

Empathy Gap

Subjects: Others

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A hot-cold empathy gap is a cognitive bias in which people underestimate the influences of visceral drives on their own attitudes, preferences, and behaviors. The most important aspect of this idea is that human understanding is "state-dependent". For example, when one is angry, it is difficult to understand what it is like for one to be calm, and vice versa; when one is blindly in love with someone, it is difficult to understand what it is like for one not to be, (or to imagine the possibility of not being blindly in love in the future). Importantly, an inability to minimize one's gap in empathy can lead to negative outcomes in medical settings (e.g., when a doctor needs to accurately diagnose the physical pain of a patient), and in workplace settings (e.g., when an employer needs to assess the need for an employee's bereavement leave). Hot-cold empathy gaps can be analyzed according to their direction: They can also be classified in regards to their relation with time (past or future) and whether they occur intra- or inter-personally: The term hot-cold empathy gap was coined by Carnegie Mellon University psychologist George Loewenstein. Hot-cold empathy gaps are one of Loewenstein's major contributions to behavioral economics.

Keywords: physical pain ; visceral ; cognitive bias

1. Visceral Factors

Visceral factors are an array of influences which include hunger, thirst, sexual arousal, drug cravings for the drugs one is addicted to, physical pain, and strong emotions. These drives have a disproportionate effect on decision making and behavior: the mind, when affected (i.e., in a hot state), tends to ignore all other goals in an effort to placate these influences. These states can lead a person to feel "out of control" and act impulsively.^{[1][2][3]}

2. Memory

Hot-cold empathy gap is also dependent on the person's memory of visceral experience. As such, it is very common to underestimate visceral state due to restrictive memory. In general, people are more likely to underestimate the effect of pain in a cold state as compared to those in the hot state.

Nordgren, van der Pligt and van Harreveld (2006) assessed the impact of pain on the subjects performance on a memory test. In the assessment process, participants were questioned how pain and other factors affected their performance.^[4] The results revealed that those participants in the pain free or cold state undervalued the impact of pain on their performance. Whereas, participants undergoing pain, accurately measured the effect of pain on performance.^[4]

3. Areas of Study

3.1. Sexual Desire

Implications of the empathy gap were explored in the realm of sexual decision-making, where young men in an unaroused "cold state" failed to predict that in an aroused "hot state" they will be more likely to make risky sexual decisions, (e.g., not using a condom).^[5]

3.2. Bullying

The empathy gap has also been an important idea in research about the causes of bullying.^{[6]:IV} In one study examining a central theory that, "only by identifying with a victim's social suffering can one understand its devastating effects,"^[7] researchers created five experiments. The first four examined the degree to which participants in a game who were not excluded could estimate the social pain of participants who were excluded. The findings were that those who were not socially excluded consistently underestimated the pain felt by those who were excluded. A survey included in the study directed at teachers' opinions of school policy toward bullying found that those with an experience of social pain, caused

by bullying, often rated the pain experienced by those facing bullying or social exclusion as higher than teachers who did not have such experience, and further, that teachers who had experienced social pain were more likely to punish students for bullying.^[8]

3.3. Addiction

George F. Loewenstein explored visceral factors related to addictions like smoking. The factors have to do with drive states which are essential for living – for example, sleepiness and hunger. Loewenstein discovered that addicts mistakenly categorize their addiction as an essential living drive state due to a behavior disorder.^[2] From the findings emerged new discoveries about hot and cold empathy gap and its important role in drug addictions, such as smoking.

3.4. In Smokers

A study done in year 2008 explored empathy gap within smokers.^[9]

The experiment

98 smokers, from the age of 18 to 40 who smoked at least 10 cigarettes per day for their past 12 days and are not interested in quitting, were selected through paper advertisements. For the experiments, smokers were asked to shun smoking for two days. The participants started off from session one and then moved on to session two.^[9]

1. Session one: In this session, smokers were asked to only imagine themselves in pain. This was to encourage the participants to stimulate themselves with thoughts irrelevant to smoking. This led the experimenters to see if the participants were at either hot or cold stage of empathy gap. After the experimenters discovered the stage of the participants, experimenters did another experiment. The participants in the cold state were categorized in the controlled cue and were asked to remove a plastic cover of a tray after 20 seconds of the exposure of the plastic cover. Underneath was a tape roll. The participants were asked to stare at the tape roll and then were surveyed. The participants in the hot state were categorized in the smoking cue. They were asked to do similar ritual of removing the plastic cover but the only difference was underneath the plastic cover was a pack of cigarettes, a lighter and an ashtray. The participants were asked to pick up a cigarette, light it with the lighter and stare at it without smoking it and were later surveyed. Then they (both controlled and smoker participants) are asked the minimum amount of money needed to delay smoking. Both hot and cold staged participants are asked to state the minimum price amount they need to delay smoking "right now".^[9]
2. Session two: Then the participants were going through similar session as session one. The only difference was that for the participants in the smoking cue were asked to express their minimum price to delay smoking before and after removing the plastic cover off the tray. The participants were also informed that there will be a 50% chance that the compensation the participants expressed will be taken into consideration for their real compensation given at the end of the study. In the end, all participants were rewarded five dollars for their participation.^[9]

Results

"Willingness to accept craving" (WTAC) is a measurement based on the money that participants received for previous smoking research. The results indicate that the compensation demand increased from first session to the second session for those in controlled cue and decreased for those in the hot cue.^[9]

Influence in smoking

The cold cue participants under predicted their monetary compensation to delay smoking whereas the hot cue participants over predicted their monetary compensation. This shows the gap both groups in different stages of empathy. It can also lead to a prediction that they will be misinformed about high risk situations. For example, many smokers in parties will probably underestimate their consumption of smoking, however, the consumption may be higher than predicted for the smoker. Those who would like to quit smoking may find quitting easy, however during the time of quitting smoking, they might find it incredibly difficult to control the urge to smoke. High craving situations will lead to a higher chances for a person to smoke, whereas those who are not in the state of craving smoke will have no idea about how it is like to intensely crave smoking.^[9]

4. Power

The bargaining games conclude that if one is completely powerless, the one proposing the offer to the powerless will lack strategy. Thus, the powerless will ironically receive higher outcomes. This is because of the egocentric empathy gap.^[10]

In general, people have difficulty taking perspectives of a typical situation and decision making. Often, attribution bias of false consensus is the reason why the overestimation of similar perspective occurs.^{[11]:480}

4.1. Van Boven Experiment

Van Boven divided students in the experiment into sellers and buyers of the coffee mug. He collected the price that buyers are willing to pay and collected the price at which the sellers are willing to sell the mug. To test the empathy gap, the buyers of the coffee mug were also asked to predict the price that the sellers would have to offer.^[12]

Results

Prediction of the sellers and buyers were close to their own price proposed and depended on their own evaluation of the mug. This leads to a conclusion that empathy gap does exist since both parties were unable to evaluate the other party. When being the weaker party, an encouragement of being more strategic occurs since the weaker party fears that their outcome will be in threat. In fact, this leads to a decision more in favor of the weaker party.^[12]

General conclusion about the results

Further conclusion can be made about empathy gap and power: the weaker party often doesn't realize that being in a weaker party can actually give them more power to strategically think and make decision, leading to better outcomes. The weaker party has no idea what they are capable of doing. They convince themselves that being more powerful is often more advantageous. Whereas the powerful party lacks strategy and leads to a poor outcome. Trial of experiments that held different combinations of the ultimatum game was done. The trials lead to an ultimate conclusion that participants like to be more powerful than to be powerless. Since the reasoning is not necessarily true due to attribution bias of false consensus, the powerful ones didn't abuse their power. Even though an assumption of being powerful leads to power's abuse, in reality it calls for more pro-social behavior and responsibility.^[10]

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