Smiles Lead to More Smiles Unless They Lead to Tears: a Meta-Analytic Integration of Affect Effects

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Moderators can not only strengthen the influence of affect but also reverse it - leading positive affect to result in a negative consumer response. This meta-analysis reconciles mixed findings in the literature with a comprehensive model to provide a more nuanced understanding the nature of these effects.

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EXTENDED ABSTRACT

Imagine a customer walking into a car dealership. He finds the dealership is playing his favorite song and offering free cookies both of which put him in a good mood. However, when a salesperson approaches offering to show him a car, he is even more critical of the offered automobiles. His goal to assess the car accurately and not to be influenced by his good mood makes him more critical of the car.

The scenario above highlights the complex and consequential nature of consumer affect. Given the ubiquity of affect (i.e., mood and emotion) and its tremendous impact on customer behavior, it is critical to understand when positive affect will be advantageous (lead to smiles) and when it could be detrimental to a favorable consumer response (lead to tears).

Research has identified two seemingly opposing roles that affect can play in consumer behavior. An abundance of findings document congruent effects of affect whereby more positive affect leads to more favorable consumer response and more negative affect leads to less favorable consumer response. The dominant explanation for these findings is an affect-as-information (AAI) interpretation in which affect serves as a cue to the consumer as to the favorability of an option (Pham et al. 2001). In contrast, there is a parallel stream of literature showing an affect incongruence effect whereby more positive affect can lead to less favorable consumer response and more negative affect can lead to more favorable consumer response. These affect incongruent effects appear to be driven by the goals of the consumer (Cohen and Andrade 2004; Garg, Inman, and Mittal 2005).

To help resolve these inconsistent findings and provide guidance for future research on affect, we develop an integrated model of the relationship between affect and consumer response, focusing especially on identifying key moderators of this relationship. To do so, we conduct a meta-analytic review of previous research, focusing on the impact of affect on consumer behavior. We examine the impact of intensity (i.e., arousal and engagement), salience (i.e., transparency of the affect induction and use of a cover story), goals (i.e., affect regulation and processing) and social norms (i.e., culture and interpersonal context) on consumer response. We find that when the affective experience is more intense, the source of the affect is less salient, the consumer does not have an affective goal and social norms support a response, the impact of affect is stronger.

First, we review the research looking at the impact of affect on evaluation and behavior. Second, we describe our literature compilation procedures and meta-analytic methods. Third, we discuss our findings and their implications.

Affect and Consumer Response Moderators

In this section, we develop a theoretical model of the relationship between affect and consumer evaluation and behavior that will guide our meta-analysis. First, we examine factors internal to the individual that are closely linked to the experience of affect itself (intraindividual factors). We then move on to more external factors in the form of the goals primed by the situation and the social context (contextual factors).

Intensity

Since the earliest conceptions of affect, arousal has been viewed as an important component of affect experience (James 1884). Arousal refers to activation and marks one extreme of the arousal-sleep dimension (Russell 1980). Central to our investigation are findings suggesting that arousal leads to greater polarization of attitudes (Cohen et al. 2008). Evaluations have been found to be more extreme under situations of incidental affect marked by high arousal (Gorn, Pham, and Sin 2001; Dutton and Aron 1974). Thus, we would expect findings to be stronger under higher arousal conditions.

We expect affective experience to be more intense and have a stronger effect when a consumer is less engaged. Research suggests that when a consumer is cognitively absorbed in a decision the impact of affect is reduced. When people are highly engaged, they may try to limit the impact of affect. Research finds that for highly important decisions consumers are more likely to regulate a negative affect state than they are for unimportant decisions (Agrawal, Menon, and Aaker 2007; Pham et al. 2001; Greifeneder, Bless, Pham 2011). When an individual is engaged, they are more likely to use affect as information resulting in a stronger affect-congruent effect on evaluation and behavior. Thus, given engagement seems to heighten consumer attention and vigilance to the task at hand, it would seem that more engaged consumers would experience a less profound influence of affect and show less dramatic responses.

Hypothesis 1: Impact of affect on consumer response is stronger under high arousal conditions compared to low arousal conditions.

Hypothesis 2: Impact of affect on consumer response is stronger when the situation is less engaging.

Salience

Looking at cognition within the consumer, considerable research has suggested that the more salient an affective state is, the less likely it is to affect evaluation and behavior (Gorn, Goldberg, and Basu 1993). It is thought that when affect is salient, consumers are likely to correct for its effects on judgment (Schwarz and Clore 1988). To better model the effects of naturally occurring affect, researchers often seek to minimize the transparency of an affective manipulation and/or use a cover story (Cohen et al. 2008). In addition, we would expect incidental affect that occurs outside the decision process would be less salient and facilitate a larger effect. Thus, given that increased salience of affect can lead to correction for the influence of affect, we expect that the impact of affect should be stronger when affect salience is lower (i.e., due to a less salient manipulation or use of a cover story).

Hypothesis 3: Impact of affect on consumer response is stronger when the manipulation of affect is less transparent compared to more transparent.
Hypothesis 4: Impact of affect on consumer response is stronger when the researchers employ a cover story compared to when they do not.

Hypothesis 5: Impact of affect on consumer response is stronger when the affect is incidental rather than integral.

Goals
Recent research has found that goals act as an important moderator leading to a reversal of the more general affect-congruent effect. Specifically, when a contextual factor primes a goal to regulate or change their affective state (affect regulation goal)(Cohen and Andrade 2004; Garg, Inman, and Mittal 2005) or primes a goal to analyze stimulus materials in significant depth (processing goal) (Agrawal and Menon 2007; Raghunathan and Tropo 2001; Schwartz and Clore 1988), consumers show affect incongruent evaluation and behavior that contrasts with their affective state.

Hypothesis 6: Impact of affect on consumer response is moderated by the presence of an affect regulation goal such that more positive affect leads to a less favorable consumer response and more negative affect leads to a more favorable consumer response.

Hypothesis 7: Impact of affect on consumer response is moderated by a processing goal such that more positive affect leads to a less favorable consumer response and more negative affect leads to a more favorable consumer response.

Social Norms
Cultural context influences affective expression and, in turn, affective experience. Cultural display rules that dictate and often limit affective expression are well documented (Diefendorff and Greguras, 2009; Fok, Hui, Bond, Matsumoto, and Yoo, 2008). Within research on display rules is evidence of normative masking which refers to the process and degree to which people modulate their expressions to conform to societal rules (Gross 2002). Eastern cultures are characterized by strict display rules that generally limit expression (Saafar et al. 2009). Limits on expression reduce affective experience via a facial feedback mechanism that leads expression of affect (or lack thereof) to change how one feels (Stack, Martin and Stepper 1988; Hennenlotter et al. 2009). Thus, we would expect the impact of affect to be limited by display rules in Eastern cultures more than Western ones.

Across cultures we see evidence of interaction norms dictating that individuals should display neutral affect in typical interactions. Research finds that individuals anticipating social interaction will neutralize both a positive and a negative affective state while those not anticipating interaction do not (Erber, Wegner and Thirriault 1996). Thus, we would expect a stronger influence of affect on consumer response when an individual is alone compared to in a group setting that invokes these interaction norms of neutrality.

Hypothesis 8: Impact of affect on consumer response is stronger in Western compared to Eastern cultures.

METHOD
To create an integrative framework we identify the moderators that explain variability in the nature and size of the influence of affect. Meta-analysis is a distinctively powerful and reliable method to pin the variability in study outcomes across a research stream to the characteristics of individual studies (Miller and Polloch 1995; Geyskens, Steenkamp, and Kumar 1999). Meta-analysis is one of the few methods, and arguably the only method, for quantitatively summarizing data from a field of independent research. It allows us to empirically explore how various characteristics of studies impact the research findings across an area.

Meta-Analytic Procedures
Data Collection. Our final dataset draws on 213 effects with a total of 16,052 participants reported in 61 articles giving us considerable assurance of the reliability of our findings. We synthesize 28 years (1987-2015) of empirical research (published and unpublished) on the impact of affect on consumer response based on an extensive literature search that includes searching journals, conference proceedings, and personal communications with scholars in the field. Following meta-analytic procedures standard to the field (Brown and Peterson 1993; Grewal, Kavanoor, Fern, Costley, and Barnes 1997; Keller and Lehmann 2008; Palmattier, Dant, Grewal, and Evans 2006), we searched ABI/INFORM, ACR and SCP proceedings, Proquest, Google Scholar, Scirus, SSRN, and EBSCO (Business Source Premier, PsycINFO, and PsycArticles), as well as many individual journals including (but not limited to): Journal of Consumer Research, Journal of Marketing Research, Journal of Consumer Psychology, Organizational Behavior and Human Decision Processes, and Journal of Personality and Social Psychology. We then examined bibliographies of the articles from these sources, reviewed the CVs of major scholars in the area, and did additional web searches to identify any additional published papers our initial literature search may have missed. To reduce the effect of publication bias we requested unpublished “filedrawer” papers through a LISTSERV.

Inclusion criteria. Meta-analysis requires that the design of the studies and research questions be comparable to enable integration and analysis. As a result, we include papers that were published in a marketing journal or explicitly related to marketing that experimentally manipulate affect and include a comparison group of a different valence (e.g., happy versus sad). A complete list of articles included is available upon request from the authors.

Studies had to be excluded if they manipulated only a single valence without a comparison group (e.g., just happiness), compared two types of affect of the same valence (e.g., sadness and anger), or measured naturally occurring affect without an experimental manipulation. Finally, sufficient information had to be available (either in the paper or through correspondence with authors) to calculate an independent effect size (we use Pearson’s $r$ as a scale-free measure of the effect of affect). Studies not meeting these criteria were excluded.

Calculation of effect sizes. Consistent with meta-analytic practice, we calculate an independent effect size as our unit of analysis and calculate the mean effect size of affect across studies on evaluation and behavior. We use Pearson’s $r$ as a scale-free measure of the strength of affect on the consumer for a specific dependent variable. In particular, Pearson’s $r$ represents the degree to which more positive affect led to more favorable responses on a dependent variable.
We analyze the impact of affect within three subgroups of contrasts (positive affect/negative affect, positive affect/neutral affect, neutral affect/negative affect). The results are consistent across all three comparisons, so we will focus on the positive versus negative comparison for the remainder of the article. A positive effect size indicates that positive affect results in a stronger effect. Effect sizes were computed using standard formulas (Borenstein, Hedges, Higgins, and Rothstein 2006) from the available statistics, such as F-values (df = 1; e.g., from t-test Rosenthal 1991).

It is not uncommon for studies to merely indicate an effect was non-significant (or F < 1). In these cases we followed Rosenthal's (1991) conservative recommendations and assigned these effects an r value equaling 0.

Data coding. Overall inter-rater reliability was quite high (κ > 90%). Any disagreements were resolved through discussion (Szymanski and Henard 2001). All studies were coded by a minimum of two independent coders.

Data analysis. Mean effect sizes, heterogeneity statistics, and moderator analyses were conducted using Comprehensive Meta-Analysis v2.2 (Borenstein et al. 2006). To maintain the independence of effects sizes, we have classified each effect size into the dependent variable categories of evaluation and behavior. In the case that a study reported multiple results for either of these variables (e.g., participants evaluated both an ad and a product), we average the effect sizes within that category before entering them into the analysis. This results in each study or subsample contributing only a single effect size per dependent variable, thus maintaining independence of the effect sizes (Brown and Peterson 1993; Borenstein et al. 2009).

We examined the moderating role of intensity, salience, goal and social norms. All tables and discussion of results use the sample-weighted, reliability-adjusted effect size (hereafter referred to as r). A significant Q statistic can be interpreted in the same fashion as an F statistic – it is an indication of significant differences between levels of a moderator.

Results and Discussion

Intensity

Based on previous work (Cohen et al. 2008; Dutton and Aaron 1974; Gorn, Pham, and Sin 2001), we had predicted that high arousal conditions would lead to more polarized attitudes. Our findings support this hypothesis. High (compared to low) arousal leads to stronger effects of affect for both evaluation and behavior (evaluation: \( r_{\text{high}} = .36, r_{\text{low}} = .24, Q(1) = 8.41, p < .01 \); behavior: \( r_{\text{high}} = .32, r_{\text{low}} = .16, Q(1) = 11.11, p < .001 \)). That is, more intense affect experience leads to larger differences between positive and negative affective states on favorability of evaluation and behavior.

As affect appears to work primarily as a heuristic cue (Greifeneder, Bless and Pham 2011), we expect that its effects would be stronger under low engagement situations. That is, under low engagement conditions, affective experience is more likely to lead to an AAI effect. Our results support these predictions. In support of hypothesis 2, we find that the impact of affect on both evaluation and behavior is stronger under low engagement conditions (evaluation: \( r_{\text{low}} = .35, r_{\text{high}} = .23, Q(1) = 9.21, p < .01 \); behavior: \( r_{\text{low}} = .30, r_{\text{high}} = .21, Q(1) = 6.38, p < .01 \)).

Salience

We predicted that when attention is drawn to a consumer’s affective state consumers will correct for its effects on judgment. This correction for the impact of affect will lead the impact to be reduced. As a result, situations in which the affect is less salient should produce stronger effects of affect. Supporting hypothesis 3 less transparent manipulations of affect yielded stronger effects of affect on evaluation (\( r_{\text{Non-Transparent}} = .37, r_{\text{Transparent}} = .23, Q(1) = 14.85, p < .001 \); effects for behavior n.s.), and in support of hypothesis 4, employing a cover story enhances the effects of affect on behavior (\( r_{\text{No Cover Story}} = .07, r_{\text{Cover Story}} = .31, Q(1) = 35.29, p < .001 \); effects for evaluation n.s.) Incidental and integral affect had comparable effects on consumer response (n.s.).

Goal

In support of hypotheses 6 and 7 our results indicate that a goal to either regulate affect or process information is an important moderator of the impact of affect on evaluation and behavior. An affect regulation or processing goal led to positive affect resulting in less favorable evaluation and behavior. The robustness of these effects is evidenced by the significance of the contrasts between these goals across both dependent variables (i.e., evaluation and behavior): positive versus negative (Evaluation: \( Q(2) = 48.38, p < .001 \); Behavior: \( Q(2) = 182.13, p < .001 \)).

Social Context

Finally, we considered the moderating role of social normative influences on affect’s impact on behavior and evaluation. Due to the role of display rules, we had expected that individuals in Western cultures would display a larger effect of affect on behavior and evaluation. As social interaction can invoke norms of neutral affect, we also expected individuals in groups to display a reduced effect of affect.

In support of hypothesis 9, we find that the impact of affect was stronger for evaluation among individuals in Western (versus Eastern) cultures (\( r_{\text{Western}} = .38, r_{\text{Eastern}} = .20, Q(1) = 23.00, p < .001 \)). Interestingly, we find a reversal for behavior. The impact of affect was stronger for behavior in Eastern compared to Western cultures (\( r_{\text{Western}} = .23, r_{\text{Eastern}} = .31, Q(1) = 6.39, p < .01 \)). It may be that suppression of affect in expression of evaluation attitudes leads to a rebound effect on behavior (Wegner 1989). For group context, while directionally supporting our hypothesis, the stronger effect anticipated for the individual setting did not prove significant (\( r_{\text{individual}} = .29, r_{\text{group}} = .22, Q(1) = 2.32, p = .13 \)).

Conclusions

This research highlights the complexity in examining the role of affect on consumer behavior. The chief strategy among practitioners has been to promote positive affect. For example, the large majority (80%) of TV ads (Puccinelli, Wilcox, and Grewal, 2015) and music in retail stores (90%) is positively valenced. (Two independent coders evaluated 20 stores in two major metropolitan areas). This practice makes good sense in many instances. However, if for example a consumer has a goal to evaluate product information carefully, this practice makes good sense in many instances. However, if for example a consumer has a goal to evaluate product information carefully, this strategy may backfire. The consumer may over correct for the impact of positive affect and evaluate the retailer more negatively. More generally, certain factors appear to enhance the impact of affect and could be used strategically to foster positive attitudes to a brand.

Implications

To understand the real practical impact of these effects it is instructive to consider an effect size estimate in real terms (Rosenthal and Rubin 1982). For example, an effect size of r = .29 tells us that people are 82% more likely to behave favorably (e.g., choose to buy a product) under positive affect conditions relative to negative affect conditions. Extending the BESD tool to the other effects observed we can say that:

1. Evaluation is 112% more favorable when a consumer is in a positive affect state compared to a negative one.
2. When consumers are motivated to regulate their affective state, consumers in a positive affect state are 94% less likely to engage in favorable behavior (e.g., choose the product) compared to consumers in a negative affect state.

3. When consumers are in a high arousal positive affect state they are 112% more likely to show favorable evaluation and 94% more like to show favorable behavior compared to those in a negative affective state.

4. When the source of a positive affective state is unclear, consumers are 117% more likely to show favorable evaluations and 74% more likely to show favorable behavior compared to those in a negative affective state.

REFERENCES


