Literature Review

1. What is known about the relationship between psychological distancing/construal level and risk perceptions (risk aversion and risk-taking) and preferences?
2. Are there studies of psychological distancing during the COVID pandemic? Other pandemics or disasters? What are the key findings/conclusions?

The literature on the relationship between psychological distancing and risk perceptions and preferences highlight that when people are residing close to a disease, in current times, for example, COVID-19, they feel closer psychological distance[[1]](#footnote-1) from it and thereby perceive low levels of positive psychological outcomes, such as life satisfaction and perceived general health (Zheng, Miao, & Gan, 2020). Another element that impacts this relationship between psychological distance and positive psychological outcomes is the level of perceived control[[2]](#footnote-2). The (Zheng, Miao, & Gan, 2020) study mentions that people with high perceived control feel closer to positive targets and perceive greater distance from negative targets. Thus, one’s perceived control has an impact on how an individual situates themselves (close or far) in relation to risks associated with a disease. This article also talks about the Construal Level Theory which explains how we mentally represent the people, objects, events, and ideas we encounter. This representation is directly shaped by our psychological distance from these entities. The Construal Level theory offers a lens through which to understand how the practice of social distancing may shape our social relationships and the implications thereof to our pursuit of valued personal and interpersonal goals. The efforts towards maintaining social relationships have changed and the reactions to these efforts have also altered due to the COVID-19 pandemic. The literature review also identified that most of these studies regarding psychological distancing and risk perceptions in the context of COVID-19 have taken China as a case study. The (Zheng, Miao, & Gan, 2020) study, also explains that psychological distance mediates the relationships of regional pandemic severity[[3]](#footnote-3) with perceived general health and life satisfaction. Psychological factors are becoming increasingly important in alleviating the negative effects of pandemics and increasing the government’s capacity to deal with disasters. Perceived control was reported to moderate the relationship between the perceived severity of COVID-19 and mental health problems. The study also highlights that the negative effects are stronger in regions that are severely affected than in those that are less affected. People residing in severely affected regions have reported high levels of anxiety and low levels of subjective well-being compared to individuals from more mildly affected regions.

Another important resource is the (Gong, Zhang, & Sun, 2021) study. It emphasizes the importance of social distancing with regard to its effect on physically controlling the pandemic spread. The paper identifies that the perceived increased time staying at home, or socially distancing positively predicts (a) risk perception of COVID-19 epidemic at the outbreak and eased stage and (b) subjective controllability of COVID-19 epidemic at the eased stage. The study highlights that in the context of China, perceived increased time staying at home as a perceptual response to social distancing policy has not only an instant effect but also a lasting positive effect on epidemic risk perception and thereby would probably bear beneficial results in promoting individual self-protective health behavior. The paper also states that the perceived increased time staying at home implies the long-term value of social distancing in terms of cultivating public confidence in controlling the pandemic. Further, it argues that the negative mental health consequences are interlinked with the epidemic risk itself and not necessarily originating from social distancing. This indicates that the risk or threat perception has a negative relationship with psychological well-being. The higher the risk perception due to the COVID-19 epidemic, the lower the psychological well-being of individuals in the study area, in this case, China. The study also discovered that with the mitigation of the COVID-19 pandemic, negative emotions would decline.

The (Blauza, Heuckmann, Kremer,, & Büssing, 2020) paper also applies the concept of psychological distance to understand the perceived affection by COVID-19 and examine its connection to (a) protective behavior, (b) context-specific predecessors, and (c) its possibility to mediate the effect of knowledge on attitudes. This qualitative research study finds out that that geographical distance predicts cognitive attitudes while hypothetical distance[[4]](#footnote-4) affects participants’ affective, cognitive, and behavioral attitudes towards COVID-19. The geographical distance to COVID-19 was predicted by living in urban areas and knowledge and the hypothetical distance was affected by COVID-19 cases in the social surroundings, knowledge, and the level of education. Overall, the hypothetical and geographical distance mediated the effect of knowledge on attitudes. The study states that hypothetical distance predicts all attitudes. Prior studies found that people with increased risk perception and corresponding self-efficacy are more likely to take preventive measures to contain COVID-19 to minimize their own risk. This can be explained by the higher risk people may attribute to the disease if they feel to be likely affected by COVID-19. Another study showed, how people believing in conspiracy theories are unlikely to follow preventive measures but may be more motivated if they experience a risk of death for themselves. This could be explained by a change in hypothetical distance, which may induce a change of abstract representations of COVID-19 to more concrete ones. The paper gives an example to explain the role of hypothetical distance works as an antecedent of protective behaviors using a warning app. It says people are more likely to install a warning app if they believe that they likely will be concerned by COVID-19. Thus, a more concrete communication about personal risks may be able to foster people´s motivation to install the warning app and work as the antecedent of protective behaviors.

Further, the article by (Bowen, 2021) offers insights about the implications of understanding the psychological effects of social distancing on our interpersonal relationships and pursuit of social goals. It also describes how abstract and concrete construal can affect our experiences of maintaining close relationships that vary widely in terms of geographic distance or separation. The paper elaborates that psychological distance can unfold along four different dimensions: geography, time, social familiarity, and likelihood (Bowen, 2021). And in the context of COVID-19, we deal with the geographical dimension of psychological distance, social distancing. The paper gives insights about communication while social distancing. It talks about how interactions could be more enriching if we use text to convey important factual content like abstract messages aligned with geographic distance and use imagery to convey emotion and affirmations of closeness i.e., concrete messages to overcome geographic distance but aligned with social closeness. Similarly, we may wish to use audio‐only media (e.g., a phone call) for more abstract informational communication, but visually immersive media (e.g., a video‐chatting service) for more concrete and/or emotional communication. Dissecting effective ways of communicating different feelings while socially distancing ourselves gives us an insight into the changing scenario for communication in the COVID world. This paper also identifies a list of relationship stressors including the fear of exposure to the virus, financial hardship, childcare while working from home, caring for high-risk family members outside one's household. These stressors introduce different types of risks in an individual’s life, and they need to develop different types of coping mechanisms to mitigate them.

The pandemic has pushed us to start thinking about communication and social interaction in the digital space. The (Norman, Tjomsland, & Huegel, 2016) article mentions how communication using digital devices has influenced the experience of psychological distance. This paper discusses how interpersonal distance, i.e., the perception of separation in space and time that people sense between themselves and others who are significant to them, is influenced by digital communication. This paper also uses construal level theory to understand the effect of digital communication on human relationships.

**MEASURES AND METHODS USED IN STUDIES**

1. *(Zheng, Miao, & Gan, 2020) study uses the following measure to examine the effects of COVID-19 on life satisfaction and perceived general health and reveal the buffering effect of perceived control on coping with COVID-19.*

**Life Satisfaction.** This was assessed using a single item. The participants were asked to indicate their levels of life satisfaction on a scale of 1 to 9, wherein 1 = extremely dissatisfied and 9 = extremely satisfied. The statement was: “Overall, how satisfied do you feel with your current life? 1 means extremely dissatisfied and 9 means extremely satisfied.” Perceived General Health. This was also assessed using a single item, which was taken from a previous study (Main et al., 2011). The participants were asked to indicate their attitudes toward their recent health status on a scale of 1 to 5. The statement was, “Overall, your present health status is\_\_\_\_\_, where 1 means bad, 2 means normal, 3 means good, 4 means very good, and 5 means extremely good.”

**Psychological Distance.** This was measured using two items, which were adopted from the concept of psychological distance (Liberman & Trope, 2014). Individuals were required to report their perceived psychological distance from the pandemic on a scale ranging from 1 (extremely near) to 9 (extremely remote). The statements were: “How much distance do you perceive between yourself and COVID-19?” and “How much distance do you perceive between yourself and the people infected with COVID-19?” Pearson’s correlation between the two items was 0.81.

**Regional Pandemic Severity.** This is usually determined using two main factors: clinical severity and transmissibility (Reed et al., 2013). In this study, the regional number of confirmed COVID-19 cases was used as the regional pandemic severity index, as the number of confirmed cases has been linked to regional pandemic severity. These data were obtained from the website of the National Health Commission of the People’s Republic of China. This study used the data from the day on which the survey was conducted (7 February 2020).

**Perceived Control.** This was measured using the perceived control scale (Whitaker, Miller, & Clark, 2000). The scale comprises five inverse items: “I have little control over the things that happen to me”, “There is really no way for me to solve some of the problems I have”, “Sometimes I feel that I’m being pushed around in life”, “There is little that I can do to change many of the important things in my life”, and “I often feel helpless in dealing with life problems.” Each item was scored on a 7-point Likert scale (1 = “strongly disagree” to 7 = “strongly agree”). The responses were reverse recoded so that higher scores indicated high levels of perceived control. Cronbach’s alpha was .90 for this sample.

1. *The (Gong, Zhang, & Sun, 2021) study uses the following methods to examine whether social distancing would have a positive association with risk and controllability perception of COVID-19 epidemic*

Three questions to measure attention to epidemic-related information with answer options ranging from 1 to 7 (1 = never, 7 = always).

1. Recently, how often do you browse COVID-19 epidemic related information?

2. Recently, how often do you forward COVID-19 epidemic related information in social media?

3. Recently, how often do you talk about COVID-19 epidemic with families and friends?

Meanwhile we believed that conscious reflection and rumination on the reason of this pandemic was an important cognitive process along with a daily focus on media reports, so we also included five questions aiming at examining this cognitive process. The questions were as follows:

4. Recently, how often do you think about the relationship between COVID-19 epidemic and wild animal consumption? With answer options from 1 to 7 (1 = never, 7 = always)

5. Recently, how often do you think of how should human beings get along with nature? (1 = never, 7 = always)

6. Recently, how often do you think of how should human beings get along with wild animals? (1 = never, 7 = always)

7. How thorough are you when thinking of Question 4–6? (1 = not at all; 7 very much)

8. How long would it last every time you think of Question 4–6? (1 = very short; 7 = very long). The last item directly asked about knowledge of COVID-19 pandemic:

9. How much do you know about COVID-19 epidemic? (1 = not at all; 7 = very much).

Altogether, these nine items were averaged to compose an integrated indicator of cognitive factors (αT1 = 0.834; αT2 = 0.863). As for affective covariates, although “the affect heuristic” tends to define affect as the specific quality of “goodness” or “badness” (Skagerlund et al., 2019; Slovic et al., 2007), research has also pointed out distinct roles of specific emotions in risk perception (Yang and Chu, 2018). Therefore, in this study, we measured five discrete negative emotions (fear, anxiety, anger, disgust, sadness) by asking participants “How much XXX do you feel about current COVID-19 epidemic?” (1 = not at all, 7 = very much) (Yang and Chu, 2018).

The three major variables of interest were:

(1) risk perception, measured with three items

1. How severe do you think COVID-19 epidemic is? (1 = not at all; 7 = very much)
2. How much do you think other people’s perception of severity of COVID-19 epidemic is? (1 = not at all; 7 = very much)
3. How much do you think the impact of COVID-19 epidemic on the society would be? (1 = no impact at all; 7 = very huge impact) (αT1 = 0.732; αT2 = 0.774));

(2) perceived controllability, measured with a single item:

a. How controllable do you think COVID-19 epidemic is? (1 = not at all; 7 = very much)

(3) perceived increased time staying at home (PIT) also measured with a single item:

* 1. Compared with the time before COVID-19 outbreak, how much do you think your time staying at home has increased? (1 = no change; 7 = a lot of increase).

Further, the study measures whether there were any imported cases to each recipient’s current residential city, because as COVID-19 evolved into worldwide pandemic, imported cases posed an increasing threat to the mitigation of domestic epidemic control in China.

# Bibliography

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1. **psychological distance** refers to the subjective experience that something is close or far away from others, including other persons, events, time periods, and hypotheticality (Zheng, Miao, & Gan, 2020). [↑](#footnote-ref-1)
2. **perceived control** refers to an individual’s perceived capacity to handle or prevent a certain incident, and the individual differences in sense of control are closely associated with successful coping during stressful situations (Zheng, Miao, & Gan, 2020). [↑](#footnote-ref-2)
3. **pandemic’s severity** refers to an increase in the number in nearby places that may be related to the perception of being infected (Zheng, Miao, & Gan, 2020). [↑](#footnote-ref-3)
4. **hypothetical distance** is the feeling to be likely affected by COVID-19. It is a type of psychological distance (Blauza, Heuckmann, Kremer,, & Büssing, 2020) [↑](#footnote-ref-4)