Relaxation Increases Monetary Valuations

   Michel Tuan Pham, Columbia University, USA
   Iris W. Hung, National University of Singapore
   Gerald J. Gorn, Hong Kong University of Science and Technology, China

Across six experiments, states of relaxation were found to increase the monetary valuation of products compared to equally pleasant but less relaxed affective states. Relaxation inflates price perceptions because it leads to consumers to represent the value of products at a higher level of abstraction, which increases their perceived value.

[to cite]:

[url]:
http://www.acrwebsite.org/volumes/15838/volumes/v38/NA-38

[copyright notice]:
This work is copyrighted by The Association for Consumer Research. For permission to copy or use this work in whole or in part, please contact the Copyright Clearance Center at http://www.copyright.com/.
EXTENDED ABSTRACT

“Decisions Under Distress: Stress Profiles Influence Anchoring and Adjustments”

Karim Kassam, Carnegie Mellon University, USA

Understanding how stress affects decision making is complicated by the fact that not all stress responses are created equal. Challenge states, for example, are characterized by efficient cardiovascular profiles, higher resource relative to demand appraisals, and are associated with approach motivation. Threat states, in contrast, involve less efficient cardiovascular profiles, higher demand relative to resource appraisals, and are associated with withdrawal motivation. We randomly assigned participants to social feedback conditions designed to engender challenge and threat states, as well as a control condition. Participants then completed an anchoring and adjustment questionnaire.

Anchoring and adjustment is a common mode of interaction of conscious and unconscious processing, we frequently make conscious adjustments to our beliefs, estimates and opinions based on information and social context. Following the stress manipulation, participants completed a number of trivia questions involving adjustment from self-generated anchors (e.g. What is the freezing point of vodka?). Adjustment from anchors on such questions has been shown to require conscious processing–participants generate intuitive answers they know to be incorrect but close to the right answer (e.g. 32 degF), and then serially adjust in the direction of the correct answer (Epley & Gilovich, 2001).

In order to engender challenge and threat stress responses, we used a modified version of the Trier Social Stress Task (Kirschbaum, Pirke, & Hellhammer, 1993)—a mock job interview consisting of speech and question-and-answer tasks. After application of physiological sensors, participants sat quietly for a 5-minute baseline period. Participants were then asked to imagine they were interviewing for a desirable job. They were given five minutes to prepare a speech describing their strengths and weaknesses, which they then delivered to two interviewers.

Previous research suggests that this stressor can engender challenge or threat states depending on the nonverbal feedback given by interviewers (Akinola & Mendes, 2008). Approximately thirty seconds into the speech, interviewers in the challenge condition began to express positive nonverbal feedback by nodding, smiling, and leaning forward. In the threat condition, interviewers expressed negative nonverbal feedback by shaking their heads, furrowing their brows, and crossing their arms. In the control condition, participants completed the same tasks but were alone in the experiment room. They were instructed that we were interested in physiological changes associated with delivering a speech, but we would not be watching them during the task. Immediately after the interview, all participants were given two minutes to provide their best guesses in response to nine anchoring and adjustment questions labeled “Trivia”.

We found that type of stress, and not just the amount of stress, can have a significant impact on people’s abilities to engage in cognitive tasks. Participants placed in a stressful situation with positive feedback cognitively adjusted more than those who experienced negative feedback, an effect that was mediated by cardiovascular (CV) reactivity. Those who exhibited CV responses consistent with challenge (increased cardiac output and decreased total peripheral resistance) showed greater cognitive adjustment than those who exhibited CV responses consistent with threat (decreased cardiac output and increased total peripheral resistance).

These findings have important implications for recent research showing incidental emotions can influence decision making. For example, anger has been shown to increase optimism and risk-taking relative to fear (Lerner & Keltner, 2000), and sadness affects people’s willingness to buy and sell consumer goods (Lerner, Small, & Lowenstein, 2004). As work in this area continues to develop, it will be interesting to see if–like challenge and threat—the effects of emotion on decision-making can be indexed with under the skin responses.

“Relaxation Increases Monetary Valuations”

Michel Tuan Pham, Columbia University, USA
Iris W. Hung, National University of Singapore, Singapore
Gerald J. Gorn, Hong Kong University of Science and Technology, China

Whether buying a house or considering whether to invest in the stock market, common wisdom holds that people should be relaxed and at ease. Relaxation is among the most important environmental states marketers try to create, whether in spas, hotel rooms, or restaurants. Yet, there is little consumer research on relaxation and the research that has been done has tended to focus on how states of relaxation affect reactions to print ads (c.f. Gorn et al. 1997; Bosmans & Baumgartner, 2005).

Our research documents an intriguing phenomenon. We find across six experiments that states of relaxation increase consumers’ monetary valuations of products, compared to equally pleasant but less relaxed states. We interpret these findings as follows. Based on research suggesting that relaxation encourages broader thinking (Fredrickson & Branigan 2005), we propose that relaxed consumers have more global and abstract representations when assessing the monetary value of products than non-relaxed consumers. Research has also found (Liberman & Trope (1998) that individuals who have more abstract representations (higher-level construals) of goal-directed activities (e.g., going on a vacation in Mexico) focus more on the overall desirability of these activities (e.g., how appealing Mexico is), whereas individuals who have more concrete representations (lower-level construals) focus more on the feasibility of these activities (e.g., its cost). Linking these two streams of research together, we suggest that relaxation encourages a more abstract representation of the value of products, and this shifts the consumers’ focus towards the general desirability of products and away from their more concrete characteristics. Because most consumer products (e.g., vacations, cameras) are inherently desirable, such a shift in representation results in products being valued more by more-relaxed consumers than by less-relaxed consumers. For example, in assessing the monetary value of a digital camera, a relaxed consumer would focus more on the overall desirability of owning the camera like the memories they can collect with it, and less on the concrete features of the camera itself like its size and weight. This shift in representation should result in relaxed consumers perceiving the camera to be more valuable than less-relaxed consumers.
Across six studies (total N=560), participants were induced into either a state of relaxation, or into an equally pleasant (but less relaxed) affective state using pre-tested videos. Next, as part of a supposedly unrelated study, they were asked to assess the monetary value of products. The results consistently showed that more-relaxed participants assigned greater monetary value to products than less-relaxed participants. This held true for the perceived prices they assigned to various products supposedly from a product catalogue (Studies 1 and 2), and for the maximum amount of money participants were willing to bid for a camera they were asked to imagine they were interested in and bidding on eBay for, and for their estimates of how much it was really worth (Studies 3 to 6).

Our reasoning was confirmed in Studies 4 to 6. For example, in Study 5 direct support for the proposed explanation was obtained through a priming manipulation of participants’ levels of representation. If the effect of relaxation on monetary valuation is due to higher levels of representation, then the priming of an abstract level of thinking should amplify this effect by reinforcing relaxed individuals’ tendency to represent the value of products at a higher level. Conversely, the priming of a lower level of construal should attenuate this effect. The results were supportive and further suggested that relaxed individuals inflate the monetary value of products. Using process measures of concrete versus abstract thinking, Study 6 further shows that relaxed consumers indeed have more abstract and less concrete representations of the products’ value than less relaxed consumers.

Interestingly, across experiments 3-6, it was found that the bids of less-relaxed participants in the bidding experiments were generally close to the market value for the product. More-relaxed participants’ estimates were however substantially higher than the market value, unless high-level construals were discouraged by the manipulations. Even though it is typically not in people’s material interest to have inflated perceptions of the monetary value of products they might buy, our evidence suggests that they do nonetheless have them.

“Focused on a Feeling or the Cause? The Regulation of Anxiety”
Aparna A. Labroo, University of Chicago, USA
Derek D. Rucker, Northwestern University, USA

Imagine that you are in the process of planning your annual vacation when your doctor calls. The results of a recent cholesterol test show deterioration and you feel anxious. How might you regulate your anxiety? Could simply browsing a brochure that makes you consider why your vacation will be calming help? Would completing an arm flexion exercise help? Given that neither the brochure nor the exercise addresses the problem that caused your anxiety, why should they have any effect on your current state? Would it matter whether your focus was on your anxious feelings or what caused the feelings: the test results?

Negative feelings typically result because of a problem and foster efforts to resolve the problem (Schwarz and Clore 1983). Thus, anxiety arising from a problematic test result could only be addressed by resolving the cause of those feelings. However, recent evidence suggests that anxiety is associated with a general avoidance orientation (Raghunathan and Pham 1999). According to this perspective, therefore, any outcome that fits with avoidance should be preferred, even though the outcome may not directly address what caused the anxiety. Thus, merely considering a calming vacation—an outcome associated with an avoidance orientation—or engaging in arm flexion exercises, which also simulate avoidance (vs. approach), might be beneficial. How might these two views be reconciled?

We propose that once negative feelings become activated, people can focus either on the problem that caused the feelings or on the negative feelings themselves. Focusing on the feelings activates a motivation to avoid threat or to approach reward, because all feelings are intrinsically tied to motivation. As a result, any positive outcome that fits with the general motivational state can mark symbolic progress and facilitate the regulation of the negative emotion. Only when individuals focus on the cause of their emotion, will actions that address the particular problem reduce their negative emotion.

Across five experiments, we first establish that when participants focus on feelings, both anxiety and calmness, considered by us in this research, correspond with an avoid-threat orientation whereas happiness, also considered by us, corresponds with an approach-reward orientation (Exp. 1). We then demonstrate that avoidance motivation intensifies over time when participants experiencing unresolved anxiety focused on feelings, but decays when they focused on the cognitive appraisals of the causal event, replaced by specific thoughts regarding the problem that evoked anxiety (Exp. 2). We next show that among anxious participants who focus on their general anxious feelings, avoidance motivation is reduced when they complete a short exercise in the interim that employs a motivational orientation that fits with that of the negative emotion (i.e., flex arm outward as if pushing a bad thing away vs. flex arm inward as if pulling a good thing; Exp. 3). Similar emotional benefit is not observed if participants focused on the causal event. Experiment 4 shows that participants who focused on feelings of anxiety rather than causal events, get emotional benefit from merely evaluating an outcome that fits with avoidance (calming vs. happy vacation ad), and perform better on a subsequent task known to benefit from positive feelings (e.g., the Remote Associates Test). A final experiment (Exp. 5) provides a dynamic measure of affect regulation. Anxious or non-anxious participants report their mood, they then read a happy or calming ad, and again report their mood. The data again suggest that a fit in avoidance orientation between the preexisting anxiety and the positive (calming) outcome is a basis for affect regulation, but only when people are focused on their feelings.

In summary, our results demonstrate that when consumers focus on their feelings (vs. causes), higher order motivational states are activated and merely considering any positive outcome compatible with the general motivational state can provide symbolic emotional benefit.

“Arousal and Subjective Probabilities: An Alternative Interpretation of Wishful Thinking”
Joachim Vosgerau, Carnegie Mellon University, USA

Desirability bias denotes the tendency to judge desirable outcomes as more likely than undesirable outcomes. For example, in the classic study by Crandall, Solomon, and Kellaway (1955), participants were asked to predict random independent draws from decks of ten cards. Even though they knew that each deck contained 7 winning cards, they predicted drawing a winning card 89% of the time.

While such findings are typically interpreted as people suffering from a desirability bias, they actually don’t show desirability bias at all. Knowing that the objective probability of a winning card is 70%, a rational decision maker would predict a winning card in 100% of the draws (thereby maximizing accuracy of prediction). So, compared to a rational decision maker, participants in the above experiment appear to be pessimistic or at least not accuracy-maximizing. Whatever is the case, they are certainly not overoptimistic.
Rather than always being too optimistic, I propose that the likelihood of an event may be judged by how aroused the stake-holder is. The greater the stake in the outcome, the more aroused will the stake-holder be, and the higher s/he will judge the likelihood of the outcome occurring or not occurring.

Study 1 employed a 2 (arousal vs. no arousal) x 2 (probability of occurrence vs. non-occurrence) between-subjects design. Half of the participants were asked questions such as “How likely do you think the Yankees will win the World Series?”; the other half was asked for the complementary probabilities. Arousal was manipulated by printing questionnaires on either pink or grey paper. As hypothesized, participants judged both outcomes (the Yankees winning and the Yankees not winning) as more likely in the arousal condition (pink paper).

In study 2, half of the participants were first asked to rate their arousal level, and subsequently to judge the likelihood of outcome occurrence or non-occurrence (outcome: participants won $5 when they got at least one 3 within four die-rolls, p=51.77%). The other half was first asked the likelihood question and then the arousal question. Misattribution of arousal to likelihoods was found as participants rated likelihoods higher before than after the arousal measures.

Study 3 employed a 2 (probability of outcome occurrence vs. non-occurrence) x 3 (stake in outcome: win a shot-glass vs. neutral vs. lose a shot-glass) between-subjects design. Half of the participants was asked how likely a computer, when rolling a die four times, would roll a 6 twice (p=11.57%). The other half was asked how likely the computer would not roll a 6 twice. As hypothesized, participants judged the probability of getting a 6 twice higher when they could win (M=19.77%) or lose a shot-glass (M=38.91%) than in the neutral condition (M=13.44%). Likewise, they judged the probability of not getting a 6 twice also higher in the win (M=72.32%) and the lose condition (M=61.79%) than the neutral condition (M=55.83%).

In study 4 German soccer fans imagined watching an upcoming match either live (more aroused) or taped (less aroused; Vosgerau et al. 2006, JCR). Fans were asked to indicate how likely their team (Stuttgart) was to win. When having the prospect of watching the match taped, Stuttgart was judged as equally likely to win/tie (M=52.40%) as to lose (M=51.36%). In contrast, for the live broadcast conditions, Stuttgart was rated as more likely to win/draw (M=58.48%) and also as more likely to lose (M=67.92%). Taken together, the four studies demonstrate that arousal (from having a stake in the outcome) can make consumers more optimistic and more pessimistic. Such optimism and pessimism call into question the ubiquity of wishful thinking.