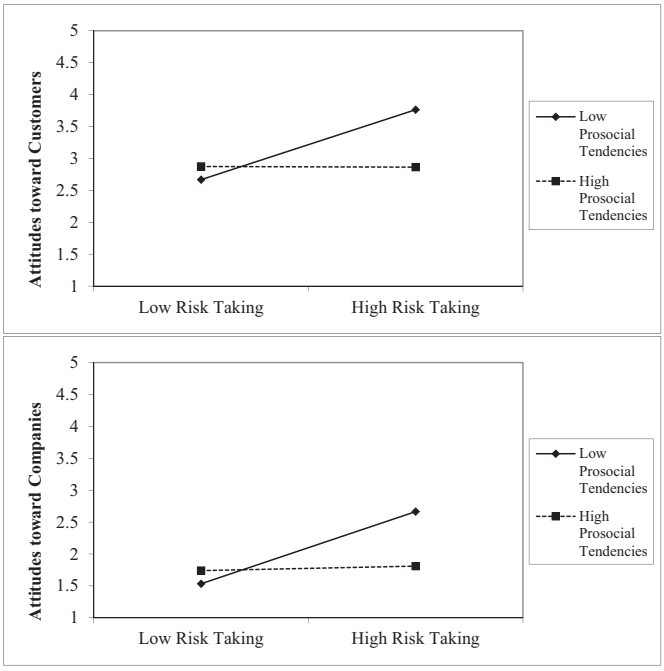


**Fig. 1.** Visual representations of significant interaction terms.

difficult for even antisocial risk takers to endorse. On the other hand, attitudes toward customers refers to allowing customers to patronize stores, and attitudes toward organizations refers to not requiring preventative measures. While these two attitudes indeed require employees to work, this aspect is included in a more roundabout manner, and participants may not fully consider employees when responding in regard to customers or organizations. For this reason, future research should continue performing focused studies on attitudes toward economic shutdowns regarding all three focal targets. If this research further supports these differences, it may be beneficial to develop messages that emphasize employee dangers of employees returning to work rather than customers or organizations to prevent noncompliance.

Fourth, we discussed possible approaches to apply the current findings in practice in the suggestions above, but we presently stress that antisocial risk takers were indeed the most likely to have negative attitudes toward economic shutdowns. This suggests that they may too be the most likely to be noncompliant to economic shutdown protocols. Practitioners should develop future policy and messages with these individuals in mind, as the daring and uncaring appear to be the most likely to disregard government issued orders and mandates.

Lastly, certain limitations should be recognized. While the measures of risk-taking tendencies and prosocial tendencies are established in the current literature (Howard & Fox, 2020; O'Reilly & Chatman, 1986; Westaby & Lee, 2003), the attitude measures are not. Future research should replicate the current results using alternative measures to ensure their validity. Also, while the sample was diverse regarding gender and age, it predominantly represented the United States. Future research should replicate the current results using alternative samples representative of other populations. Likewise, the current data was collected during the height of debates in the United States regarding economic shutdowns. Future research should assess whether the current results still hold when tensions are not as high surrounding this issue. Together, while the current results provide notable insights, they also open further avenues for future authors to provide insights of their own.

## Credit author statement

Dr. Matt C. Howard wrote all aspects of the current manuscript.

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