

# I Will Survive: Perceptions of Personal and Global Climate Change Risks

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## The Hyperopia Effect

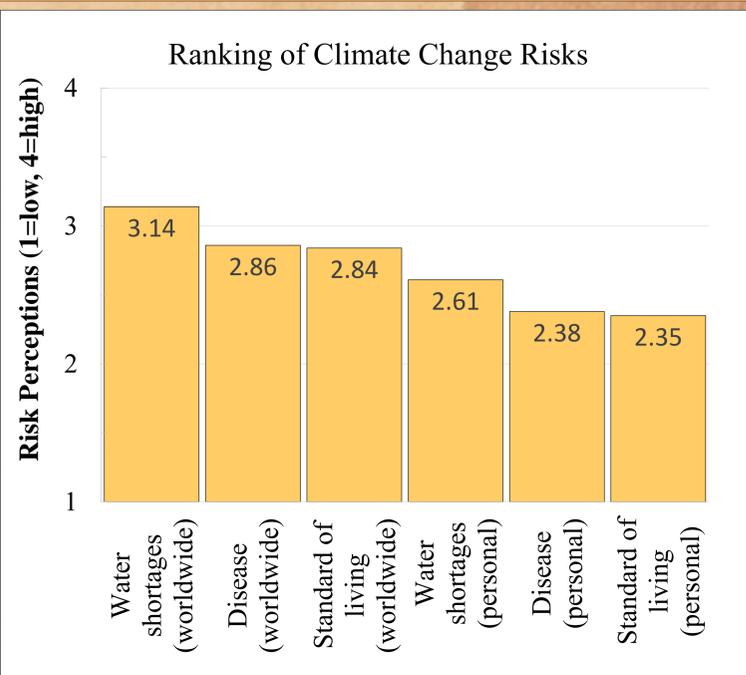
Several studies have shown that people tend to view **broad, global risks as more concerning** than more local risks, a phenomenon known as the **hyperopia effect**. This study examines both global and personal climate change risk perceptions to determine whether the hyperopia effect exists across diverse geographic contexts. We further compare responses **across countries**, considering the relationships between perceptions and development status as well as greenhouse gas emissions and energy use.

## Cross-National Data Collection

Data was collected through the **Global Ethno-hydrology Study**, a multi-year and multi-site study lead by Drs. Amber Wutich and Alex Brewis.

- This study utilizes data from the 2012 study, which focused on climate perceptions.
- 565 respondents** from **8 countries** participated in face-to-face **interviews**.
- Survey items included questions about **global vs. personal climate change risks**, such as water shortages, spread of disease, and standard of living.

## Overall Trends: Low to High Risks



Respondents were asked about the likelihood of the above climate change impacts occurring within the next 50 years.

Overall, people were more likely to say that there was a global risk than a local or personal risk, thereby confirming the **hyperopia effect**. Water shortages were of most concern.

## How do perceptions of climate change risks differ by development status and scale of impacts?

### Site Characteristics and Classification

Country	Site	n	Classification
Australia	Brisbane	68	Developed
New Zealand	Wellington	70	
Switzerland	Lausanne	50	
United Kingdom	London	136	
United States	Phoenix	63	Developing
China	Shanghai	49	
Fiji	Viti Levu	76	
Mexico	Teotihuacan	53	

- Population statistics from the World Bank Development Indicators were used to classify the 8 countries as “developed” or “developing”.
- Data was gathered from one specific site in each country.

### Analysis of Country-Level Findings

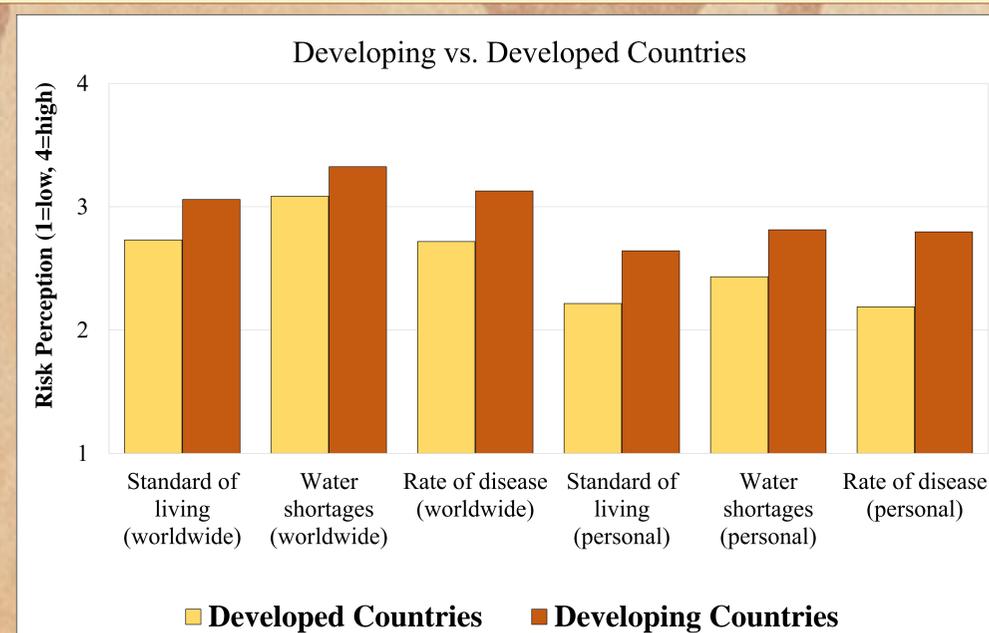
#### Spearman Correlation Coefficient

- All bivariate correlations show a moderate (0.40-.59) to strong (0.60-.79) relationship among individual variables.
- Perceptions of personal risks are most strongly correlated.

#### ANOVA and Scheffe Post-Hoc Tests

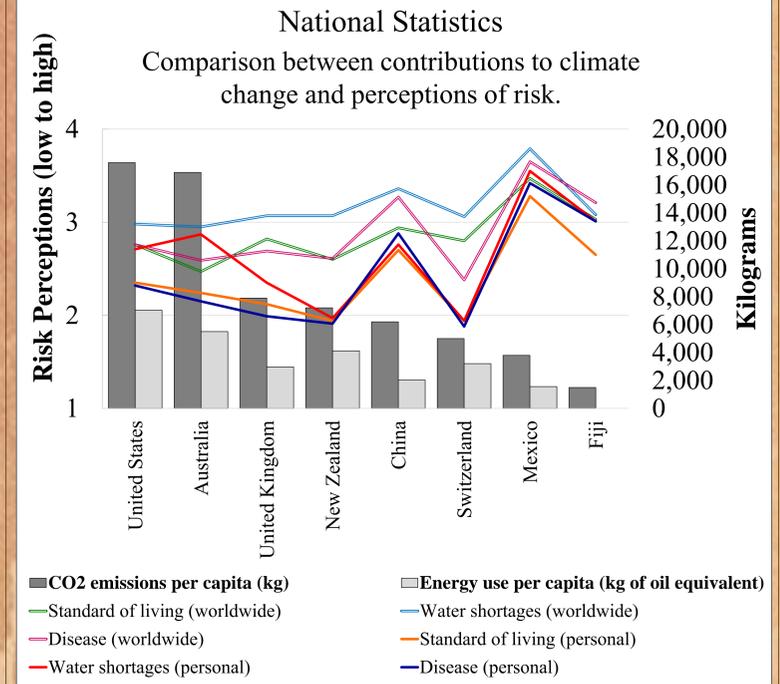
- Perceptions varied across countries for every question ( $p < 0.001$ ).
- Scheffe homogeneous subsets largely grouped countries by development status, as also classified in the table (above).

### Perceptions based on Development Status



Residents in developing countries consistently expressed higher risks due to climate change than those in developed countries.

## Country-Level Attributes & Perceptions



- Residents in countries with higher **CO<sub>2</sub> emissions and energy use** tend to show **less concern for climate change effects**, thereby demonstrating a disparity between contributions to climate change and perceived impacts.
- Among the individual countries, **Mexico** stands out as having residents who perceive climate change impacts as particularly troublesome, despite low emissions.
- Residents in **Switzerland and New Zealand** exhibit the lowest concern about personal risks compared to others.

## Concluding Thoughts

### Support for hyperopia effect:

- Higher perceived impacts for global risks compared to personal risks regardless of development status.
- People in developing countries perceive greater personal risks compared to developed countries, suggesting that residents of developed countries may feel buffered from impacts due to relatively high socioeconomic status.

### Future question to examine:

- Why do perceptions vary at individual and country (site) level, considering factors such as experiences with weather-related risks and government in/stability?

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