

The Influence of Consumers' Lay Theories on Approach/Avoidance Motivation

SHAILENDRA PRATAP JAIN, PRAGYA MATHUR, and DURAIRAJ MAHESWARAN

WEB APPENDIX

STUDY 2: VIDEO CLIP MEASURES

In study 2, respondents saw either a clip that related to an entity theory (James Bond) or one that related to an incremental theory (Grey's Anatomy). Respondents rated these clips on multiple measures (enjoyment, liking, "describes protagonist stereotypes," "surprised about protagonist behavior," "consistent with expectations," "this video clip makes me believe that situations and things can change") anchored on "Not at all (1)/ Very much so (7)." Results indicate that the entity clip (James Bond) was enjoyed marginally more but liked marginally less than the incremental clip (Grey's Anatomy) (*Enjoyment*: $M_{\text{Entity-Clip}} = 6.57$, $M_{\text{Incremental-Clip}} = 6.14$; $F(1, 154) = 3.13$, $p < .10$; *Liking*: $M_{\text{Entity-Clip}} = 6.04$, $M_{\text{Incremental-Clip}} = 6.52$; $F(1, 154) = 3.81$, $p < .10$). The entity clip was seen to be more representative of protagonist stereotypes than the incremental clip ($M_{\text{Entity-Clip}} = 5.55$, $M_{\text{Incremental-Clip}} = 5.00$; $F(1, 154) = 6.56$, $p < .05$). As expected, results of the measures for surprise with protagonist behavior, and consistency of protagonist behavior with expectations were similar for both clips (*Surprise*: $M_{\text{Entity-Clip}} = 4.42$, $M_{\text{Incremental-Clip}} = 4.76$; $F(1, 154) = 2.68$, $p > .10$; *Consistency*: $M_{\text{Entity-Clip}} = 5.40$, $M_{\text{Incremental-Clip}} = 5.57$; $F(1, 154) = 1.48$, $p > .15$). The video clips were also invariant in invoking different emotions, as the respondents reported being similarly pleased, sad, satisfied, disgusted, happy, angry, and frustrated (see Tables 2b and 2c for details). Finally, as anticipated, respondents who saw the

incremental (vs. entity) clip agreed more with the statement that “this video clip makes me believe that situations and things can change” ($M_{\text{Entity-Clip}} = 4.74$, $M_{\text{Incremental-Clip}} = 5.89$; $F(1, 143) = 21.78$, $p < .001$), thereby validating the effectiveness of the implicit theory primes.

TABLE W1a: STUDY 2: VIDEO CLIP MEASURES

	Entity-Clip (James Bond)	Incremental- Clip (Grey's Anatomy)	F value	Sig.
Enjoyed Film Clip	6.57	6.14	3.13	.079
Liked Film Clip	6.04	6.52	3.81	.053
Representative of protagonist	5.55	5.00	6.56	.011
Surprised about protagonists	4.42	4.76	2.68	.104
Consistent with Expectations	5.40	5.57	1.48	.182
Belief that things can change	4.74	5.89	21.78	.000

TABLE W1b: STUDY 2: VIDEO CLIP EMOTION MEASURES

	Entity-Clip (James Bond)	Incremental- Clip (Grey's Anatomy)	F value	Sig.
Pleased	3.55	3.00	2.38	.128
Sad	2.88	3.08	0.28	.596
Satisfied	3.61	3.44	0.24	.627
Disgusted	2.67	3.06	0.86	.357
Happy	4.04	3.56	3.02	.101
Angry	3.03	3.00	0.00	.945
Frustrated	3.79	4.25	1.02	.317

STUDY 2: REGRESSION ANALYSIS

We ran a regression analysis using the implicit theory scale measure and frame as the independent variables, and the attitudes towards Airline A as the dependent variable. The regression analysis was run based on Cohen et al. (2003), where the continuous independent variable, the implicit theory scale, was mean-centered and the main effect terms were entered prior to the interaction term in a stepwise regression analysis. Consistent with our ANOVA results, we observed a significant interaction between implicit theory and frame ($\beta = -.667, p = .000$) as well as a main effect of frame ($\beta = .440, p = .006$) and that of implicit theory ($\beta = .751, p = .003$). Thus, our findings are robust across the type of analyses. The detailed analysis is reported in Table W1c.

TABLE W1c: STUDY 2: REGRESSION ANALYSIS

DV: Attitudes towards Airline A	Beta	p-value
Implicit Theory	0.751	.003
Frame	0.440	.006
Interaction	-0.667	.000

POST-TEST FOR THEORY CONSISTENCY USED IN STUDY 3

Method

Design and Predictor Variables. Seventy undergraduates from a large university participated in the study for course credit. Participants were first administered the Implicit Theory General World Order domain-independent scale. Next, they read material that either

confirmed or violated their implicit theory (Plaks, Grant, and Dweck 2005; see our study 3), after which they responded to several measures, before being debriefed and dismissed.

Manipulation checks. The manipulation checks for theory consistency included participants' assessment of whether Brad's performance was consistent or inconsistent with their belief in people's ability to alter their strengths and weaknesses. A six point scale assessed the degree to which Brad's performance on the test surprised them, anchored on "Not at all Surprised(1)/Very Surprised (6)." They were also asked to indicate their extent of agreement (anchored on "Strongly Disagree(1)/Strongly Agree (6)") with the following statements: "I think Brad's performance on the test is consistent with my expectations" (reverse scored); "I am taken aback by Brad's performance in the test;" and "Brad's performance on the test really violated my belief in people's ability to modify their strengths and weaknesses." The three statements ($\alpha = .82$) were averaged to form an index to measure degree of theory violation.

Results

Manipulation checks. An implicit theory index was calculated averaging the three items ($\alpha = .87$). Seventeen participants whose scores were on the median ($M = 3.67$) on the implicit theory scale were excluded and the remaining 53 participants were successfully categorized as either entity or incremental theorists ($M_{ET} = 2.61$, $M_{IT} = 4.34$, $F(1, 51) = 7.42$, $p < .05$). Theory consistency was manipulated identical to study 3.

A one-way ANOVA on the measure assessing respondent surprise in response to theory consistent vs. inconsistent information revealed that participants in the theory inconsistent (vs. consistent) condition expressed more surprise at Brad's test performance ($M_{\text{Theory-Inconsistent}} = 3.85$, $M_{\text{Theory-Consistent}} = 2.62$; $F(1, 50) = 7.72$, $p < .01$). Similarly, a one way ANOVA on the

index to measure the degree of theory violation revealed a main effect of theory consistency: respondents in the theory inconsistent condition perceived Brad's performance to violate their theory more than those in the theory consistent condition ($M_{\text{Theory-Inconsistent}} = 3.67$, $M_{\text{Theory-Consistent}} = 2.76$; $F(1, 50) = 9.60$, $p < .01$; see Table W2).

To assess whether the initial implicit theory of the participant was likely to impact their assessment of the extent to which Brad's test performance was consistent or inconsistent with their theory, a 2 (Implicit theory: Entity vs. Incremental) x 2 (Theory Consistent vs. Theory Inconsistent) between-subjects ANOVA was conducted on the theory violation index. As expected, we observed only a main effect of theory consistency ($M_{\text{Theory-Inconsistent}} = 3.71$, $M_{\text{Theory-Consistent}} = 2.74$; $F(1, 48) = 10.54$, $p < .01$). No other effects were significant. Therefore, regardless of the theory, both entity and incremental theorists were equally surprised by Brad's performance when it violated their implicit theory.

TABLE W2: STUDY 3: POST-TEST OF THEORY (IN)CONSISTENCY MANIPULATION

	Theory Inconsistency	Theory Consistency
Surprise (mean)	3.85	2.62
s.d.	(1.46)	(1.72)
Index (mean)	3.67	2.76
s.d.	(1.10)	(1.02)