

The Impact of Psychic Distance on Donation Behavior during Sudden Onset Disasters

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1. Objective and Motivation

- The impact of natural disasters on human experience is on an increasing trend with both their number and overall impact rising in recent years.
- Disasters do not only result in lives lost and financial damage but create people in need of shelter and basic materials.
- These needs, especially in early disaster aftermath, are met by individual donations that need to be delivered to beneficiaries by a humanitarian supply chain (HSC).
- Unfortunately, however, Material Convergence (MC), an accumulation of unnecessary items that clog the supply chain, is a major problem during disaster response stage.
- Understanding donor behavior is key to avoid MC, and thus increasing the effectiveness and efficiency of a HSC. To that end, we have taken the Psychic Distance concept from international business, extended it with another dimension and used it to analyze donation pattern at the immediate aftermath of sudden onset disasters.
- We have designed a behavioral experiment where we manipulate the donors' and beneficiaries' conditions and tried to observe its impact on donation preferences and logic. Our study has also the objective of understanding the decision of donors between material and monetary donation, an area that has not been the subject of existing literature.

2. Disasters

Number of recorded natural disaster events, 1900 to 2023
 The number of global reported natural disaster events in any given year. Note that this largely reflects increases in data reporting, and should not be used to assess the total number of events.



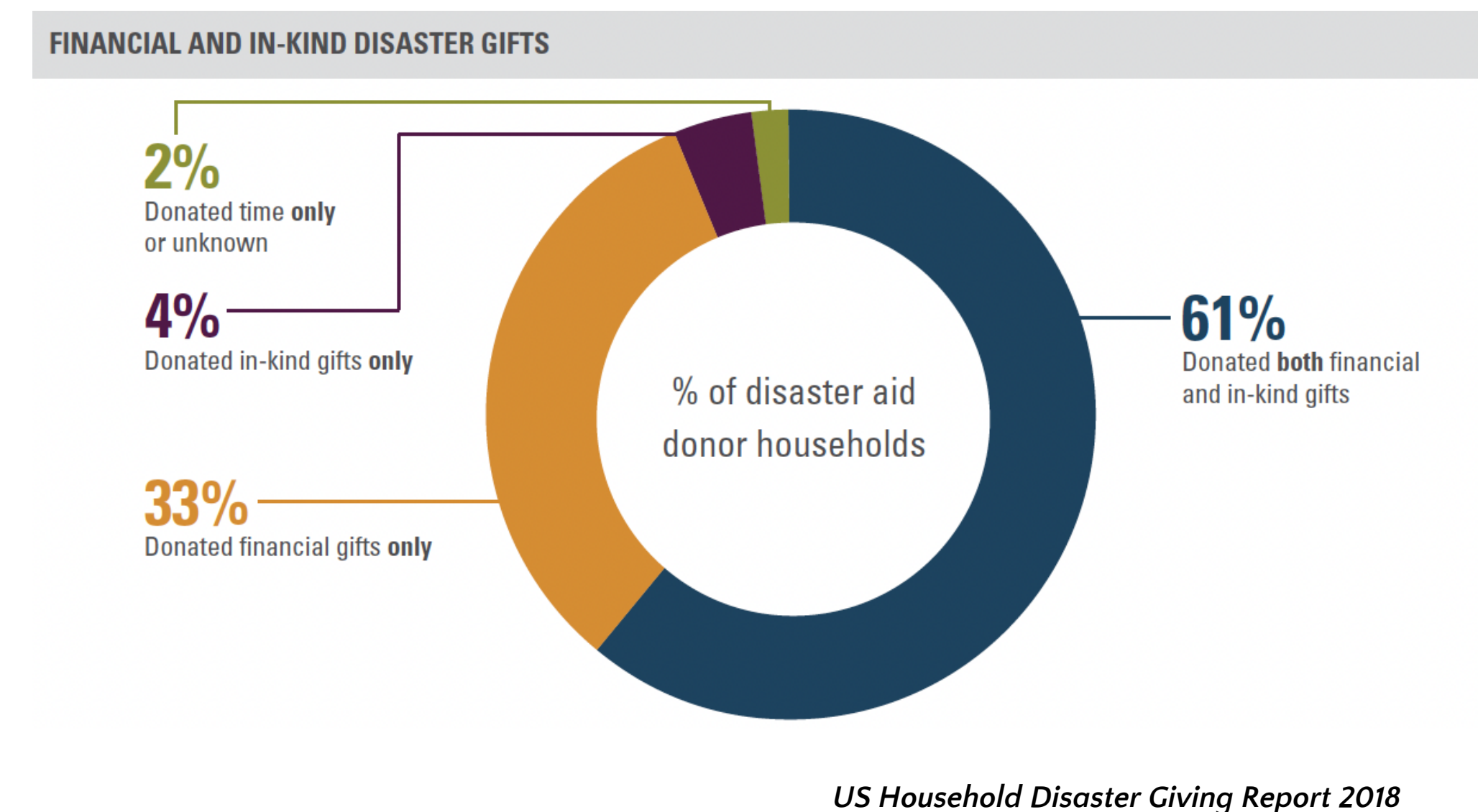
Data source: EM-DAT, CRED / UCLouvain (2024)
 Note: Data includes disasters recorded up to April 2024.

It is not just the number of occurrences that is on the rise. The number of people affected by them has increased from 1,75 million in the 1990's to 4,64 million so far in 2020's

Recent events such as the floods in Pakistan and Afghanistan (cnn.com,2024), the Hawaii wildfires (The Guardian,2023) or the Kahramanmaraş earthquake in Turkey (Relief Web, 2023) did not only create casualties, financial loss and damage to habitat, they also resulted in many displaced people in need of shelter and other types of assistance

3. Donations

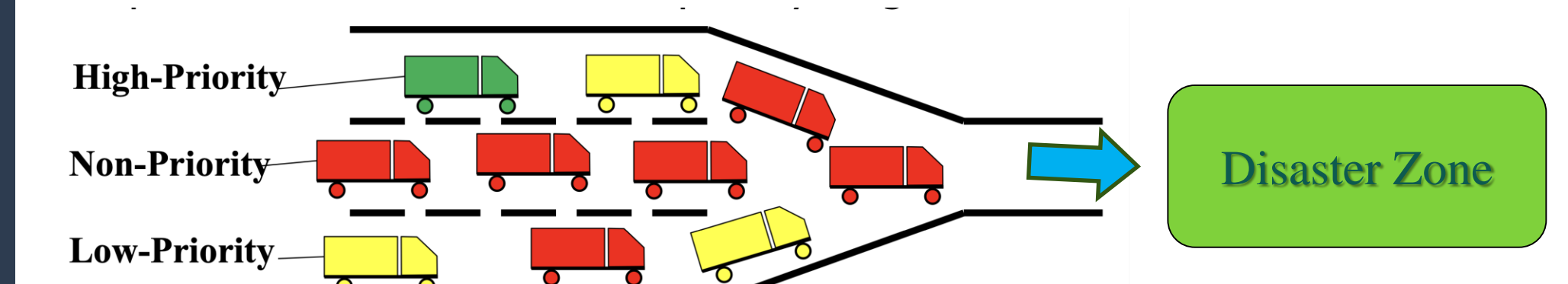
Disaster survivors' needs are urgent, which in turn prioritizes speed in coordinating the response efforts. The urgency of needs during sudden onset disasters (SOD) makes in-kind donations a necessity, especially in the very early response stages, although monetary donations are preferred in the long. Close to 80 % of funding for the first stage in disaster responses is usually provided by donations.



US Household Disaster Giving Report 2018

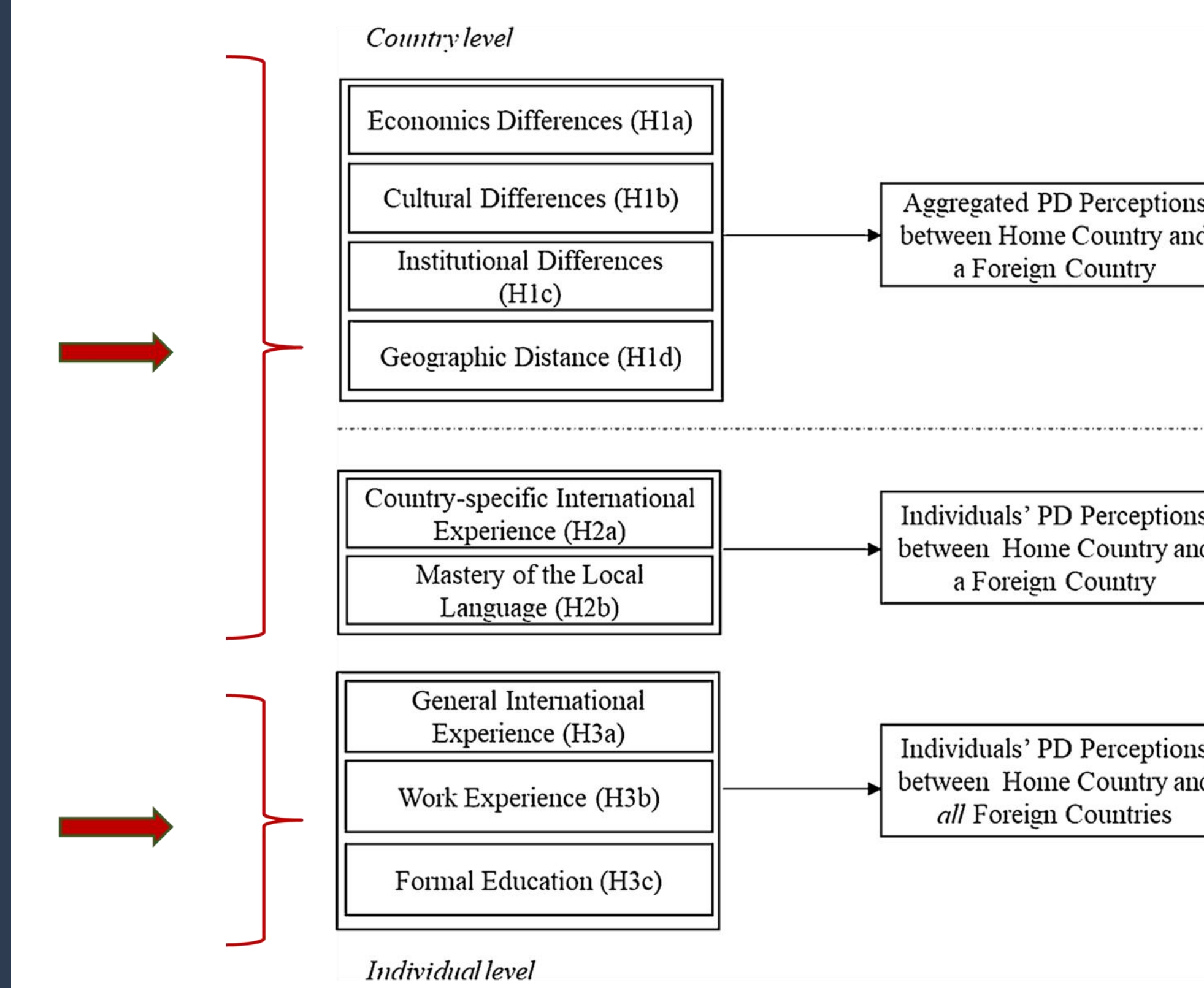
4. Material Convergence

When the donation efforts are not coordinated, the result is the abundance of certain items that are either not needed at all, or not at that time. The additional harm is that the flow of these items clogs the humanitarian supply chain, thus slowing the flow of crucial items to the beneficiaries. This event is called "Material Convergence" (MC). Its impact and potential harm to humanitarian efforts is such that it is even called a "second-tier disaster".

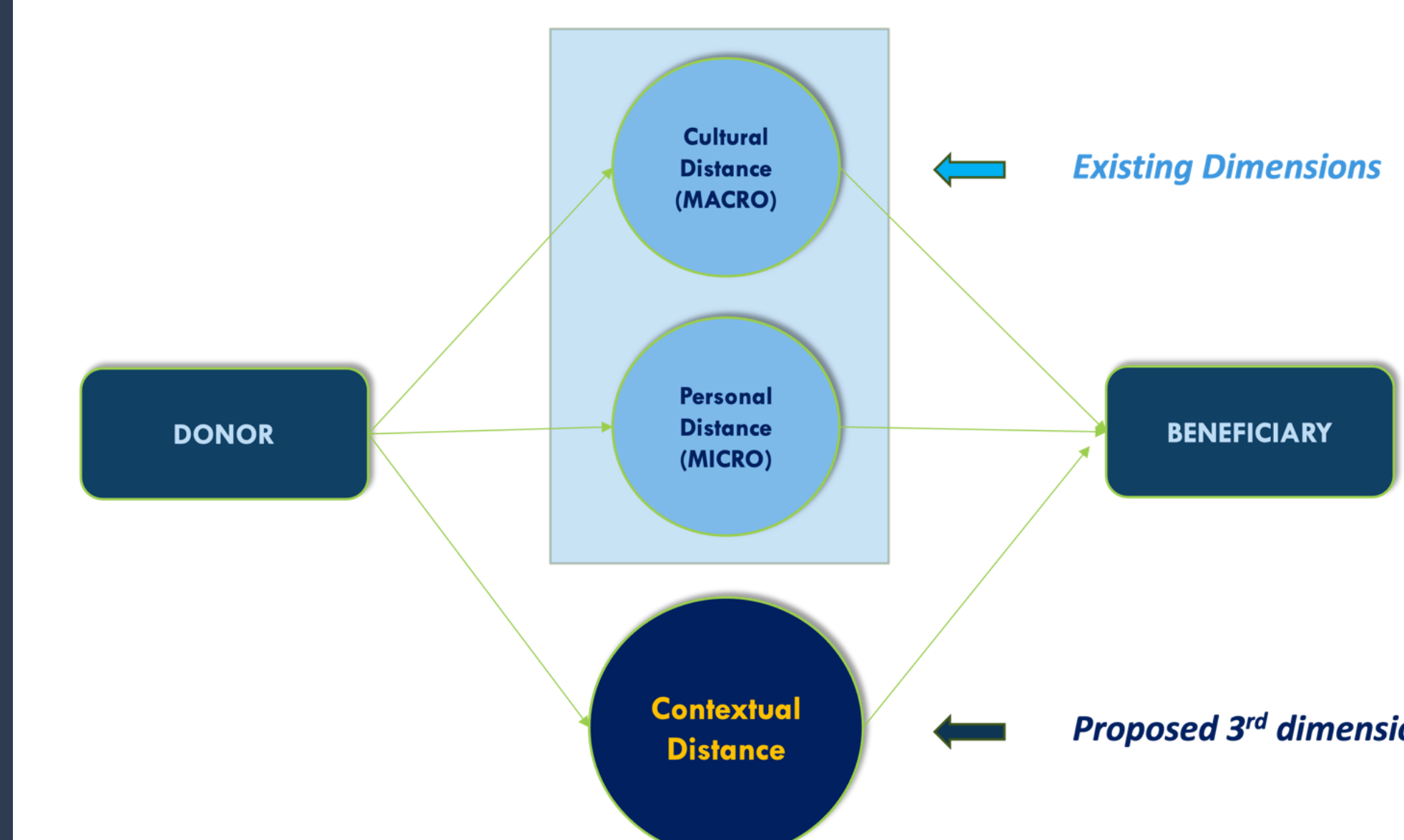


5. Psychic Distance

A term first coined in 1956 and later improved upon and called the "Upsalla Model", it has since then been used to describe different concepts in various contexts such as an obstacle to understanding a foreign environment or a barrier to information flow. Its application to donation behavior, however, is very recent and limited to one instance by Mittelman and Dow (2018).

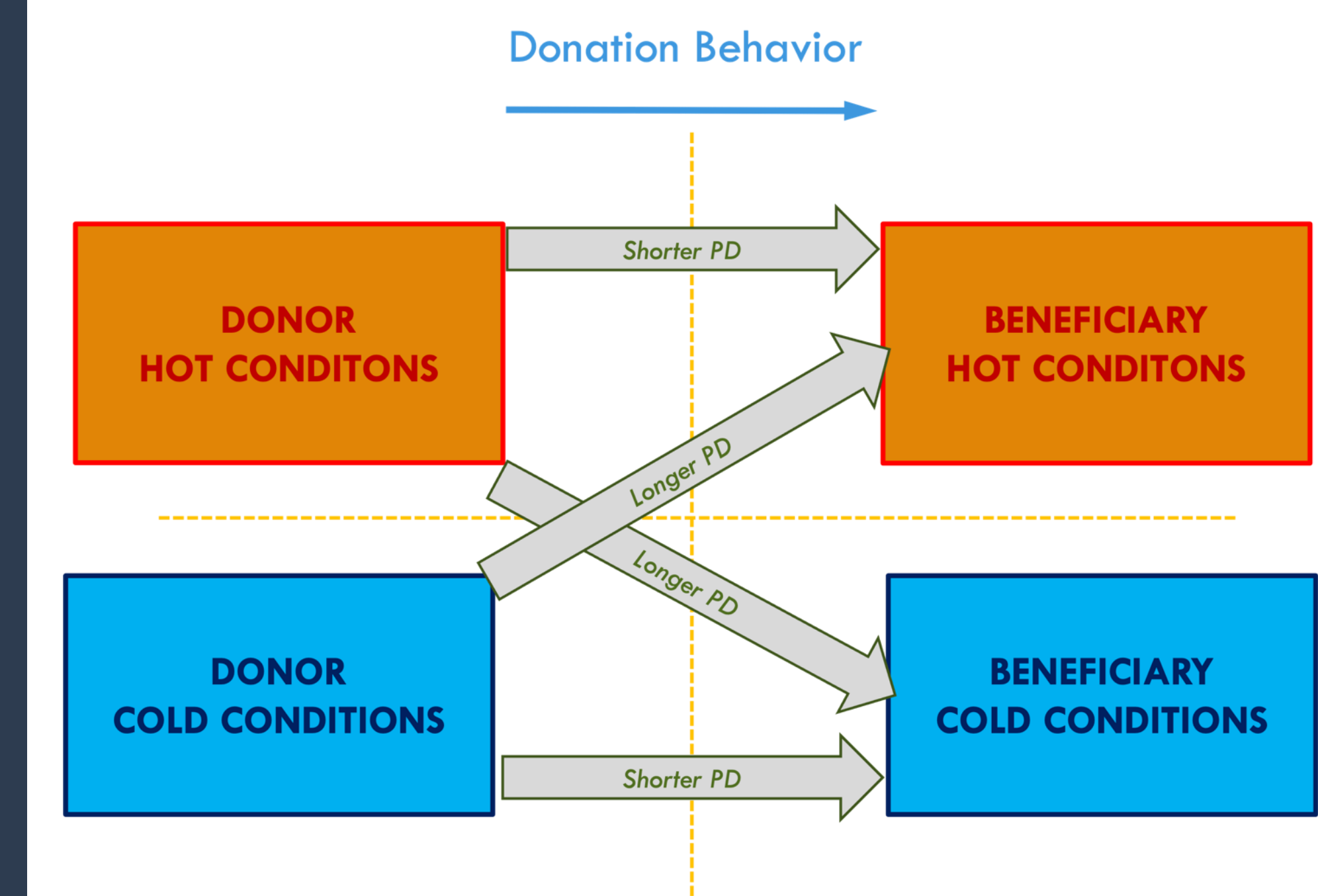
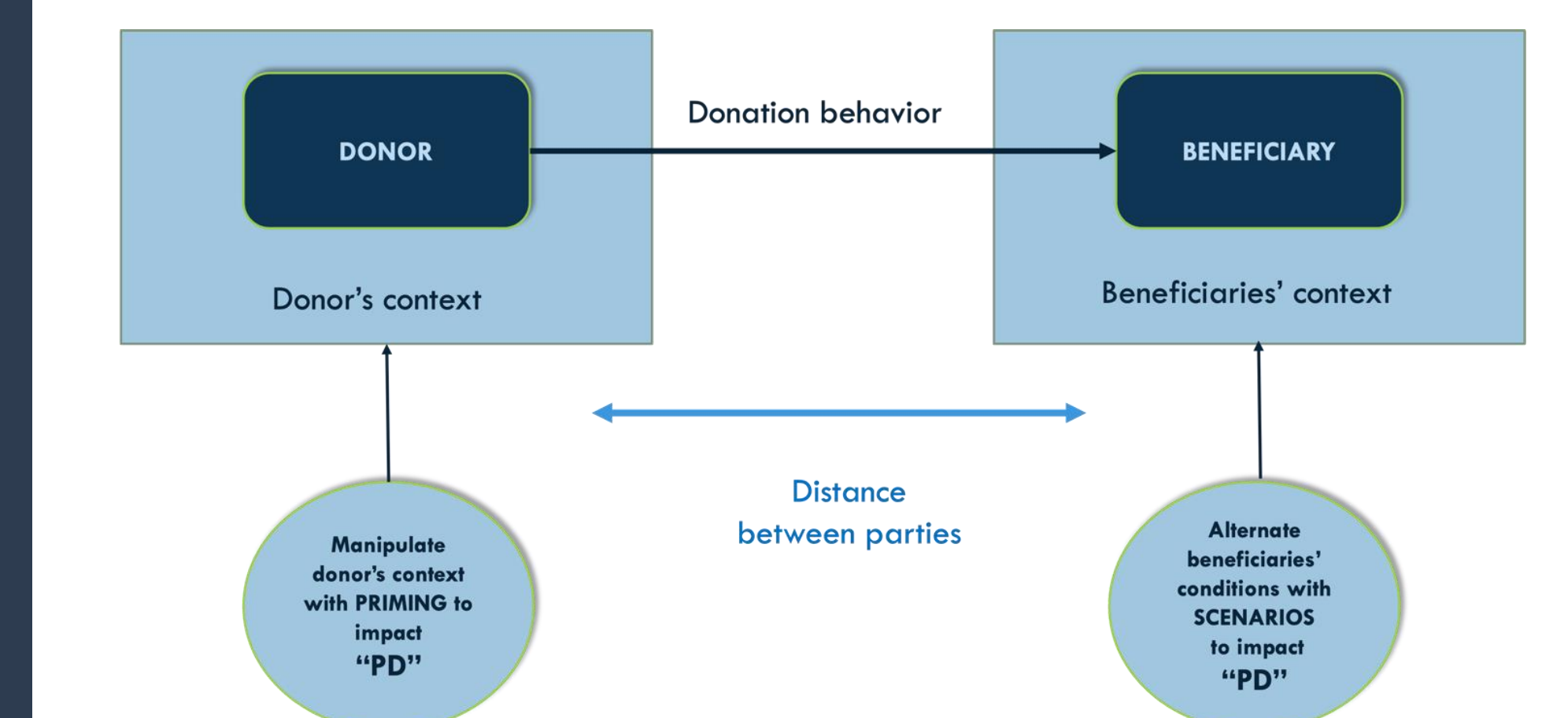


Our PD framework adds to the previous studies that included the country and individual level dimensions by adding a third one, the "contextual dimension". This dimension includes factors that determine the distance between the potential donor and the beneficiary "at the time of SOD". We suggest that these factors cannot be predicted or measured before the SOD actually occurs, and that they are temporary and dependent on the characteristics of the disaster. The contextual dimension factors are also highly impacted by the conditions the potential donors are in, when they become aware of the SOD and faced with the decision of donating.



6. Experiment Design

To observe the impact of contextual dimension on the donation behavior, we have designed an experiment where we manipulate the donors' context in terms of seasonal daily conditions, mainly related to temperature. We then expose them to two different beneficiary types, who are experiencing the same disaster under either hot summer or cold winter conditions. Our choice of methodology is in line with prior studies focusing on understanding donation behavior, especially during time of disasters and based on the beneficiary characteristics



7. Next Steps

The initial experiment design has been refined with the feedbacks from the pilot experiments we conducted with Sabancı Business School (SBS) PhD students. The experiment has been carried over to Qualtrics, which streamlines the experience for the subjects and also provides an opportunity to conduct it under different conditions and in different geographies.

The next step is to conduct the experiment with 4 separate groups of SBS students, using 4 different scenarios.