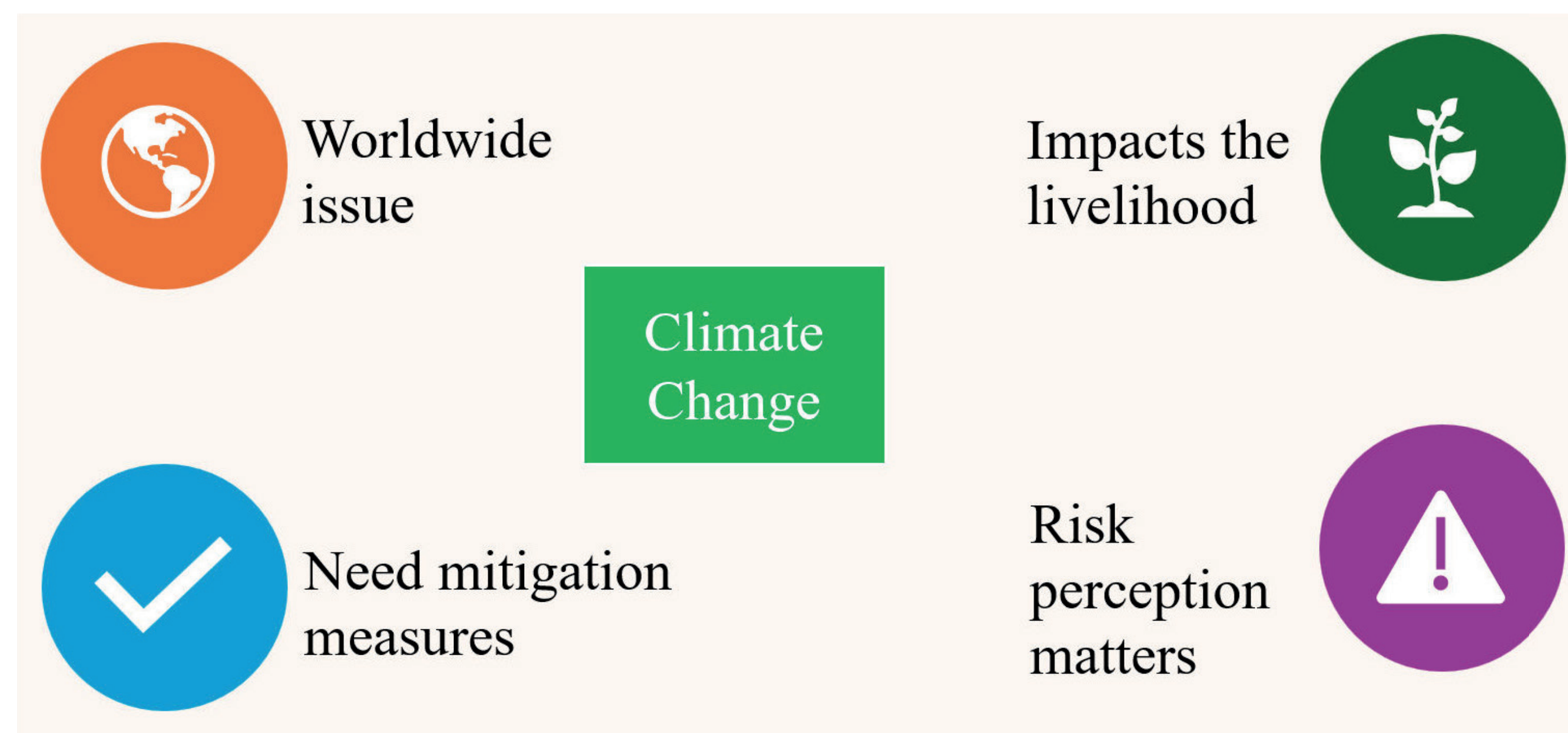


Climate Closeness: An Exploration of Psychological Distance and the Perceived Severity of Climate Change

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Why This Research?

- For awareness programs to be effective, it is important to understand what and how people think about climate change risk.
- How near or far people consider climate change (psychological distance) influences their climate change concerns and mitigation intentions (Jones et al., 2016).
- Previous research has attempted to study psychological distance in relation to climate change intentions and resulting behaviors (Brugger et al., 2016; Jones et al., 2016)
- Limited studies have explored its relationship with the perceived severity of climate change.
- This gap is important to explore as people are more likely to act on the issues they perceive as more threatening (Aguilar-Luzon et al., 2023).
- Hence, in this research, we sought to explore psychological distances to climate change and perceptions of severity, along with the potential relationships between these variables.

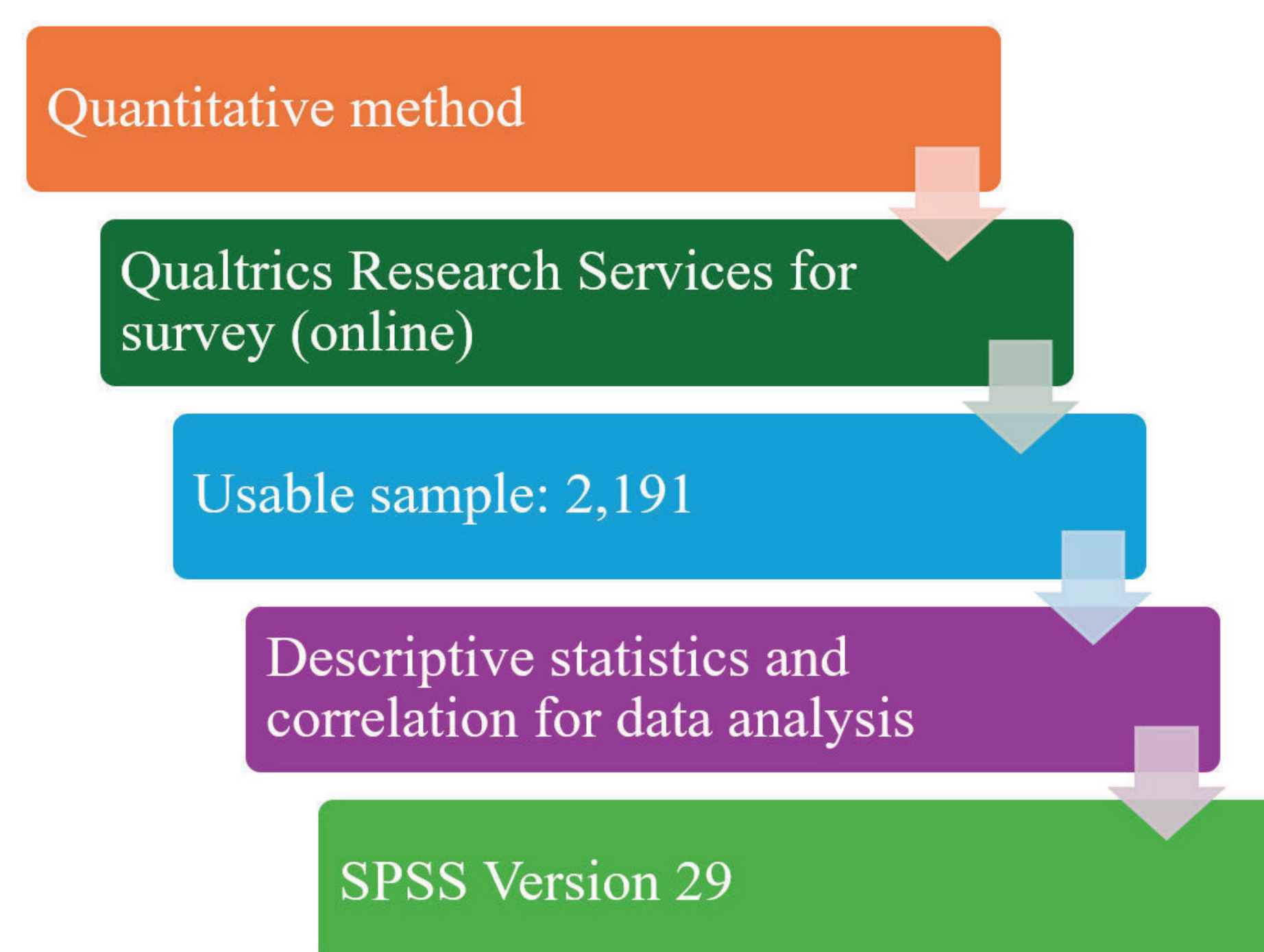
Theoretical Framework

- Construal level theory (CLT) of psychological distance was used to guide our study.
- The theory posits that people perceive, interpret, and act on things based on their psychological distance about the objects/issues they are thinking about (Trope & Liberman, 2010).
- Psychological distance refers to perceived closeness or distance of an object/issue among people.
- The theory focuses on four kinds of psychological distances: temporal, spatial, social, and hypothetical (Trope & Liberman, 2010).
- Temporal, spatial, social, and hypothetical distances describe how near or far the object/issue is perceived based on time, physical space, social relationships, and likelihood to occur, respectively (Fugita et al., 2006; Liberman & Trope, 1998; Trope & Liberman, 2003, 2010).
- According to CLT, more distant objects/issues are associated with higher construal (higher abstractness) and near objects/issues are associated with lower construal (higher concreteness) (Trope & Liberman, 2010).

Methods

- Validity and reliability established a priori on a pilot test.
- Validity: panel of experts, reliability: Cronbach's alpha
- Example items in Likert scale:
- Spatial distance ($\alpha = .71$) = Climate change is unlikely to affect my local area.
- Temporal distance ($\alpha = .96$) = Climate change is not harming people right now all over the world
- Social distance ($\alpha = .89$) = Climate is unlikely to have a big impact on people like me.
- Hypothetical distance ($\alpha = .78$) = I'm uncertain that climate change is happening.
- Perceived severity ($\alpha = .94$) = How serious is the threat of climate change to you?.

Figure 1
Research Methodology



Results

- Participants indicated neutral perceptions of spatial distance ($M = 2.86$, $SD = 1.02$), social distance ($M = 3.36$, $SD = 1.26$), and hypothetical distance ($M = 3.27$, $SD = 1.25$) of climate change.
- However, participants perceived climate change to be temporally near ($M = 2.19$, $SD = 1.08$).
- Overall, climate change was considered as serious threat ($M = 3.71$, $SD = 1.16$).
- Correlations were calculated between each of the four psychological distances (significance observed in all comparisons except between spatial and temporal).
- Also significant correlations between psychological distances and perceived climate change risk severity.
- Multiple significant correlations observed between variables are provide in Table 1.

Table 1
Psychological Distances and Perceived Climate Change Severity Correlations ($N = 2191$)

		Spatial distance	Social distance	Hypothetical distance	Temporal distance
Social distance	<i>r</i>	-.58			
	<i>p-value</i>	<.05			
Hypothetical distance	<i>r</i>	-.48	.62		
	<i>p-value</i>	<.05	<.05		
Temporal distance	<i>r</i>	-.04	-.39	-.31	
	<i>p-value</i>	.067	<.05	<.05	
Perceived Severity	<i>r</i>	-.10	.43	.34	-.80
	<i>p-value</i>	<.05	<.05	<.05	<.05

Discussion, Conclusions, and Implications

- While climate change was perceived as a current, serious threat overall, participants were only partially certain about its occurrence and impacts on the areas close to them and with people connected to them.
- Similar to the findings of Egger and Kim (2024), our research suggests that psychological distances do not necessarily correlate with one another, and when they do, the relationship can vary in direction.
- Psychological distance can also relate to perceived severity of climate change in any direction.
- These findings suggest the need to communicate climate risk considering the influence of psychological distance.
- Audience-tailored interventions about climate change severity and perceived psychological distance can be useful to help guide their behaviors.
- Our findings may help policy makers informing their decisions regarding the formulation and implementation of climate change initiatives.

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