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Socially Connected and COVID-19 Prepared: The Influence of Sociorelational Safety on Perceived Importance of COVID-19 Precautions and Trust in Government Responses

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Abstract

COVID-19 caused unprecedented social disruption the likes of which many people had not seen since the Second World War. In order to stop the spread of the virus, most nations were required to enforce strict social distancing precautions, including orders to shelter in place and national lockdowns. However, worries over whether citizens would become fatigued by precautions that constrain personal liberties made some governments hesitant to enact lockdown and social distancing measures early on in the pandemic. When people feel that their social worlds are responsive to their needs, they become more trusting and more willing to sacrifice on behalf of others. Thus, people may view COVID-19 precautions more positively and be more trusting in government responses to such an event if they are inclined to see their sociorelational world as supporting their connectedness needs. In the current study (N = 300), UK residents who were more satisfied that their close others fulfilled their connectedness needs at the start of the government-mandated lockdown, perceived COVID-19 precautions as more important and more effective than



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those who were relatively dissatisfied in how their connectedness needs were being met, and reported greater trust in the government's management of the pandemic. These effects persisted in a follow-up one month later. Implications for how society and governments can benefit from the investment in social connectedness and satisfaction, and future directions are discussed.

Keywords

COVID-19, government trust, connectedness, sociorelational satisfaction

Highlights

- Global crises like COVID-19 require that the needs of the collective are put ahead of the needs of the individuals.
- Past research has shown that when people feel safe and satisfied that their personal relational needs are being met, they are more trusting and more willing to sacrifice on behalf of others.
- The current research on UK adults during the Spring 2020 COVID-19 lockdown suggests that when people feel safer and more connected to their sociorelational world, they see collective responses to controlling national threats as more important and effective, and are more trusting of the government coordinating these responses.

The global COVID-19 pandemic that began in 2020 required a coordinated national response the likes of which had not been seen in many countries since the Second World War. Social distancing and lockdown measures were first implemented in response to COVID-19 in China in January 2020. As many East Asian nation followed suit, countries began discussing whether similar precautionary measures would be necessary internationally. By early March 2020, Italy and Spain had also imposed lockdown measures to contain outbreaks in their respective nations, and similar responses worldwide appeared inevitable. However, not all European nations immediately imposed social distancing and lockdown measures, despite preliminary evidence that outbreaks had spread to their borders as well.

Notably, the United Kingdom (UK) appeared to lag behind its European neighbors in implementing lockdown precautions and nationwide preventative measures to slow the spread of COVID-19 (Freedman, 2020; Horton, 2020). Amid discussions of the practical and financial implications of a national lockdown balanced against the concerns of overwhelming strain on national health services (NHS), government ministers pointed to another motivation for delaying lockdown in the UK: individual fatigue with preventative measures would make them difficult to sustain over time (e.g., Conn et al., 2020; Wood, 2020). However, scientists disputed whether fears of "behavioral fatigue" were based on scientific evidence (Mahase, 2020). As disagreements over the best course of



action for the UK mounted, people began to express mistrust in the UK government's management of the COVID-19 pandemic (e.g., Ghosh, 2020; Young, 2020).

The struggles in the UK highlight a tenuous reality for many countries facing national crises (Sibley et al., 2020). In order for a society to function, a delicate balance must be struck between the needs of the individual and the needs of the collective (Nowak, 2006; Trivers, 1971). Likewise, for preventive measures such as social distancing and lockdowns to be effective, they require that the majority of people comply. However, behaving in a way that supports collective needs can often constrain personal liberties (e.g., restriction of movement in order to prevent pathogenic spread) (Day & Impett, 2018; Holmes, 1981), and feeling that one's needs are consistently overlooked can erode trust in individuals and institutions (Huang et al., 2020; Reis, 2012; Torcal, 2014). By contrast, when people feel that their social worlds are safe and responsive to their needs, they become more trusting and more willing to sacrifice on behalf of others (Righetti & Impett, 2017; Van Lange et al., 1997a; Van Lange et al., 1997b). The current research used the COVID-19 lockdown in the UK as a backdrop to examine whether people who felt that their personal social worlds were safe were also more inclined to support government implemented COVID-19 precautions and trust the government behind these decisions.

Walking the Tightrope: Balancing Collective and Individual Needs

People live enmeshed in a large social fabric. These social bonds fulfil the fundamental needs for belongingness and connection (Baumeister & Leary, 1995; Deci & Ryan, 2012); provide safe havens in times of need (Feeney & Collins, 2015); and, give meaning and structure to the world (Murray et al., 2018; Rossignac-Milon & Higgins, 2018). However, living in a social world means that people not only have an impact on the lives and well-being of others, but their own needs are both supported and constrained by their intimate personal and broader socio-political relational worlds (Holmes, 2002; Kelley & Thibaut, 1978; Murray et al., 2020). For example, Fatima's likelihood of contracting and spreading coronavirus not only depends on her own compliance with precautionary measures (e.g., hand washing, avoiding groups), but also her son's willingness to stay home instead of meeting up with his friends, her parents consistently wearing a mask to the grocery store, her neighbors cancelling their annual street party, her manager prioritizing the safety of staff over profits, and her government's ability to rapidly and effectively respond to new threats as they emerge.

It is also possible for the needs of the individual and the needs of the collective to clash (Clark et al., 1986; Holmes, 1981; Johnson, 2003; Snyder et al., 2004). When individual and communal needs clash, people need to decide whether they are willing to sacrifice for the greater good (Day & Impett, 2018; Fritsche et al., 2011; Nowak, 2006; Trivers, 1971). These sacrifices for and investments in others are easier when people anticipate safety and connection with others, and are generally satisfied that their relationships fulfil their needs (Bartz & Lydon, 2008; Cialdini et al., 1997; Righetti &



Impett, 2017; Swann et al., 2014; Wiener, 1993). This is because satisfaction signals safety in the sociorelational bond as it reflects experiences that people have been responsive in the past and are likely to continue to be supportive and responsive in the future (Rusbult, 1980; Rusbult et al., 1998). By contrast, when people feel disconnected and let down by those in their sociorelational circles, they are more likely to prioritize their own needs than the needs of others (Van Lange et al., 1997a, 1997b). Thus, people who feel more satisfied and socially connected should be more likely to view collective measures more favorably, and trust those responsible for keeping them safe.

Social Connection and COVID-19

Unlike hand washing and other similar behavioral measures used to thwart pathogenic transmission, social distancing and lockdown measures disrupted routines, confined people within fixed spaces for prolonged periods of time, and cut people off from their social world. Thus, the types of precautions needed to curtail the spread of nationwide pandemics not only pit individual versus collective interests against each other, but also threatened the fundamental need for connection (Baumeister & Leary, 1995). The acute threats to interpersonal worlds as a consequence of lockdown measures did not manifest equally for all (Haleem et al., 2020; Lebow, 2020). For some, living alone in lockdown, and limited access to family and friends living outside of the lockdown residence, meant an increased risk of loneliness and social disconnection. For others, lockdown created an environment with more demands and social interactions with others (e.g., working from home; home schooling; caregiving) with limited opportunities to disconnect and focus on one's own needs. Furthermore, technological advancements such as video calling meant that physical distance did not necessarily equate to complete isolation. It was therefore possible to remain connected with others throughout the lockdown period and benefit from social relationships, albeit in a different way than people were generally accustomed to. Thus, the collective benefit of the COVID-19 precautionary measures may appear more beneficial and less threatening for those who felt that their social connection needs were being met despite lockdown measures, compared to those who were feeling disconnected from others.

Current Research

The current research used a UK sample to examine whether feelings of sociorelational safety would influence perceptions of lockdown measures, as well as trust in those responsible for managing the crisis (i.e., the government). Safety in the sociorelational world was conceptualised in two different ways: First, we examined sociorelational safety as a function of the extent to which people felt *relatively disconnected or overconnected* with others, relative to having "just the right" amount of social connection. Second, we examined sociorelational safety as a function of the extent to which people were



satisfied that their connectedness needs were being met. In both instances, we tested whether sociorelational safety influenced COVID-19 concerns, perceptions of COVID-19 precautionary measures, and trust in the government. We hypothesized feeling socially safer (i.e., ideally connected with others; greater satisfaction that connectedness needs were being met) would be associated with less concern about COVID-19, more positive perceptions of COVID-19 precautionary measures, and greater trust in the government's approach to managing the COVID-19 pandemic. We also examined whether these effects differed as a function of relationship status. In adulthood, romantic partners become a primary source of connectedness need fulfilment (Hazan & Shaver, 1987), but also create additional opportunities for goals and needs to conflict (Finkel & Rusbult, 2008; Holmes, 2002). Furthermore, having a romantic partner who can either contract or spread COVID may create additional concerns for those who are romantically attached compared to those who are single.

Method

Participants

Three hundred and thirteen participants over the age of 18 were recruited via Prolific Academic to participate in this study. Participants received £0.84 for completing the 10-minute survey (£5.00GPB/hour pro rata). Thirteen participants were removed from the sample for not completing the survey to the end, leaving a final sample of 300 participants. Participants (M_{age} = 35.02, SD = 12.64) predominantly identified as women (68%, 32% men), and were predominantly white (86%; 3% African/Black, 5% Asian, 6% other ethnic background). Participants were either single (34%), or romantically attached (3% casually dating, 26% exclusive dating relationship, 37% engaged or married), were mostly living with other people (14% live alone, 80% live with family, 6% live with roommates), and the majority of participants in this sample did not have children (62%; 38% with children, $M_{No. Children}$ = 2.25, SD = 3.52). Romantically attached participants had been with their partners for 11 years on average (M_{Years} = 11.26, SD = 10.50). Of the original sample of participants at Time 1, 275 completed the follow-up survey one month later.

Materials and Procedures

Participants first completed the demographic questionnaire followed by the questionnaires described below during the first week of lockdown in the United Kingdom. One month later, participants were invited to participate in a follow-up survey with the same materials and some additional measures. The complete questionnaire, including measures unrelated to the current paper, can be found on the project's OSF project page (see



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Supplementary Materials). Table 1 presents the descriptive statistics and correlations for the Time 1 and Time 2 measures.

Measures Time 1 and Time 2

Connection saturation — A single-item measure assessed how saturated people felt their connection was with others ("Which of the following currently best captures how you feel about your connection with others right now?"; -4 = I feel completely disconnected and isolated from others, 0 = I feel my level of connection with others is just right, 4 = I feel completely overconnected and too close to others).

Sociorelational satisfaction — A 6-item measure (α = .83; Sheldon et al., 2011) assessed satisfaction with how their connectedness needs were being met by others (e.g., "I felt close and connected with other people who are important to me."; "I was lonely (reversed)"; 1 = not at all true, 9 = very true).

COVID-19 concerns — A 3-item measures (α = .85; adapted from Kim et al., 2016) assessed how concerned people were about the COVID-19 outbreak (e.g., "I feel vulnerable to the COVID-19/coronavirus", 1 = strongly disagree, 7 = strongly agree).

COVID-19 precautions importance, efficacy and motivations — Participants were presented with 10 COVID-19 precautionary measures (e.g., "Washing your hands for at least 20 seconds many times throughout the day."; "Not having visitors over to your home, including friends and family") recommended by the UK Government at the beginning of lockdown. They were then asked to rate how important it was to adhere to each measure (α = .88; 1 = not at all important, 9 = extremely important), and how effective each measure was at preventing the spread of COVID-19 (α = .89; 1 = not at all effective, 9 = extremely effective). Participants were then asked to evaluate how much their ratings of the efficacy and importance of the 10 COVID-19 precautionary guidelines had been driven by self or other focused concerns (α = .90; 0 = concern about myself, 100 = concern about others).

Trust in government – A 4-item measure (α = .91) assessed trust in the UK government's handling of the COVID-19 pandemic and lockdown (e.g., "I trust the government's decisions regarding the coronavirus outbreak", "The government's decision to enforce strict lockdown is unnecessary (reversed)"; 1 = strongly disagree, 7 = strongly agree).





Measure	1	2	3	4	5	9	٢	8	6	10	11	12	13	14	15	16	17
1. Sociorelational Satisfaction (T1)	I																
2. Sociorelational Satisfaction (T2)	.69	T															
3. Connection Saturation (T1)	.46***	.32***	ī														
4. Connection Saturation (T2)	.25***	.47***	.27***	I													
5. Relationship Status	.30***	.19**	.22***	003	T												
6. Cohabitation Status	22***	17**	20***	15*	33***	I											
7. COVID-19 Concerns (T1)	01	03	04	07	60.	02	I										
8. COVID-19 Concerns (T2)	.004	.003	02	15*	.04	.04	.74***	T									
9. Importance (T1)	.24***	.17**	.03	05	.18**	07	.42***	.34***	I								
10. Importance (T2)	.24***	.20***	02	.01	.16**	07	.35***	.26***	.75***	I							
11. Effectiveness (T1)	.36***	.30***	.05	.07	.18**	05	.20***	.15*	.62***	.59***	T						
12. Effectiveness (T2)	.31***	.23***	.08	.04	.13*	.003	.24***	.20***	.59***	.76***	.74***	ī					
13. Motivations (T1)	03	001	.02	90.	.17**	12*	.03	.08	.08	.03	.04	.01	ī				
14. Motivations (T2)	60.	.04	$.13^{*}$.01	.12*	13*	.01	÷11.	.07	.08	.08	60.	.59***	I			
15. Trust (T1)	.26***	.27***	90.	60'	.10 [†]	÷00	02	.04	.14*	.10 [†]	.25***	.22***	.03	.08	T		
16. Trust (T2)	.18**	.21***	.01	÷11.	.12*	09	.02	.07	$.14^{*}$.12*	.20***	.22***	01	.08	.77***	I	
17. Message	.22***	.16**	.01	.02	.12 [†]	07	.28***	.25***	.38***	.40***	.36***	.40***	.01	60:	.31***	.39***	1
W	6.26	5.83	42	-1.18			4.64	4.48	8.42	8.43	8.14	8.18	52.80	51.92	4.55	4.64	6.91
SD	1.78	1.74	1.62	1.44			1.35	1.43	.76	.85	.87	0.86	22.47	22.84	1.29	1.21	1.56
Range	1-9	1 - 9	-4 - 4	-4 - 4			1 - 7	1-7 4	4.5 - 9 3.	3.4 - 9 4.	4.7 - 9 3	3.9 - 9	0 - 100 1 - 100 1 - 7	1 - 100		1 - 7	2.2 - 9

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Descriptive Statistics and Correlations for Time 1 and Time 2 Measures

Table 1





Measures Time 2 Only

Government messaging – At Time 2 we were able to assess opinions of actual messaging campaigns regarding COVID-19 risks and the importance of adhering to lockdown messages. Participants were randomly shown one of two messages that appeared as sponsored posts on Twitter from the HM Government accounts (i.e., @GOVUK, @PHE_uk, @DHSCgovuk) and mirrored government-sponsored messaging campaigns appearing on national television channels (see Supplementary Materials for the specific messages used). The two messages selected for this study differed subtly in message target. In condition 1, the message emphasized the general threat COVID-19 represents for the self and individuals (i.e., anyone can get it, anyone can spread it). In condition 2, the message emphasized the risk and accountability to others (i.e., if you go out, you will spread it, people will die). A 5-item ($\alpha = .83$) measure was used to assess impressions of the messages (e.g., "I would be motivated to change my behaviours because of this message", "This message is convincing", "This message is 'over the top' or goes too far (reversed)"; 1 = strongly disagree, 9 = strongly agree).

Results

Time 1 – Beginning of Lockdown

Descriptives

During the first week of government-mandated lockdown in the UK, people generally felt somewhat disconnected and isolated from others ($M_{Saturation} = -.44$, SD = 1.60), and were moderately satisfied with how well their connectedness needs were being met ($M_{Satisfaction} = 6.22$, SD = 1.77). People were likewise only moderately concerned about coronavirus ($M_{Concerns} = 4.63$, SD = 1.34). Generally, COVID-19 measures were viewed highly positively with most people believing they were both important ($M_{Importance} = 8.41$, SD = .77) and effective ($M_{Effectiveness} = 8.13$, SD = .87). Motivations for adhering to COVID-19 precautions were somewhat equally balanced between concerns for the self and concerns for others ($M_{Motivations} = 52.1$, SD = 22.36). However, people were only moderately trusting of the government's handling of COVID-19 ($M_{Trust} = 4.53$, SD = 1.27).

Analytic strategy — Social safety was assessed two ways in this study: 1) social connection saturation (i.e., whether people felt too disconnected from others vs. overconnected with others vs. just right), and, 2) how satisfied they were that their connectedness needs were being met. We were also able to test whether these effects differed for people in established romantic relationships versus those who were single, controlling for any differences between those living alone and those living with others. Model 1 used linear regression analysis to test whether COVID-19 concerns, perceptions of COVID-19 precautions, and trust in the government differed as a function of a) the linear main effect of

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connection saturation (centered), the curvilinear effect of connection saturation, relationship status (-1 = single, 1 = romantically attached); and b) their two-way interactions, controlling for cohabitation status. Differentiating between a linear effect of connection saturation (e.g., as social disconnection increases, adherence decreases), and an effect that differs at the extremes of connection saturation (i.e., at high levels of disconnection and high levels of over-connection, relative to moderate/satiated connection). Thus, the curvilinear model can account for the possibility that both high and low levels of this measure capture maladaptive processes relative to the mean, whereas the linear model alone only speaks to relative differences from low to high. Model 2 used the same analytic strategy to examine differences as a function of a) the main effect of sociorelational satisfaction (centered), relationship status (-1 = single, 1 = romantically attached); and b) their two-way interaction, controlling for cohabitation status. Model coefficients are presented in Table 2.

Table 2

Model Coefficients Time 1

		ID-19 cern	Impo	rtance	Effectiveness		Motivations		Ті	rust
Predictor	Ь	t	b	t	b	t	b	t	b	t
Model 1										
Connection Saturation (Linear)	08	-1.06	02	42	03	71	.69	.58	.02	.29
Connection Saturation (Curvilinear)	.01	.46	01	62	02	-1.29	.98	2.38*	01	48
Relationship Status	.09	.88	.10	1.77^{\dagger}	.12	1.90^{\dagger}	2.49	1.51	.11	1.12
Cohabitation Status	.002	.01	001	02	.03	.44	-2.77	-1.42	11	-1.00
Connection (Linear) x Relationship Status	.03	.35	02	39	.02	.42	-1.31	-1.10	02	28
Connection (Curvilinear) x Relationship Status	.03	1.15	.01	.82	.02	1.25	001	<001	01	48
Model 2										
Sociorelational Satisfaction	06	-1.30	.08	3.17**	.17	5.78***	-1.57	-1.99*	.13	2.97**
Relationship Status	.18	1.96^{\dagger}	.10	2.03*	.08	1.49	4.03	2.73**	.06	.75
Cohabitation Status	.01	.09	.02	.27	.07	.99	-2.83	-1.46	06	55
Satisfaction x Relationship Status	.10	2.10	.01	.23	02	82	.80	1.02	.13	2.87**

 $^{\dagger}p < .10. \ ^{*}p < .05. \ ^{**}p < .01. \ ^{***}p < .001.$

Model 1 – **Connection saturation** — The only significant effect to emerge from the Model 1 tests was a curvilinear effect of connection saturation predicting motivations for adhering to COVID-19 precautions, b = .98, t(293) = 2.38, p = .02, $\eta_p^2 = .02$ (see Figure S1 in the Supplementary Materials). Compared to people who felt their connection saturation was "just right", those who felt more disconnected (-1*SD*) reported being motivated by concerns for others more than themselves, b = -3,31, t(293) = -2.38, p = .02, $\eta_p^2 = .02$. People who felt overconnected (+1*SD*) did not significantly differ from those who felt their connection saturation was "just right", b = 2.97, t(293) = 1.55, p = .12, $\eta_p^2 = .01$.



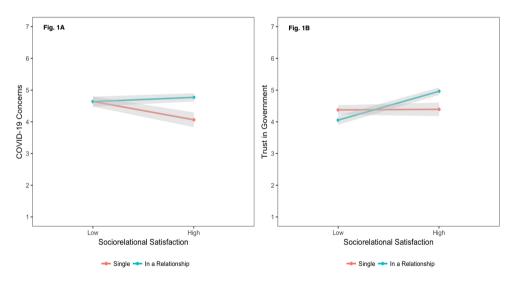
Model 2 – **Sociorelational satisfaction** – Unlike connection saturation, sociorelational satisfaction at the start of lockdown consistently predicted perceptions of COVID-19, precautionary measures and trust in the government.

COVID-19 Concerns. There was no main effect of sociorelational satisfaction predicting COVID-19 concerns, b = -.06, t(295) = -1.30, p = .19, $\eta_p^2 < .001$. Thus, being more socially satisfied had no influence on whether or not people felt concerned about contracting COVID-19. The main effect of relationship status was marginal, b = .18, t(295) = 1.96, p = .051, $\eta_p^2 = .01$, such that people in relationships were marginally more concerned about COVID-19 than those who were single.

However, the two-way satisfaction by relationship status interaction was significant, b = .10, t(295) = 2.10, p = .04, $\eta_p^2 = .01$ (see Figure 1a). We next decomposed the simple effect of sociorelational satisfaction for romantically attached and single people. The simple effect of satisfaction was not significant for romantically attached participants, b = .04, t(295) = .66, p = .51, $\eta_p^2 = .001$, but it was significant for single participants, b = -.16, t(295) = -2.13, p = .03, $\eta_p^2 = .02$, such that they were less concerned about COVID-19 when they were relatively more satisfied with their connectedness needs being met than not.

Figure 1

Sociorelational Satisfaction by Relationship Status Interaction



Note. The sociorelational satisfaction by relationship status interaction predicting COVID-19 concerns (a), and trust in the government (b), controlling for cohabitation status. Sociorelational satisfaction is plotted at +/-1*SD* from the mean.



Perceived Importance of COVID-19 Precautions. Sociorelational satisfaction, b = .08, t(295) = 3.17, p = .002, $\eta_p^2 = .05$, and relationships status, b = .10, t(295) = 2.03, p = .04, $\eta_p^2 = .01$, were both significantly associated with perceived importance. People perceived COVID-19 precautions as more important when people were relatively more satisfied that their connectedness needs were being met, as well as when they were in a relationship.

Perceived Effectiveness of COVID-19 Precautions. Sociorelational satisfaction, b = .17, t(295) = 5.77, p < .001, $\eta_p^2 = .12$, was significantly associated with perceived effectiveness. Consistent with perceptions of importance, people believed the COVID-19 precautions are more effective when they were sociorelationally satisfied.

Motivations for Adhering to COVID-19 Precautions. Sociorelational satisfaction was also significantly associated with motivations for adhering to COVID-19 precautions, b = -1.57, t(295) = -1.99, p = .048, $\eta_p^2 = .002$, although the pattern was in the opposite direction than what was hypothesized. People who felt more satisfied reported greater *self*-focused motivations, than those who were less satisfied. The main effect of relationship status was also significant, such that people in relationships were more other-focused in their motivations than those who were single, b = 4.03, t(295) = 2.73, p = .01, $\eta_p^2 = .03$.

Trust in Government. Finally, there was a significant main effect of sociorelational satisfaction, b = .13, t(295) = 2.97, p = .003, $\eta_p^2 = .06$, such that people had greater trust in the government's response to COVID-19 when they were more satisfied with their social relationships. There was also a significant connectedness needs by relationship status interaction, b = .13, t(295) = 2.87, p = .004, $\eta_p^2 = .03$ (see Figure 1b). The simple effect of satisfaction was significant for people who were romantically attached, b = .26, t(295) = 4.86, p < .001, $\eta_p^2 = .07$, but not for those who were single, b = .01, t(295) = .08, p = .94, $\eta_p^2 < .001$. Thus, the association between sociorelational satisfaction and trust in the government seemed to be driven predominantly by people who were romantically attached during lockdown.

Time 2 - One Month Into Lockdown

Descriptives

After one month of government-mandated lockdown in the UK, people in the follow-up sample generally felt significantly more disconnected and isolated from others, t(275) = 7.22, p < .001, 95% CI [.59, 1.03], and were significantly less satisfied with their social relationships, t(275) = 5.51, p < .001, 95% CI [.29, .62], compared to the start of lockdown. However, people were still only moderately concerned about COVID-19, although less concerned than they had been at the start of lockdown, t(275) = 3.08, p = .002, 95% CI [.07, .30]). Thus, as lockdown had progressed, people were feeling more disconnected and less relationally satisfied, but also had become less worried about COVID-19 during that time. Despite these shifts, perceived importance and effectiveness of COVID-19 precautions had not significantly changed since the start of lockdown (*importance:* t(274) = -.19,



p = .85, 95% CI [-.08, .30]; *effectiveness:* t(273) = -1.24, p = .22, 95% CI [-.12, .03]) nor had motivations for adhering to the precautions changed, $M_{motivations\ time\ 2} = 51.92$, SD = 22.84; t(271) = 1.07, p = .29, 95% CI [-1.10, 3.72]. This stability across the one-month period suggests that fatigue with lockdown precautions had not yet manifested during that time. Furthermore, in contrast to connection saturation and sociorelational satisfaction, trust in the government's management of COVID-19 had actually improved, though it remained moderately positive overall, t(271) = -2.32, p = .02, 95% CI [-.22, -.02].

Analytic Strategy

Because connection saturation was largely unrelated to COVID-19 concerns, perceptions of the precautionary measures, and trust in the government at Time 1, the Time 2 analyses focused on the associations between sociorelational satisfaction and these outcomes. For Model 2, we again used linear regression to examine differences as a function of a) the main effect of connectedness needs satisfaction at Time 1 (centered), relationship status (-1 = single, 1 = romantically attached); and b) their two-way interaction, controlling for cohabitation status and connectedness needs satisfaction at Time 2. Model coefficients for both Model 1 and Model 2 are presented in Table 3 (see Table S1 in the Supplementary Materials for the parallel model tests for Time 2 Sociorelational Satisfaction.

Table 3

Model Coefficients Time 2

		COVID-19 Concern		Importance		Effectiveness		vations	Tr	ust	Mes	ssage
Predictor	ь	t	ь	t	b	t	ь	t	ь	t	b	t
Model 1												
Connection Saturation (Linear) T1	.02	.27	06	-1.53	01	14	1.14	1.00	04	73	07	93
Connection Saturation (Curvilinear) T1	.03	.93	04	-2.20*	04	-2.39*	34	75	02	70	38	-1.21
Connection Saturation (Linear) T2	.01	.10	.07	1.30	.09	1.57	2.62	1.74^{\dagger}	.05	.58	.07	.71
Connection Saturation (Curvilinear) T2	.06	2.10*	.02	1.36	.03	1.63	1.38	2.82**	02	83	.02	.66
Relationship Status	.14	1.14	.08	1.20	.07	.98	1.57	.86	.14	1.41	.10	.75
Cohabitation Status	.09	.63	.01	.17	.13	1.58	-2.19	-1.02	06	55	04	28
Connection (Linear) T1 x Relationship Status	002	03	0003	01	.02	.58	.73	.66	004	07	.02	.20
Connection (Curvilinear) T1 x Relationship Status	01	45	.04	2.18*	.04	2.15*	.24	.55	.004	.16	.04	1.37
Model 2												
Sociorelational Satisfaction T1	05	63	.09	2.05*	.15	3.65***	.70	.61	002	03	.16	2.11
Sociorelational Satisfaction T2	003	04	.03	.80	.01	.33	51	47	.10	1.81^\dagger	.02	.22
Relationship Status	.14	1.41	.09	1.53	.06	1.10	2.05	1.25	.13	1.50	.09	.82
Cohabitation Status	.12	.89	.03	.34	.14	1.82^{\dagger}	-2.96	-1.39	05	44	001	01
Satisfaction x Relationship Status	.14	2.50*	01	20	02	51	.65	.75	.13	2.79	.01	.12

[†]p < .10. * p < .05. * p < .01. * p < .001.



COVID-19 Concerns

Consistent with Time 1, there was a significant satisfaction by relationship status interaction predicting COVID-19 concerns, b = .14, t(270) = 2.50, p = .01, $\eta_p^2 = .02$. Next, we decomposed the simple effect of satisfaction for single and romantically attached people. Again, consistent with Time 1, the simple effect of connectedness needs satisfaction was not significant for romantically attached people, b = .09, t(270) = 1.15, p = .25, $\eta_p^2 = .005$. The simple effect was also no longer significant for single people, b = -.18, t(270) = -1.81, p = .07, $\eta_p^2 = .01$, although it was trending in the same direction as Time 1.

Perceptions of COVID-19 Precautions

Consistent with Time 1, satisfaction was significantly associated with perceived importance, b = .09, t(269) = 2.05, p = .04, $\eta_p^2 = .02$, and effectiveness, b = .15, t(268) = 3.65, p < .001, $\eta_p^2 = .05$. However, satisfaction was no longer associated with motivations for adhering to the precautions, b = .70, t(266) = .61, p = .54, $\eta_p^2 = .01$.

Trust in Government

Finally, we examined whether connectedness needs satisfaction was associated with trust in the government's decisions regarding COVID-19. Unlike Time 1, the main effect of satisfaction was not significantly associated with government trust, b = -.002, t(266) =-.03, p = .98, $\eta_p^2 = .004$. However, the satisfaction by relationship status interaction was still significant, b = .13, t(266) = 2.79, p = .01, $\eta_p^2 = .03$. Consistent with Time 1, the simple effect of satisfaction was not significant for single people, b = -.13, t(266) = -1.54, p= .12, $\eta_p^2 = .01$. It was also no longer significant for romantically attached people, b = .12, t(266) = 1.88, p = .06, $\eta_p^2 = .01$, although it was trending in the same direction as Time 1.

Exploratory Analyses

At Time 2, we included actual government sponsored COVID-19 messages encouraging people to adhere to the lockdown measures. These messages differed in terms of whether the emphasis was on a general threat to the self (e.g., anyone can get it, anyone can spread it) versus a more specific threat to others (e.g., you can spread it, people will die). We were interested in whether perceptions of the efficacy of these campaigns would differ as a function of sociorelational satisfaction and target of the messaging. We therefore used linear regression to test for perceived message efficacy as a function of 1) the main effect of sociorelational satisfaction (Time 1), relationship status (-1 = single, 1 = romantically attached), and message target (-1 = risk to others, 1 = risk to self); 2) their two-way interactions; and 3) their three-way interactions, controlling for cohabitation status and sociorelational satisfaction Time 2.

Consistent with the findings for the perceptions of the COVID-19 precautions, there was a significant main effect of satisfaction, b = .16, t(270) = 2.07, p = .04, $\eta_p^2 = .02$, such that people who had been more socially satisfied at Time 1 saw the messages as more



motivating and convincing than those who were less satisfied. There was no main effect of message target, and no interactions (ps > .42).

General Discussion

The social distancing and lockdown measures implemented to control the spread of COVID-19 represented a restriction of personal liberties the likes of which many nations have not seen since the Second World War. However, as COVID-19 continues through the latter half of 2020 with no clear end in sight, the need for additional lockdowns looming, and as global pandemics become more likely in the future, calling on the collective will of the people to adhere to governmental policies may become more common and essential. Past research has found that people are more willing to put the benefits of others ahead of their own self-interests when they can feel safe in their sociorelational worlds (Bartz & Lydon, 2008; Van Lange et al., 1997a, 1997b). Because lockdown measures create a potential conflict between personal and collective needs, we tested whether feeling more socially connected would have a positive influence on how people perceived COVID-19 prevention measures and their government responsible for managing the pandemic. Consistent with our hypotheses, sociorelational safety was positively and significantly associated with perceived importance and effectiveness of COVID-19 measures and messaging, and greater trust in the government's handling of COVID-19 during the first month of lockdown in the United Kingdom. Notably, it was the extent to which one felt satisfied with their social relationships—rather than simply disconnected from others-that had the greatest influence on perceptions and trust.

The current findings add to recent research examining the reciprocal associations between safety in close relationships and broader socio-political safety (e.g., Murray et al., 2018). When people feel unsafe in their collective social world, they rely on their close relational world to signal safety, and vice versa (Murray et al., 2020). The shelter in place restrictions created immediate strains on the close relational world. Almost overnight, people found themselves in a situation where they were cut-off from loved ones living outside of their residence, while simultaneously exposed to those within their residences 24/7 (Haleem et al., 2020; Lebow, 2020). Lockdown therefore represented a direct threat to many people's close relationships. People are also motivated to downplay the significance of obstacles that prevent them from getting what they want and need (Bersoff, 1999; Kunda, 1990). Thus, the current findings are consistent with prior research such that people who felt as though their social safety was under threat during lockdown (i.e., socially dissatisfied) were less supportive of the COVID precautions that created those threats and the government responsible for regulating them.

Feeling socially dissatisfied also motivates people to prioritize own individualistic interests over the interests of the collective (Righetti & Impett, 2017; Van Lange et al., 1997a; Van Lange et al., 1997b). Individualism is further associated with political beliefs



opposing "Big Government", preferring personal autonomy over governmental interference (Kahan et al., 2011). For example, people with more individualistic worldviews are more likely to oppose vaccinations programs and dismiss climate change prevention policies—despite the scientific evidence that they benefit both individuals and collectives because of the perceived associations with government control (Ballew et al., 2020; Hornsey et al., 2018). Thus, the current research also complements research aimed at understanding opposition to collectively beneficial government policies (see implications below) insomuch as dissatisfaction with one's relationships offers a potential mechanism that may explain how people become more individualistically and populistically oriented over time (Huang et al., 2020; Lüders et al., 2020; Reis, 2012; Torcal, 2014).

Finally, the current findings also highlight the importance of fostering high quality social relationships. In the present study, merely living in the same home as others or being in an established relationship were secondary predictors of attitudes towards COVID-19 precautions and trust in the government's responses. Rather, it was the quality of those relationships (i.e., how satisfied people were with their close others) that determined their attitudinal response. These findings are consistent with other research highlighting the importance of having high quality relationships for other personal outcomes such as health and well-being. For example, although people in romantic partnerships categorically are physically healthier and live longer than their single counterparts (Holt-Lunstad et al., 2010; Johnson et al., 2000), these health advantages disappear when they are in high conflict partnerships (Shrout et al., 2019). The current findings suggest that identifying ways to improve satisfaction with existing relationships may therefore benefit both individuals and the broader social collective.

Implications for Future Lockdowns and Government Policies

These findings have potentially important implications that can be leveraged to help societies prepare for future crises. Loneliness and social isolation, particularly in older adults, has become a recognised social health crisis (Cacioppo & Cacioppo, 2014; Holt-Lunstad, 2017; Reblin & Uchino, 2008). Social disconnection is associated with both poorer psychological well-being, as well as poorer physical health and greater mortality risks (Beller & Wagner, 2018; Holt-Lunstad et al., 2015; Reblin & Uchino, 2008). As shown in our data, social distancing can quickly lead people to feel disconnected from others, which might be especially impactful for people who were already vulnerable to loneliness and social isolation before the pandemic began (Killgore et al., 2020). Furthermore, if the devaluation of precautionary measures and mistrust translate into less compliance, there is the risk that people will be less willing to adhere to these important measures as their sociorelational vulnerability increases. It is therefore understandable that governments might feel compelled to weigh the benefits of lockdown measures against the perceived burdens it places on its citizens.



However, our findings also suggest that it was not simply the presence or absence of others that substantially influenced public perceptions of the government response to COVID-19, but rather the *quality* of those social connections. Thus, efforts to improve feelings of social safety and satisfaction may help shore up a resource that can be leveraged during difficult times. Governments and policy makers should therefore develop new policies and programmes that help people establish high quality social connections during periods of relative stability in order to help them prepare for periods of lockdown and disconnection, as well as services to help maintain high quality social connection during periods of social distancing and instability. These may include greater investment in befriending, conflict resolution, and relationship therapy programmes which help people establish and maintain healthier and more supportive relationships, or social services such as socialized internet services that ensure people from all backgrounds have access to tools that will help maintain connection during social distancing.

Limitations and Future Directions

Although the findings from this study provide important insights into how the fundamental need for social connection can have a greater impact on society, they are not without their limitations. First, despite demonstrating that sociorelational satisfaction at the beginning of lockdown continued to have important implications for perceptions of COVID-19 precautions and government trust up to one month later, the current study cannot speak to whether these effects can endure months of lockdown or whether they in fact wane with time. In the current study, sociorelational satisfaction significantly decreased during the one month period between surveys. It is possible that without an intervention to boost satisfaction throughout lockdown, the negative constraints of lockdown eventually overwhelm this personal resource. Similarly, it is unclear whether the benefits of sociorelational satisfaction can buffer against acute threats to trust in the government or the necessity of lockdown measures (e.g., Fancourt et al., 2020). Thus, additional longitudinal studies will be needed in the future in order to understand whether the current effects were unique to the beginning of COVID-19 or whether they are stable across time.

Second, the current study was limited to people living in the UK. This may represent a unique socio-political context which further influenced the association between social safety and satisfaction, and perceptions of COVID-19 measures and government responses. For example, the UK focused their lockdown campaigns around supporting the social collective and avoiding strain on the NHS—the national health service used by the majority of citizens in the country. Feelings of sociorelational safety may be more important in countries where healthcare is framed as a social resource rather than a private resource. Similarly, although the UK response varied somewhat across England, Wales, Scotland, and Northern Ireland, there was a relatively top-down approach with the UK Government establishing baseline measures and guidelines across all regions. However, trust



in the government may become more diffuse in countries where regional lawmakers (e.g., city, county, state levels) had more influence on COVID-19 precautionary measures that may disregard national advisories. Alternatively, the association between perceived sociorelational safety and trust in the government may either be augmented or diffused in countries that are already more collectively oriented (e.g., Blackbox Research, 2020; Brewer & Chen, 2007; Triandis, 1995). Thus, it is necessary to replicate these effects in different national contexts in order to establish the robustness and generalizability of these effects.

Third, the national lockdowns and social distancing measures triggered by COVID-19 in 2020 were unprecedented for many people globally. However, after several months of lockdown and social distancing measures being enforced in most countries, people have had time to adjust to this "new normal". Should future lockdowns be necessary, clearer expectations for how people will manage the period of uncertainty may reduce the need for people to rely on their social world for safety. Thus, sociorelational satisfaction may be less influential when the threat is known. Similarly, lockdown and social distancing are essential for preventing the spread of the virus, but also represent a threat to people's fundamental need to belong. Threats that more directly target other fundamental human needs (e.g., food shortages, economic crises) may not be assuaged by sociorelational safety and connectedness satisfaction in the same way. Consequently, additional research will not only be needed during any subsequent lockdowns due to COVID-19, but also in response to other national crises which require collectively coordinated responses and cooperation to combat.

Finally, the current study did not account for individual differences that may moderate the importance of social connection, or affect how people prioritize individualistic (e.g., personal need for connection) versus collectivistic needs (e.g., need to prevent the spread of COVID). For example, people relatively higher in narcissism are more self-centred, agentic, and less communally motivated (Campbell et al., 2002; Raskin & Novacek, 1989). They may therefore dislike policies and governments that prioritize collective needs over individual agency regardless of the reason or their individual-level feelings of social safety. Dispositional differences in interpersonal trust may also be an important moderator for future consideration (Holmes & Rempel, 1989). For instance, people with poor working models of the self (e.g., low self-esteem, anxious attachment) find it difficult to believe that others have their best interest at heart (Murray et al., 2001; Murray et al., 1998; Simpson, 2007). Consequently, they often struggle to prioritize the needs of others over their immediate needs, especially when they feel vulnerable (Eaton et al., 2007; Murray et al., 2002; Simpson et al., 1992; Watson & Morris, 1994). By contrast, people who are more confident in themselves are more likely to see the good in others and express greater trust in their intentions (Lamarche & Murray, 2014; Mikulincer, 1998; Simpson, 2007). Thus, they are more inclined to prioritize the needs and well-being of others even when they feel acutely dissatisfied or unsafe (Eaton et al., 2006; Mikulincer



& Shaver, 2007; Murray & Holmes, 1997). Dissatisfaction with close others may make people already low in interpersonal trust even less likely to endorse collective measures such as the COVID-19 precautions. Alternatively, people high in interpersonal trust may still be willing to prioritize policies that are beneficial for their broader social collective, even when they are feeling interpersonally vulnerable.

Conclusions

The social distancing and lockdown measures required to slow the spread of COVID-19 were a necessary evil. However, nationwide lockdowns also highlighted the importance of close relationships during times of need. The current research suggests that when people feel safe in their sociorelational world, they are more inclined to see collective responses to control a national threat as important and effective, and are also more trusting of the government coordinating these responses.

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Data Availability: For this article, a dataset is freely available (Lamarche, 2020b).

Supplementary Materials

The following Supplementary Materials are available (for access see Index of Supplementary Materials below):

- Via AsPredicted: The preregistration protocol
- Via the Open Science Framework (OSF) repository: Research data, codebook, code, and materials
- Via the PsychArchives repository: The online supplemental materials include the figure for the significant curvilinear effect of connection saturation predicting motivations; the model coefficients for sociorelational satisfaction at Time 2; and the focal measures reported in this paper.

Index of Supplementary Materials

Lamarche, V. M. (2020a). Supplementary materials to "Socially connected and COVID-19 prepared: The influence of sociorelational safety on perceived importance of COVID-19 precautions and trust in government responses" [Preregistration protocol]. AsPredicted. https://aspredicted.org/v24hh.pdf

Lamarche, V. M. (2020b). Supplementary materials to "Socially connected and COVID-19 prepared: The influence of sociorelational safety on perceived importance of COVID-19 precautions and trust



in government responses" [Research data, codebook, code, and materials]. OSF.

https://osf.io/bfetu

Lamarche, V. M. (2020c). Supplementary materials to "Socially connected and COVID-19 prepared: The influence of sociorelational safety on perceived importance of COVID-19 precautions and trust in government responses" [Additional tables, figures, and measures]. PsychOpen. https://doi.org/10.23668/psycharchives.4409

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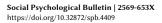
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