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Can you feel their pain?

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Summary

The mental simulation of visceral states has been researched widely in the field of psychology and marketing. On the contrary, the impact of mental simulation of visceral states (i.e., hungry/cold) on the willingness to donate to charitable activities has rarely been studied in the field of marketing. Former research in various fields have established that the level of mental simulation of visceral states can affect preference and behaviour. In the studies outlined in this report, we seek to establish whether the mental simulation of visceral states can affect one's willingness to donate within a marketing setting.

Introduction

When we are hungry, we find something to eat to fulfill that need. When cold, we will seek shelter or warm clothing. And when we see someone else who is suffering from the cold, we will cover them with a blanket — or will we? Could seeing someone else’s shivers make you seek out that blanket to cover your own newfound chills instead?

While many of people can empathize with someone else’s physical hardships and literally “feel their pain” on a visceral level, it is unclear how this will influence their subsequent behavior; specifically, their willingness to perform altruistically or give a donation. It is unclear how people experiencing various visceral states will respond to marketing or advertising campaigns from a charitable organization. In addition, as academic research has shown, the level of perceived similarity or dissimilarity between actors or groups is a key factor when considering people’s actions resulting from their visceral states.

The research study outlined in this report will attempt to examine and quantify the relationship between visceral states, charitable giving, and the level of perceived similarity. By doing so, we will determine whether feeling someone else’s pain will provoke people to become empathetic benefactors or, conversely, justifiably self-interested beings.

Research question

People can mentally experience the feelings of a visceral state that differs from their current physical condition. This leads to a more accurate projection for how the simulated state would affect their behaviour and preferences if they were actually experiencing it. By actively imagining, visualizing, and reproducing a given bodily state, people are more likely to understand the wants and needs of others, as well as their future selves (Steinmetz et al., 2017).

Previous research has established that current preferences and behaviour are influenced by a person’s visceral state and that one ought to mentally stimulate a person’s visceral state (Steinmetz et al., 2017). We will examine whether the mental stimulation of hunger and cold can be used to anticipate people’s future preferences, whether they project their resulting preferences onto others, and

whether they can anticipate other people's needs and preferences more correctly. Specifically, we will examine the existence and influence of these factors in a charitable giving setting. Accordingly, the research questions we will examine are as follows:

How does a person's visceral state affect his or her willingness to donate?

How is this behavior moderated by the degree of similarity between the prospective benefactor and the recipient or a representative group of people?

The effect of mental stimulation of visceral states has not yet been analyzed within a charitable giving context. Implications from our study will be relevant for charitable organisations, their marketing managers, planning of marketing messages, and how one can utilize mental stimulation to increase a person's willingness to donate. The findings of this study will also contribute to the literature in the field of sensory marketing.

In the following sections, we will examine existing literature about this topic, establish the theoretical framework, our resulting hypotheses, and the proposed methodology for our experiment.

Literature Review

Visceral States

A person's decisions and actions are largely influenced by his or her visceral state. Visceral states can be defined as attention-consuming bodily experiences, such as hunger or cold (Steinmetz et al., 2017; Risen & Critcher, 2011; Loewenstein, 1996). When a person experiences a visceral state, he or she focuses primarily on the goals associated with their current state and downplay the importance of other goals. People will exhibit more unhealthy eating habits while hungry relative to being satiated (Read & van Leeuwen, 1998; Nisbett & Kanouse, 1969). Other mental states, such as sexual arousal, have also been shown to influence judgment and decision making (Ariely & Loewenstein, 2006). Nevertheless, people have the tendency to underestimate the influence of visceral factors if they are not actually experiencing the visceral state, leading to the

resulting hot-to-cold and cold-to-hot empathy gaps between people (Ariely & Loewenstein, 2006; Loewenstein, G., Prelec, D., & Shatto, C., 1998). Cold-to-hot empathy gaps occur when a person in a “cold” and non-aroused state recalls or predicts his or her behaviour in a “hot” state of arousal (i.e hungry and cold). Hot-to-cold empathy gaps occur during the opposite scenario (Loewenstein, G., Prelec, D., & Shatto, C., 1998).

As previous research and these gaps indicate, those in a cold state will fail to empathize with how someone in a hot state feels, which is largely due to the fact that he or she is not experiencing a parallel visceral state. Since people in a hot visceral state are said to respond to stimuli in “the heat of the moment” (Ariely & Loewenstein, 2006; Loewenstein, G., Prelec, D., & Shatto, C., 1998), we want to determine whether simulating a hot visceral state will influence people to behave altruistically or not.

Visceral States & Social Judgment

The various theoretical interactions between visceral states and social judgment have also been well-researched (O’Brien & Ellsworth, 2012; Van Boven & Loewenstein, 2003; Van Boven, Loewenstein, & Dunning, 2003). There is empirical evidence that suggests people have a low capacity to empathize with those who they perceive as different or hold different ideological or social viewpoints, and a consequent low desire to behave altruistically (O’Brien & Ellsworth, 2012). People are also less likely to be influenced by visceral feelings when considering dissimilar “others” (O’Brien & Ellsworth, 2012; Harris & Fiske, 2006).

Therefore, it is relevant to consider the level of similarity, or dissimilarity, between a potential charitable actor and the prospective recipient, and its moderating effect on behavior. As research has demonstrated, there appears to be an interaction between a person’s visceral state and the level of similarity to the person of interest, whether the degree of similarity is based on location, socio-political beliefs, or another factor; this interaction and the potential empirically measurable differences of various similarity factors presents a current gap within academic literature.

Research has shown that deeper mental simulation can substitute for actual experiences (Kappes & Morewedge, 2016; Steinmetz et al., 2017). As Steinmetz

et al. (2017) found, actively stimulating hunger or feeling cold can make people more interested in eating or activities that make them feel warmer, respectively. Furthermore, since people in a cold state fail to empathize with someone in a hot states, it would be empirically relevant to examine whether mental stimulation of hot states (i.e hunger or cold) could bridge this empathy-gap and encourage people to be more empathic with similar and/or dissimilar others who are actually experiencing being cold or hungry.

Holmes & Mathews (2010) finds that images are more effective in inducing an emotional response when they include “response propositions,” or information concerning associated autonomic or behavioural responses. In addition, they discuss the so-called “how do I feel about it?” heuristic, which influences a person’s response to emotional imagery (Arntz, Rauner, & Van den Hout, 1995; Forgas, 1995; Holmes, E.A., & Mathews, A, 2010). In the context of this study, this heuristic may manifest as “*the need to help*” response to an emotional or graphic image clearly depicting someone else’s genuine need (i.e. an individual facing starvation). The likelihood of image-induced behavioral responses, coupled with heuristic processing is likely to increase subjective, associated behaviour, such as donation.

Overall, we believe the stimulation of the relevant visceral state will reduce empathy gaps between the subject and prospective charity recipient, given that the perceived level of similarity between the groups is high. As a result, we have formulated the following hypotheses:

H1: People experiencing hunger or cold will have a higher willingness to donate to hungry or cold recipients who are perceived as being similar, respectively.

H2: People experiencing hunger or cold will have a lower willingness to donate to hungry or cold recipients who are perceived as being dissimilar, respectively.

Experiencing one visceral state does not help overcome the empathy-gap for other visceral states (Steinmetz et al., 2017; Nordgren, McDonnell, & Loewenstein, 2011). Therefore, in our controlled laboratory setting, the simulated visceral state must be aligned with the (i.e. stimulating hunger in subjects who are presented with an advertisement of a hungry individual). Steinmetz et al. (2017)

confirmed that people rely on mental simulation the same way they rely on the actual experience of visceral states when inferring their current preferences. The researchers found that simulation only affected current preferences, and not general preferences. Furthermore, the research showed that people project their simulated experiences onto similar others, but not onto those whom are perceived as dissimilar. When incorporating empathy as a result of mental simulation, the mental simulation might enable people to anticipate others' preferences and needs to a greater extent. Inter-individual differences may influence when and to what extent they spontaneously generate mental simulation. The more familiar a visceral state is, the easier people are able to generate the simulation (Steinmetz et al., 2017), so if never experienced starvation, the results might not be generalized. Nonetheless, as previously mentioned empathy might still be generated due to mental simulation *when for example being exposed to a donation-ad*. In addition, prompting people to mentally simulate results in more elaborate engagement, indicating that prompting (mental stimulation) leads to more effect on preferences and behaviour.

Mental stimulation can act as substitutes for experience, but as Kappes & Morewedge (2016) further show the substitution effect of mental stimulation is likely to be stronger initially and dissolve without reactivation. Thus, if research shows that mentally stimulating being cold increases willingness to donate, then a donation-ad should be more visible in the cold months of the year, preferably outside where people have previously or are simultaneously experiencing the feeling of being cold. In addition, attitudinal variables have been found to influence a person's willingness to donate to charity. This may include a person's attitude toward helping others and toward the charitable organization or organizations under consideration (Webb et al., 2000)

As Steinmetz et al. (2017) indicates, a question that might arise is why we mostly find assimilative effects of mental simulation, and not contrast effects (e.g. people simulating warmth notice a contrast to their current experience and feel colder).

H3: *When exposed to a similar or dissimilar visceral state, participants' willingness to donate will increase due to the assimilative effect or the contrast effect, respectively.*

Relating the aforementioned concepts to charitable giving and one's willingness to donate, being mentally stimulated to feel hungry or cold may reveal both assimilative and contrast effects. Therefore, it is important to test whether being mentally stimulated to feeling hunger and then exposed to a charity ad/option to donate increases your willingness to donate due to the hungry child on the ad, or if the contrast effect has a greater effect on willingness to donate. If the latter stands, when people are mentally stimulated to feel full, they will notice a condition that contrasts their state, including a hungry child displayed on the ad. By being exposed to such a charity-ad, empathy might be generated and the contrast effect can lead to higher willingness to donate. Nevertheless, if the assimilative effect holds, then by mentally testing what a different visceral state can feel like (e.g. starvation which is not a quotidian physical condition) people may decrease the empathy-gap, and consequently, value of the wants and needs of others to a greater extent.

Proposed Methodology

Study 1

We replicate the majority of the methods and procedures of Steinmetz et al. (2017), particularly those of Study 5, to test whether people project a simulated visceral state with similar or dissimilar others.

Subjects will be stimulated into a cold, hot, hungry or satiated state via the method described below. However, in our first study, we will use a charity ad as the presented stimuli with a dependent variable that seeks to measure the willingness of participants to donate as a monetary value?.

Participants and design.

We will recruit approximately 200 participants for a 2 (hungry vs. full) OR (hot vs. cold) x 2 (other person: similar vs. dissimilar) between-subjects design.

Materials and Procedure.

Participants will be asked to imagine being cold, hot, hungry or satiated for at least 90 seconds. In order to simulate these visceral states, participants will read the following instructions:

For the next 90 seconds, please imagine that you are very HOT (versus cold, hungry, or full). Please think about what it would be like to feel very hot in as much detail as possible. Think about what your experience would be like: What would you be thinking about? How would your body feel? How would you act? Please try to give us a detailed description of your thoughts and feelings. (as written and used by Steinmetz et al., 2017)

Next, participants will be required to record their thoughts and feelings for a minimum of 60 seconds. After this period, participants could either continue writing or proceed to the next phase. Participants will be presented with different preference items, indicating what their preferences are in fully randomized order. Three items were preferences for charitable action (*Right now I would enjoy to... 1) give aid others who are in need, 3) contribute money to a worthy cause, 7) help others in need who live in somewhere far away from me*). The other four were preferences for neutral activities to mask the questionnaire purpose (Steinmetz et al., 2017).

We will also include a control condition, in which participants will be asked to imagine a neutral activity (traveling to a different city vs. playing with a childhood toy) (Steinmetz et al., 2017).

Participants will then be presented with an advertisement from a fictitious charity. To measure the willingness to perform charitable giving between the various conditions, participants will be asked [Need to determine what measurement scale to use. Possibly: how much they would be willing to donate to a set of charities OR how much out of a total allowance of \$XXX USD they choose to allocate to a variety of purchases (items, services, experiences, travel, charity, etc.), either as a specific dollar amount OR out of a monthly spending budget of \$XXXX, how much would they choose to allocate to a variety of purchases (groceries, social outings, charities, etc.), among those are parallel (e.g. simulated hungry + starving ad → food bank charity) vs. non-parallel charitable causes (e.g. simulated hungry + starving ad → animal shelter charity).] Subjects will then be asked to complete a set of survey items.

Study 2

In our second study, we will test *H3* and determine whether the contrast or assimilation effect holds stronger when measuring willingness to donate. If the

assimilation effect holds, it would indicate that people donate more due to mental simulation. If the contrast effect holds, on the other hand, empathy is more likely the primary reason for donating.

We will test our hypothesis via two stimulated visceral states: (1) mentally stimulating feeling full in order to test the contrast effect and (2) mentally stimulating feeling hungry in order to test the assimilation effect.

Participants and design:

To be consistent with the sample size of study 1, we determined a sample size of 90 participants per condition.

Materials and procedure:

When testing for the assimilation effect, we will use the same procedure and materials as in Study 1. Participants will be asked to imagine themselves being hungry, as specified above, and be asked to provide a written description of what they imagined. They will then be presented with a picture of a fictitious charity ad depicting a hungry child.

Participants in the contrast condition will be asked to imagine themselves being full and not desiring food anytime soon, and asked to describe what they imagined. In addition, we asked when the last time the participant had eaten. The participants will then be presented with the same fictitious charity-ad as the assimilation effect group. Participants will respond to the same randomized preference items as in Study 1.

Furthermore, there are additional test conditions and studies we are hoping to conduct as a part of this research proposal. In one such proposed experimental condition, participants will be given the opportunity to physically place a chosen monetary donation (as a dollar amount written on a piece of paper) in a donation box at the end of the experiment. This will more accurately simulate the context of charitable giving within setting that subjects would likely encounter in a real-world setting (i.e. streetside Salvation Army donation boxes during the holidays). The experiment room/on their way out of the experiment room. Additional research will need to be conducted before finalizing this study design in order to validate its empirical relevance.

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