# Talking About COVID-19 is Positively Associated With Team Cultural Tightness: Implications for Team Deviance and Creativity

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The COVID-19 pandemic has dramatically affected everyone's work and daily life, and many employees are talking with their coworkers about this widespread pandemic on a regular basis. In this research, we examine how talking about crises such as COVID-19 at the team level affects team dynamics and behaviors. Drawing upon cultural tightness–looseness theory, we propose that talking about the COVID-19 crisis among team members is positively associated with team cultural tightness, which in turn benefits teams by decreasing team deviance but hurts teams by decreasing team creativity. Furthermore, we suggest that team virtuality moderates and weakens these indirect effects because face-to-face communication about COVID-19 is more powerful in influencing team cultural tightness than virtual communication. Results from a multisource, three-wave field study during the pandemic lend substantial support to these hypotheses. We discuss the theoretical and practical implications of these findings and directions for future research.

Keywords: COVID-19 pandemic, crisis talk, cultural tightness, deviance, creativity

Supplemental materials: https://doi.org/10.1037/apl0000918.supp

As of this writing (March 3, 2021), the COVID-19 pandemic has killed over 2.5 million people (Word Health Organization, 2020) and caused global disruption to businesses (Carlsson-Szlezak et al., 2020). According to the communication and clinical psychology literature, people naturally talk to each other when they face a crisis, broadly defined as a low probability event or situation perceived by

to provide indirect support for such a hypothesis. For example, terror management theory suggests that talking about events related to death can increase mortality salience (Greenberg et al., 1997), which increases the defense of in-group cultural norms (Rosenblatt et al., 1989) and group affiliation (Castano et al., 2002), and in turn would likely lead to formation of a tight team culture. Similarly, research on threat-rigidity suggests that when exposed to external threats, a threat-avoidance mechanism promotes team members to create strong pressures toward uniformity and rely on leaders (Staw et al., 1981; Yam et al., 2020). Integrating these rationales, we propose:

*Hypothesis 1:* Team COVID-19 talk is positively related to team cultural tightness.

# The Effect of Team Cultural Tightness on Team Deviance and Team Creativity

According to cultural tightness–looseness theory, teams with a tight culture value predictability and homogeneity, whereas loose teams condone ambiguity and heterogeneity (Gelfand et al., 2006). At the nation level, research has indeed found that cultural tightness is negatively associated with creative outputs but is positively associated with social orders (Jackson et al., 2019). Accordingly, we posit that team cultural tightness shapes team norm-breaking behaviors (e.g., deviance and creativity) to protect teams from external threats.

## **Team Deviance**

With more situational constraints and structured situations, a tight culture has a low tolerance for deviance and punishment is more severe against violators because deviance threatens teams' stability and coherence, leading teams to be more vulnerable to external threats (Gelfand et al., 2006, 2011). Influenced by team cultural tightness, members are more likely to exhibit a higher level of selfcontrol and refrain from deviance (Gelfand et al., 2011). Over time, they are more likely to internalize these norms so that norm adherence becomes effortless and no longer requires as much self-control (Lian et al., 2017). These processes, in turn, likely reduce team deviance.

*Hypothesis 2:* Team COVID-19 talk has a negative indirect effect on team deviance via team cultural tightness.

#### Team Creativity

Creativity is a process of exploring the unknown and often requires teams to deviate from norms (Brenkert, 2009). Research has revealed a negative association between creativity and rule adherence (Ng & Yam, 2019). In culturally tight teams, these norm violations are likely to be met with sanctions, so team members are unlikely to pursue creativity (Harrington & Gelfand, 2014). Furthermore, in line with research on threat-rigidity, when exposed to salient external threats, teams exhibit strong preferences for conformity and reaching consensus, which further prohibit the development of novel ideas (Staw et al., 1981). Therefore, even though creativity is generally considered to be beneficial for teams, being creative is not encouraged in teams with tight culture. Although research on the effects of team cultural tightness on creativity is scarce, Harrington and Gelfand (2014) found that cultural tightness at the state level is negatively related to creativity, innovation, and level of openness among the 50 U.S. states. We suggest that these effects are likely to be observed at the team level as well. For example, when an employee in a tight culture has a creative idea, he or she will likely be less vocal about the creative idea with the hope to not deviate from established group norms. Even if he or she does voice the creative idea to teammates and leaders, they are more likely to forgo the creative idea because implementing creative ideas necessitates departures from established group norms.

*Hypothesis 3:* Team COVID-19 talk has a negative indirect effect on team creativity via team cultural tightness.

## The Moderating Effect of Team Virtuality

We further suggest that team virtuality is an important boundary condition that could weaken the positive relationship between team COVID-19 talk and team cultural tightness. The primary reason is that virtual forms of interaction contain lower levels of interaction richness in terms of facial expression, tone, body language, etc. (Chandler & Munday, 2011; Derks et al., 2008). The absence of these nonverbal cues leads to ambiguity in intention, lack of emotional intensification, lower self-disclosure, and less mimicry among members (Brodsky, 2020). Indeed, numerous studies have found that virtual communication (e.g., emails, online chat, etc.) is less effective for building relationships, mutual understanding, and disseminating information vis-à-vis in-person communication (Barkhi et al., 1999; Foster et al., 2015; Martins et al., 2004). In the context of team COVID-19 talk, face-to-face communication can communicate the salience of threats and mortality much more effectively and authentically compared to other forms of communication medium. Thus, when teams use less virtual communication tools with their teammates, team COVID-19 talk would be more likely to form a tight team culture. Taken together, low levels of team virtuality are likely to make the threats of COVID-19 fostered by team COVID-19 talk more salient, thus strengthening the relationship between team COVID-19 talk and team cultural tightness.

*Hypothesis 4:* Team virtuality moderates the positive relationship between team COVID-19 talk and team cultural tightness such that this relationship is positive and stronger when team virtuality is low.

Combining our logic, we propose the following moderated mediation hypotheses:

*Hypothesis 5:* Team virtuality moderates the negative indirect effect of team COVID-19 talk on team deviance via team cultural tightness such that the indirect effect is negative and stronger when team virtuality is low.

*Hypothesis 6:* Team virtuality moderates the negative indirect effect of team COVID-19 talk on team creativity via team cultural tightness such that the indirect effect is negative and stronger when team virtuality is low.

#### Method

We collected multisource, three-wave data in Southern China. In the first wave of data collection (i.e., April 20, 2020), the cities in which data were collected had stabilized in terms of COVID-19 infection, thus enabling this data collection. All employees in the sample worked full time, and many were offered the option to work from home and interact with each other by virtual tools. Through informal conversations with most team leaders, they acknowledged that their team members work interdependently as a team on most tasks, thereby justifying our decision to treat our data at the team level. Initially, we sent 200 email invitations that described the study (purposes, requirements, and confidentiality) to alumni, who voluntarily joined the alumni associations of three universities. A total of 116 supervisors who were alumni themselves, had at least three subordinates, and only led one team, agreed to participate and provided us with a full list of their employees and contact information. To ensure team representativeness (Hirschfeld et al., 2013), we randomly and independently invited four employees (or three employees for teams with only three members) from each team to participate, and a total of 425 employees participated. We used identification codes to match team members' and their supervisors' survey responses across the three waves to ensure confidentiality. Each of the three waves was separated by one week. At Time 1 (T1), employees rated team COVID-19 talk and team cultural tightness, and reported demographic information (for a response rate of 92.5%). At T2, we only sent questionnaires to employees who completed T1 surveys and asked them to rate team cultural tightness again (for a response rate of 93.6%). At T3, supervisors rated their teams' virtuality, deviance, and creativity.

After matching the data from both subordinates and supervisors across the three waves, we obtained a final sample of 351 employees  $(M_{age} = 31.0, 48.4\%$  female, 91.2% had a bachelor's degree) and 103 supervisors ( $M_{age} = 34.5, 37.9\%$  female, 96.1% had a bachelor's degree; for a final response rate of 82.6% and 88.8% for employees and supervisors, respectively). The average team size was 12.5, ranging 3–42. A total of 64 teams (62.1%) had fewer than 11 members; 22 teams (21.4%) had between 11 and 20 members; and 17 teams (16.5%) had more than 20 members. Participants were all white-collar employees from different departments, including technology (40.5%), administration (14.0%), finance (9.4%), marketing (7.1%), and others (29.1%). Employees and supervisors in our final sample were not significantly different in terms of demographics, COVID-19 talk, and cultural tightness from those who were excluded from the analyses (ps > .10).<sup>2</sup>

## Measure

Unless otherwise specified, all scales were rated using a 5-point Likert scale ( $1 = Strongly \ disagree$ ,  $5 = Strongly \ agree$ ). We followed the standard back-translation procedure (Brislin, 1980) to translate English scales into Mandarin Chinese. All scale items are available in Appendix.

# Team COVID-19 Talk (T1)

We adapted five items to reflect our definition of team COVID-19 talk based on Baer et al.'s (2018) unfairness talk scale.<sup>3</sup>

Participants rated the frequency of COVID-19 talk within their teams (1 = *Almost never*, 5 = *Almost always*;  $\alpha$  = .92). As employees' ratings were aggregated to the team level, to justify aggregation, we computed within-group interrater agreement ( $r_{wg(j)}$ ; James et al., 1993) and intraclass correlation (ICC) values. The mean  $r_{wg(j)}$  of team COVID-19 talk was .88, ranging .21–1.00. Both the *F*-test and intraclass correlations produced acceptable values, F[102, 248] = 1.94, p < .01; ICC[1] = .22; ICC[2] = .48.

#### Team Cultural Tightness (T2)

We measured team cultural tightness by adapting the six-item cultural tightness scale developed by Gelfand et al. (2011) to the team level ( $\alpha$  = .75). Employees' responses were aggregated to the team level, mean  $r_{wg(j)}$  = .94, ranging .49–1.00; *F*[102, 248] = 2.11, *p* < .01; ICC[1] = .25; ICC[2] = .53.

#### Team Virtuality

We measured team virtuality with a proxy—the number of days team members work from home, as the more days team members work from home, the fewer face-to-face interactions they have and the more they have to use virtual communication at work (Maynard et al., 2012). Supervisors reported the average number of days their team members worked from home the week prior to T1 as a whole.<sup>4</sup> In other words, because we collected the first wave of data during the week of April 20th, supervisors reported the number of days their team members worked from home during the week of April 13th. The distribution of this variable is continuous rather than binary, ranging 0–5 days.

#### Team Deviance (T3)

We measured team deviance with the adapted 10-item team-level deviance scale developed by Spector et al. (2006;  $\alpha = .86$ ).

## Team Creativity (T3)

We adapted Madjar et al.'s (2011) three-item scale of radical creativity to measure team creativity ( $\alpha = .88$ ).

<sup>&</sup>lt;sup>2</sup> Our research procedure complied with American Psychological Association's (APA's) policies and ethical guidelines and common Institutional Review Board (IRB) standards, even though the Chinese institutions that employ the authors in charge of data collection did not have an IRB. Particularly, we guaranteed participants' confidentiality throughout the entire research, and allowed them to withdraw from the study at any given time.

<sup>&</sup>lt;sup>3</sup> According to Hinkin's (1998) suggestions, we recruited 18 experts including 13 professors and five PhD candidates in organizational behavior to evaluate the extent to which these five items matched the definition of team COVID-19 talk (i.e., team members' discussions about the contents related to COVID-19; 1 = *Item is an extremely bad match*, 5 = *Item is an extremely good match*). The average score of item match was 4.58, which is comparable to scores in previous studies (e.g., Colquitt et al., 2014; Rodell, 2013). Also, interrater agreement ( $r_{wg(j)}$ ) among the experts was .95. Thus, these five items were well matched with the definition of team COVID-19 talk.

<sup>&</sup>lt;sup>4</sup> We selected the time frame of the week prior to *T*1 in measuring workfrom-home days, because the flexible work practices (e.g., working from home) are relatively stable over the study period. Indeed, at the end of the study we confirmed with each team leader that their organizations' workfrom-home policy did not change during the study period.

## **Control Variables**

We controlled for team characteristics (i.e., team size, average gender, age, education, and dyadic tenure) and leader characteristics (i.e., gender, age, and education) owing to their established relationships with team cultural tightness, deviance, and creativity (Becker, 2005; Bernerth & Aguinis, 2016; Spector & Brannick, 2011).<sup>5</sup> Furthermore, in line with previous research (e.g., Del Carmen Triana et al., 2013), to verify that team COVID-19 talk has incremental effects beyond the effects of prior team cultural tightness, we also controlled for team cultural tightness in T1. We assessed it using the same cultural tightness scale described above,  $\alpha = .73$ ; mean  $r_{wg(j)} = .96$ , ranging .88–1.00; F[102, 248] = 1.76, p < .01; ICC[1] = .18; ICC[2] = .43. We note that removing these controls does not affect the statistical significance of our findings, and all reported coefficient bs were comparable in effect size (+/-.06); see Tables S1-S3 from online supplemental materials). We also note that including team response as a dummy control does not affect the statistical significance of our findings, and all reported coefficient bs were comparable in effect size (+/-.13).

# **Analytic Strategy**

To test our hypotheses, we used ordinary least squares (OLS) regression, given that all focal variables are at the team level. In addition, we used the PROCESS macro (V.3.5) to estimate the confidence intervals (CIs) of the indirect effects (i.e., PROCESS Model 4) and the first-stage moderated mediation effects (i.e., PROCESS Model 7; Hayes, 2017). As a robustness test, we further used structural equation modeling (SEM) to replicate our findings.

#### Results

Descriptive statistics and correlations are reported in Table 1. Prior to hypothesis testing, we conducted multilevel confirmatory factor analyses (CFAs) for team COVID-19 talk (T1), team cultural tightness (T1), team cultural tightness (T2), team deviance (T3), and team creativity (T3) to ensure their discriminant validity. Team COVID-19 talk (T1), team cultural tightness (T1), and team cultural

 Table 2

 Results for Estimated Coefficients of the Mediation Model

Mediator: Team cultural tightness (T2)			DV:	Team devia	nce (T3)	DV: Team creativity (T3)		
b	SE SE	t	B	SE	$\frac{1}{t}$	<u>b</u>	SE	$\frac{t}{t}$
-0.00	0.00	-0.60	-0.00	0.00	-0.63	-0.00	0.01	-0.03
-0.05	0.10	-0.54	0.03	0.11	0.25	-0.17	0.26	-0.67
-0.01	0.01	-1.62	-0.00	0.01	-0.54	0.00	0.02	0.02
-0.09	0.04	$-2.35^{*}$	0.01	0.05	0.25	0.08	0.11	0.71
0.01	0.01	0.77	-0.00	0.01	-0.23	-0.06	0.04	-1.69
0.04	0.07	0.65	-0.00	0.07	-0.06	0.19	0.18	1.06
0.00	0.00	0.51	0.00	0.01	0.21	-0.02	0.01	-1.94
-0.03	0.03	-1.02	0.03	0.03	0.98	-0.13	0.07	-1.79
0.17	0.12	1.40	-0.20	0.14	-1.45	0.20	0.33	0.60
0.22	0.07	3.26**	0.02	0.08	0.24	-0.11	0.19	-0.61
			-0.39	0.12	-3.32**	-0.78	0.28	-2.82**
3.90	0.03	127.08***	2.96	0.45	6.52***	6.20	1.08	5.72***
0.25			0.23			0.20		
3.07**			2.43*		2.10*			
	Mediator: b -0.00 -0.05 -0.01 -0.09 0.01 0.04 0.00 -0.03 0.17 0.22 3.90 0.25 3.07**	$\begin{tabular}{ c c c c c c c } \hline Mediator: Team cult (T2) \\ \hline b & SE \\ \hline -0.00 & 0.00 \\ -0.05 & 0.10 \\ -0.01 & 0.01 \\ -0.09 & 0.04 \\ 0.01 & 0.01 \\ 0.04 & 0.07 \\ 0.00 & 0.00 \\ -0.03 & 0.03 \\ 0.17 & 0.12 \\ 0.22 & 0.07 \\ \hline & 3.90 & 0.03 \\ 0.25 \\ 3.07^{**} \end{tabular}$	Mediator: Team cultural tightness (T2)           b         SE         t $-0.00$ $0.00$ $-0.60$ $-0.05$ $0.10$ $-0.54$ $-0.01$ $0.01$ $-1.62$ $-0.09$ $0.04$ $-2.35^*$ $0.01$ $0.01$ $0.77$ $0.04$ $0.07$ $0.65$ $0.00$ $0.00$ $0.51$ $-0.03$ $0.03$ $-1.02$ $0.17$ $0.12$ $1.40$ $0.22$ $0.07$ $3.26^{**}$ $3.90$ $0.03$ $127.08^{***}$ $0.25$ $3.07^{**}$	$\begin{tabular}{ c c c c c c c } \hline Mediator: Team cultural tightness (T2) & DV: \\ \hline \hline b & SE & t & \hline B & \\ \hline \hline -0.00 & 0.00 & -0.60 & -0.00 & \\ -0.05 & 0.10 & -0.54 & 0.03 & \\ -0.01 & 0.01 & -1.62 & -0.00 & \\ -0.09 & 0.04 & -2.35^* & 0.01 & \\ 0.01 & 0.01 & 0.77 & -0.00 & \\ 0.04 & 0.07 & 0.65 & -0.00 & \\ 0.00 & 0.00 & 0.51 & 0.00 & \\ -0.03 & 0.03 & -1.02 & 0.03 & \\ 0.17 & 0.12 & 1.40 & -0.20 & \\ 0.22 & 0.07 & 3.26^{**} & 0.02 & \\ & -0.39 & \\ \hline 3.90 & 0.03 & 127.08^{***} & 2.96 & \\ \hline 0.25 & 0.23 & \\ 3.07^{**} & 2.43^* & \\ \hline \end{tabular}$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $

*Note.* n = 103 teams. For gender, 0 = female, 1 = male. T1/2/3 = Time 1/2/3. Unstandardized regression coefficients are reported. \*p < .05. \*\*p < .01.

positive effect on team cultural tightness (b = .22, p = .002). Thus, Hypothesis 1 was supported. We then used the PROCESS macro (Model 4) to examine the unstandardized indirect effect coefficients (a bootstrapping procedure with 5,000 resamples) pertaining to Hypotheses 2 and 3. Results revealed that the indirect effect of team COVID-19 talk on team deviance via team cultural tightness was significant, estimate = -.08, 95% CI = [-.17, -.03]. Likewise, the indirect effect of team COVID-19 talk on team cultural tightness was significant, estimate = -.17, 95% CI = [-.36, -.05]. Thus, Hypotheses 2 and 3 were supported.<sup>6</sup>

To test Hypotheses 4-6, we used the PROCESS macro (Model 7) to test the moderated mediation model (Tables 3 and 4). As shown in Table 3, the interaction of team COVID-19 talk and team virtuality was significant and negative in predicting team cultural tightness (b = -.13, p = .001; Figure 1). Simple slope tests indicated that the relationship between team COVID-19 talk and team cultural tightness was significant and positive when team virtuality was lower (-1 SD; b = .44, t = 4.91, p < .001) but not when team virtuality was higher (+1 SD; b = .08, t = 1.06, p = .29). Thus, Hypothesis 4 was supported. Furthermore, for team deviance, results from PROCESS Model 7 revealed that the index of moderated mediation was significant (index = .05; 95% CI = [.01, .09]). The indirect effect of team COVID-19 talk on team deviance via team cultural tightness was significant and negative when team virtuality was lower (-1 SD;estimate = -.17; 95% CI = [-.29, -.07]) but not when team virtuality was higher (+1 SD; estimate = -.03; 95% CI = [-.10,.02]). For team creativity, the index of moderated mediation was likewise significant (index = .10; 95% CI = [.02, .20]). The indirect effect of team COVID-19 talk on team creativity via team cultural tightness was significant and negative when team virtuality was lower (-1 SD; estimate = -.34; 95% CI = [-.61, -.12]) but not when team virtuality was higher (+1 SD; estimate = -.06; 95% CI = [-.21, .04]). Thus, Hypotheses 5 and 6 were supported. Finally, for presentational parsimony, we

also presented all results using SEM. The model displays a good fit to our data ( $\chi^2[4] = 6.77$ , p = .15; CFI = .96, SRMR = .03, RMSEA = .08) and all hypothesized paths were significant (Figure 2; see Figure S1 for the same model without controls from online supplemental materials).

#### **General Discussion**

People often share and talk about public crises, with their family, friends, and colleagues. However, we know little about the effects of such talk on organizational behavior. In this research, we explore how societal crises and their resultant talks influence team dynamics and outcomes. Specifically, we find that team COVID-19 talk, as a manifestation of crisis talk, is positively associated with team cultural tightness, which in turn is negatively associated with team deviance and team creativity. Furthermore, these indirect effects are buffered by team virtuality.

#### **Implications for Theory**

Our research makes several important theoretical contributions to the literature on communication at work and cultural tightness. First, by linking the literature on crisis talk and cultural tightness, we focus on a natural team members' response to macrocrises—talking about crises, and further investigate how and when such a talk influences team processes and outcomes. Notably, prior organizational behavior research on talk has primarily focused on personally relevant events (e.g., Baer et al., 2018), but with the COVID-19 impacting

<sup>&</sup>lt;sup>6</sup> Although our main analyses focus on team (radical) creativity, we also measured team incremental creativity using Madjar et al.'s (2011) three-item measure ( $\alpha = .86$ ). Results were not significant when team incremental creativity was modeled as a dependent variable in either the simple indirect effect or moderated mediation tests (detailed results are available from the authors upon request).

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Results f	or Estimated	Coefficients	of the	e Moderated	l Mea	liation	Model
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	Media	ator: Tea tightness	m cultural (T2)	DV: 1	Feam devi	ance (T3)	DV: T	'eam crea	tivity (T3)
Variables	b	SE	t	В	SE	t	b	SE	t
Team size	-0.00	0.00	-0.73	-0.00	0.00	-0.63	-0.00	0.01	-0.03
Team average gender	-0.05	0.09	-0.53	0.03	0.11	0.25	-0.17	0.26	-0.67
Team average age	-0.01	0.01	-0.99	-0.00	0.01	-0.54	0.00	0.02	0.02
Team average education	-0.10	0.04	$-2.58^{*}$	0.01	0.05	0.25	0.08	0.11	0.71
Team average dyadic tenure	0.01	0.01	0.49	-0.00	0.01	-0.23	-0.06	0.04	-1.69
Leader gender	0.05	0.06	0.78	-0.00	0.07	-0.06	0.19	0.18	1.06
Leader age	0.00	0.00	0.63	0.00	0.01	0.21	-0.02	0.01	-1.94
Leader education	-0.02	0.03	-0.66	0.03	0.03	0.98	-0.13	0.07	-1.79
Team cultural tightness (T1)	0.21	0.12	1.82	-0.20	0.14	-1.45	0.20	0.33	0.60
Team COVID-19 talk (T1)	0.27	0.06	4.17***	0.02	0.08	0.24	-0.11	0.19	-0.61
Team virtuality	0.02	0.02	0.90						
Team COVID-19 talk (T1) $\times$ Team virtuality	-0.13	0.04	$-3.42^{**}$						
Team cultural tightness (T2)				-0.39	0.12	$-3.32^{**}$	-0.78	0.28	$-2.82^{**}$
Constant	3.91	0.03	134.88***	2.96	0.45	6.52***	6.20	1.08	5.72***
$R^2$	0.35			0.23			0.20		
F	4.01***	¢		2.43*			2.10*		

*Note.* n = 103 teams. For gender, 0 = female, 1 = male. T1/2/3 = Time 1/2/3. Unstandardized regression coefficients are reported. \*p < .05. \*\*p < .01. \*\*\*p < .001.

everyone globally, it affords us a unique opportunity to examine the effects of crisis talk on team outcomes. We provide evidence that team COVID-19 talk, which is a manifestation of crisis talk, is a mixed blessing. Importantly, pundits have forecasted that crises will likely occur more frequently in the near future (e.g., due to climate change; Loria, 2018). By studying crisis talk in the unique context of the COVID-19 pandemic, our work provides a first step in understanding how talking about macrocrises affects team processes and outcomes. In other words, while our data were collected during COVID-19, its implications are much broader than COVID-19 and can be applied to future crises that the world might face. Overall, by responding to Kazak (2020)'s call to better understand COVID-19's impacts, our

#### Table 4

Summarv	of	Indirect	Effects	and	Conditional	Indirect	Effects
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Paths and effects	Estimates	SE	95% confidence intervals
Team COVID-19 talk (T1) $\rightarrow$ Tean	n cultural tigh	ntness (	T2) $\rightarrow$ Team
deviance (T3)			
Simple indirect effect	08	.04	[17,03]
Moderated mediation			
Lower team virtuality (-1 SD)	17	.06	[29,07]
Higher team virtuality (+1 SD)	03	.03	[10, .02]
Index of moderated mediation	.05	.02	[.01, .09]
Team COVID-19 talk (T1) $\rightarrow$ Team	n cultural tigh	tness (	T2) $\rightarrow$ Team
creativity (T3)			
Simple indirect effect	17	.08	[36,05]
Moderated mediation			
Lower team virtuality $(-1 SD)$	34	.12	[61,12]
Higher team virtuality $(+1 SD)$	06	.06	[21, .04]
Index of moderated mediation	.10	.05	[.02, .20]

*Note.* n = 103 teams. T1/2/3 = Time 1/2/3.

research links talking about major societal events (i.e., a global pandemic) to team processes and outcomes. Relatedly, our research contributes to the communication literature more generally by providing a new team culture perspective to explore the consequences of talking about other important societal events that might be threatening such as race- or terrorism-related events (Sue, 2013; Torabi & Seo, 2004).

Second, virtually all extant research on cultural tightness focuses on the nation or state level within nations (Gelfand et al., 2011; Harrington & Gelfand, 2014), while little attention has been paid to lower levels of analysis (e.g., team level; for an exception, see Kim & Toh, 2019). We answer Gelfand et al.'s (2006) call for more research on antecedents and consequences of cultural tightness in organizations. Thus, our research contributes to the cultural tightness literature by revealing that cultural tightness also can be formed within teams and the effects of cultural tightness appear to be isomorphic across levels, which is critical to extend the application of cultural tightness-looseness theory to lower levels of analysis (e.g., teams, etc.). Moreover, past research has revealed that cultural tightness is a doubleedged sword for some macrosocietal indicators at the nation level (Jackson et al., 2019), our work also echoes these findings, from a microbehavioral perspective, in that cultural tightness as a result of COVID-19 talk has both positive (i.e., decreased team deviance) and negative (i.e., decreased team creativity) implications for teams. Also, whereas past research has often suggested that an organization's or a team's cultural tightness is frequently formed via a top-down process (i.e., nations affect organizations, which affect teams; Gelfand et al., 2006; Kim & Toh, 2019), we introduce a novel and important team level antecedent of team cultural tightness-team crisis talk. These findings suggest that, beyond objective threats as a result of the crises, threat salience fostered by crisis talk can also promote the formation of team cultural tightness. Furthermore, we contribute to the cultural tightness literature by exploring a boundary condition under which team crisis talk is associated with a tighter or looser team culture. These findings not only offer a more comprehensive understanding of the effects of crisis talk on team cultural tightness, but also highlight the importance of taking team factors into account.

### **Implications for Practice**

Figure 2

The present study also provides important practical insights for organizations. First, because a tight team culture as a result of team COVID-19 talk can constrain norm-violating behaviors regardless of whether the behavior is detrimental or beneficial, it is important for team leaders to recognize this tradeoff. For example, leaders of teams that value creativity (e.g., R&D) may offer social support and practical assistance as means to reduce the anxiety associated with COVID-19, which might in turn reduce COVID-19 talk. Meanwhile, leaders of teams that value compliance (e.g., audit) may want to take measures to encourage more COVID-19 talk. It is worth noting that, while it is relatively difficult for leaders to directly control what their teams might talk about, leaders could serve as "role models" to influence the talk content and frequency to some extent. Based on their team goals, leaders could initiate (e.g., make announcements), send out materials that trigger COVID-19 talk, even offer space and time for employees to discuss such issues, or redirect team members' focus to job-related conversations. Similarly, it is also important for employees to be aware of the consequences of team COVID-19 talk and monitor themselves in teams. For example, when being informed of the constraining indirect effect of team COVID-19 talk on team creativity via cultural tightness, employees from teams that emphasize creativity may want to prevent such talk on their own.

Second, our results show that the impacts of COVID-19 talk on team cultural tightness are alleviated by team virtuality. Although leaders might sometimes be unable to control what their followers discuss, they can encourage team members to work from home, which increases team virtuality, in order to minimize COVID-19 talk's negative impacts on team creativity via cultural tightness. Furthermore, as we progress toward the "new normal," telecommuting might be the norm rather than the exception in the future. With this in mind, if team members prefer to work in the office, leaders should clearly communicate not only convergence and compliance with code of conduct but also divergence and risk taking outside of the moral domain. Doing so may help to foster both ethical and innovative workplace behaviors.

#### Strengths, Limitations, and Future Directions

Although the current research has a variety of strengths (e.g., a multisource, three-wave design), there are also several limitations. First, given the correlational nature of our study, we are unable to draw definitive causal inferences (e.g., tight team may be more likely to talk about COVID-19). As such, we recommend future research to replicate our model using a field experimental design. Relatedly, the talk literature implies that the content of talk rather than talk per se is more important in determining the consequences of talk (Reis et al., 2010; Yam et al., 2018), and talk per se is not necessarily positively related with rule building and formation process. Nevertheless, we suggest future research to take general





Note. Fit indices:  $\chi^2(4) = 6.77$ , p = .15; CFI = .96, SRMR = .03, RMSEA = .08. All control variables in PROCESS were

talk into account when exploring content-specific talks.<sup>7</sup> Furthermore, other aspects of crisis talk including the valence of the talk and the levels of self-disclosure in team COVID-19 talk might influence the results. For example, negatively- (vs. positively-) valanced, or high (vs. low) levels of self-disclosure COVID-19 talk is likely to make external threats even more salient (Baumeister et al., 2001; Laurenceau et al., 1998), further enhancing the development of a tight team culture. Relatedly,

- Bliese, P. D. (1998). Group size, ICC values, and group-level correlations: A simulation. Organizational Research Methods, 1, 355–373. https:// doi.org/10.1177/109442819814001
- Brenkert, G. G. (2009). Innovation, rule breaking and the ethics of entrepreneurship. *Journal of Business Venturing*, 24, 448–464. https://doi.org/ 10.1016/j.jbusvent.2008.04.004
- Brislin, R. W. (1980). Translation and content analysis of oral and written material. In H. C. Triandis & J. W. Berry (Eds.), *Handbook of Cross-Cultural Psychology* (pp. 389–444). Allyn & Bacon.
- Brodsky, A. (2020). Virtual surface acting in workplace interactions: Choosing the best technology to fit the task. *Journal of Applied Psychology*. Advance online publication. https://doi.org/10.1037/apl 0000805
- Bundy, J., Pfarrer, M. D., Short, C. E., & Coombs, W. T. (2017). Crises and crisis management: Integration, interpretation, and research development. *Journal of Management*, 43, 1661–1692. https://doi.org/10.1177/ 0149206316680030
- Carlsson-Szlezak, P., Reeves, M., & Swartz, P. (2020). What coronavirus could mean for the global economy. *Harvard Business Review*, 3, 1–10.
- Castano, E., Yzerbyt, V., Paladino, M. P., & Sacchi, S. (2002). I belong, therefore, I exist: Ingroup identification, ingroup entitativity, and ingroup bias. *Personality and Social Psychology Bulletin*, 28, 135–143. https:// doi.org/10.1177/0146167202282001
- Chandler, D., & Munday, R. (2011). A dictionary of media and communication. Oxford University Press.
- Chen, C., Qin, X., Johnson, R. E., Huang, M., Yang, M., & Liu, S. (2021). Entering an upward spiral: Investigating how and when supervisors' talking about abuse leads to subsequent abusive supervision. *Journal* of Organizational Behavior, 42, 407–428. https://doi.org/10.1002/ job.2501
- Chua, R. Y., Huang, K. G., & Jin, M. (2019). Mapping cultural tightness and its links to innovation, urbanization, and happiness across 31 provinces in China. Proceedings of the National Academy of Sciences of the United States of America, 116, 6720–6725. https://doi.org/10.1073/pnas .1815723116
- Colquitt, J. A., Baer, M. D., Long, D. M., & Halvorsen-Ganepola, M. D. (2014). Scale indicators of social exchange relationships: A comparison of relative content validity. *Journal of Applied Psychology*, 99, 599–618. https://doi.org/10.1037/a0036374
- Dastmalchian, A., Lee, S., & Ng, I. (2000). The interplay between organizational and national cultures: A comparison of organizational practices in Canada and South Korea using the competing values framework. *International Journal of Human Resource Management*, 11, 388–412. https:// doi.org/10.1080/095851900339927
- Del Carmen Triana, M., Porter, C. O. L. H., DeGrassi, S. W., & Bergman, M. (2013). We're all in this together ... except for you: The effects of workload, performance feedback, and racial distance on helping behavior in teams. *Journal of Organizational Behavior*, 34, 1124–1144. https:// doi.org/10.1002/job.1842
- Derks, D., Fischer, A. H., & Bos, A. E. (2008). The role of emotion in computer-mediated communication: A review. *Computers in Human Behavior*, 24, 766–785. https://doi.org/10.1016/j.chb.2007.04.004
- Deshpande, S. P. (1997). Managers' perception of proper ethical conduct: The effect of sex, age, and level of education. *Journal of Business Ethics*, 16, 79–85. https://doi.org/10.1023/A:1017917420433
- Foster, M. K., Abbey, A., Callow, M. A., Zu, X., & Wilbon, A. D. (2015). Rethinking virtuality and its impact on teams. *Small Group Research*, 46, 267–299. https://doi.org/10.1177/1046496415573795
- Gelfand, M. J., Nishii, L. H., & Raver, J. L. (2006). On the nature and importance of cultural tightness-looseness. *Journal of Applied Psychol*ogy, 91, 1225–1244. https://doi.org/10.1037/0021-9010.91.6.1225
- Gelfand, M. J., Raver, J. L., Nishii, L., Leslie, L. M., Lun, J., Lim, B. C., Duan, L., Almaliach, A., Ang, S., Arnadottir, J., Boehnke, K., Boski, P., Cabecinhas, R., Chan, D., Chhokar, J., D'Amato, A., Ferrer, M.,

Fischlmayr, I. C., Fischer, R., ... Yamaguchi, S. (2011). Differences between tight and loose cultures: A 33-nation study. *Science*, *332*, 1100–1104. https://doi.org/10.1017/S0140525X15000242

- Gilson, L. L., & Madjar, N. (2011). Radical and incremental creativity: Antecedents and processes. *Psychology of Aesthetics, Creativity, and the Arts*, 5, 21–28. https://doi.org/10.1037/a0017863
- Gino, F., & Ariely, D. (2012). The dark side of creativity: Original thinkers can be more dishonest. *Journal of Personality and Social Psychology*, 102, 445–459. https://doi.org/10.1037/a0026406
- Glowacki, E. M., Lazard, A. J., Wilcox, G. B., Mackert, M., & Bernhardt, J. M. (2016). Identifying the public's concerns and the centers for disease control and prevention's reactions during a health crisis: An analysis of a Zika live twitter chat. *American Journal of Infection Control*, 44, 1709– 1711. https://doi.org/10.1016/j.ajic.2016.05.025
- Greenberg, J., Solomon, S., & Pyszczynski, T. (1997). Terror management theory of self-esteem and cultural worldviews: Empirical assessments and cultural refinements. In M. Zanna (Ed.), Advances in experimental social psychology (Vol. 29, pp. 61–139). Academic Press.
- Harrington, J. R., & Gelfand, M. J. (2014). Tightness-looseness across the 50 United States. Proceedings of the National Academy of Sciences of the United States of America, 111, 7990–7995. https://doi.org/10.1073/pnas .1317937111
- Hayes, A. F. (2017). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach (2nd ed.). Guilford Publications.
- Hellwig, T., & Coffey, E. (2011). Public opinion, party messages, and responsibility for the financial crisis in Britain. *Electoral Studies*, 30, 417–426. https://doi.org/10.1016/j.electstud.2010.11.007
- Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, 1, 104–121. https://doi.org/10.1177/109442819800100106
- Hirschfeld, R. R., Cole, M. S., Bernerth, J. B., & Rizzuto, T. E. (2013). Voluntary survey completion among team members: Implications of noncompliance and missing data for multilevel research. *Journal of Applied Psychology*, 98, 454–468. https://doi.org/10.1037/a0031909
- Jackson, J. C., Gelfand, M., De, S., & Fox, A. (2019). The loosening of American culture over 200 years is associated with a creativity-order tradeoff. *Nature Human Behaviour*, 3, 244–250. https://doi.org/10.1038/ s41562-018-0516-z
- Jackson, J. C., Gelfand, M., & Ember, C. R. (2020). A global analysis of cultural tightness in non-industrial societies. *Proceedings. Biological Sciences*, 287, Article 20201036. https://doi.org/10.1098/rspb.2020.1036
- James, L. R., Demaree, R. G., & Wolf, G. (1993). rwg: An assessment of within-group interrater agreement. *Journal of Applied Psychology*, 78, 306–309. https://doi.org/10.1037/0021-9010.78.2.306
- Kazak, A. E. (2020). Psychology is an essential science: American Psychologist highlights the role of psychology in understanding and addressing COVID-19. *American Psychologist*, 75, 605–606. https://doi.org/10 .1037/amp0000682
- Kim, Y. J., & Toh, S. M. (2019). Stuck in the past? The influence of a leader's past cultural experience on group culture and positive and negative group deviance. Academy of Management Journal, 62, 944–969. https://doi.org/ 10.5465/amj.2016.1322
- Kirkman, B. L., & Mathieu, J. E. (2005). The dimensions and antecedents of team virtuality. *Journal of Management*, 31, 700–718. https://doi.org/10 .1177/0149206305279113
- Kozlowski, S. W. J., & Klein, K. J. (2000). A multilevel approach to theory and research in organizations: Contextual, temporal, and emergent processes. In S. W. J. Kozlowski & K. J. Klein (Eds.), *Multilevel theory*, *research, and methods in organizations: Foundations, extensions, and new directions* (pp. 3–90). Jossey-Bass.
- Laurenceau, J. P., Barrett, L. F., & Pietromonaco, P. R. (1998). Intimacy as an interpersonal process: The importance of self-disclosure, partner disclosure, and perceived partner responsiveness in interpersonal

exchanges. Journal of Personality and Social Psychology, 74, 1238–1251. https://doi.org/10.1037/0022-3514.74.5.1238

- Lehmann-Willenbrock, N., & Allen, J. A. (2014). How fun are your meetings? Investigating the relationship between humor patterns in team interactions and team performance. *Journal of Applied Psychology*, 99, 1278–1287. https://doi.org/10.1037/a0038083
- Li, Y., Li, N., Li, C., & Li, J. (2020). The boon and bane of creative "stars": A social network exploration of how and when team creativity is (and is not) driven by a star teammate. *Academy of Management Journal*, 63, 613– 635. https://doi.org/10.5465/amj.2018.0283
- Lian, H., Yam, K. C., Ferris, D. L., & Brown, D. (2017). Self-control at work. *The Academy of Management Annals*, 11, 703–732. https://doi.org/10 .5465/annals.2015.0126
- Liao, H., & Chuang, A. (2007). Transforming service employees and climate: A multilevel, multisource examination of transformational leadership in building long-term service relationships. *Journal of Applied Psychology*, 92, 1006–1019. https://doi.org/10.1037/0021-9010.92 .4.1006
- Loria, K. (2018, April 28). Bill Gates thinks a coming disease could kill 30 million people within 6 months — and says we should prepare for it as we do for war. *Business Insider*. https://www.businessinsider.com/bill-gateswarns-the-next-pandemic-disease-is-coming-2018-4
- Madjar, N., Greenberg, E., & Chen, Z. (2011). Factors for radical creativity, incremental creativity, and routine, noncreative performance. *Journal of Applied Psychology*, 96, 730–743. https://doi.org/10.1037/a0022416
- Madrid, H. P., Totterdell, P., Niven, K., & Barros, E. (2016). Leader affective presence and innovation in teams. *Journal of Applied Psychology*, 101, 673–686. https://doi.org/10.1037/apl0000078
- Mainemelis, C. (2010). Stealing fire: Creative deviance in the evolution of new ideas. *The Academy of Management Review*, 35, 558–578. https:// doi.org/10.5465/amr.35.4.zok558
- Martins, L. L., Gilson, L. L., & Maynard, M. T. (2004). Virtual teams: What do we know and where to we go from here? *Journal of Management*, 30, 805–835. https://doi.org/10.1016/j.jm.2004.05.002
- Maynard, M. T., Mathieu, J. E., Rapp, T. L., & Gilson, L. L. (2012). Something(s) old and something(s) new: Modeling drivers of global virtual team effectiveness. *Journal of Organizational Behavior*, 33, 342–365. https://doi.org/10.1002/job.1772
- Myers, C. G. (2020). Performance benefits of reciprocal vicarious learning in teams. Academy of Management Journal. Advance online publication. https://doi.org/10.5465/amj.2018.0875
- Ng, T. W., & Yam, K. C. (2019). When and why does employee creativity fuel deviance? Key psychological mechanisms. *Journal of Applied Psychology*, 104, 1144–1163. https://doi.org/10.1037/ap10000397
- Ou, A. Y., Tsui, A. S., Kinicki, A. J., Waldman, D. A., Xiao, Z., & Song, L. J. (2014). Humble chief executive officers' connections to top management team integration and middle managers' responses. *Administrative Science Quarterly*, 59, 34–72. https://doi.org/10.1177/0001839213520131
- Pavri, T. (2009). Shall we talk? Communications during crises in the India-Pakistan conflict. *The Round Table*, 98, 473–481. https://doi.org/10.1080/ 00358530903018079
- Pearsall, M. J., Ellis, A. P. J., & Evans, J. M. (2008). Unlocking the effects of gender faultlines on team creativity: Is activation the key? *Journal of Applied Psychology*, 93, 225–234. https://doi.org/10.1037/0021-9010.93 .1.225
- Pennebaker, J. W. (2000). Telling stories: The health benefits of narrative. *Literature and Medicine*, 19, 3–18. https://doi.org/10.1353/lm .2000.0011
- Pennebaker, J. W., Zech, E., & Rimé, B. (2001). Disclosing and sharing emotion: Psychological, social and health consequences. In M. Stroebe, W. Stroebe, R. O. Hansson, & H. Schut (Eds.), *Handbook of bereavement research: Consequences, coping, and care* (pp. 517–539). American Psychological Association.

- Porter, C. O. L. H. (2005). Goal orientation: Effects on backing up behavior, performance, efficacy, and commitment in teams. *Journal of Applied Psychology*, 90, 811–818. https://doi.org/10.1037/0021-9010.90 .4.811
- Qin, X., Hom, P., & Xu, M. (2019). Am I a peasant or a worker? An identity strain perspective on turnover among developing-world migrants. *Human Relations*, 72, 801–833. https://doi.org/10.1177/0018726718778097
- Reis, H. T., Smith, S. M., Carmichael, C. L., Caprariello, P. A., Tsai, F. F., Rodrigues, A., & Maniaci, M. R. (2010). Are you happy for me? How sharing positive events with others provides personal and interpersonal benefits. *Journal of Personality and Social Psychology*, 99, 311–329. https://doi.org/ 10.1037/a0018344
- Rimé, B., Finkenauer, C., Luminet, O., Zech, E., & Philippot, P. (1998). Social sharing of emotion: New evidence and new questions. *European Review of Social Psychology*, 9, 145–189. https://doi.org/10.1080/ 14792779843000072
- Rimé, B., Mesquita, B., Philippot, P., & Boca, S. (1991). Beyond the emotional event: Six studies on the social sharing of emotion. *Cognition* and Emotion, 5, 435–465. https://doi.org/10.1080/02699939108411052
- Rodell, J. B. (2013). Finding meaning through volunteering: Why do employees volunteer and what does it mean for their jobs? *Academy of Management Journal*, 56, 1274–1294. https://doi.org/10.5465/amj .2012.0611

of Management Journal, 61, 348-369. https://doi.org/10.5465/amj .2015.1088

- Yam, K. C., Jackson, J. C., Barnes, C. M., Lau, T., Qin, X., & Lee, H. Y. (2020). The rise of COVID-19 is associated with support for world leaders. *Proceedings of the National Academy of Sciences of the United States* of America. Advance online publication. https://doi.org/10.1073/pnas .2009252117
- Zech, E. (1999). Is it really helpful to verbalise one's emotions? *Gedrag & Gezondheid: Tijdschrift voor Psychologie en Gezondheid*, 27, 42–47. https://hdl.handle.net/2078.1/92732
- Zech, E., & Rimé, B. (2005). Is talking about an emotional experience helpful? Effects on emotional recovery and perceived benefits. *Clinical Psychology & Psychotherapy*, 12, 270–287. https://doi.org/10.1002/ cpp.460

## Appendix

# Scale Items Used in the Study

# Team COVID-19 talk

(1) My team members talk about COVID-19.

(2) My team members share stories with each other about COVID-19.

(3) My team members chat with each other when they get news about COVID-19.

(4) My team members communicate with each other about the COVID-19 situation.

(5) My team members give each other examples of how COVID-19 is going.

#### Team cultural tightness

(1) There are many social norms that members are supposed to abide by in our team.

(2) In our team, there are very clear expectations for how members should act in most situations.

(3) Members agree upon what behaviors are appropriate versus inappropriate in most situations in our team.

(4) Members in our team have a great deal of freedom in deciding how they want to behave in most situations. (Reverse coded)

(5) In our team, if someone acts in an inappropriate way, others will strongly disapprove.

(6) Members in our team almost always comply with social norms.

#### **Team deviance**

(1) The members in my team purposely waste the employer's materials/supplies.

(2) The members in my team complain about insignificant things at work.

(3) The members in my team tell people outside the job what a lousy place they work for.

(4) The members in my team come to work late without permission.

(5) The members in my team stay home from work and say they are sick when they aren't.

(6) The members in my team insult someone about their job performance.

(7) The members in my team make fun of someone's personal life.

(8) The members in my team ignore someone at work.

(9) The members in my team start an argument with someone at work.

(10) The members in my team insult or made fun of someone at work.

#### Team creativity

(1) The members in my team are a good source of highly creative ideas.

(2) The members in my team demonstrate originality in their work.

(3) The members in my team suggest radically new ways to achieve performance.

Received June 7, 2020 Revision received March 3, 2021 Accepted March 16, 2021