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Navigating the COVID-19 pandemic in the contingency framework: Antecedents and consequences of public’s stance toward the CDC

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ABSTRACT

This study applied the contingency theory of conflict management to examine how contingency factors influence the public’s perceptual and behavioral responses to COVID-19 and stance toward the Centers for Disease Control and Prevention (CDC). In particular, we tested political ideology as an important individual characteristic variable to examine its roles in the contingency theory framework. The findings revealed that two situational variables (i.e., threat appraisal and attitudes toward CDC) positively influenced the public’s contingency accommodation stance toward the CDC. Furthermore, greater conservatism was significantly associated with lower levels of threat appraisal and more negative attitudes toward the CDC, however it did not influence the stance toward the CDC. Theoretical and practical implications of the findings and directions for future research are discussed.

1. Introduction

Strategic conflict management involves carefully analyzing various factors related to a crisis to decide whether the organization should take an advocating or accommodating stance toward the public (Cameron, Wilcox, Reber, & Shin, 2008). These stances allow organizations to either make more aggressive, self-serving decisions or give in completely to the public’s demands to protect and justify their actions and seek prompt crisis recovery. At the same time, the public also makes a stance decision to determine whether or not they should support or oppose the organization’s position (e.g., Hwang & Kim, 2017).

In the public relations scholarship, crises have traditionally been considered organization-oriented in nature (e.g., product recalls, consumer protests and boycotts). Recently, public relations scholars are recognizing the applicability of strategic conflict management in public health crises. This is because at the heart of crisis recovery lies trust in the organization and continued support for its efforts and initiatives. Applying this in the context of public health, strategic management of a health crisis helps increase both the credibility of the messages and compliance with protective measures recommended by health organizations and officials.

Acknowledged as the greatest public health threat and socio-economic challenge in modern history, the novel coronavirus pandemic (COVID-19) that began in December 2019 has upended life as we know it (Green, Edgerton, Naftel, Shoub, & Cranmer, 2020). During a monumental crisis, such as a global pandemic, the public is highly responsive to cues and information provided by public health experts. Generally, they trust and are supportive of the instructions provided by experts such as officials from government health organizations and seek to protect themselves from harm (Kaiser Family Foundation, 2020; Rainie, Keeter, & Page, 2019). Part of this is due to the fact that political elites (e.g., the President) and experts come together in the face of a national crisis to create and disseminate a unified message to calm and reassure the public (Webster & Abramowitz, 2017). This allows health organizations to address the pandemic cohesively and focus efforts on keeping the public safe. For these reasons, it is not uncommon to see an upward trend of support for government officials (e.g., health organizations) during a public health crisis (e.g., Menon & Goh, 2005).

Recently, however, U.S. society has become deeply polarized across various socio-political issues, including public health. High levels of political partisanship among both elites and the general public have led to fractured national responses regarding how the public can protect
themselves from the disease as citizens selectively accept information that aligns with their partisanship (Webster & Abramowitz, 2017). From the contingency theory perspective, this presents a unique challenge, as an individual’s political ideology could be the driving force of their accepting (e.g., accommodating) or rejecting (e.g., advocating) the health organization’s recommendations.

The purpose of this study is two-fold. First, we propose and test two contingency variables among situational factors: the general public’s threat appraisal of the issue (e.g., severity, susceptibility) and attitudes toward the organization’s reputation and credibility. We examine how these assessments influence the public’s stance as degree of accommodation (SDA, as noted in Jin & Cameron, 2007) and how SDA impacts actual behaviors among the public during a public health crisis. Second, we propose and test political ideology as an individual characteristic variable in the contingency theory of accommodation. As it extends the application of the contingency theory to the COVID-19 context, this article is included in the Public Relations Review special issue on the contingency theory of strategic conflict management.

2. The contingency theory of strategic conflict management

The contingency theory of conflict management started as an alternative perspective to the normative excellence theory in public relations. Recognizing the need for a more realistic and assertive portrayal of public relations, Cancel, Cameron, Sallot, and Mitrook (1997) argued that there is a continuum of ways in which organizations take a stance toward an individual public. Thus, “it depends” on a wide range of factors as to whether or not an organization can mutually agree with the public. The exact positioning of the organization can differ on a continuum rather than always trying to reach mutual benefit with the public. Such movement along the continuum is known as stance and is at the heart of contingency theory.

According to Cancel et al. (1997) and Cancel, Mitrook, and Cameron (1999), the polar ends of the continuum are the notions of pure accommodation and pure advocacy. Whereas accommodation refers to accepting and “giving in” to the public’s assertions and perspectives, advocacy refers to maintaining and asserting the self-serving interest of the organization rather than necessitating the public’s concern. However, it is important to recognize that the stance is fluid in its position rather than being stagnant: An organization’s stance moves on the contingency continuum over time as the entity positions itself strategically between pure accommodation and pure advocacy depending on the circumstance. More specifically, such circumstances are elaborated as 86 contingency factors that affect the location of an organization on that continuum at a given time regarding a given public. Initially, Cancel et al. (1997) categorized these into internal and external factors influencing the organization’s decisions in dealing with the public. They later (Cancel et al., 1999) refined them to predisposing (e.g., corporation size, access to dominant coalition, etc.) and situational variables (e.g., corporate reputation, threat, etc.) to discern which variables have the greatest influence on shaping the organization’s predispositions before interacting with the public (= predisposing variables) and on how the organization shifts its stance organically toward or against the public as the situation unfolds (= situational variables).

There have been several breakthroughs since the theory was introduced more than 20 years ago. First, Hwang and Cameron (2008) and Hwang and Kim (2017) acknowledged that contingency factors can be applied to examine the public’s perception and attitudes toward any given conflict issue (e.g., attitudes toward government multiculturalism policies) and further predict their stances toward the conflict issue as well (e.g., South Korean citizen’s stance estimation regarding the North Korean nuclear threat). Second, while the initial decade of research on contingency theory mainly centered around explaining the concept and operationalizing contingency variables in conjunction with stance movement (e.g., Cancel et al., 1999; Hwang & Cameron, 2008; Reber & Cameron, 2003; Shin, Cheng, Jin, & Cameron, 2005), Cameron, Jin, and Pang (appearing in alphabetical order) established and expanded the theory’s applicability to the crisis management literature. Specifically, they introduced threat assessment as a crucial factor for determining organizational stance (Jin & Cameron, 2007; Jin, Pang, & Cameron, 2006; Pang, Jin, & Cameron, 2006), which consequently influenced how organizations respond to the crisis. For example, Jin and Cameron (2007) found that public relations practitioners thought that crises occurring from external, long-term threats required more organizational resources and therefore were willing to take more accommodating stances compared to crises due to short-term internal threats.

The present paper focuses on amalgamating these two critical points, examining publics’ perceptions of important situational variables in light of the contingency theory of conflict management in the context of a public health crisis (e.g., COVID-19). The concept of dynamic positioning set forth in contingency theory in dealing with various conflict situations naturally complements with crisis communication and management, and examining the public’s perceptions of contingency variables (e.g., threat appraisal and organizational reputation) that are significant in crisis contexts can allow practitioners to understand to what extent the public will be supportive of the behavioral recommendations provided by the organization. This is particularly crucial for public health crises such as the COVID-19 pandemic, as practitioners’ effectiveness in reducing the public’s negativity and increasing support of health organizations’ recommended preventative/protective measures can help mitigate the pandemic.

2.1. Prominent situational factors for public health crisis management: Threat appraisal and attitude toward the organization

Noting that contingency theory did not fully conceptualize nor operationalize threat, despite the theory’s heavy reliance on the concept to determine organizational stance, Pang et al. (2006) proposed a theoretical threat appraisal model for crisis management. In particular, they argued that threat appraisal includes assessment of organizational resources (e.g., time, finances, knowledge, etc.) and situational demands (e.g., uncertainty of the situation, perceived danger, etc.) to understand how threatening the situation is in order to move forward with an action decision. Jin and Cameron (2007) further explained that the type of threat as well as the duration of the threat may impact how practitioners perceive the threat in general. Specifically, perceived severity of the threat as well as perceived vulnerability to the threat are key indicators of how threatening and demanding a situation is for crisis management. In the threat appraisal model, severity refers to the perceived cost (e.g., magnitude of danger and required efforts) of the threatening situation, while vulnerability refers to the perception of how probable it is that the threat will actually happen. Very severe and high-vulnerability threats increase the likelihood that an organization will take a more accommodating stance.

This relationship has been well-documented in the contingency theory literature. For example, Jin, Pang, and Cameron (2007) and Pang et al. (2006) found that perception of the severity of the threat was the driving force for organizations (the governments of China and Singapore, respectively) to take a more accommodating stance toward the public. While their findings are important, these studies employed a content analysis method to infer organizational stance. To this end, Jin and Cameron (2006) developed a stance as degree of accommodation inventory using a survey of public relations practitioners to empirically measure stance movement. They later followed up with an experiment using this scale and found that practitioners were indeed more likely to accommodate the public when the duration of the threat was prolonged and when the threat was caused by internal reasons (Jin & Cameron, 2007).

To date, the threat appraisal model has been applied in the context of practitioners’ assessment of the threat to the organization. However, it is equally important to consider the public’s appraisal of the threat to determine stance movement. The contingency theory recognizes the
importance of the public’s perception of the issue as a key situational variable, pointing it out as a well-supported contingency variable (Cancel et al., 1999). For example, interviewees from Cancel et al.’s (1999) study mentioned that if the external public perceives an issue as being important, the organization will be more willing to accommodate the public. It has also been well documented in crisis literature that public’s perceptions of crisis severity and crisis vulnerability are crucial for crisis management, given that the public’s perceptions have substantial impact on directing crisis responsibility (e.g., Coombs & Holladay, 2002; Laufer & Gillespie, 2004). Specifically, when the crisis is severe, the public tends to attribute internal crisis responsibility and expect the organization to take more accommodating stances toward the public (Coombs, 1998; Zhou & Ki, 2018).

In the U.S. context of COVID-19, the Centers for Disease Control and Prevention (CDC) has served as the major federal public health agency to communicate information about the novel coronavirus and the ways in which the public can protect themselves from getting and spreading the virus. Various institutions (e.g., corporations, universities, small businesses) have referred to CDC guidelines when making decisions about staying open safely. However, there are variances as to how the public has responded to such guidelines. In light of the literature on threat appraisal in both contingency theory and public health literature, we propose the following hypothesis:

**H1.** Higher threat appraisal will predict higher contingency accommodation stance by the public toward the CDC.

Meanwhile, an organization’s public reputation is one of the most influential situational factors for determining both stance of and stance toward the organization (Cancel et al., 1999; Coombs & Holladay, 2006). The reputation of an organization can be understood as “a cognitive representation of a company’s actions and results that crystallizes the firm’s ability to deliver valued outcomes to its stakeholders” (Fombrun, Gardberg, & Sever, 2000, p. 87). Some scholars take a broader approach, explaining reputation as “a stakeholder’s overall evaluation of a company over time” (Gotsi & Wilson, 2001, p. 25). In these regards, reputation is essentially an attitude toward the organization that can vary as a positive or negative cognition. Indeed, interviewees from Cancel et al.’s (1999) study gave contrasting responses to the role of reputation in stance movement. One interviewee mentioned how his organization accommodated to an environmental activist group, whereas another interviewee mentioned that his organization was less willing to accommodate the public. The determining factor in such differences was the negative or positive reputation of the organization.

The positive effect of a strong reputation has been well documented in the crisis communication literature as well. Dubbed the “halo effect,” a positive reputation allows organizations to take more advocating actions and experience less reputation damage from a crisis (Coombs & Holladay, 2006). This is because reputation is a competitive resource in the market, and a good reputation protects an organization during harmful times by acting as “goodwill cushions” (Bennett & Gabriel, 2001, p. 390).

In understanding attitudes toward organizations, it is also important to consider the concept of organizational credibility. Organizational credibility is based on the public’s belief that the company is trustworthy and has expertise, which signals both positive affect and greater competency (Erdem, Swait, & Louviere, 2002). Furthermore, trust, as one of the constructs of credibility, is a classic factor that influences organizational credibility and reputation (e.g., Fombrun, 1996).

Maintaining trust and expertise is particularly beneficial during a crisis. A crisis is abnormal and uncertain by nature, and credibility can help the organization control and manage it (Veil, Buehner, & Palenchar, 2011). More importantly, credibility helps the public have confidence in accepting instructions on how to deal with the crisis from the organization. In a public health crisis like COVID-19, those who assess the CDC as a reputable, credible organization will take on a more accommodating stance toward the organization. We posit the following:

**H2.** More positive attitudes (e.g., reputation and credibility) toward the CDC will predict higher contingency accommodation stance by the public.

We also hypothesize that the degree of accommodation (SDA) will predict actual protection behaviors for COVID-19. Given that stance measurement encompasses both agreeing with what the other party proposes (Action-Based Accommodation) and expressing regrets and admitting personal wrongdoing (Qualified-Rhetoric-Mixed Accommodations), there should be a strong positive association between stance and the actual behavior the public takes in response to their conative assessment. However, there is little empirical research that examines this relationship in the contingency theory and crisis literature. To this end, we propose the following hypothesis:

**H3.** Stance as a degree of accommodation will predict current protection behaviors against COVID-19.

At the same time, from a public health perspective, threat appraisal is known to increase willingness to follow recommendations made by health experts and agencies, and to adopt behaviors to prevent negative consequences (see Milne, Sheeran, & Orbell, 2000 for a meta-analysis). In other words, protection motivation kicks in when people assess the health issue as being severe and themselves as being more vulnerable to getting ill (e.g., Rogers, 1983). Therefore:

**H4.** Higher threat appraisal will predict more protective behaviors against COVID-19.

### 3. Political ideology as an individual-level contingency factor

Recent reports about the COVID-19 pandemic highlight the challenges of achieving unified support for the CDC’s prevention and protection measures (e.g., mask wearing) due to high levels of polarization in the American electorate. In such polarized situations, the public is less likely to change their behavior in ways that correspond to the consensus of experts if there is a lack of political consensus that the changes are necessary (Kahan, Jenkins-Smith, & Braman, 2011). Naturally, this has presented significant difficulties for healthcare practitioners. The corollary to this is an examination of political ideology as an individual-level contingency factor that may influence SDA.

Generally speaking, political ideology refers to the adoption of an ideological label or identification with a political party as a form of self-identity (Abrams, 1994; Duck, Terry, & Hogg, 1998). It is one’s belief about how a political system should work in society for various agents (Grove, Remy, & Zeigler, 1974). Assuming the influence of political ideology on attitudes and behaviors in relation to political issues (e.g., abortion, LGBTQ rights) is nothing new, but recent work in political psychology suggests that political ideology can play a role in decisions and preferences in non-political contexts, such as brand choices (Kwan, Chiu, & Leung, 2014), charitable donations (Winterich, Zhang, & Mittal, 2012), and personal lifestyle values (e.g., Bennett, 1998, 2012). Much of this is due to the personalization of politics, where “a great deal of social, political, and economic life in the recent era has been up close and personal” (Bennett, 2012, p. 21), with individuals rapidly engaging in political participation on a wide range of targets. In this regard, it comes as no surprise that a public health crisis such as the COVID-19 pandemic could be viewed and framed as a political issue with competing attitudes and behaviors according to partisanship. Indeed, there have been partisan differences in the COVID-19 response at the state level, with Democratic governors in general implementing more aggressive responses (e.g., stay-at-home orders) compared to Republican governors during the early stages of the pandemic (Adolph et al., 2020).

Among different markers for political ideology, the conservative-liberal identity is typically regarded as the most important dimension of political attitudes (Jost, 2006). Historically in the U.S., liberalism...
supported freedom from State intervention in social and economic life and dismantling “Crown, Church, or aristocracy” (Davies, 1996, p. 802), while conservatism valued the preservation of these long-standing institutions (Davies, 1996). While the types of political issues and subsequent viewpoints that are said to go with conservatism and liberalism have changed over time (e.g., military intervention, cultural stances toward abortion and homosexuality, foreign aid), modern interpretations of conservatism and liberalism continue this primary distinction, with support for progress and egalitarianism as the core value differentiating liberals from conservatives (Jost, 2006). In this sense, how one assumes a conservative or liberal identity relates to one’s attitudes about a diverse range of political stances.

3.1. Relationship between political ideology, threat appraisal, and contingency theory

Empirical evidence to date suggests that conservatives are generally more sensitive to threats compared to liberals (e.g., van Leeuwen & Park, 2009). Hibbing, Smith, and Alford (2014) conducted a systematic review of the literature and concluded that conservatives respond more sensitively to negative stimuli across research methods, sample type, and countries. In response to Hibbing et al. (2014) and Lilienfeld and Latzman (2014) further elaborated on this premise and rebutted that it is sensitivity to threat, or threat bias, that underscores the differences between conservatives and liberals. Empirical studies also seem to support this notion. Matthews, Levin, and Sidanius (2009) found a positive correlation between conservatism and threat perceptions in their longitudinal study, Perry, Sibley, and Duckitt (2013) found that right-wing authoritarianism is associated with seeing the world as a dangerous place, and Crawford (2017) found that conservatives are more sensitive to physical threats (e.g., protecting one’s safety and well-being) compared to liberals.

However, it is important to add that the traditional threat-aversive characteristic among conservatives may be reversed for COVID-19. The President of the United States at that time and many of the Republican leadership have continuously downplayed the threat of COVID-19, dubbing it a scare tactic of the Democratic party for political gain. According to Carmichael, Brulle, and Huxster (2017), the tendency for conservatives to be more threat-sensitive can reverse based on how political leaders and partisan media frame and cover the issue. Such has been the case for COVID-19: The subsequent framing of the severity and susceptibility of the COVID-19 threat from Republican leadership was the opposite of that typically associated with conservatism. Calvillo, Ross, Garcia, Smelter, and Rutckich’s (2020) findings that conservatism was associated with lower severity and less personal susceptibility to the virus support this notion. van Holm, Monaghan, Shahar, Messina, and Surprenant (2020) found similar results: conservatives were less concerned than liberals about the threats of COVID-19 to the U.S. public health system and were significantly less likely to change their behaviors (e.g., staying home, maintaining social distance, touching their faces) to align with health organizations’ recommendations. To this end, we propose the following hypothesis:

H5. Conservatism will predict lower perceived threat appraisal (i.e., vulnerability and severity) of COVID-19.

3.2. Relationship between political ideology and attitudes toward authority

Another defining characteristic among conservatives is their perception and attitude toward authority. Jost et al. (2003) found that hierarchy values and conservatism are highly correlated, with conservatives likely to accept social hierarchy as a means to preserve and maintain stability and liberals likely to reject it. Graham, Haidt, and Nosek (2009) explained that conservatives are more pessimistic in viewing human nature than liberals, expecting humans to be inherently selfish and imperfect. For this reason, they believe that authorities are necessary to enforce the principles of civic life, considering it a necessary catalyst for a coordinated society (Mann, 2005). These scholars prescribe the same reasoning for conservatives’ affinity for tradition and institutions: these provide constraints in understanding, navigating, and living civilly in a dangerous, uncertain world (see Altemeyer, 2004). Furthermore, while there may be variance due to partisanship, conservatives generally tend to trust and positively view political leaders and institutional authorities because authorities also tend to be conservative (Frimer, Gaucher, & Schaefer, 2014).

In this line of reasoning, it is plausible to assume that conservatives will show more positive attitudes toward authoritative, expert organizations such as the CDC, perceiving that these organizations are credible and reputable. The CDC in many ways is the hallmark of authority, reflecting the representative concept of the right-wing authoritarian ideology that “it is always better to trust the judgement of proper authorities in government” (Altemeyer, 2004, p. 86). However, mounting empirical evidence suggests that there is a decline in trust toward the scientific community among conservatives in the United States (see Mann & Schleifer, 2020). For example, political polarization on scientific issues such as climate change (Farrell, 2016) and vaccine safety (McCoy, 2020) in particular has been well established. Political conservatives are significantly more likely to rebut climate change and oppose mandatory vaccination compared to liberals.

Pechar, Bernauer, and Mayer (2018) postulates that the underlying mechanism behind this phenomenon is aversion and fear toward the policy implications of the science rather than inherent distrust of science and the scientific process. This is an important distinction, as distrust of science can vary as a function of topic and context. Indeed, McCright, Dentzman, Charters, and Dietz (2013) found that conservatives were significantly more likely to trust and support science that provides new innovations and inventions (e.g., production science that increases industrial capitalist production such as robotics and automation), but less likely to trust and support science that has environmental and public health impacts (e.g., impact science that raises concerns about the adverse effects of economic production such as global warming or vaccination). In contrast, liberals were significantly more likely to trust impact science compared to production science. Given that the CDC focuses on impact science surrounding public health, we hypothesize that:

H6. Conservatism will predict more negative attitudes (e.g., reputation and credibility) toward the CDC in the context of COVID-19.

H7. Conservatism will predict a higher contingency advocacy stance toward the CDC by the public.

3.3. Proposed model

To recap, within the contingency theory framework, we propose that threat appraisal and attitudinal assessments of the organization (reputation and credibility) by the public are two prominent situational variables that need to be highlighted to understand SDA during a public health crisis such as COVID-19. In this framework, we propose that political ideology is an important individual-level antecedent variable to contingency theory, as society becomes more politically divided and public health crises become socially charged. Finally, we propose that there exists a positive and significant path between SDA and actual behaviors, arguing that SDA is a strong indicator for predicting behavior during public health crises (Fig. 1).

4. Method

4.1. Survey procedure and sample

A nationwide online survey of U.S. adults (aged 18-7+) was conducted via Qualtrics from November 12–20, 2020. Samples were selected based
on quota sampling from Qualtrics panelists to represent the U.S. population in terms of gender (50:50), age (18–34 = ~33 %; 35–55 = ~33 %; 55+ = ~33 %), race/ethnicity (non-Hispanic White = ~66 %; non-Hispanic Black = ~12 %; Hispanic = ~12 %; other = ~10 %), and region of residency (Midwest = ~20 %; Northeast = ~20 %; South = ~40 %; West = ~20 %). These four demographic criteria were determined in consideration of their potential influences on political ideology addressed in previous studies (e.g., age in DeSilver, 2014; race in Hajnal & Trounstine, 2014; gender in Pratto, Stallworth, & Sidanius, 1997; region in Jones, 2019; Weakliem & Biggert, 1999), which would be particularly important given the highly politicized nature of the COVID-19 pandemic (Calvillo et al., 2020; Hart, Chinn, & Soroka, 2020; van Holm et al., 2020). These items were asked in the beginning of the survey for screening questions to fulfill the quotas.

The current study was approved by the Institutional Review Board and the survey was conducted according to the ethical guidelines of human subject research. Respondents were invited via email to participate before they were directed to the main survey. The majority of respondents completed the survey in 10–15 min; to maintain data quality, those who completed it in less than 8 min were not included in the dataset.

Among a total of 490 valid responses, the gender of respondents was well-balanced (male = 49.5 %; female = 50.1 %), and their ages ranged between 18 and 92, with an average of 44.72 (SD = 16.99). The majority of respondents identified themselves as White (59.9 %), followed by Hispanic (17.4 %), Black or African American (13.3 %), and Asian (6.3 %). For educational attainment, 25.7 % graduated high school or obtained less education, 31.2 % had some college experience or an associate degree, 27.9 % were college graduates (i.e., Bachelor’s degree holders) and 15.1 % had a graduate degree or higher.1 After excluding one case due to missing responses, a dataset of 489 respondents was analyzed to test the proposed hypotheses.

4.2. Measurements

Threat appraisal of COVID-19 was measured in two dimensions: perceived severity and vulnerability. The two dimensions were measured on a 7-point scale using three statements adapted from Hong (2011) for each dimension. The items for perceived severity included: (a) I believe that COVID-19 is a serious condition; (b) I believe that COVID-19 is very harmful for my health; and (c) I believe that COVID-19 has serious negative consequences (M = 5.75; SD = 1.607; α = .93). Perceived vulnerability was measured by asking respondents to rate how much they agree with the following statements: (a) I am susceptible to getting COVID-19; (b) I am at risk for getting COVID-19; and (c) It is possible that I will get COVID-19 (M = 4.60; SD = 1.700; α = .89).

Respondents were asked to rate their attitudes toward the CDC in the dimensions of organizational reputation and credibility on a 7-point scale. The six items for measuring the CDC’s credibility were modified from Newell and Goldsmith (2001): (a) CDC has a great amount of experience; (b) CDC is skilled in what they do; (c) CDC has great expertise; (d) I trust the CDC; (e) CDC makes truthful claims; and (f) CDC is honest, I believe what they tell me (M = 4.99; SD = 1.477). The third item was excluded from further analysis because it significantly lowered the measurement’s internal consistency. Without the third item, the internal consistency was satisfactory as represented by Cronbach’s α score of .92. Three items from Fombrun, Ponzi, and Newbury (2015) were used to measure reputation: (a) CDC is open and transparent about the current situation, I will be _______ (a) to yield to the CDC’s demands; (b) to agree to follow what CDC proposed; (c) to accept the CDC’s guideline, a new item was added to fit the CDC’s political ideology was measured on a 9-point scale from 1 to 9 = extremely conservative (M = 5.11; SD = 2.424). Political ideology was asked at the end of survey, following all the items related to threat appraisal, attitude toward the CDC, SDA, and protective behaviors. Respondents were asked to identify their socio-demographic status,
including age (indicated by the year of birth), gender, educational level, region of residency (i.e., state in which they live) and the type of residential area (i.e., urban, suburban, rural).

5. Results

To test the proposed hypotheses in a comprehensive model, structural equation modeling (SEM) was applied using the AMOS program (version 25.0). In addition to the hypothesized causal relationships, a double-headed arrow was added in the final model to simultaneously consider covariance between threat appraisal and attitude toward the CDC based on the results of the model modification indices. Multiple model fit indices showed that the proposed model was well-fitted to the current data ($\chi^2(14) = 14.882, p = .386; \chi^2/df = 1.063; GFI = .993, AGFI = .981; NFI = .991; CFI = .999; RMSEA = .011; RMR = .042$). The model was especially satisfactory in meeting the most conservative criterion of non-significant Chi-square statistics ($p > .05$), meaning that there is no significant discrepancy between the proposed model and the data. In addition, the model’s goodness of fit successfully met the joint criteria recommended by Hu and Bentler (1999) (CFI $\geq .95$ and SRMR $< .08$ or RMSEA $< .06$ and SRMR $< .08$). Given the sufficient model fitness, the statistical significance of each path in the model was examined.

As seen in Table 1 and Fig. 2, paths in the proposed model were all statistically significant at $p < .001$, except one path indicating the relationship between political ideology and SDA. First, as hypothesized (H1), threat appraisal was positively associated with contingency accommodation stance toward the CDC ($\beta = .222, p < .001; B = .226, SE = .061$). This means that those who appraised COVID-19 as more threatening tended to take a higher accommodation stance toward the CDC.

Supporting H2, attitude toward the CDC successfully predicted the variance of contingency accommodation stance ($\beta = .392, p < .001; B = .539, SE = .048$). This result is partly consistent with the major persuasive factors of political ideology, where across different research settings, conservatives have been found to be more sensitive and aversive to threat (Hibbing et al., 2014; van Leeuwen & Park, 2009). One reason for this may be the ways conservative political elites and partisan media have framed COVID-19, such as consistently downplaying the threat. In addition, empirical research did not directly lead to SDA ($\beta = -.021, p = .555; B = -.012, SE = .020$), thus H7 was not supported.

6. Discussion

This study applied the contingency theory of conflict management to examine how contingency factors influence the public’s perceptual and behavioral responses to COVID-19, and the role of stance towards the CDC’s prevention measures in this dynamic. Our results revealed that the two situational variables, threat appraisal and attitude toward the CDC, positively influenced the public’s contingency accommodation stance toward the CDC.

First, the respondents were more likely to take an accommodative stance toward the CDC when they perceived higher severity of and vulnerability to COVID-19. This finding shows that the association between threat appraisal and stance movement demonstrated in the contingency literature on organizational crises (e.g., Jin et al., 2007; Pang et al., 2006) also applies to the context of public health crises. It should be noted that the accommodation stance here includes both action-based (e.g., following the CDC recommendations) and qualified-rhetoric-mixed accommodations (e.g., changing own position toward that of the CDC, making concessions with the CDC).

The respondents were also likely to take an accommodative stance when their attitude (reputation and credibility) toward the CDC was more favorable. This finding demonstrates the role of reputation, one of the most influential situational factors in determining public stance toward the health organization (Cancel et al., 1999). Along with reputation, perceived credibility, which included the organization’s experience, expertise, trustworthiness, and honesty, also played a role. Furthermore, respondents’ attitude toward the CDC was found to have a relatively substantial influence ($\beta = .63$) on the accommodation stance movement, emphasizing the importance of reputation management and public relations efforts to build a credible, trustworthy organization. In sum, during a time of public health crisis, publics determine their accommodation stance to the responsible organization considering the appraisal of the threat itself and the organization.

This study also proposed and tested a new contingency variable: political ideology. The results show that conservative respondents tended to perceive the COVID-19 pandemic as less threatening and reported more negative attitudes toward the CDC as compared to liberal respondents. These findings are actually inconsistent with the major premises of political ideology, where across different research settings, methods, sample types, and countries, conservatives have been found to be more sensitive and aversive to threat (Hibbing et al., 2014; van Leeuwen & Park, 2009). One reason for this may be the ways conservative political elites and partisan media have framed COVID-19, such as consistently downplaying the threat. In addition, empirical research

Table 1

| Variable                                      | $\beta$ | $B$   | S.E. | C.R. | $p$ |
|-----------------------------------------------|--------|-------|------|------|-----|
| Threat appraisal                              | -.176  | -.097 | .029 | -3.381| <.001|
| Attitude toward the CDC                       | -.192  | -.114 | .028 | -4.120| <.001|
| SDA                                           | .222   | .226  | .061 | 3.726 | <.001|
| SDA                                          | .627   | .594  | .048 | 12.258| <.001|
| SDA                                          | -.021  | -.012 | .020 | -.591 | .555|
| Severity                                     | .834   | 1.000 |      |      |     |
| Vulnerability                                | .487   | .616  | .077 | 8.002 | <.001|
| Credibility                                  | .950   | .975  | .040 | 24.283| <.001|
| AA                                           | .934   | 1.000 |      |      |     |
| QRA                                          | .801   | .751  | .037 | 20.127| <.001|
| Protective behaviors                          | .239   | .141  | .037 | 3.780 | <.001|
| Protective behaviors                         | .462   | .279  | .051 | 5.493 | <.001|
| Covariance                                   | .529   | .984  | .117 | 8.384 | <.001|

Note. SDA = Stance as degree of accommodation; AA = Action-Based Accommodations; QRA = Qualified-Rhetoric-Mixed Accommodations.
suggests that elites and media can reverse baseline perceptions (e.g., Carmichael et al., 2017).

An interesting finding of this study is that the respondents’ political ideology influenced their accommodation stance to the CDC indirectly through threat appraisal and attitudes toward the CDC. That is, the degree of conservatism lowered threat appraisal and generated less favorable attitudes toward the CDC, which in turn led to a more accommodating stance toward the CDC. This result demonstrates that political ideology, an individual characteristic variable, may function as one of the key individual-level predisposing variables that determine public stance movement. While we tested political ideology in the context of a public health crisis, this variable may be applied to any other issue that is politicized. This is particularly important in the current social climate, where politics have become more personal and intimately integrated into one’s lifestyle choices (e.g., supporting companies that practice fair labor, LGBTQ equality, etc.). An in-depth understanding about the primary public’s political ideology can help practitioners identify what mobilizes them to take action. With this knowledge, practitioners can better allocate organizational resources and determine initial stance to strategically prepare for potential conflict situations.

More importantly, the current study found that the public’s accommodative stance to the CDC significantly influences their actual protective behaviors. The more accommodating the stance the respondents took, the more they were willing to follow the CDC’s prevention and protection measures (e.g., wearing a face mask, practicing social distancing, etc.) in their daily lives. To our knowledge, this is one of the only contingency studies that has investigated the outcomes of the stance at the behavioral level using participant data. Previous studies inferred a relationship between stance and behavior using large-scale content analyses or by measuring behavior intentions (Jin et al., 2006; Pang et al., 2006). The findings of the current study demonstrate that an individual’s accommodative stance significantly influences their enactment of behaviors accordingly.

6.1. Practical implications

The current study also provides a few practical implications for practitioners, especially those in the public health sector. Despite the increasing number of national and international public health crises and the growing importance of the roles of public health organizations, little is known about how the public’s stance toward a health organization would influence their decisions to follow the organization’s guidelines. The application of contingency theory as demonstrated in the current study can help practitioners better understand the key factors of the public stance. First of all, the findings suggest that considering the political ideology of public may help with health message targeting. The current findings demonstrated the need to segment conservative versus liberal population groups in order to enhance the effectiveness of public health interventions, along with other socio-demographic factors (e.g., gender) for health message tailoring (e.g., Albrecht & Bryant, 1996; McQueen, Vernon, Meissner, & Rakowski, 2008). Given the polarized media environment in the US, practitioners may need to access different target publics through their preferred media channels. More importantly, though, health officials and political elites should strive to depoliticize public health issues and create consensus in putting guidelines to prevent the spread of disease (Webster & Abramowitz, 2017). Public health organizations should also note that the organization’s reputation ultimately influences the public’s decisions about whether to follow the prevention guidelines recommended by the organization. Therefore, it is important that public relations practitioners make continuous efforts to build and maintain a solid and credible reputation of responsible organizations through consistent relationship-building strategies. At the same time, these efforts can be complicated and undermined by intentional efforts to create discord for partisan gain. While contingency theory recognizes that conflict can be intentionally generated to increase awareness and advocate for change in health behavior (e.g., Lumpkins, Bae, & Cameron, 2010), it has not yet examined the influence of conflict generated by political elites. Future researchers must consider the type and influence of intentional conflict generation among experts and leaders during public health crises to further understand this relationship.

6.2. Limitations and directions for future research

The present study has limitations. First, although we examined both situational and predisposing variables under the contingency framework, we did not test the entire range of contingency variables that the theory proposes. We suggest that future researchers examine other key variables (e.g., leadership style) applicable but disregarded in this study to better utilize the contingency framework for predicting the public’s stance and behaviors in a public health crisis.

In addition, future researchers should examine the role of emotions in the current model where political ideology, through threat appraisal and attitudes toward the CDC, influences public accommodative stance toward the organization. Yang, Chu, and Kahlor (2019) assessed how threat perceptions would lead to different levels of emotions among conservatives and liberals (e.g., “fearful conservatives, angry liberals,” p. 742), which then influence their information behaviors. Although the
respondents’ emotions were beyond the scope of the current investigation, it is plausible that political ideology along with discrete emotions would interplay with threat appraisal (probably in relation to fear), attitudes toward the CDC (in relation to anger), and one’s accommodative stance toward the CDC and its intervention efforts. Future studies investigating the role of emotions would extend the current findings by answering the Jin et al.’s (2006) call to extend contingency research to public emotions.

6.3. Conclusion

This study contributes to the body of knowledge in public relations by offering empirical support for the contingency framework to better understand the dynamic mechanism behind the movement of public stance toward a health organization and subsequent behavior during a public health crisis. More importantly, the findings of this study clearly demonstrate that an individual’s political ideology, through threat appraisal and attitudes toward a public health organization, influences their public accommodative stance toward the organization and actual behaviors to follow recommended prevention measures.

Data availability

Data will be made available on request.

Declaration of Competing Interest

The authors report no declarations of interest.

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