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When Ambivalence Increases Attitude-Behavior Correspondence

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Individuals with ambivalent attitudes have been shown to have low attitude-behavior consistency. Our research identifies conditions under which the dominant component of an attitude is made diagnostic will increase attitude-behavior correspondence particularly for those who hold highly ambivalent attitudes. Implications for research on behavior amplifications among ambivalent consumers are discussed.

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condition, the person associated with the three-passage option was the same one for whom participants encountered irrelevant biographical information in part 1 of the experiment. Crossing the pressure and familiarity manipulations, we explored how time pressure affected preferences for seemingly longer but incidentally familiar options.

Results. Cross-tabulations yielded significant differences in task-choice between the four cells (Chi-sq(3)=12.25, p<.01). As hypothesized, time pressure increased choice of the three-passage (i.e., objectively longer-seeming) option when it was associated with a familiar person, in comparison to when both options were associated with unfamiliar people (p<.01), and also compared to both No-Pressure cases, regardless of whether a familiar option was given (p<.05). Thus, time pressure enhanced familiarity bias, even when objective information indicated the familiar choice would actually take longer, and when the shorter option was preferred in the absence of any familiarity difference between options.

We also queried several process measures after the primary experimental sections that support our results. In both No-Pressure conditions and the Time-Pressure/Both-Unfamiliar condition, concern prior to the puzzle task about finishing in time was significantly correlated with choosing the *two*-passage task (r's>.43), whereas in the Time-Pressure/Longer-Familiar case, this concern significantly correlated with choice of the *three*-passage task (r=.34). In contrast, perceived stress and pressure *during* the task was greater amongst those who chose the three-passage task, regardless of associated familiarity. Thus, despite their preference for the familiar option, individuals under time pressure choosing the longer task did not experience less stress or find the task less difficult.

As evidence for the bases of familiar-option preferences, under time pressure, choosing the longer task was correlated with higher risk aversion, as measured by lower minimum sure-gains preferred to a 95% chance to win $100 (r=-.29). In both Longer-Familiar conditions, choice of this longer option correlated with beliefs (for which no objective evidence existed) that this task would be easier (r's>.35) and give a greater chance of success (r's>.30), and also with beliefs that this choice was less risky (r's>.34) and fit better with one's "gut feeling" about the best choice to make (r's>.50).

Ongoing Work and Extensions. In follow-up investigations we are exploring familiarity established through *negative* experiences, such as unpleasant interpersonal encounters. Whereas such familiarity commonly leads to biases *against* associated stimuli (Lewicki, 1986), our results suggest perceived pressure may reverse this preference. As well, we are exploring non-time forms of stress, such as performance pressure, and cases where objective evidence indicates familiar options are again more likely to aggravate such pressure.

Conclusions. Results indicate that not only does pressure magnify the attractiveness of familiar choice options, it can do so even when such options are contrary to the very source of the pressure one feels. These results are driven by heightened perceptions of safety and comfort with familiar options, even when objective evidence disfavors them. Consumers may thus make perversely distorted choices when available alternatives differ in their perceived familiarity, and objectively superior choices when choice-sets are limited to unfamiliar options.

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When Ambivalence Increases Attitude-Behavior Correspondence

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Much of the past research has focused on the consequences of attitudinal ambivalence in terms of reduced attitude-behavior consistency, and the antecedents of ambivalence (Priester et al, 1996; Conner et al, 2002; Cavazza et al, 2008). There has not been much attention devoted to studying *conditions under which attitudes may be predictive of behavior even when they are held with high ambivalence*. The objective of this research therefore is to study ambivalent individuals' attitude-behavior correspondence under conditions where one's positive (negative) reactions are made more (less) diagnostic at the time of choice. We use different levels of mood to manipulate individual's perceived diagnoticity of their initial reactions toward the attitudinal object. We argue that when individuals are put in a happy mood, they would perceive mood congruent (thus positive) aspects the product as of being more diagnostic; however when individuals are put in a sad mood, they would perceive mood congruent (thus negative) aspects of the product to be more diagnostic. The perception of reaction diagnosticity is believed to act as the key role determining whether an individual is more or less likely to behavior according to their attitude.

Theoretical Conceptualization

Attitudinal ambivalence is characterized by a person experiencing both positive and negative reactions to an object. Dominant reactions are those that are greater in number, whether positive or negative; Conflicting reactions, on the other hand, are those that are fewer in number, and are opposite in valence with the dominant reactions (Priester et al., 1996; Priester & Petty, 2001; Priester, Petty & Park, 2007). The idea that ambivalence is linked separately in memory to positive and negative components is important because it suggests that a different attitudinal reaction emerges depending on which of the components is activated in memory (e.g., Petty & Briñol, 2009). In normal conditions, if people hold a positive attitude without ambivalence, it is expected that primarily the positive reactions would come to their mind whenever they think about the attitudinal object. However, if individuals have ambivalence in their attitude, even though their overall evaluation of the attitudinal object is one-directional, the encountering of the object may invoke both positive and negative reactions within these individuals. Whether ambivalent individuals' choice consistent with their overall attitude would depend on which reactions are perceived to be more diagnostic at the moment.

Thus, while ambivalent attitudes are characterized by positive and negative components of the attitude being retrieved simultaneously, they may experience a hard time making up their mind for decisions. At this time, the mood one is in may serve as the trigger for spreading activations of the positive aspects of the attitudinal object. Ambivalent individuals may have an easier time retrieving the positive (negative) associations about the attitudinal object when they are in a happy (sad) mood. The easier retrieval of the positive (negative) associations may increase the perceived diagnosticity of the retrieved associations thus affects the later behavior.

Explicitly, we predict that:

H_1: For highly ambivalent attitudes, being in a happy (sad) mood will affect choice to be more (less) consistent with the positive component of the attitude while being in a neutral mood will make the choice to be less consistent with the positive component of the attitude.

H_2: For attitudes held with low ambivalence, being in a happy (sad) mood will affect choice no differently from being in a neutral mood, in terms of consistency between the positive (negative) component of an attitude and choice.

Methods & Results

We conducted a 2 (low vs. high ambivalence) X 3 (happy vs. neutral vs. sad mood) study to test our hypotheses above. We randomly assigned subjects to different mood induction conditions then had them responded to a choice question of either a free order of French fries or a free order of parfait as reward for the participation of the study.The attitudinal object of the study was Wendy's French fries. Subjects for the study all hold an overall positive attitude toward French fries (attitude scores >6 in a 9-point scale where 1=extremely negative and 9=extremely positive). Among all, sixty of these individuals hold a positive but low ambivalent attitude toward French fries ($M_{attitude}$= *6.85, SD=1.04;* $M_{ambivalence}$=*3.73, SD=.69*); and the other seventy four participants hold a positive but high ambivalent attitude toward French fries ($M_{attitude}$=*6.63, SD= .88;* $M_{ambivalence}$=*6.81, SD=.99*). Subjects from the low vs. high ambivalent groups were significantly different in ambivalence (*F (1, 132) =418.057, p<.000*) but they did not differ much in their attitude or attitude extremity toward French fries (*F (1, 132) =1.723, p>.192 NS*).

Our hypotheses call for an interaction between mood and ambivalence such that choice probabilities of French fries are unaffected by mood in the low ambivalence conditions, but affected positively in the happy mood condition and negatively in the sad mood condition. In other words, while choice probabilities are about equal in four experimental conditions (low ambivalence neutral, happy and sad mood conditions; and high ambivalence neutral mood condition), there would be an increase (decrease) in the choice probability of French fries in the happy (sad) mood, high ambivalence condition(s).

For the whole sample, 66.4 % of the participants (89 out of 134) chose French fries with the rest of the sample choosing Parfait. Overall, individuals' attitude toward French fries was positively correlated with their choice *(r=.22, p<.01).* The fact that more than 50% of the participants choosing French fries was not surprising but was predicted because all participants chosen for this study had indicated that they had an overall positive attitude toward French fries (*M=6.73 in a 9-point scale where "1"= very negative "9"=very positive*). Choice probabilities for French fries do not vary much for the low ambivalent groups (*β=-.158, p>.68) (*

$F\ \mathrm{P}\ obability_{Low+neutral} = 6\ .6\%\quad F\ \mathrm{P}\ obability_{Low+sad} = 7\ .9\%\quad F\ \mathrm{P}\ obability_{Low+happy} = 6\ .1\%$

p for each pair-comparison all >.60). However, attitude consists with behavior the most likely for those the high ambivalent individuals in happy mood condition ($F\ \mathrm{P}\ obability_{High+happy} = 9\ .7\%$, $F\ \mathrm{P}\ obability_{High+neutral} = 6\ .8\%$, $F\ \mathrm{P}\ obability_{High+sad} = 8\ .7\%$).

Consistent with past literature pertaining that ambivalent attitudes are less predictive of behavior than less ambivalent attitudes, we find in this research that individuals who hold a positive but less ambivalent attitude toward French fries to show a more stable attitude-behavior correspondence than those who hold a positive but high ambivalent attitude. Further, individuals with less ambivalent attitude should tend to choose toward French fries regardless of what mood condition they are in. In contrast, high ambivalent individuals would have a more fluctuated behavior pattern in choosing for French fries because of the existence of conflicting reactions, and that the conflicting reactions can be perceived as deterministically diagnostic if they are made salient to them.

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It's More Likely…But Can It Be Worth It? Perceived Similarity, Probability and Outcome Value

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Extended Abstract

Individuals are prone to developing naïve theories about the likelihood of event occurrences because what is reckoned to happen determines their subsequent judgments and actions. Prior research suggests that intuitive probability judgments are susceptible to extraneous cues such as descriptions of the event (Tversky and Koehler 1994), the representativeness or availability of exemplars (Kahneman, Slovic, and Tversky 1982), moods (Wright and Bower 1992), and cognitive orientation (Wakslak and Trope 2009). In this research, we propose that individuals employ an extraneous cue, perceived similarity, to infer the probability of an event, and in turn, use the probability judgment to evaluate the impact level of the event.

In order to understand, evaluate, and predict the outside world, individuals are motivated to develop naïve theories from cumulated life experiences (Strevens 2000) or knowledge (Springer 1995). For most daily life cases, the proximity to the target person and the likelihood of event occurrence are highly correlated. For example, sharing a living space with someone with a cold makes us more likely to get sick. Another common example is that individuals who have a family history of heart disease are high in risk as well because of genetic factors. Recently, research on probability judgment has also shown that lottery participants estimate their chance of winning as higher when the winner of previous round is similar to them than when the former winner is dissimilar (Laporte and Laurent 2009). Thus we posit that individuals build from the observations and experiences of such events the naïve theory that they are more prone to experience events that strike their close others than events that strike unknown individuals. Moreover, even though this naïve theory facilitates and leads to correct judgments in general, it does lead to inflated likelihood when people infer higher probabilities from proximities that are irrelevant.

Intuitive probability judgments in turn affect individuals' judgments of the target event. For example, increasing individuals' perceptions of their own risk leads to more favorable attitudes and intentions toward practicing HIV precautionary behaviors (Raghubir 1998). However, we argue that probability judgments would undercut the perceived impact level of events in situations where the outcome of an event is ambiguous or unknown. That is, when the information about event outcome is absent, event probability serves as indirect information and signals the impact level of events. Previous research has shown that limited, scarce resources are deemed more desirable (Inman, Peter, and Raghubir 1997; Lynn 1992). Drawing on this logic, we further hypothesize that the inflated probability judgment based on perceived proximity would downplay perceived impact level of the event. In other words, an event that is related to a similar individual will appear more likely to occur, which in turn, will render the event less impactful.

Two studies tested the present predictions. Study 1 investigated the influence of probability information on perceived impact level. Participants read scenarios about winning a store gift card in a store lottery and getting a flight upgrade on a trip and then judged the outcome values. We manipulated the probability of each event (70%, 30%, and 5%). The dependent variable was the outcome value (i.e., value of the store gift card and value of the flight upgrade). The results confirmed our hypothesis. When the event is of lowest likelihood (5%), the highest outcome value estimation was achieved. Furthermore, the estimated outcome value decreased as the event probability increased.

Study 2 directly tested whether embedding a similar social cue (vs. dissimilar) in the description of events (winning a store gift card in a lottery and getting a flight upgrade on a trip) would construe the events to be more likely to occur, and the inflated probability would subsequently decrease the perceived impact level of the events. Participants were asked to read scenarios that contained different social cues (e.g., a friend or a stranger) and then rated the likelihood that the events would occur to them and how long the effect of events would last. As expected, we found that the presence of a similar social cue leads to a higher probability judgment. Furthermore, probability judgments negatively predicted the number of days participants believed the positive effect would last.

Probabilities are often difficult to assess objectively, and research has indicated various cues employed to infer probabilities. The present studies suggest that perceived proximity acts as such a cue. Specifically, our initial findings demonstrate that probability judgments may be biased by the presence of social cues because individuals make probability inferences from perceived proximity to the