RECONCILING SATISFACTION, EMOTIONS, ATTITUDES, AND AMBIVALENCE WITHIN CONSUMER MODELS OF JUDGMENT AND DECISION MAKING: A CAUTIONARY TALE

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ABSTRACT

Marketers typically conceive of satisfaction as having a very close, if not direct, influence on consumers' behaviors. However, it is well established that behavioral intentions are generally the proximal cause of volitional behaviors, and there exists a well established literature concerning how intentions influence behaviors in the judgment and decision making (J/DM) literature. The following study asserts that Marketers have yet to realize a full understanding of how satisfaction and attitudes work together to influence consumer decision making within such models, particularly in the presence of consumer ambivalence. A theoretical model of consumer J/DM is first proposed that purports to reconcile emerging attitudinal models of goal-directed behaviors with satisfaction theory in a manner that helps clarify the unique roles of attitudes and satisfaction as well as accommodates the phenomenon of ambivalence. The proposed model revisits dissonance research based upon emerging arguments related to constraint satisfaction theory (CST) in the identification of a common cognitive process linking satisfaction and attitudes as unique constructs in behavioral intention formation. Second, one interesting theoretical implication of the proposed model is the appearance of support for the possibility that ambivalent emotional responses can occur either simultaneously (see Carrera and Oceja 2007), or sequentially (see Brehm and Miron 2006). Marketing's traditional perspective suggests an assumption of sequential emotions which implies that consumption-related emotions must be either positive or negative. However, a field experiment is reported that fails to replicate Brehm and Miron's (2006) test of this issue specific to satisfaction (as well as a host of other positive and negative emotions). Thus, these findings suggest caution in conclusions related to the existence of simultaneous versus sequential emotions in consumer behavior and supports calls for further research into ambivalence as it relates to attitudes, satisfaction, and emotions within the context of J/DM in consumer research. The managerial and research implications of the study are identified and discussed.

PROLOGUE

Consider the situation wherein a consumer purchases a salad for lunch even though she would prefer a hamburger and french fries. In addition, she normally receives good customer service from the restaurant, but today the service was slow. On the one hand, she feels fulfilled in that she has the willpower to support her dietary objectives, but on the other hand she feels unfulfilled by not choosing to buy the meal she really prefers. Further, she is not sure that one bad service experience is enough to change her overall impression of the restaurant and/or whether or not she will continue to exchange with this particular restaurant. In other words, she is ambivalent as to her satisfaction judgments about her consumption choice and experience as well as her attitude toward the restaurant.

Marketers might typically argue that the problem in this scenario was the poor customer service. Provision of better customer service would have led to an overall conclusion of "satisfaction" and alleviated any significant cognitive dissonance when the consumer later reflects back on this consumption experience. The following study suggests two problems with this interpretation. First, there appears to be an assumption of a (relatively) direct influence of consumer perceptions of exchange experiences such as satisfaction on consumers' behaviors. Such assumptions are silent as to the linkages between consumer judgments like satisfaction and known important antecedents to behaviors such as attitudes, motivation, and behavioral intentions in spite of how much is known about these relationships. Second, a review of how Marketing theoretically treats and measures emotions suggests an additional assumption of sequential emotional experiences. In other words, people are *either* happy/sad, satisfied or dissatisfied. In reality, the consumer in this scenario would probably feel a measure of dissonance independent of how well the marketer provided a service experience. An attempt to replicate a recent study by Brehm and Miron (2006) specific to satisfaction confirms that such assumptions may not be supported by the data.

Clearly, the importance of satisfaction as a construct of central interest to marketers is well established (Oliver 1997). However, in spite of all the attention directed toward this construct in the literature to date, there arguably remains much to learn both theoretically and operationally. For example, satisfaction judgments are typically related to post-purchase evaluations of marketing exchanges (e.g., including the decision to enter into the exchange, the experiential outcomes of those decisions from a service performance perspective, and/or the tangible product attributes that can be associated with service offerings). However, satisfaction judgments can also operate pre-decision, largely through the framing of expectations in the disconfirmation of expectations conceptualization of satisfaction (Oliver 1997). Thus, satisfaction judgments have the capacity to serve as both pre- and post-purchase considerations in the consumer decision-making process across time. Another question concerns how satisfaction relates to consumer attitudes and emotions? This begs the question of whether satisfaction is a form of attitude, or just another specific emotion.

Yet a third question concerns where motivation fits into satisfaction's role on consumer behaviors. Given the important influence of relationship marketing in marketing theory and practice (Sheth and Parvatiyar 2000), a full understanding of the role of satisfaction within the context of consumer judgments and decisions across multiple consumer experiences continues to be an important research endeavor. This is particularly true in the presence of consumer ambivalence as described above.

However, such an understanding has yet to be fully realized. While it is true that Oliver's (1997) expectancy-disconfirmation paradigm does provide a process explanation for the development of satisfaction judgments per se, much less seems known as to how satisfaction judgments (1) relate to attitudes, (2) can be ambivalent, and (3) operate within the context of more general judgment and decision making (**J/DM**) models. The purpose of the following study is to further marketers' understanding of consumer J/DM by proposing a model that accounts for the important role of satisfaction while simultaneously accommodating attitude, emotion, and ambivalence theories. Creating a model of consumer J/DM that attempts to account for these important constructs raises the interesting question of whether ambivalence is experienced sequentially (as typically viewed in marketing) or can be experienced

simultaneously. The answer to this question has theoretical implications in such J/DM models, particularly related to how attitudes and emotions are best modeled, as well as managerial consequences. A field experiment replicating Brehm and Miron's (2006) study is also reported that tests whether ambivalence vis-à-vis satisfaction (as well as a host of other positive and negative emotions) is experienced sequentially or simultaneously. Finally, the implications for managers and research related to consumer models of J/DM are discussed.

SATISFACTION WITHIN MODELS OF J/DM

Research related to satisfaction across social sciences has arguably evolved largely independent of attitude, emotion, and J/DM theories. One explanation may be that formally defining "satisfaction," even specific to a consumer context, is a challenging endeavor (Oliver 1997). Reasons include that satisfaction can be viewed both in terms of (1) various levels of abstraction (e.g., single events leading up to an outcome, or as a collective impression of these events, or even in terms of the level of satisfaction received from marketing exchanges), and (2) from different viewpoints (e.g., individual, firm, or society). Oliver (1997, p. 13) therefore offers the following definition of "consumer satisfaction" to accommodate such perspectives:

"*Satisfaction is the consumer's fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable [italics not added] level of consumption-related fulfillment, including levels of under- or over-fulfillment.*"

It is reasonable to assert that Oliver's (1997) definition has provided the dominant constitutive exemplar for satisfaction within marketing and beyond. This definition makes clear that satisfaction is instrumental in the J/DM process of consumers, and involves both cognitive and affective considerations. In addition, while Oliver (1997) constrains his proposed definition to a consumer context, he argues that the vertical nature of his underlying theoretical model (the allowance for individual episodes of satisfaction to accumulate into summary or long-term states) provides a basis for generalizing his proposed definition to other satisfaction-related domains (e.g., life, employee, or job satisfaction).

It is argued herein that this vertical nature of satisfaction is also consistent with emerging goal-directed, attitudinally-based models of J/DM. Specifically, Oliver (1997, p. 16) differentiates satisfaction from other related concepts, such as quality, attitudes, happiness, good feelings, and moods. Satisfaction, in his view, is best considered a summary (post-purchase) judgment that is based on both attribution-based affective responses[i] and explicit reference to expectations or standards of excellence. Within the context of relationship marketing, attitudes based upon previous episodes of episodic satisfaction judgments form the basis for the consumers' expectations necessary for the process of disconfirmation of expectations. Thus, satisfaction is (1) viewed as more than simple cognitive or affective processes, rather, contains elements of both, (2) relates to but is not the equivalent of consumer attitudes and affect, and (3) operates as both an antecedent to and outcome of consumer decision-making processes across time.

However, a conundrum exists concerning specifically how satisfaction, attitudes, and emotions operate together within the context of consumer J/DM processes.[ii] The absence of such understanding makes difficult explanations of the social psychology associated with satisfaction's influence on

J/DM, as well as fully explaining ambivalence in consumers' judgments and feelings (such as presented in the scenario at the beginning of this article). Critical to such models is the prerequisite ability to effectively capture both cognitive and affective influences within the J/DM process.[iii] Taylor (2007) reviews the literature related to emerging J/DM models attempting to incorporate affect into cognitive (consequentialist) models of J/DM and calls for a focus on a modified form of Perugini and Bagozzi's (2001) attitude-based Model of Goal Directed Behavior (**MGB**). His arguments for focusing on the MGB include that the model (1) focuses on attitude expressions instead of economic preferences (Kahneman et al 2000), (2) considers affective valuation as a core process, (3) focuses on experienced utility in J/DM models as opposed to decision utility, (4) introduces a mechanism for accounting for motivation in attitude models via the introduction of desires and anticipated emotions (AEs), and (5) provides a more effective explanatory model for substantive and systematic inconsistencies in preferences. *Thus, the MGB provides a descriptive model of J/DM that reflects both cognitive and affective considerations (consistent with a social cognition perspective) within an attitudinally-based explanation of goal-directed behavioral intentions that can form the basis for integrating satisfaction's multiple roles in the consumer J/DM processes, as well as potentially account for the possibility of consumer ambivalence*.

Figure 1 summarizes how satisfaction judgments can be reconciled with the MGB. Perugini and Bagozzi's (2001) basic MGB model is described by equations 1 – 3 (please see endnote iv and/or the subsequent paragraph in this section of descriptions of the acronyms):[iv]

$$\text{Desire} = f(\text{Attitude}_{Act}, \text{Positive AEs}, \text{Negative AEs}, \text{AR}, \text{SN}, \text{PBC}, \text{FPB}) \quad [1]$$

$$\text{Behavioral Intentions} = f(\text{Desire}, \text{FPB}) \quad [2]$$

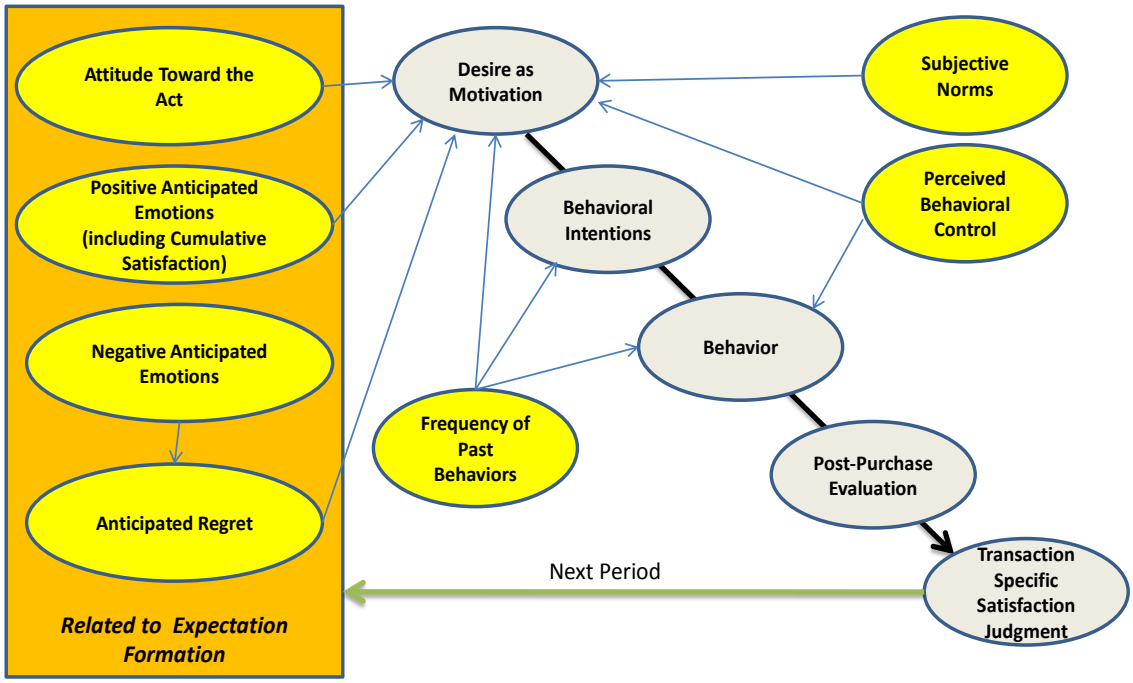
$$\text{Behavior} = f(\text{Behavioral Intentions}, \text{FPB}, \text{PBC}) \quad [3]$$

Consistent with Oliver's (1997) disconfirmation of expectations (**DE**) conceptualization, postpurchase (i.e., post behavior) evaluation of consumption behaviors leads to a transaction-specific satisfaction judgment. Thus, satisfaction as a transaction-specific, post-behavioral judgment appears easily reconcilable with the MGB conceptualization of J/DM when the model is constrained to a single point in time. However, it is less clear within the DE how transaction-specific satisfaction judgments accumulate to influence subsequent consumer behaviors. The MGB helps explain this process by positing AE's (e.g., anticipated satisfaction) as antecedent influences on motivation as desire. That is, the vertical nature of satisfaction as hypothesized within DE explanation can also be reconciled with the MGB across time by recognizing that transaction-specific satisfaction judgments sum into next period anticipated emotions (**AE**s, including satisfaction). Note that AEs are treated as unique from attitudes (**ATT_{Act}**) in the MGB, consistent with Oliver's (1997) perspective. Thus, AE's, together with existing ATT_{Act} of consumption, subjective norms (**SN**), perceived behavioral control (**PBC**), and frequency of past behaviors (**FPB**) independently influence the next period's motivation as desire to engage in the consumption act.

In summary, it appears that DE as the dominant exemplar of satisfaction theory can be reconciled with the MGB into a singular explanation of consumer J/DM within the

context of relationship marketing consistent with emerging attitude theory in a manner that includes affective considerations.[v] The next section discusses how the concept of *ambivalence* can also be reconciled with the model proposed.

FIGURE 1
Reconciling Satisfaction with Attitude-Based J/DM Models



UNDERSTANDING CONSUMER AMBIVALENCE IN J/DM MODELS

Models of consumer J/DM should be capable of accounting for both decisive (i.e., non-ambivalent) and ambivalent consumer judgments and/or attitudes. That is, a better understanding of ambivalence in consumer decision making should strengthen our understanding of the relationships between emotions, attitudes, and satisfaction within the context of consumer J/DM. The preceding section presents the argument that the model presented as Figure 1 helps explain both transaction specific and cumulative forms of decisive judgments/feelings, in a manner consistent with the known vertical nature of satisfaction. However, the link between the proposed model and ambivalent consumption judgments/feelings (as exemplified in the scenario at the beginning of this manuscript) is less obvious. Ambivalence has become a construct of central importance to attitude research across disciplines (Ajzen 2001; Priester, Petty & Park 2007). [vi] Otnes et al (1997) and Williams and Aaker (2002)

specifically call for the consumer-behavior-specific study of ambivalence.[vii] Following Otnes et al (1997, p. 82), *consumer ambivalence* (**CA**) is defined as: [viii]… the simultaneous or sequential experience of multiple emotional states, as a result of the interaction between internal factors and external objects, people, institutions, and/or cultural phenomena in market-oriented contexts that can have direct and/or indirect ramifications on exchange-based attitudes and behaviors.[ix]

The Impact of CA on Consumer Models of J/DM. Consistent with the model presented herein as Figure 1, the definition of CA identified above suggests the need to account for both attitudes and emotional states in explanations of consumer behaviors. Thus, CA should also be accounted for by J/DM models such as the MGB.[x] However, it is not surprising that the notion of CA also adds a layer of complexity to efforts to conceptualize how conflicting attitudes, and emotions (like satisfaction), operate within consumer models of J/DM. In terms of consumer attitudes, Sparks et al (2004) argue that different decision-making contexts will be associated with different decision-making strategies, not all of which will approximate the careful, analytic, compensatory structure implied by traditional attitude models such as the Theory of Planned Behavior (TPB), a predecessor to the MGB as an attitudinal explanation of behavior. The incorporation of emotive motivational forms in the MGB overcomes this criticism by allowing for the potential to capture some non-cognitive decision-making processes vis-a-vis attitudinal models. This perspective also appears consistent with Voss et al's (2003) arguments concerning unique utilitarian and hedonic forms of consumer attitudes. Thus, the ability to model conflicting emotional responses within the context of attitudinal explanations of consumer J/DM appears both important and possible.

CA similarly has implications for satisfaction theory. Ambivalence is related to satisfaction through dissonance theory. Oliver (1997) argues that dissonance theory is a critical underpinning to the concept of satisfaction because all four stages of the consumer decision-making process involve uncertainty, not just postpurchase/preuse. For example, anticipated regret (**AR**) in the early phases of consumption leads to a general feeling of apprehension on the part of the consumer. This general feeling of apprehension represents dissonance. Oliver (1997, p. 247) describes dissonance vis-à-vis satisfaction as "…inconsistency-induced psychological discomfort" because it begins as simple apprehension and escalates over the decision cycle to later purchase phases. In addition, since it involves apprehension over events to come, it allows for the incorporation of anticipated constructs (e.g., AEs) into satisfaction-based J/DM models (consistent with the MGB). Oliver (1997) argues that the weight of the evidence in the literature suggests that a common human response is to try to psychologically reduce (anticipated) dissonance. Dissonance should invoke AR, which can influence satisfaction judgments (through expectations).[xi] Regretfully, consumer-based dissonance research has waned since the mid-1970s, even though Oliver (1997) asserts that the extant consumer behavior literature supports the conclusion that the central principles of dissonance theory remain valid.

***The Recent Re-emergence of Cognitive Consistency Theory*.** Fortunately, the arguments presented herein are reinforced by the recent renewed interest in cognitive consistency theory within the social sciences. Dissonance theory is a form of cognitive consistency theory. There is emerging a renewed interest in cognitive consistency

theories (which generally fell out of favor in the 1960s) based on advances in constraint satisfaction theory (Simon et al 2004). Simon et al (2004) provide evidence supporting the view that when decisions are made from multiple pieces of evidence that structural dynamics represent an appropriate model for human cognition, as captured by consistency theories, and subsequently made flesh in parallel constraint satisfaction processing. Specifically, their evidence suggests that such reasoning processes are *bidirectional* in that decisions follow from evidence, and evaluations of evidence shift toward co-herence with the emerging decision. Simon et al (2004) conclude that (1) their evidence is inconsistent with information integration theory (IIT) and Bayes' theorem[xii], (2) constraint satisfaction models provide the necessary processing mechanism to overcome problems previously associated with cognitive consistency theories, and (3) that cognitive consistency theories should play a greater role in the understanding of human reasoning and decision making.

Monroe and Read (2008) build upon this argument by specifically linking con-straint satisfaction models to the attitude construct by proposing the Attitudes as Constraints Satisfaction (**ACS**) Model[xiii] as a general connectionist model of attitude structure and attitude change. Monroe and Read (2008) point out that there still exists no general model of attitudes, and take the position that attitudes are best represented as networks of associated cognitions, with both positive and negative links among them, and that processing proceeds by the parallel spread of activation along those links. They provide a series of simulations and conclude that the expectancy-value model of attitudes (arguably marketing's predominant view of attitudes) is not supported by their results. Rather, this local connectionist perspective supports parallel constraint satisfaction as a more sophisticated revisitation of consistency theory.[xiv] Importantly, the ACS appears consistent with the proposed model in Figure 1 as it (1) links satisfaction and attitudes together through cognitive consistency theory, and (2) offers an explanatory process that helps account for the vertical nature of both satisfaction and attitudes. Activation is a temporary state of the network, while weights are stored in a more long-term fashion. Further, the ACS provides a potential explanation for how ambivalent attitudes and emotions can coexist. In summary, the ACS model appears consistent with the research model presented herein as Figure 1. Viewing attitudes as networks of associated (positive and negative) cognitions appears to allow for the existence of CA (i.e., competing positive and/negative emotions). Specifically how these positive and negative emotions compete within the context of CA is the focus of the next subsection.

Marketing and the Issue of Simultaneous versus Sequential Emotions*.** Specifically ***how ambivalent emotions and/or attitudes coexist also appears to be an important issue. Readers will note that the cited definition of CA above, as well as the bidirectional nature of ACS model, allows for either simultaneous (i.e., concurrent positive and negative affect) or sequential (i.e., non-concurrent positive and negative affect) emotional states underlying CA. Williams and Aaker (2002) note that psychologists have emphatically debated the degree to which conflicting emotions can be simultaneously experienced, and specifically call for greater research into the simultaneous experience of emotions in consumption experiences. Carrera and Oceja (2007) assert that the concurrence of two opposite emotions is one of the most controversial areas of emotion research. One perspective is exemplified by Brehm and Miron (2006) who present evidence that positive and negative emotions are sequential in that they do not occur at the same time (i.e.,

are not simultaneous). This position contrasts that of Carrera and Oceja (2007) who present evidence for simultaneous mixed emotional experiences (also see Sparks et al 2004).

The reason that this matters to marketers is because it is demonstrated below that much of the theory of consumer emotions seems to assume that ambivalent emotions are sequential in nature, which implies important practical consequences.[xv] Specifically, if conflicting emotions are truly sequential, then consumers must essentially conclude either holistic positive or negative judgments related to consumer experiences (i.e., judgments are either/or positive or negative). On the other hand, if conflicting emotions can be simultaneous in nature, some form of cognitive weighting/averaging in the formation of overall consumer judgments appears possible. Thus, if marketers' assume that customers are *either* satisfied or dissatisfied with an exchange experience, they may misinterpret the likelihood of future loyalty and behaviors such as word-of-mouth (**WOM**). In fact, this argument may help explain the phenomenon identified by Reichheld (2003) arguing that WOM is a better predictor of top-line growth than satisfaction measures.[xvi]

The argument for Marketing's general assumption of sequential forms of CA begins with Bagozzi et al's (1999) finding that little consistency exists in the marketing literature constitutively defining attitudes versus affect versus emotions. Bagozzi et al (1999) assert that distinguishing attitudes from emotions both constituitively and operationally has proven challenging. Therefore, the current research suggests adoption of the following definitions of terms: (1) *Affect* -- an umbrella terms for a set of more specific mental processes including emotions, moods and (possibly) attitudes (Bagozzi et al 1999); (2) *Emotion* – a mental state of readiness that arises from cognitive appraisals of events or thoughts (Bagozzi et al 1999); and (3) *Attitude* – a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor (Eagly and Chaiken 1993). The evidence next suggests that the cognitive appraisal perspective has exerted a strong influence on marketing theory (e.g., Richins 1997, Oliver 1997, Russell 1997).[xvii] For example, Bagozzi et al (1999) argue for a cognitive appraisal perspective on emotions wherein they arise as the result of individual's unique psychological interpretation of events and circumstances (i.e., different people can have different emotional reactions to marketing stimuli). These authors further assert that goal relevance and goal congruence are particularly influential appraisals germane to marketing contexts (consistent with the perspective adopted herein). Consequently, the self-regulation of goals is believed to be the main function of emotions. Therefore, emotions occur in response to changes in plans or goal-relevant events. Attitudes, in this view, differ from emotions in the following ways (Bagozzi et al 1999):

1. Attitudes also arise from changes in events, but differ in that they may also occur in response to mundane objects;
2. Attitudes possess the capacity to be stored and retrieved during long periods of time; and
3. The connection between emotions and volition is stronger and more direct than for attitudes.

Ruth et al (2002) similarly advocates a cognitive appraisal perspective, and further asserts that (1) pleasantness (or valence) is a primary means of differentiating emotions, and (2) that mixed emotions situations are prevalent in marketing. Richins (1997) also argues that relevant emotions in the consumption experience may differ from those in other contexts. She focuses on consumption-related emotions which are

those directly experienced emotions that result from the consumption of products, and identifies 16 specific emotional descriptors. She further explicitly identifies the dimensions of affective space as representing (1) positive versus negative affect, and (2) receptivity or activation.[xviii] In short, marketing has largely operated under the view that positive and negative emotions are inversely related, with a tendency to operationalize affective attitude components using bipolar measures, and emotion-specific operationalizations using unipolar measures. Thus, how we measure consumption-related emotions in Marketing reflects underlying theoretical assumptions. Schimmack (2005) provides evidence supporting Bagozzi et al's (1999) call for using unipolar measures of emotions.[xix]

Brehm and Miron (2006) present evidence suggesting that positive affect may be independent of negative affect, but produces no evidence concerning whether or not the two affects occur simultaneously or sequentially.[xx] They offer a novel perspective built upon the assumption that emotions act like motivational states.[xxi] Their theory is predicated upon the assumption that distinctly different emotions, like distinctly different motivational states, cannot co-exist. In particular, the human system minimizes its use of resources by engaging only one motivation or emotion at a time, and then only to the extent that minimally necessary. Both a motive's and emotion's intensity is proportional to the obstacles to the motive/emotion's function. Consequently, a method is identified that purports to allow an assessment of whether consumption-related emotions like satisfaction are sequential (as assumed) or simultaneous in nature in the presence of CA.

In summary, there exist two productive research traditions concerning the relationships between positive and negative emotions, both supported by empirical analyses (Reich et al 2003). Table 1 summarizes a literature review supporting this perspective. The first tradition posits that positive and negative emotions are independent or uncorrelated bi-dimensional constructs and considers emotions as existing in a psychological space defined by two bipolar and orthogonal dimensions: valence and activation, therefore oppositely poled emotions can be felt only sequentially (e.g., the circumplex model). Readers will note from Table 1 that much of marketing's perspective appears to correspond to this perspective. The second tradition presumes that positive and negative emotions are inversely related, the unidimensional affect approach. The alternative perspective views the affective systems as within a psychological space formed by two separate dimensions: positivity and negativity (e.g., the evaluative space model) wherein two opposing emotions may be experienced sequentially or simultaneously. Thus, for example, if two separate emotions can be simultaneously experienced, then evidence is apparent that the traditional view of emotions in marketing provides an incomplete theoretical explanation of emotions for marketers. The next subsection discusses Brehm and Miron's (2006) field experiment to assess whether ambivalence is sequential or simultaneous in nature. A clear understanding of this issue is important to help guide the continued theoretical evolution of consumer models of J/DM such as is presented herein as Figure 1, as well as specific managerial tactics to influence consumer judgments in the presence of CA.

Table 1: Different Models of Affect

	Circumplex Model	Watson and Tellegen (1985) Model	Evaluative Space Model (ESM)
Focus	Experience of affect.	Experience of affect.	The underlying processes that give rise to the experience of affect.
Conceptualization of Affect	Posits that emotions fall into a circular order around a perimeter of the space defined by two dimensions: (1) bipolar valence dimension, and (2) orthogonal dimension labeled activation. The focus is on moderately activated emotions such as happiness and sadness.	Same as Circumplex Model except that the axes are rotated 45 degrees and termed Positive and Negative Activation. The focus is on highly activated emotions such as excitement and distress.	The affective system occurs within a bivariate space rather than a bipolar continuum. Thus the experience of valence represents the integration of positivity (approach) and negativity (avoidance) as two separable and partially distinct components of the affective system
Relationship Between Emotions	Tradition 1: Posits that positive and negative emotions are independent or uncorrelated bidimensional. Emotions occur in pairs of bipolar opposites that are mutually exclusive, implying a L-shaped function supporting observed weak correlations.	Tradition 1: Posits that positive and negative emotions are independent or uncorrelated bidimensional. Independent effects of positive and negative activation can be attributable to the operation of a single bipolar valence mechanism.	Tradition 2: Presumes that positive and negative emotions are inversely related, the unidimensional affect approach. Positivity and negativity may be characterized by reciprocal activation, as well as uncoupled activation, coactivation, or coinhibition.
Suggested Measurement Scales	Bipolar adjectives for affective attitude. Unipolar scales for specific emotions.	Bipolar adjectives for affective attitude. Unipolar scales for specific emotions.	Bipolar adjectives for affective attitude. Unipolar scales for specific emotions.
View of Simultaneous Versus Sequential Emotions	Supports the existence of sequential emotions, but not simultaneous emotions.	Supports the existence of sequential emotions, but not simultaneous emotions.	Posits that coactivation of emotions can occur but that the affective processes typically gravitate toward bipolarity over time.
Literature support for View of Coactivation Potential	Green et al (1993) Russell (1980) Richins (1997) Oliver (1997)	Russell and Feldman Barrett (1999) Williams and Aaker (2002) Laros and Steenkamp (2005) Brehm and Miron (2006)	Cacioppo et al (1997) Priester and Petty (1996, 2001) Larsen et al (2001) Priester et al (2007)

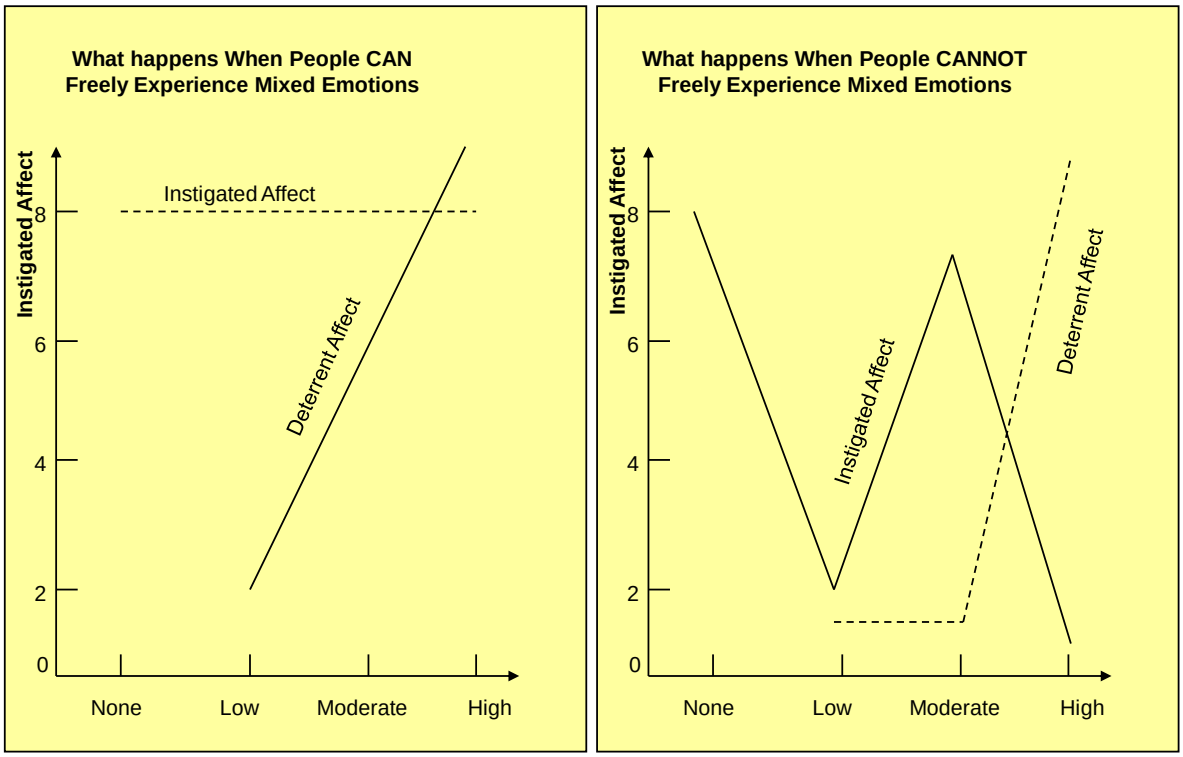
Brehm and Miron's (2006) Experiment.

Figure 2 presents Brehm and Miron's (2006) theoretical argument for why two emotions cannot exist simultaneously. Reasons for feeling a distinctively different emotion (i.e., a deterrent) than what one is currently feeling constitute an obstacle. Consistent with a need to conserve resources, a low-importance deterrent relative to the emotion-instigating event will allow the intensity of emotion to drop to a low level. As the relative importance of the deterrent increases, the intensity of the instigated emotion must decrease. Thus, low to moderate deterrents cannot instigate a second emotion while the affective system is busy with the event that instigated the first emotion. However, when the importance of the deterrent surpasses that of the instigated emotion, the instigated emotion will be replaced by the deterrent. Evidence that two emotions can exist simultaneously is present when there is no change in the magnitude of the instigated emotion, but a corresponding change in the affect associated with the increasing deterrent.[xxii]

Brehm and Miron (2006) considered the specific emotions of anger, sadness, happiness, and positive affect. However, not surprisingly, there has also been a long and lively debate in the literature about which specific emotions to measure. How many emotions are there? Reeve (2005) argues that the answer to this question depends on whether one favors a biological or cognitive orientation. The biological perspective generally asserts that (1) a small number of basic emotions exist (e.g., five to ten), (2) which are universal to all human beings, and (3) are products of biology and evolution. Alternatively, the cognitive perspective asserts that humans can experience an almost unlimited number of emotions because emotions arise from perceptions of situations which can be interpreted in a multitude of

ways. Further, emotions represent a blend of cognitive appraisals, socialization history, and cultural expectations. Efforts to reconcile these alternative perspectives have focused on whether some emotions are more basic than others. Reeve (2005) argues that a middle-ground approach has emerged that argues for a set of basic[xxiii] emotions that represent a family of related emotions. For example, anger represents a family of emotions that include hostility, rage, fury, outrage, annoyance, resentment, envy, and frustration. The weight of the evidence to date appears to support an argument for the following six basic emotions: fear, anger, disgust, sadness, joy, and interest.[xxiv]

FIGURE 2
Hypothesized Relationships



Adapted from Brehm and Miron (2006)

The current research considers not only the emotions identified by Brehm and Miron (2006), but a series of additional positive and negative emotions germane to marketing practice generally, and the MGB attitude conceptualization specifically (including satisfaction). This strategy is employed because there are growing calls for consideration of emotion specificity (DeSteno et al, 200, 2004 a,b; Mandel and Dhami, 2005; Rucker and Petty 2004), and thus the need for "emotion specific" research. This position is consistent with Abraham and Sheeran's (2003) conclusion that emotions appear to differ in their cognitive foundations. Consequently, anticipating different affective states may differentially affect intention formation and intention-behavior relationships. For example, studying other negative emotions such as disappointment or

anger in models predicting behaviors does not ensure generalizability in terms of how regret operates in such models.

Summary. The presence of CA complicates a theoretical consideration of the model of J/DM proposed in this article. The renewed interest in cognitive consistency theory based on recent advances in constraint satisfaction theory now provide a process explanation for how dissonance vis-à-vis attitude and satisfaction theories can lead to ambivalence. Given that satisfaction responses and their influence on J/DM are based on multiple pieces of information, judgments, and inferences, the ACS appears to provide a mental process explanation consistent with the model proposed in Figure 1 for the kinds of ambivalent attitudes and satisfaction judgments identified in the scenario at the beginning of this article. However, constraint satisfaction theory also seems to imply the potential for simultaneous forms of CA, which seem at odds with marketing's traditional perspective of sequential forms of CA. Brehm and Miron's (2006) study appears to support the latter perspective. Thus, the following study empirically replicates Brehm and Miron's (2006) experiment specific to consumer satisfaction (as well as a number of additional positive and negative emotions) to assess their arguments vis-à-vis the model proposed herein.

METHODS

Zaltman (1997) notes that most research methods are biased toward reason, in spite of the growing recognition of the importance of emotions to managerial and consumer decision making. Priester and Petty (1996) present evidence that across studies, typical measurement techniques calculated from an individual's positive and negative reactions are able to account for only a moderate amount (p of .36 - .52) of the variance in reported subjective experiences of ambivalence. Schimmack (2005) further demonstrates that respondents typically need more time to indicate (1) the presence (versus the absence) of an emotion on unipolar response formats, (2) the presence of reported subjective experiences of ambivalence, and (3) the lack of both item-order and item-spacing confounds in the measurement of ambivalence. He interprets these results as support for the validity of reported mixed feelings and a two-dimensional representation of pleasure and displeasure. Allen et al (2005) provide evidence that (1) emotive information can provide incremental explained variance to cognitions, and (2) retrospective reports about emotional experiences can be useful predictors of attitudes.

Schimmack (2005) recommends assessing pleasure and displeasure using a bipolar scale (e.g., Russell, Weiss, and Mendelsohn 1989). However, he further recommends the use of seven-item scales for specific emotions with specific response options to reinforce the distinction between the lowest response option (indicating the absence of an affect) with other options (indicating the presence of an affect). Therefore, the measures used in the current research first involved a seven-point bipolar scale measuring general affect (Extremely Negative/Extremely Positive). Alternatively, specific positive and negative emotions that were assessed using unipolar scales consistent with the preceding arguments, including excited, happy, glad, satisfied, proud self-assurance, and pleasure; and angry, frustrated, guilty, ashamed, sad, disappointed, worried, uncomfortable, fearful, regretful, and displeasure.[xxv]

The current research required two separate data collection activities in order to replicate Brehm and Miron's (2006) experiment. Students were invited to participate from two-large section Introduction to Marketing classes at a medium-sized

institution in the Midwest of the United States. Participation was voluntary, with students signing up for the study receiving extra course credit. 165 chose to participate in the study, who were randomly assigned to each of the eight unique experimental conditions (4 levels of deterrent x 2 affective deterrents, see Table 2). All cells had 20-22 respondents. Table 2 presents the positive and negative manipulations that were induced as well as the associated deterrents. Data were collected during regularly scheduled class time and in separate locations at the same time to avoid word-of-mouth cross contamination as potential demand artifacts. Formal letters on departmental letterhead were used to support the deceptive scenarios, with IRB approval received prior to undertaking the data collection.

TABLE 2

The Research Design

Condition 1: Instigate A Negative Emotion; Followed by a Positive Deterrent

1. Have the Departmental Chairman show up to administer the experiment. The Departmental Chairman then informs students that the extra credit promised by the course professor is against University rules, and that students would not be receiving the promised extra course credit. He promises to take this up with the professor personally.
2. Measure pre-deterrent positive and negative emotions using self-report scales.
3. Offer $ as a positive deterrent. Students are then informed that there is a little known University insurance policy related to study participation. Students are thereby randomly compensated at levels of $0, $1, $3, $5 by simultaneously opening a sealed envelope with the student's name and a ficticious explanatory letter from the university.
4. Measure post-deterrent positive and negative emotions using self-report scales.

Condition 2: Instigate Positive Emotion; Followed by a Negative Deterrent

1. Give each student an unexpected $2 bill at beginning of the study.
2. Measure pre-deterrent positive and negative emotions using self-report scales.
3. Offer a retrospective tuition increase as the negative deterrent. Hand students a fictitious official letter from the University informing them that their tuition has been increased retroactive for the semester due to budget difficulties at the state level. The formula is complicated, with students simply informed that their own personal tuition increase was related to their gender, race, and county reflecting their permanent home address. Deterrent levels were increases of 0%, 1%, 5%, and 10%. The well-known state budget "crisis" at the time helped make the scenario believable.
4. Measure post-deterrent positive and negative emotions using self-report scales.

RESULTS

Manipulation checks identified that the majority of students found the scenarios believable and vivid, and that perceived deterrent levels were meaningfully different across groups. Again, the purpose of empirical analyses was to attempt to replicate Brehm and Miron's (2006) findings that ambivalence involves sequential emotion patterns. Thus, we are primarily concerned

with the pattern of results in Figures 3 and 4 relative to the expectations presented in Figure 1 between the two potential patterns of responses. This interpretation is supplemented by evidence that observed differences are also statistically interpretable in terms of obtained mean scores across a set of unique instigated emotions, relative to mean score changes in the presence of a deterrent. Table 3 presents statistics associated with the instigated mean scores and their differences. First, it is expected, but not required, that there be no mean score differences across the subgroups for the instigated emotions prior to encountering the deterrent. Such was the case for all of the positive instigated emotions in this study. However, it is apparent that some of the mean scores of instigated negative emotions varied across groups. A careful examination of the Medium group, while randomly selected, none-the-less seemed to experience more negative emotion when instigated than the other groups suggesting some random error. Second, all of the positive emotions met the assumption of homogeneity of variance. However, several of the negative emotions failed to meet this criterion. Since our concern is to minimize Type 1 error rates, we adopt Keppel and Wickens' (2004) recommendation to half the α associated with the ANOVA tests. The associated Welch Test scores are also reported as they reflect less influence in the presence of heterogeneity of variance than standard ANOVA scores. It is also interesting to note that all of the mean scores of all the instigated positive emotions were reduced in the presence a negative deterrent, and most negative instigated emotions were reduced in the presence of a positive deterrent. The exceptions included the negative moral emotions (shame guilt, regret) and fear (which seems less germane to the research scenario). The conclusion is that care appears warranted relative to analysis assumptions when interpreting results associated with emotional responses, particularly negative emotions.

Table 3: Instigated Emotions ANOVA Results

Emotion	Pre-Deterrent Level Mean Score for Instigated Emotion (0 → 6 Scales)				Levene Sig.	ANOVA Between-Group Sig.	Welch Robust Test of Equality of Means	Average Paired Differences Pre- and Post-Deterrent	Paired Differences Sig. Pre- and Post-Deterrent
	Absent	Low	Medium	High					
Group 1 (Instigating Negative Emotions)									
Angry	3.05	2.85	3.68	2.45	.218	.219	.280	1.38	.000
Frustrated	4.00	3.60	3.50	2.68	.001	.111	.160	1.38	.000
Guilty	0.30	0.15	1.32	0.23	.000	.012	.150	0.11	.387
Ashamed	0.35	0.15	1.36	0.23	.000	.008	.110	0.24	.119
Sad	1.80	1.00	2.54	1.55	.014	.089	.125	0.79	.000
Disappointed	4.35	3.25	3.95	3.36	.253	.242	.196	1.73	.000
Worried	1.10	0.75	2.64	1.05	.003	.001	.009	0.81	.000
Uncomfortable	0.80	1.20	2.23	0.77	.054	.021	.047	0.56	.003
Fearful	0.30	0.25	1.59	0.14	.000	.001	.029	0.28	.087
Regretful	1.40	0.50	1.82	1.27	.039	.157	.117	0.37	.107
Displeasure	3.20	2.40	3.82	2.00	.827	.021	.027	1.01	.001
Group 2 (Instigating Positive Emotions)									
Excited	2.65	3.30	3.45	3.29	.473	.336	.330	2.30	.000
Happy	3.45	3.55	4.10	3.67	.080	.446	.285	2.67	.000
Glad	3.10	3.90	4.15	3.81	.117	.123	.104	2.65	.000
Satisfied	3.90	3.75	4.25	4.14	.461	.718	.677	3.07	.000
Proud	2.50	2.60	3.05	2.33	.292	.516	.535	1.54	.000
Self-Assured	2.95	3.05	3.60	2.71	.487	.320	.246	1.85	.000
Pleasure	3.55	3.30	3.85	3.62	.102	.701	.611	2.56	.000

Figure 3 graphically presents plots of the instigated versus deterrent positive emotional responses. There are a number of interesting insights apparent from a consideration of Figure 3. First, the bipolar Overall Positive Feeling measure recommended by Schimmack (2005) appears much more sensitive in this research context than the other emotion-specific measures. For example, in Panel A it is apparent that the reported Overall Positive Feeling was substantially greater than any of the other assessed (specific) positive emotions (noted as rectangle 1). Further, the negative deterrent substantially diminished reported overall positive feelings (i.e., is very sensitive to the deterrent effect). Rectangle 2 demonstrates that virtually all the specific positive emotions were reported as consistently felt *pre-deterrent* across a relatively narrow range of the scale (2 to 4 points of a seven-point scale). Rectangle 3 illustrates that the initial deterrent condition ("0" in both cases) were similar to the pre-deterrent mean scores. However, rectangle 4 demonstrates that in the case of all positive emotions, the introduction of a negative deterrent (i.e., *post-deterrent*) led to a decrease in reported positive emotional responses consistent with Panel B of Figure 2. This pattern appears replicated in Panel B of Figure 3 which reverses the role of positive affect from instigated to deterrent emotional influence. Thus, the conclusion for all specific positive emotions investigated herein is that the pattern of responses obtained herein best fits the model associated with an ability to experience simultaneous emotions, and not the pattern associated with only sequential emotions as reported by Brehm and Miron (2006).

FIGURE 3
Assessing Positive Emotions

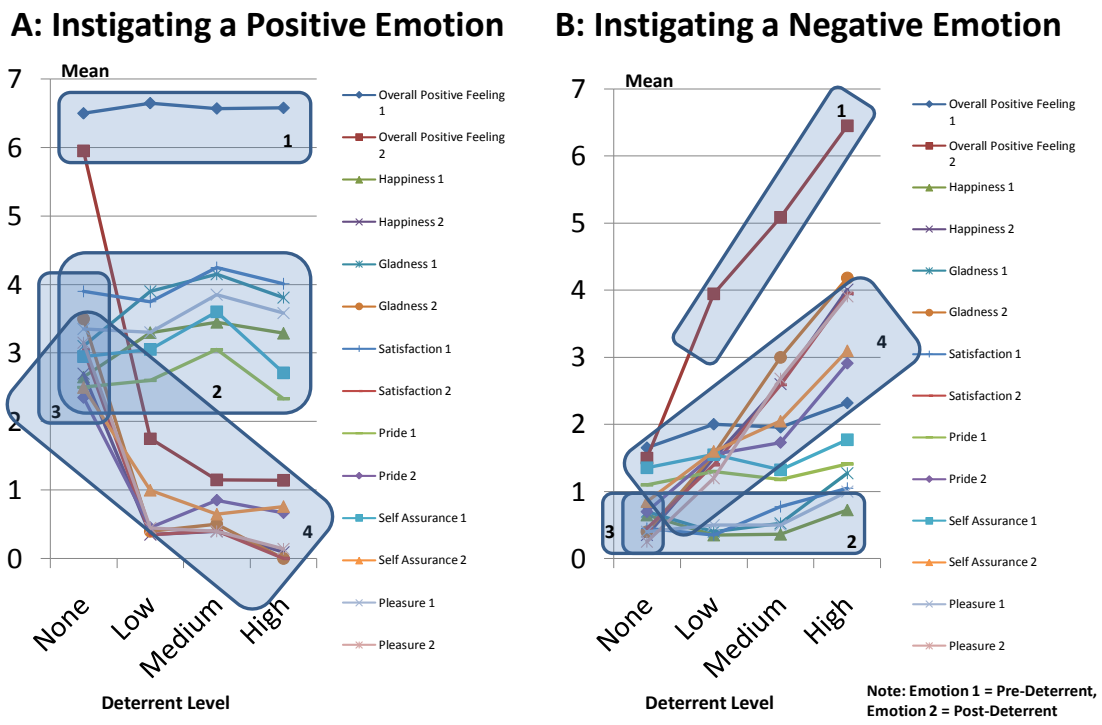
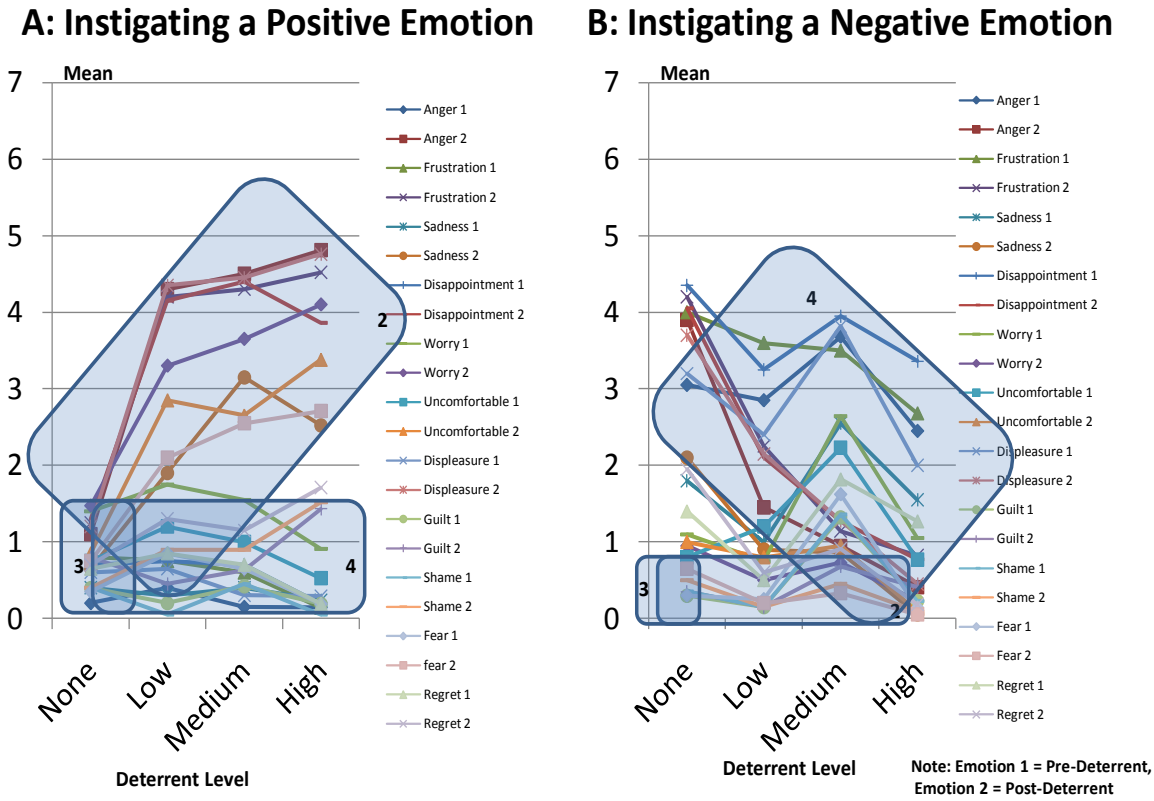


Figure 4 identifies the same pattern of results for the assessed negative emotions. Readers will note the previously discussed minor increase in mean scores across all assessed negative emotions in the Medium-level deterrent category, but the overall pattern of responses again supports the conclusion that the pattern of responses best fits the model associated with an absence of simultaneous emotions, and again not the pattern of presence of simultaneous emotions are reported by Brehm and Miron (2006). In summary, the results of the study presented herein appear inconsistent with those reported by Brehm and Miron (2006) for both the emotions they assessed, as well as the additional emotions considered herein.

FIGURE 4
Assessing Negative Emotions



DISCUSSION

It has remained unclear to date the affective foundations of satisfaction versus attitudes and how these foundations influence models of consumer J/DM. The current research attempts to address this gap in the literature by proposing a model of consumer J/DM that (1) accounts for the importance and vertical nature of satisfaction in such

processes, (2) can help explain ambivalent attitudes and satisfaction judgments, and (3) explores the issue of whether emotions can exist simultaneously or can only occur sequentially. The answer to this third question is important in that the model proposed herein appears to imply that emotions could exist simultaneously, a situation inconsistent with Brehm and Miron's (2006) argument and Marketing's traditional perspective. Thus, the results reported herein signal a cautionary note in assuming sequential emotions in marketing models in the presence of CA. The current study was neither able to replicate nor extend the results of Brehm and Miron (2006) to other emotions, rather, appear more consistent with the Evaluative Space perspective identified in Table 1 as exemplified by the GTM conceptualization as well as emerging cognitive consistency theory based upon constraint satisfaction theory. Thus, it appears to still remain an open question as to the theoretical foundations of affect vis-à-vis satisfaction, attitudes, and CA. In particular, the results reported herein may call into question Marketing's traditional view of CA. Marketing researchers are encouraged to continue the quest to develop more effective explanatory models of the affective response in consumers. The model presented as Figure 1 and the theoretical arguments presented herein provide an initial step in that direction.

Managerially, the study reported herein identifies at least two contributions that merit discussion. First, an arguable limitation to existing models of consumer satisfaction has been the lack of coherence with other explanations of the formation of behavioral intentions (e.g., attitude models, folk theory of psychology, J/DM). The model presented as Figure 1 provides managers a roadmap of how to better understand how attitudes and emotions operate vis-à-vis satisfaction judgments in the formation of motivation and intentions to engage in acts of consumptions. Thus, the study provides a framework for a more complete managerial understanding of how satisfaction operates in competitive consumer environments. Second, the issue of simultaneity of emotions has direct managerial importance. Traditional marketing thinking is to "satisfy" customers (at all costs) in marketing exchanges. The assumption of sequential emotions suggests that doing so is "good enough" in that negative emotions are essentially replaced by positive emotions in acts like effective service recovery. However, if emotions can in fact be simultaneous, then consumers may leave marketing exchanges with a "ratio of satisfaction" that is closer to 50/50 positive versus negative than typically assumed by marketers. It is possible, if not probable, that closer ratios of positive/negative emotions (in terms of numerator/denominator) will yield smaller influences on dependent variables such as desire as motivation in Figure 1. This is an issue for future research to consider.

There also exist a number of additional research implications apparent from the results reported herein. First, there appears to remain much to learn as to how emotions operate in affective and attitudinal space. Reich et al (2003) identify literature demonstrating the close connections between brain activity, neuro-hormones, and emotional reactivity, and suggest that the question of whether or not emotions are simultaneous or sequential may need not be an "either/or" conclusion. They report an integrative view which they refer to as the Dynamic Model of Affect (DMA), which claims to specify the conditions under which both bivariate and bipolar models are valid. Such a position would appear consistent with the perspectives advocated herein. Marketers should consider further tests of competing explanations of how affect operates within marketing contexts. Second, Rudolph and Popp (2007) present evidence that ambivalence tends to be greater among individuals who are well-

informed about issues and possess a higher need for cognition. In addition ambivalence tends to be lower among those individuals motivated by directional goals. Thus, in a political context, their results suggest that people who engage in effortful information processing tend to be more ambivalent, independent of value conflicts. Further, the relationships between emotional ambivalence and goal ambivalence and motivation all seem worthy of additional consideration by marketers (Fong and Tiedens 2002). Third, Williams & Aaker (2002) present evidence that persuasion appeals that highlight conflicting emotions lead to less favorable attitudes with individuals with a lower propensity to accept duality. This suggests the need for greater inquiry related to the boundary conditions of emotional dissonance, and further distinction between cognitive versus emotional dissonance. Fourth, Carrera and Oceja (2007) identify a new measurement technique that the term the Analogical Emotional Scale (AES) that marketers may consider assessing against more traditional scales of ambivalence. Fifth, Ersner-Hershfield et al (2008) call for the consideration of poignancy, defined as an emotional experience associated with meaningful endings. Such inquiries might prove particularly insightful vis-à-vis the rapidly expanding elderly population in the US. Finally, future research should address the task of overall model testing of the theoretical perspective presented herein as Figure 1.

It is important that these results be viewed in context. First, while the study successfully provides emotional deterrents capable of producing the results reported by Brehm and Miron (2006) given the relevance of the scenarios to the respondent pool, it remains unclear whether or not a different respondent pool might produce different results. Priester et al (2007) speculate that that some individuals may be more prone to experience/express ambivalence than others. Larsen et al (2001) note that psychobiological and behavioral evidence demonstrates that the co-activation of positive and negative affect can be subjectively experienced and supported. It is possible that this cohort is more prone to such subject experiences. In addition, Bagozzi , Wong, and Yi (1999) present evidence that culture can influence the correlation between positive and negative emotions, suggesting that co-activation (or not) is a function of culture. Thus, the sample of student respondents assessed herein has to be considered in this light as the respondent pools utilized in the studies reported by Brehm and Miron (2006) are unclear. Second, it is unclear as to the potential role of moderators in the finding reported herein including duality acceptance (Williams and Aaker 2002), anticipated conflicting reactions (Priester et al 2007), subjective product category knowledge (Ruth 2001), or involvement (Taylor 2007). For example, it is possible that Lau-Gesk's (2005) arguments for accounting for different positive and negative affect at different times throughout the consumption experience could provide a different finding. In addition, Taylor (2007) provides evidence that the MGB attitude model provides different path estimates depending on the level of respondent involvement. Therefore, although the manipulation checks demonstrate that meaningful differences were perceived across the deterrent categories in both scenarios, differing levels of involvement may moderate the observed results.

EPILOGUE

This study began with a consumer scenario that identified ambivalent consumer judgments and feelings. A model is proposed of consumer J/DM that purports to reconcile satisfaction theory with emerging attitudinally-based, goal directed models of

J/DM (see Figure 1) in explaining such ambivalence. In the end, the results of the present study signal a cautionary note concerning the theoretical foundations of CA in marketing models of J/DM. The results further underscore recent calls for a greater emphasis on replication of results in social science research (Tsang and Kwan, 1999, Boyer, 2003). This implication is also consistent with Norenzayan and Heine's (2005) compelling argument that generalization of results of psychological studies beyond one's sample is inherently risky due to an absence of psychological universals.

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ENDNOTES

[i] Oliver (1997, p. 27) argues that affective responses in consumer behavior are generally taken to subsume only emotion. In this view, a primary affect is a fairly nonspecific positive or negative feeling state most typically represented by labels such as happiness/sadness or pleasure/displeasure.

[ii] Following Taylor (2007), the subsequent discussion is (1) restricted to explanations of volitional, goal-directed behaviors and (2) assumes an instrumental notion of rationality wherein mental processes are rational to the extent that they help people achieve goals. This position is also consistent with Baron's (2004) assertion that the study of J/DM has traditionally concerned the comparison of judgments to standards that allow determinations of "better" or "worse" judgments. The major standards come from probability theory (e.g.,, Bayes Theory), utility theory, and statistics. These mathematical theories (i.e., models) are normative in nature because they are norms. Baron (2004) argues that normative models must be understood in terms of their role in looking for biases, understanding these biases in terms of descriptive models, and developing prescriptive models. He further suggests that the criterion used to differentiate normative models involves the ability of the model to help humans to achieve goals, to bring about outcomes that are good according to the values we possess. That is, the best option is the one that does the most "good," which Baron (2005, p. 23) defines as "…the extent to which we achieve our goals."

[iii] Consistent with footnote 2, the focus of the current study is on social cognition in decision making. Frith and Singer (2008) define social cognition as explaining the mechanisms of social behavior by using concepts and methods shared with related fields such as cognitive psychology and cognitive science. They further assert that an important feature of decision-making in social settings concerns the interaction between reason and emotion.

[iv] **AEs** refer to Anticipated Emotions, **SN** refers to Subjective Norms, **PBC** refers to Perceived Behavioral Control, and **FPB** refers to Frequency of Past Behaviors. In addition, Taylor (2007) recently presents evidence that Anticipated Regret (**AR**) acts as a mediator of the relationship between Negative Anticipated Emotions and Desires, thus leading to a modified version of the MGB.

[v] This approach may also be consistent with Bagozzi et al's (2002) additional argument that it remains unclear whether satisfaction is phenomenologically distinct from other positive emotions, as it represents neither a basic emotion nor is identified as a central emotion in leading theories of emotion. They further speculate that the centrality of satisfaction in consumer research may be due to the fact that it was among the first emotions studied, not that it holds particular theoretical sway as a unique entity from other emotions. In fact, these authors go so far as to raise the question whether a single, summary emotional response such as satisfaction is even feasible or desirable. Babin and Griffin (1998) also characterize satisfaction and dissatisfaction as independent post-purchase emotions resulting from cognitive appraisals that represent only two of many potential emotional outcomes from consumption.

[vi] Ajzen (2001) surveyed the attitude literature from 1996-1999 and argues that the presence of ambivalent attitudes is an important (marketing) consideration because ambivalent attitudes have been shown to affect judgments and behaviors in profound ways. For example, (non)ambivalent attitudes appear to be more predictive of and/or may act as a moderator of subsequent intentions and behaviors (also see Conner et al 2002; Cooke & Sheeran 2004; Costarelli and Colloca 2007; Sparks et al 2004), are more resistant to persuasive communications (see Zemborain and Johar 2007 for an alternative perspective), and represent a dominant theme in theorizing about racial, ethnic, and gender-related prejudice. Ambivalent attitudes have also been linked to group-related attitudes (Costrarelli & Palmonari 2003; Mucci-Faina et al 2002), forgiveness (Kachadourian et al 2005), creativity (Fong 2006), and susceptibility to consensus information (Hodson et al 2001). Olsen et al (2005) also provide evidence that ambivalent consumers are less satisfied, and therefore less loyal, than others.

[vii] However, ambivalence has presented a challenge in that emotions have generally proven difficult to incorporate into marketing models of behavior. Part of the problem has been the focus in social sciences until recently on cognitively-based, consequentialist models of judgment and decision making (see Loewenstein et al 2001, Taylor 2007). Allen et al (2005) specifically call for addressing this challenge by incorporating emotive information into attitude models, such as is suggested herein.

[viii] The current research investigates psychological ambivalence, which represents a state of internal, conflicting emotions toward an object or person (Otnes et al 1997), or act. The author recognizes William and Aaker's (2002) assertion that attitudinal ambivalence, like cognitive dissonance, is considered to be a disharmonious and uncomfortable state for most as inconsistent with consistency and clear action tendencies. However, the current inquiry assumes situations absent mental illness, and generally views the *acknowledgement and resolution* of mixed feelings as signs of maturity and positive mental health.

[ix] Otnes et al (1997) conducts a qualitative inquiry into CA based on the critical incidents methodology, and reports important linkages between ambivalence and (1) expectations, (2) information overload, (3) role conflicts (consistent with sociological ambivalence perspectives), and (4) custom and values conflicts (consistent with cultural ambivalence). Readers will also note that this definition is slightly modified from that originally proposed by Otnes et al (1997) in order to account for the subsequent growth of the service marketing and loyalty literatures. Readers are also encouraged to consider Harrist's (2006) recent phenomenological investigation of ambivalence.

[x] For example, the presence of CA affects cognitive processing and attitudinal responses (Van Herreveld et al 2004), how consumers react to experiences wherein both positive and negative affect become activated within the same consumption experience (Lau-Gesk 2005), and whether attitude ambivalence should be viewed as either an exogenous, mediator, or moderating variable (Olsen et al 2005). Ajzen (2001) states that attitude ambivalence can be the result of either (1) simultaneously accessing conflicting cognitive beliefs, or (2) a conflict between cognition and affect. Ajzen (2001) further suggests that Priester & Petty's (1996) gradual threshold model (**GTM**) empirically provides the best theoretical explanation of attitude ambivalence. However, Ajzen (2001) concedes that the GTM empirically appears to account for only a moderate amount of the variance in subjective ambivalent experiences.
Priester, Petty & Park (2007) assert that the GTM makes three specific predictions related to ambivalence: (1) ambivalence is a negative function of the extent of dominant reactions[x]; (2) ambivalence increases in a negatively accelerating manner as the number of conflicting reactions increases; and (3) as the number of conflicting reactions increases, the influence of dominant reactions on ambivalence decreases to some point wherein the number of dominant reactions no longer has any influence on experienced ambivalence. They further identify a mystery associated with the observation that people can experience ambivalence even in the presence of thoughts and feelings that are quite one-sided. These authors report a new construct, the anticipation of conflicting reactions, to explain why univalent attitudes are sometimes associated with ambivalence.

[xi] Taylor's (2007) evidence that anticipated regret (**AR**) mediates the relationship between negative AEs and Desire within the MGB may also prove to be consistent with this argument.

[xii] Simon et al (2004, pp. 815-816) describe IIT as a broad theory of cognition that concentrates on combining psychological stimuli into unitary responses via three sequential operators: valuation, integration, and response. Thus, at its core, IIT is the tenet that human cognition obeys simple algebraic rules, in that judgments of complex phenomena are mathematical products (often weighted averages) of the respective psychological valuations. They continue by asserting that cognitive algebra relies on two central assumptions: (1) *meaning invariance* – contends that each piece of evidence is evaluated on its own terms and is not affected by other pieces of evidence (unless there is a preexisting interdependency relationship); and (2) *value-integration interdependence* – posits complete separation between the processes of evaluation and integration (i.e., the evaluation of a piece of evidence is assessed independently from how it is combined to form the ultimate conclusion). Simon and his colleagues conclude that together, these assumptions capture the property of **unidirectionality** wherein inferences flow from the individual pieces of evidence toward computed judgments, but the evaluation of the evidence is in no way affected by the emerging conclusion. Thus, the arguments of Simon et al (2004) are also inconsistent with Bayes theorem, which involves algebraic exercises of sequential multiplication of the probabilistic values of the event's constitutive elements. In other words, Bayes' theory also relies on the same principles of meaning invariance and evaluation-integration independence.

[xiii] Note that the ACS is an explanatory model of attitudes, not consumer satisfaction.

[xiv] In particular, the ACS begins with the premise that all relevant cognitions are organized in a network involving varying associations with other cognitions, including persuasive ones. This allows activation to spread throughout the connections and change the activation of an evaluation (the attitude) as well as that of any other unit in the network. Activation timing is also relevant in that implicit and explicit attitudes manifest themselves at earlier and later points of the processing. Constraint satisfaction will follow from this activation spreading. In general, activations in the network and the weights stored in the network are each critical to understanding the behavior of the network and the corresponding attitude.

[xv] Issues related to dimensionality/polarity of emotions underlie much of the controversy associated with affective measurement, and therefore the question of whether or not emotions or attitudes occur simultaneously and/or sequentially. Carrera and Oceja (2007) point out that affect and emotion are typically measured using verbal labels followed by numerical scales which allow respondents to translate feelings into numbers. Bagozzi et al (1999) suggest that such is the case of marketing, which has tended to take an empirical approach to the measurement of emotions through self-reports (using either unipolar or bipolar items on questionnaires). However, such measurement techniques fail to distinguish whether or not two emotions coincide at some point in time (i.e., are simultaneous), or (rapidly) occur independently across time (i.e., are sequential).Green et al (1993) point out the methodological problems inherent in trying to determine whether mood/emotions are (1) unidimensional and dependent, or (2) bipolar and independent. These authors conclude that measurement error leads to the erroneous conclusion that mood is not bipolar. Importantly, they cast doubt on the use of raw data when assessing any emotions. They ultimately call for the use of multi-method approaches to the measurement of mood. Russell and Carroll (1999) revisit this issue and assert that questions exist concerning whether positive and negative emotions are (1) polar opposites with human feelings reflecting the swing of a pendulum, or (2) independent of one another. The controversy lies in a consistent observation of a weak negative correlation between oppositely valenced emotions, and is central to the psychology of affect. Russell and Carroll (1999) provide a comprehensive evaluation of the efficacy of bipolar scales for the measurement of positive and negative affect. Like Green et al (1993), they conclude that there is little to no evidence supporting psychometric challenges to bipolarity. In addition, they assert that bipolarity is also a reasonable theoretical assumption, thereby concluding that bipolar response formats are justified. However, Watson and Tellegen (1999) alternatively argue that while error can be expected to distort the value of manifest correlations, the overall effect will not change the nature of the affective structure itself. Consequently, the use of raw, uncorrected correlational data can still play a useful role in affect research, including investigations of affective structure. These authors further argue for the continued use of unipolar measures of affect and polychloric correlations, which correspond to how specific emotions are operationalized in the current research.

[xvi] Importantly, readers will note that arguments such as presented by Reichheld (2003) similarly ignore the social psychological explanation of how WOM behaviors form and as such arguably suffer from the same criticisms of satisfaction theory as discussed herein.

[xvii] This , in spite of Bagozzi et al's (1999) admission that appraisal theories have not provided a complete explanation of the role of arousal vis-à-vis emotions.

[xviii] Laros and Steenkamp (2005), relying heavily on Richins (1997), revisit this issue and argue for a hierarchical approach for modeling emotions in consumer research. They argue that consumer emotions can be considered at different levels of abstractness. Specifically, general positive and negative emotions are the superordinate and most abstract level at which emotions can be defined. The subordinate level consists of specific consumer emotions. They therefore propose a slightly modified set of items that arguably reconcile diverse perspectives concerning emotions, but similarly rely on the underlying dimensions of (1) positive versus negative affect, and (2) valence (or activation).

[xix] These arguments are based upon two fundamentally different meanings of bipolarity in this context (Russell and Carroll 1999). First, bipolarity can be defined as a reciprocal relationship between pleasure and displeasure (e.g., consistent with Ruth et al's 2002 perspective). However, Schimmick (2005) dismisses this perspective because it implies the hard to defend position that increases in pleasure imply decreases in displeasure and vice-versa. The second notion of bipolarity suggests that pleasure and displeasure are mutually exclusive feelings. That is, a person cannot feel pleasure and displeasure at the same time. Schimmick (2005) tests his hypothesis using response latencies before and after a mood induction to examine the validity of reports of mixed feelings, demonstrating the

validity of self-reports of mixed feelings. His results also present evidence that (1) the majority of respondents seem to understand unipolar measures as consistent with their construction, and (2) self-report affective ratings are not influenced by item order or item spacing considerations.

[xx] They do recognize Larsen et al's (2004) claim to demonstrate simultaneous experiences of pleasure and displeasure based on the evaluative space model. However, they question the efficacy of the results because the model appears to lack a unifying theory explaining why organisms are equipped to deal with such dual processing. They speculate that ambivalence may be more adaptive in the short-run but have little to no value in the long run. This appears a question for future research.

[xxi] Interestingly, this theoretical linkage between motivational and emotional states appears consistent with the attitudinal approach for J/DM advocated herein. Specifically, the MGB incorporates anticipated emotions (AE's) into attitudinal models, which capture goal relatedness and self-regulation in response to feedback. AE's are contingent upon goal achievement/failure. Appraisals and reasons to act are transformed into desires which represent motivational states as the proximal determinant of behavioral intentions.

[xxii] The author adopts Brehm and Miron's (2006) assumptions that (1) affect is a conscious experience that participants can easily report on a questionnaire, and (2) respondents can provide meaningful information about the intensity of their experience on a scale.

[xxiii] Reeve (2005) presents the following criteria for a "basic" emotion:

a. They are innate rather than acquired or learned through experience or socialization.
b. They arise from the same circumstances for all people.
c. They are expressed uniquely and distinctively.
d. They evoke a distinctive and highly predictable physiological patterned response.

[xxiv] Reeve (2005) argues that interest is the most prevalent emotion in day-to-day functioning. In addition, motive involvement and satisfaction represent the themes that unite the positive emotions of interest and joy.

[xxv] This measurement approach appears consistent with the development of the MGB. Bagozzi et al (1999) assert that most appraisal theorists construe emotions as mental states or processes, thus self-reports are typically used to measure the cognitive activities comprising the emotional content of these states or processes. Specific emotional responses can be anticipated by varying (experimentally induced) specific appraisal conditions. Consequently, Bagozzi et al (1999) recommend several methodological considerations when measuring emotions in marketing research: (1) use unipolar scales and not bipolar scales, (2) include at least 5-7 scale steps for each item, and (3) use at least 3+ items for each emotional subcategory.