ANTECEDENTS OF TRUE BRAND LOYALTY

Jooyoung Kim, Jon D. Morris, and Joffre Swait

ABSTRACT: We examine a model of six latent constructs and propose that *true* brand loyalty can be explained as a result of five distinct antecedents: brand credibility, affective brand conviction, cognitive brand conviction, attitude strength, and brand commitment. Data from experimental conditions with manipulations of eight product classes and two involvement levels lend support for the proposed model, demonstrating that brand loyalty can be considered as truly loyal only when mediated by a high degree of affective and cognitive brand conviction, and attitude strength. Advertising and marketing implications for the relationships among the six constructs under different manipulation conditions are discussed.

How to make consumers more loyal to a brand is one of the important questions marketers face. Growing interests and practices in customer relationship management (CRM) in recent years clearly reflect the importance of consumer loyalty in marketing. Brand loyalty can provide both consumers and companies essential benefits. For consumers, a brand toward which they feel loyal can act as a signal of achieved expectation. Because of the familiar and favorable signal that a brand sends, consumers buy the brand with more comfort, believing the brand will meet their expectations. This comfort would mostly come from the credibility of the brand established from past experiences the consumers have had with it, either directly or indirectly. For companies, customer loyalty enhances brand equity by lowering vulnerability to competitive marketing actions, increasing margins, increasing marketing communication effectiveness, and possibly generating more brand licensing or extension opportunities (Keller 1998). A study by Bain & Co. (Reichheld and Teal 2001) shows that a 5% increase in customer loyalty can increase a company's profitability by 40 to 95%, and an increase in customer loyalty of 1% is the equivalent of a 10% cost reduction.

Advertising and brand loyalty are known to have a mutually beneficial relationship. For example, Raj (1982) found that the loyal users of a brand increased their volume of purchase in response to increased advertising, while nonloyal users did not increase their purchases in spite of the increased advertising. According to Smith and Swinyard (1983), advertising can influence the formation of brand loyalty by establishing source credibility and setting up a predisposition for a favorable usage experience, which would have an effect on subsequent purchases. Deighton (1984) argues that advertising can work as a frame for the brand usage experience, which is directly related to the brand loyalty formation. Deighton's framing is twofold. One is predictive framing, which explains advertising's preceding effect on brand usage experience. Advertising can help consumers focus on the brand's best attributes; consumers' brand usage experience can then be more favorable as advertised, which in turn will aid in the formation of brand loyalty. The second type of framing is diagnostic, which explains the effect of advertising placed after the usage experience. Diagnostic framing argues that advertising can help consumers to find ways to make sense of what they have experienced with a brand. Accordingly, whether the advertising message is delivered before (predictive framing) or after (diagnostic framing) consumers' brand experiences, knowing "how" they would become loyal to the brands of different product types would greatly help advertisers in shaping their long-term and short-term messages more effectively.

Reflecting these critical aspects of brand loyalty in advertising, and marketing in general, the study of brand loyalty has been represented in the literature for more than eight decades, since Copeland's introduction of brand insistence in 1923 (Jacoby and Chestnut 1978). Early research was primarily focused on the operational definition of behavioral aspects (i.e., repeated purchase) of brand loyalty, but starting with Jacoby and Chestnut (1978), brand loyalty has been studied in terms of both attitudinal and behavioral aspects. Linking attitudinal and behavioral loyalty, some recent efforts have provided significant conceptual frameworks that distinguish true brand loyalty from spurious brand loyalty (e.g., commitment: Odin, Odin, and Valette-Florence 2001; brand sensitivity: Bloemer and Kasper 1995; commitment and trust: Morgan and Hunt 1994). True brand loyalty can be conceptualized

Jooyoung Kim (Ph.D., University of Florida) is an assistant professor of advertising in the Department of Advertising and Public Relations, Grady College of Journalism and Mass Communication, University of Georgia.

Jon D. Morris (Ph.D., University of Florida) is a professor of advertising in the Department of Advertising, College of Journalism and Communications, University of Florida.

Joffre Swait (Ph.D., Massachusetts Institute of Technology) is a full-time partner in Advanis Inc., Edmonton and Toronto, Canada.

as an attitude-based behavior of brand loyalty, while spurious loyalty can be defined as the inertial repeated purchases with little or no brand-loyal attitude (e.g., Odin, Odin, and Valette-Florence 2001).

Our research was built on this distinction between true and spurious loyalty, and the purpose of the present study is to build a model that explains the psychological process of true brand loyalty formation. Although we do not claim that our model is the only model, our model demonstrates how true brand loyalties may be established under different conditions. Variables included in our model are brand credibility, affective conviction, cognitive conviction, attitude strength, brand commitment, and true brand loyalty. These six constructs may intuitively seem to be closely associated together, but investigating and unearthing their structural relationships under different product conditions will provide marketers useful information that can be used in fine-tuning their marketing communication strategies.

Our structural equation model of true brand loyalty indicates that all latent variables we propose play essential roles in the brand loyalty formation process. Particularly among the conviction constructs, affective conviction showed its influence on the brand loyalty formation process separately from cognitive conviction. Affective conviction also showed its influence on the formation of cognitive conviction. In addition, the attitude strength construct was a necessary mediator between convictions and brand commitment. We also found the different but stable roles of affective and cognitive conviction across several experimental conditions where involvement (high versus low) and product type (functional versus hedonic) were manipulated.

We begin with literature reviews relevant to each proposed construct. We then present our data and findings from pretests and a main study, followed by a discussion of theoretical and managerial implications.

THEORETICAL FRAMEWORK

Brand Loyalty

Brand loyalty is a construct that has both attitudinal and behavioral elements when defined as "the biased (i.e., non-random) behavioral response (i.e., purchase) expressed over time by some decision-making units with respect to one or more alternative brands out of a set of such brands, which is a function of psychological (decision making, evaluative) processes" (Jacoby and Chestnut 1978, p. 80). Measuring only one facet, that is, attitudinal or behavioral aspects, of brand loyalty, therefore, would result in measuring a spurious attitude (unstable attitudes that do not influence the subsequent behaviors) or a spurious behavior (inertial behaviors that are unstable and unpredictable). For this reason, several studies

(e.g., Bloemer and Kasper 1995; Fournier 1998; Odin, Odin, and Valette-Florence 2001) have recently suggested the need for understanding the difference between true loyalty and spurious loyalty; they argue that the true meaning of attitudinal aspects of brand loyalty has been lost in traditional brand loyalty research (Fournier 1998) because of indifferent operationalizations of inertia and true loyalty. Stressing this, several distinguishers or moderators for true loyalty and inertia have been suggested (e.g., relative attitude: Dick and Basu 1994; brand sensitivity: Odin, Odin, and Valette-Florence 2001, and Bloemer and Kasper 1995). Among recent studies, Odin, Odin, and Valette-Florence's (2001) brand sensitivity is a concept theorized to distinguish true loyalty from spurious loyalty. Like Filser (1994), and Kapferer and Laurent (1983), Odin, Odin, and Valette-Florence (2001) assumed that the repurchase of the same brand under conditions of strong perceived brand differences characterizes brand loyalty. They conceptualized this perceived brand difference as brand sensitivity, and argued that the level of brand sensitivity differentiates loyalty from inertia (i.e., spurious loyalty). We adopt this brand sensitivity as a distinguisher of true brand loyalty from spurious loyalty.

Brand Commitment

Consistent with Fishbein and Ajzen (1975), we view behavioral *intention* as the most predictable of behaviors, and thus propose a direct antecedent of loyalty behavior. This intentional brand loyalty construct is "brand commitment," which we view as behavioral intention held with affective and cognitive conviction. In psychology, the concept of commitment is regarded as having intentional aspects, as evidenced by Kiesler's definition of commitment: "the pledging or binding of an individual to behavioral acts" (1971, p. 30). Contrary to many studies that viewed brand commitment as a direct indicator (i.e., a scale item) of brand loyalty, we regard it as a construct anteceding brand loyalty behavior.

In fact, recent literature has viewed brand commitment as a necessary and sufficient condition of brand loyalty (e.g., Knox and Walker 2001). The evidence presented in the literature is still correlational rather than causal, however. Some scholars used brand commitment as an item of brand loyalty measurement (e.g., Bloemer and Kasper 1995), rather than a distinct and anteceding construct. Cunningham (1967) was one of a few early efforts viewing brand commitment as an antecedent of brand loyalty, but no distinction between *true* and *spurious loyalty* was made in the study. To confirm the anteceding role of brand commitment to true brand loyalty, the first hypothesis of the present research is stated as follows:

H1: Consumers will be more "truly" loyal to a brand when they have a higher level of commitment toward the brand.

Attitude Strength

Copeland (1923) suggested that an extreme attitude toward a particular brand might have a special effect on buyer behavior, especially on what he called "brand insistence." Following Fishbein and Ajzen (1975), which showed the relationships between attitude and behavioral intention, we propose a preceding construct that may influence brand commitment formation. The proposed construct is termed "attitude strength."

In social psychology, strong resistance to attitude change is regarded as related to the "strength" of the existing attitude (Eagly and Chaiken 1993). Attitude strength theories are capable of explaining the process of brand loyalty formation because of the concept's manifesting characteristics: durability and amount of impact (Krosnick and Petty 1995). According to Krosnick and Petty (1995), manifestations of attitudinal durability are considered to be persistence and resistance, and the manifestations of its impactfulness are viewed as judgment-influencing and behavior-guiding. Treating attitude strength in this manner allows incorporation of the most common meaning of the construct and is consistent with past work (Krosnick and Petty 1995).

Viewing attitude strength as a multidimensional construct (e.g., Raden 1985; Scott 1968), we adopt Krosnick and Abelson's (1992) five dimensions of attitude strength: extremity, intensity, certainty, importance, and knowledge. First, extremity is the degree of favorability or unfavorability of an individual's evaluation of a given object. The more extreme an individual's attitude, the farther it is from neutrality. Therefore, attitude extremity has often been operationalized as the deviation from the neutral point of an attitude scale (Downing, Judd, and Brauer 1992). Although attitude extremity can be a dimension of attitude strength, it is conceptually different from attitude strength. For example, two persons showing identical responses (e.g., 7 on a scale from 1 to 7) on a traditional bipolar attitude extremity scale can have different levels of attitude strength on their attitudinal position. One may strongly (e.g., 6 on attitude strength) hold his response (e.g., 7 on extremity), while the other may weakly (e.g., 2 on attitude strength) hold her attitudinal position (i.e., 7 on extremity). One may show a neutral level of extremity but with strong (e.g., 7) or weak (e.g., 1) attitude strength. The second dimension, attitude intensity, is the strength of an individual's feelings about an attitude object (Krosnick and Schuman 1988). Third, attitude certainty refers to the degree to which an individual is certain about the correctness of his or her attitude. Fourth, attitude importance is the degree to which an individual considers an attitude to be personally important. Finally, attitude-relevant knowledge refers to the breadth of stored beliefs about the object.

With respect to the role of attitude strength on the resistance to attitude change (i.e., behavioral intention to maintain the established attitude), our second hypothesis is specified as follows:

H2: Higher level of attitude strength toward the brand leads to stronger brand commitment.

Brand Convictions: Cognitive and Affective Sources of Attitude Strength

Among many extant attitude strength studies (e.g., Abelson 1988; Bizer and Krosnick 2001; Pomerantz, Chaiken, and Tordesillas 1995; Raden 1985), Abelson (1988) initiated a remarkable study that focused on distinguishing "nonattitude" (Converse 1970; Rosenberg 1968) from true attitudes, and suggested that conviction was a necessary condition of a behaviorally predictable true attitude, and thus, that attitudes without conviction were unstable and unpredictable nonattitudes. We use this conviction construct in explaining the core underlying structure of brand loyalty.

Following Jacoby and Chestnut (1978) and others (e.g., Niedenthal and Halberstadt 2000), we postulate that a consumer's conviction with respect to a brand separately resides in cognitive and affective areas. Jacoby and Chestnut suggested that brand loyalty is based on brand-related beliefs, states of affect, and behavioral intentions; these can be related respectively to the cognitive area of conviction, the affective area of conviction, and loyalty intention.

The majority of social psychology literature suggests that attitudes are composed of cognitive, affective, and behavioral parts (e.g., Breckler 1984). Although there is another view suggesting that the attitude formation process is unidimensional (e.g., Fazio 1986; Fishbein 1967), the (multi)dimensionality of attitude is important for empirical and theoretical development (Eagly and Chaiken 1993). This multidimensional view of attitude implies that attitude strength may be influenced by cognitive and affective antecedents. Indeed, Jacoby and Chestnut (1978) took the traditional tripartite attitude model and conceptualized the psychological structure of brand loyalty as being composed of beliefs, states of affect, and behavioral intentions. Following this, we propose that attitude strength can be predicted by cognitive and affective sources.

Cognitive Source: Cognitive Brand Conviction

Converse (1970) proposed the concept of the nonattitude, that is, an unstable and behaviorally unpredictable attitude, to distinguish it from more stable attitudes. Abelson (1988) suggested that a durable and behaviorally predictable attitude is one with conviction, and that the conviction-based attitude is different from an attitude without conviction. Without conviction, an attitude would be unstable and regarded as a nonattitude. According to Abelson, conviction is multidimensional and is a good predictor of the durability of attitudes

over time, and includes three robust dimensions of conviction: subjective certitude (or emotional commitment), ego preoccupation, and cognitive elaboration. Although Abelson named subjective certitude also as "emotional commitment," we agree with Gross, Holtz, and Miller (1995), who preferred the alternate label (i.e., subjective certitude). They argued that Abelson's emotional commitment contains mainly cognitive rather than emotional components.

With the concept of cognitive conviction as a predictor of the durability of attitudes over time, our third and fourth hypotheses were generated as follows:

> *H3: The higher the cognitive brand conviction, the higher the level of attitude strength.*

> *H4: The higher the cognitive brand conviction, the higher the level of brand commitment.*

Affective Source: Affective Brand Conviction

Literature on judgment under emotional certainty indicates that the certainty associated with an emotion can affect information processing (e.g., Tiedens and Linton 2001). The mood and social memory literature further implies a critical role of emotion in brand loyalty formation since it proposes that the major forces in shaping our memory are emotion and motivation, suggesting that events that elicit motivational significance and intense feelings are better remembered (Bower and Forgas 2001). Studies of the mental representation of social episodes (e.g., Forgas 1981) found that peoples' mental representations are largely dominated by the affective characteristics of episode stimuli rather than by their actual descriptive features (Bower and Forgas 2001), and that affect often determines the use and evaluation of categories of stimuli (Niedenthal and Halberstadt 2000). These results are consistent with Zajonc (1980), who stated that the affective quality of the original input is the first element to emerge when people try to retrieve an object such as an episode, person, piece of music, story, or name. As such, affective conviction about the brand would be a major element to emerge when retrieving the memory associated with the brand, to then influence the loyalty formation process. Hypotheses 5 and 6 are stated as follows:

> *H5: The higher the affective brand conviction, the higher the level of attitude strength.*

> *H6: The higher the affective brand conviction, the higher the level of brand commitment.*

Mediating Roles of Brand Conviction

Our hypotheses H3/H4 and H5/H6 also investigate the direct and indirect effect of brand convictions on attitude strength and brand commitment. Attitude strength, therefore, serves as a mediator between brand convictions and brand commit-

ment. Hypotheses examining the interrelationships among these three constructs are as follows:

> *H7a: The higher the cognitive brand conviction, the larger the effect of attitude strength on brand commitment.*

> *H7b: The higher the affective brand conviction, the larger the effect of attitude strength on brand commitment.*

Brand Credibility

Consumers form brand loyalty based on several reasons, including satisfaction (e.g., Bloemer and Kasper 1995), risk reduction (e.g., Assael 1995), or trust (Garbarino and Johnson 1999). Among these reasons, evidence about the importance of trust in loyal relationships is paramount. Morgan and Hunt (1994) indicate that trust is a strong predictor of relationship commitment. Many other studies have shown that trust is at the core of successful relationships (e.g., Berry 1995). Morgan and Hunt define trust as the perception of "confidence in the partner's reliability and integrity" (1994, p. 23). Moorman, Zaltman, and Deshpande (1992) argue that trustworthiness results from expertise, reliability, and intentionality. Subsequently, Gwinner, Gremler, and Bitner (1998) have found the psychological benefit of trust to be more important than special treatments in consumer relationships with service firms.

A very similar concept, brand credibility, has also been studied as an important antecedent of perceived quality, perceived risk, and information costs saved (Erdem and Swait 1998). Erdem and Swait (1998) define brand credibility as "the believability of the product position information contained in a brand, which entails consistently delivering what is promised, and it represents the cumulative effect of the credibility of all previous marketing actions taken by that brand" (Erdem, Swait, and Louviere 2002, p. 3). Using signaling theory and the information economics framework, they also argue that brand loyalty is a consequence of brand equity, due to the expected utility that motivates consumers to repeatedly buy the same brands. They view brand equity as the added expected utility a brand gives a product, which is a consequence of brand credibility. According to Erdem and Swait (1998), credibility is conceptualized as having two dimensions, trustworthiness and expertise. Trustworthiness means that it is believable that a brand will deliver what it has promised, and expertise implies that the brand is believed capable of delivering the promises.

We propose that brand credibility, which embraces the personal history of brand experience, is the "initiator" of establishing brand loyalty. H8 and H9 reflect this view:

> *H8: Increases in brand credibility lead to increased cognitive brand conviction.*

H9: Increases in brand credibility lead to increased affective brand conviction.

Relationships Between Brand Credibility and Brand Convictions

Various models of emotional response propose different relationships between emotion and cognition. Holbrook and O'Shaughnessy (1984) espouse a model based on the traditional consumer behavior paradigm, in which cognition determines affect, which leads to behavior. They theorize that a cognitive appraisal occurs in response to a stimulus, which then leads to an evaluation of the stimulus. The evaluation is followed by physiological changes and, finally, leads to subjective feelings. At the end, a cognitive label is attached to the physiological change. There have been different views, such as that of Zajonc (1980), arguing that emotion may precede and be entirely separate from cognition.

Our model embraces these two somewhat exclusive views. For the initial part of our model, we follow Holbrook and O'Shaughnessy (1984) by linking brand credibility and affective conviction: the cognitive label (i.e., brand credibility, regarding brand credibility as a cognitive construct) is attached to physiological change and subjective feelings (affective conviction). This link was hypothesized via H9. Next, following the literature (e.g., Bower and Forgas 2001; Zajonc 2000) that asserts the possible independent and preceding role of emotion in overall attitude formation, our model examines whether there is a significant direct linkage from affective conviction to cognitive conviction. A hypothesis examining this relationship is proposed as follows:

H10: Increases in affective brand conviction lead to increased cognitive brand conviction.

Situational Validations of the Model: Moderating Roles of Involvement and Product Type

Since the proposed model possesses a dual processing unit of cognitive and affective brand convictions, it is beneficial to examine specific conditions in which consumers may process one type of conviction more strongly than the other. This investigation can establish greater generalizability and robustness to the current study's results by providing inferences relating to specific situations in which the hypotheses might work differently. For this purpose, we compare the brand loyalty formation process across two types of products, one hedonic and another functional in nature, under two involvement conditions (high versus low).

Batra and Stephens (1994) suggest that affective responses are more important as determinants of brand attitudes in low-involvement situations than in high-involvement situations. In the same vein, Greenwald and Leavitt (1984) argue that cogni-

tive response–based persuasion effects will dominate affective response–based persuasion in high-involvement situations.

Research into two types of products (i.e., hedonic versus utilitarian or functional) has attracted interest because attitudes for different types of products are known to be processed differently by consumers (Kempf and Smith 1998; Hoch and Ha 1986). Hedonic products are those consumed primarily for affective or sensory gratification purposes, while functional products deliver more cognitively oriented benefits (Woods 1960).

Based on the above discussions, we test the following hypotheses to validate our model in various situations.

H11a: Compared to cognitive brand conviction, affective brand conviction will have a stronger influence on brand loyalty formation under low-involvement conditions.

H11b: Compared to cognitive brand conviction, affective brand conviction will have a stronger influence on brand loyalty formation for hedonic products.

H11c: Compared to affective brand conviction, cognitive brand conviction will have a stronger influence on brand loyalty formation under high-involvement conditions.

H11d: Compared to affective brand conviction, cognitive brand conviction will have a stronger influence on brand loyalty formation for utilitarian products.
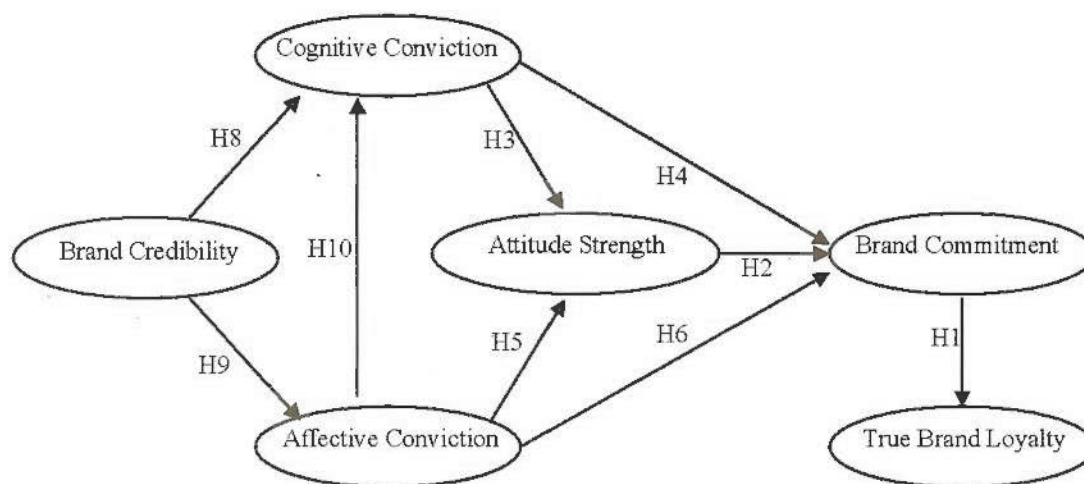
Proposed Model

Based on the previous discussions, the ten hypotheses formulated are presented in Figure 1. The model theorizes that true brand loyalty, which is different from inertia, is a consequence of brand commitment (i.e., a loyalty intention), and that brand commitment is a consequence of a strongly held positive attitude toward a brand (i.e., attitude strength) together with the cognitive/affective brand convictions, the level of which can be significantly explained by brand credibility. A unique contribution of this model is that it adds to our knowledge of brand loyalty formation by adding brand convictions and attitude strength, which have rarely been used in consumer research. In addition, this model differentiates true brand loyalty from spurious loyalty. Inclusion of brand commitment as an antecedent rather than as a part of brand loyalty and the use of brand credibility as an initiative construct of the brand loyalty formation process are also distinguishing features of our model.

STUDY DESIGN AND RESULTS

Overall Study Procedure

Measurement validity was initially checked for Abelson's conviction items under the domain of cognitive brand conviction.

FIGURE 1
Proposed Hypotheses

Note: The model shown is the Mu2 model (see Table 3) in which all proposed hypotheses were tested.

A confirmatory factor analysis (CFA) was then conducted to see whether the original three-factor solution for the cognitive conviction construct maintained after the measurement validation. For the main study, two products for each survey cell (i.e., LI-H, HI-H, LI-F, and HI-F, where LI = low involvement, HI = high involvement, H = hedonic product type, F = functional product type), totaling eight products, were selected from Ratchford's (1987) FCB-grid (for a detailed review of the model, see Ratchford 1987). The primary study then surveyed participant responses to each construct in two involvement (high versus low) and two product type (hedonic versus functional) conditions. Participants responded to the questionnaire, giving consideration to their own loyalty to a specific brand they chose in the given product categories. Finally, structural equation modeling (SEM) was used for the hypotheses testing and model selection/validation.

Results of Pretests

Pretest 1: Validation of Cognitive Conviction Scale

Because Abelson's conviction scale was not originally developed for brand loyalty, we pretested and validated the appropriateness of each item of the scale in the domain of brand loyalty. First, face/content validity was tested in terms of thoroughness and representativeness of the scale (Parasuraman, Zeithaml, and Berry 1988). Five consumer research scholars in a large U.S. university and 19 scholars of consumer psychology from ACR-Listserv at the Association for Consumer Research excluded items no. 3 and 4 from the subjective certitude items, item no. 5 from the ego preoccupation items, and items no. 2 and 3 from the cognitive elaboration items (see Table 1).

Interjudge reliability was satisfactory. The α coefficient from 24 items (i.e., judges) and 11 cases (i.e., scale items) was .95. In addition to face validity, convergent validity of the remaining measurement items was later examined and confirmed through SEM analysis in the main study.

Pretest 2: Product Type Manipulation Precheck

The products selected via pretest 2 are designer sunglasses and a high-fashion watch for the HI-H cell; donuts and soft drinks for the LI-H cell; auto insurance and a black-and-white laser printer for the HI-F cell; and nonrechargeable AAA batteries and paper towels for the LI-F cell. Product category differentiation question items were adopted from Mittal's (1989) Purchase Decision Involvement scale and Kempf's (1999) hedonic/functional perception question. A total of 35 college students participated in the product type manipulation check and produced successful manipulations. All p values of the mean differences between the pairs of different product type (e.g., donut [H]–insurance [F]) were less than .05; all p values of the mean differences between the pairs of same product type (e.g., donut [H]–soft drink [H]) were greater than .05.

Analyses and Results of Main Study

Sample and Measurement Instruments

Sampling criteria was limited to that of being an undergraduate college student at a major U.S. university. Although this may limit the generalizability of the study to a wider population, choosing a relatively homogeneous group allows for a more controlled research sample that is consistent from pretests

TABLE I
Abelson's Conviction Scale and Purification of Items

Subjective certitude

   1. My beliefs about my favorite brand express the real me. (Included)

   2. I can't imagine ever changing my mind to [choose] a different brand. (Included)

   3. My beliefs are based on the moral sense of the way things should be. (Excluded)

   4. I would be willing to spend a day a month working for a group supporting my views about my favorite brand. (Excluded)

   5. I think my view about my favorite brand is absolutely correct. (Included)

Ego preoccupation

   1. I think about my favorite brand often. (Included)

   2. I hold my views about my favorite brand very strongly. (Included)

   3. My belief about my favorite brand is important to me. (Included)

   4. I am extremely concerned about my favorite brand. (Included)

   5. When I think about the issue, I feel fearful. (Excluded)

Cognitive elaboration

   1. I've held my views about my favorite brand a long time compared with most people. (Included)

   2. Several other issues could come up in a conversation about my favorite brand. (Excluded)

   3. Several things could happen if my views about my favorite brand were enacted. (Excluded)

   4. I have more knowledge about my favorite brand than the average person. (Included)

   5. It's easy to explain my views about my favorite brand. (Included)

to the main study, as well as more generalizable results for a specific age group, one that is among the most important target groups for many product categories. Four hundred and seventy-six undergraduate college students participated in the main survey. The main survey was Web based, with participants visiting a questionnaire site and completing one of four randomly allocated questionnaires. Each questionnaire covered two products within the same research condition (e.g., high involvement and hedonic). Therefore, the total number of observations was 952 (476×2), because each condition surveyed two products. A Random Link Generator was used for the randomization of the questionnaire (i.e., study cell) distribution. In the first part of the survey, we asked participants to choose their most favorite brand name (one they have repeatedly bought or would want to buy multiple times in the near future) from a list of brands. For example, we included the following list of brand names for the designer sunglasses (HI-H condition): Bulgari, Calvin Klein, Fendi, Fossil, Gianfranco Ferre, Giorgio Armani, Emporio Armani, Gucci, Guess, Lacoste, Luxottica, Sergio Tacchini, and Other. Participants chose their favorite brand and then proceeded to the survey questions about their selected brand.

Table 2 shows the measurement items used in our study for each construct. The true brand loyalty and affective conviction constructs were represented by sets of products of observed measures. True brand loyalty was measured using the brand loyalty scale suggested by Odin, Odin, and Valette-Florence (2001), which combines repeat purchasing behavior and brand sensitivity (Bloemer and Kasper 1995; Kapferer and Laurent 1983). Accordingly, repeat purchasing of the same brand based on the perceived importance of brand choice are operationalized as true brand loyalty behavior. Odin, Odin, and Valette-

Florence used four items of repeat purchasing behavior and one brand sensitivity item (no. 1 in Table 2). Although the four repeat purchasing items are plausible, we did not use the first scale item of Odin, Odin, and Valette-Florence because it does not measure the actual loyalty behavior but rather the intention to be loyal, which is viewed as brand commitment in this study. In addition tn the one-item brand sensitivity scale (first row in Table 2) by Odin, Odin, and Valette-Florence, Mittal's (1989) perceived brand similarity item (second row in Table 2) is selected following Kapferer and Laurent's (1983) assertion that the beliefs in differences between brands is a major determinant of brand sensitivity. To reflect the true loyalty construct, the interaction terms of repeat purchasing behavior (RP) and brand sensitivity (BS) were used as observed variables. Based on this construct, six operationalized observed variables are created: $RP1 \times BS1$, $RP1 \times BS2$, $RP2 \times BS1$, $RP2 \times BS2$, $RP3 \times BS1$, and $RP3 \times BS2$. In our study, formation of items via multiplication reflects the moderating role of brand sensitivity in the formation of brand loyalty. Because of these multiplications, error variances of items that share the same component, either RP or BS items, were known to be correlated. Confirmatory specification yielded nine error covariances of items within the true brand loyalty construct. They included three RP-based error covariances (i.e., RP1, RP2, and RP3) and six BS-based error covariances, that is, (BS1 $\times$ three RPs) + (BS2 $\times$ three RPs).

For the measure of affective brand conviction, the pictorial measure AdSAM (Morris et al. 2002) is used. AdSAM is a graphic character that reflects the PAD theory (Mehrabian and Russell 1974) of affective response. PAD theory argues that the full spectrum of human emotions can be placed in three independent bipolar dimensions, which are: P (pleasure/

TABLE 2
Measurement Scales

Original scale for each construct	Origin	Adoption for this study
True brand loyalty (TBL)	—	Product of each repeated purchase (RP)
Repeated purchase	Odin, Odin, and	and brand sensitivity (BS) item. (α = .95)
1. I am loyal to only one brand of __.	Valette-Florence (2001)	Item no. 1: RP1 × BS1
2. I always buy the same brand of __.		Item no. 2: RP1 × BS2
3. Usually, I buy the same brand of __.		Item no. 3: RP2 × BS1
Brand sensitivity		Item no. 4: RP2 × BS2
1. The brand name is the first thing I'm looking at	Odin, Odin, and	Item no. 5: RP3 × BS1
for the purchase of this product category.	Valette-Florence (2001)	Item no. 6: RP3 × BS2
2. Various brand names of this product available in	Kapferer and	—
the market are: all very alike/all very different.	Laurent (1983)	
Brand commitment (BCM)		Original scale is used. (α = .61)
1. During my next purchase, I will buy the same	Odin, Odin, and	
brand of __ as the last time.	Valette-Florence (2001)	
2. When buying __, how committed are you to	Knox and Walker (2001)	
buying your most favorite brand, rather than an		
alternative brand?		
3. If you could not get your most favorite brand of __	Knox and Walker (2001)	—
at the store you had gone to for them, would you:		
(1) Happily buy a different brand, (2) Reluctantly buy		
a different brand, (3) Not buy the product until the		
next time you shopped, (4) Try a different shop,		
(5) Keep trying different shops until you got the		
brand you wanted.		
Attitude strength (AST)		Original scale is used. (α = .83)
1. My attitude to my favorite brand is: −5 (very	Downing, Judd, and	
negative)/+5 (very positive)	Brauer (1992)	
2. How strong or intense is your feeling toward your	Krosnick and	
favorite brand in this product category?	Abelson (1992)	
1 (not very intense)/9 (very intense)		
3. How certain do you feel about your attitude toward	Fazio and Zanna (1978)	
your favorite brand in this product category?		
1 (not very certain)/9 (very certain)		
4. How important would you say your favorite brand	Krosnick et al. (1993)	
is to you personally?		
1 (not very important)/9 (very important)		
5. How knowledgeable do you feel you are about	Davidson et al. (1985)	—
your favorite brand?		
1 (not very knowledgeable)/9 (very knowledgeable)		
Affective brand conviction (ACV)		Product of each affective response (AR)
Affective responses	Morris et al. (2002)	and emotional certainty (EC) item. EC
1. AdSAM pleasure		is measured for each AR separately.
2. AdSAM arousal		(α = .66)
3. AdSAM dominance		Item no. 1: AR1 × EC1
		Item no. 2: AR2 × EC2
		Item no. 3: AR3 × EC3
Emotional certainty	Tiedens and Linton (2001)	
1. How certain are you about your feeling?		
Cognitive brand conviction (CCV)	Abelson (1988)	(Validated) original scale is used. (α = .93)
See Table 1		

(continues)

TABLE 2 (continued)

Original scale for each construct	Origin	Adoption for this study
Brand credibility (BCR) 1. This brand delivers what it promises. 2. This brand's product claims are believable. 3. You just can't believe what the ads say about this brand. 4. My experiences with this brand make me wary of their claims. 5. This brand has a name you can trust. 6. This brand is at the forefront of using technology to deliver a better product. 7. This brand reminds me of someone who is competent and knows what he/she is doing.	Erdem and Swait (1998)	Original scale is used. (α = .82)

Note: All measures were in nine-point scales.

displeasure), A (arousal/nonarousal), and D (dominance/submissiveness). Because AdSAM measures the affective responses to a brand, each P/A/D dimension was multiplied by its own emotional certainty levels (based on Tiedens and Linton 2001), rated by each participant and measured for each dimension, to operationalize the "convictional" property of the affective response.

Model Estimation Overview

The proposed model was examined in three stages. First, the reliability and validity of the constructs were examined. Second, the overall fit of the model to the data was tested. Third, the measurement and structural parameters were examined to determine whether the data supported the proposed hypotheses. During the second and third stages, comparisons of alternative models were conducted. All data from four research cells was combined and used for most model development. On determining the best-fit model most suited to the combined data, the data were divided into certain manipulation conditions for the test of H11.

Prior to the main analysis, several underlying assumptions for structural equation modeling (SEM) were checked and verified. Those SEM assumptions we checked were an adequate variable-to-sample ratio, normality, linearity, no extreme multicollinearity, and sampling adequacy (Hair et al. 1998).

Reliability and Validity

Reliability and validity of measures were evaluated using the combined data from all four cells. For the reliability of measures, Cronbach's α coefficients ranged from .61 to .95, which is acceptable given the minimum suggestions found in the literature (e.g., Davis 1964; Murphy and Davidshofer 1988; Nunnally 1967).

Before conducting validity tests on the full measurement model, a CFA of cognitive brand conviction was performed. First, discriminant validity was evaluated between each pair of subjective certitude (SC), ego preoccupation (EP), and cognitive elaboration (CE). Discriminant validity was evaluated using an approach suggested by Joreskog (1971). The test assessed two estimated constructs by constraining the estimated correlation parameter between them to 1.0 and then performing a χ^2 difference test on the values obtained for the constrained and unconstrained models. Bagozzi and Phillips (1982) asserted that a significantly large χ^2 value difference between the unconstrained and constrained correlation model indicates that the constructs are not perfectly correlated and that discriminant validity is achieved. The significance of the χ^2 statistic was assessed by comparison with a critical χ^2 value of 3.84 (df = 1). The results supported the original three factors of conviction. The χ^2 difference between SC and EP was 231.9, 382.1 for the SC-CE pair, and 212.0 for the EP-CE pair. Because all difference values were well over 3.84, the results strongly implied the three-factor conviction scale remained valid in measuring cognitive brand conviction. Goodness-of-fit (GFI) indices further upheld the three-factor solution (χ^2 = 291.1, df = 32, GFI = .94, NFI [normed fit index] = .95, CFI [comparative fit index] = .96, RMSEA [root mean square error of approximation] = .09, SRMR [standardized root mean residual] = .03).

In the next step, discriminant and convergent validity were assessed for all constructs and items in the measurement model. The results for discriminant validity, which was measured by χ^2 tests for one pair of constructs at a time, indicate that all pairs have significant discriminant validity. The χ^2 difference between cognitive conviction and brand credibility was significant at the .10 level and all other pairs were significant at the .05 level. As an example, brand commitment and true brand loyalty constructs were found distinct from each other

because the χ^2 statistic difference between two models (e.g., Model A: $r = 1$ constrained between two constructs; and Model B: r = unconstrained to be measured) was significant (χ^2 Difference = 408.9 at $\Delta df = 1$, from $\chi^2 = 530.5$, $df = 11$ for Model A; $\chi^2 = 121.6$, $df = 10$ for Model B). Convergent validity was assessed by "determining whether each indicator's estimated pattern coefficient on its posited underlying construct factor was significant" (Anderson and Gerbing 1988, p. 416). The results indicated that all items significantly loaded to the intended factors. All factor loadings between items and constructs were from .39 to .94 and significant at the .01 level.

Confirmatory Factor Analysis (CFA)

A confirmatory factor analysis was conducted on all items for all constructs with all combined data from all research cells. The results ($\chi^2 = 2200.8$, $df = 300$, GFI = .82, NFI = .89, CFI = .91, RMSEA = .08, SRMR = .08) demonstrated marginally acceptable overall fit and indicated that the proposed measurement model might need respecification for improvement. Modification indices (MI) were examined to find theoretically justifiable respecifications (e.g., Anderson and Gerbing 1988; Bagozzi 1983). From the analysis of MIs, the error covariances between the pair of brand credibility items no. 3 (can't believe ads) and no. 4 (wary of claims), as well as the pair no. 6 (using forefront technology) and no. 7 (competent and knows what it is doing) were freed to estimate because each pair was measuring the same criterion of response (trustworthiness and expertise, respectively). In addition, covariance between attitude strength items no. 1 (extremity) and no. 3 (certainty) were freed because they were found to be closely related, in that certainty does not necessarily imply extremity, while extremity can connote certainty (Gross, Holtz, and Miller 1995). Furthermore, covariance between extremity and importance was freed because personally important attitudes can become more polarized when one meets an oppositely polarized opinion (Cialdini et al. 1976).

The respecification procedure revealed considerable model fit increase ($\chi^2 = 1887.6$, $df = 296$, GFI = .86, NFI = .91, CFI = .93, RMSEA = .07, SRMR = .08), and produced a theoretically and statistically acceptable final measurement model.

Two-Step Sequential χ^2 Difference Test Procedure

The Two-Step Modeling approach recommended by Anderson and Gerbing (1988) was employed. The first step is to compare the null model (Mn: No relationship exists among constructs) to the saturated model (Ms: measurement model). The second step is to compare the most theoretical model (Mt) to other more constrained (Mc) or unconstrained (Mu) models. Mc and Mu are respectively the alternative most likely constrained

and unconstrained models from a theoretical perspective. Therefore, the structural submodels to be compared are nested in a sequence such that Mn < Mc < Mt < Mu < Ms. In comparing those models, sequential χ^2 difference tests (SCDTs) were employed, assuming the models are nested. Each SCDT is a test of a null hypothesis of no significant difference between two nested models. For example, an SCDT compares the Mu-Ms pair to assess the reasonableness of the structural constraints imposed by Mu. If the null hypothesis associated with this test (i.e., Mu-Ms = 0) were supported, then the Mt/Mu pair would then be tested, and so on (see Anderson and Gerbing 1988 for more detailed procedures). Using the SCDT procedure, the researcher can find the best theoretically plausible and parsimonious model. We also examined other GFI indices (e.g., AIC [Akaike's information criterion], BIC [Bayesian information criterion]) to compare a few non-nested alternative models.
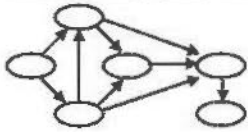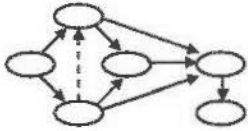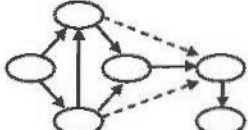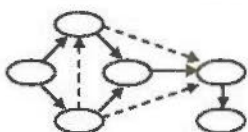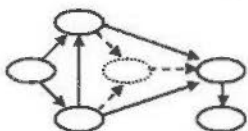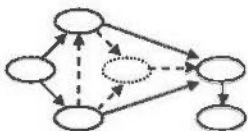
On determining the best model through the SCDT procedure, proposed hypotheses were tested by examining the significance of coefficients for each hypothesized path. To test the conviction interaction hypotheses (H7a and H7b), samples were divided into quartiles, based on the level of each conviction score. Thus, there were four groups from cognitive brand conviction and another four groups from affective brand conviction. Among the quartiles, only the high and low quartiles were used in the analysis; the mid-ranged quartiles were excluded for the purpose of clear interaction tests. In addition, H11 tested how cognitive and affective brand conviction work differently under different levels of involvement and product types (i.e., hedonic and functional).

Model Estimations and Comparisons

As discussed earlier, the first step of the model validation procedure is a comparison of Ms and Mn that shows whether or not the proposed measurement model is theoretically meaningful. Bentler and Bonett (1980) and Tucker and Lewis (1973) suggested fitting the independence model (or some other very bad-fit model) to observe the breadth of the discrepancy function. Discrepancy (i.e., χ^2) for the independence model (i.e., Mn) was 21,606.0 ($df = 351$), while that of Ms was 1,887.0 ($df = 296$). The χ^2 difference, 19,719.0, was absolutely larger than the critical χ^2 value (i.e., 93.17) with 55 degrees of freedom difference at a p level of .001. This result therefore shows that the proposed model is theoretically meaningful enough to proceed with the second step of model estimation, in which we compare six alternative models (from most constrained to fully unconstrained). These competing models with simple path diagrams and select goodness-of-fit indices are presented in Table 3.

Mc3 de-emphasizes the preceding role of emotion (H10) and attitude strength as a predecessor of brand commitment (H2, H3, and H5), while Mc2 de-emphasizes only attitude strength

TABLE 3
Competing Models and Goodness-of-Fit Indices

Model	Paths excluded from the full model	Diagrams of tested model	χ^2 (df)	GFI	NFI	CFI	RMSEA	SRMR
Mu2	None		1984.2 (302)	.84	.91	.92	.08	.08
Mu1	8		1997.2 (303)	.84	.91	.92	.08	.08
Mt	4, 6		1986.9 (304)	.85	.91	.92	.08	.08
Mc1	4, 6, 8		2000.1 (305)	.85	.91	.92	.08	.08
Mc2	2, 3, 5		3173.2 (305)	.81	.85	.87	.10	.23
Mc3	2, 3, 5, 8		3187.0 (306)	.81	.85	.86	.10	.23

Notes: GFI = goodness-of-fit index; NFI = normed fit index; CFI = comparative fit index; RMSEA = root mean square error of approximation; SRMR = standardized root mean residual; Mu = unconstrained model; Mt = theoretical model; Mc = constrained model.

(H2, H3, and H5). Mc1 excludes the direct influence of conviction on brand commitment, as well as H10. Mt includes H10, but excludes H4 and H6. We call this Mt model because there is no theoretically sound alternative structural model that is more unconstrained than our initially proposed model, Mu2. Mu1 is an unconstrained model with H10 excluded, and Mu2, our proposed model, is the most unconstrained model that includes every theoretically justifiable path.

Table 3 indicates that the Mt model provides the best model fit (despite the significant χ^2 value) when compared with other alternatives. Although the Mu2 model, which includes all hypotheses we proposed and tested, is very comparable to Mt, Anderson and Gerbing's (1988) decision-tree framework of SCDTs suggests that Mt is a better model for this case because Mt is more parsimonious than Mu2. To compare Mt and Mu1, which are non-nested, we use AIC (2134.9 for Mt and 2147.2 for Mu1) and BIC (BIC for Mt = 2738.3, BIC for Mu1 = 2758.8), both indicating that Mt is a superior model once parsimony is taken into account. AIC and BIC were also used for the comparison of Mc1 and Mc2. AIC for Mc1 is 2146.1 and 3319.2 for Mc2, and BIC is 2741.4 and 3914.4 for Mc1 and Mc2, respectively, indicating that Mc1 is a better model when accounting for parsimony. While the χ^2 value rejected all competing models, including the Mt model, the literature suggests that the χ^2 statistic tends to improperly reject correct models when sample sizes exceed 200 (e.g., Fujii and Ryuichi 2000; Hair et al. 1998). In addition, the measurement model could be judged to provide acceptable fit even though the χ^2 value is still significant under the condition of acceptable normed fit index and the other fit indices (Anderson and Gerbing 1988). Because our study has a data set of 952 observations, and the other fit measures are congruent with good model fit, the model was considered to fit the data well. Although other fit indices provide almost identical results across the alternative models, the χ^2 statistic, AIC, and BIC measures clearly suggest that the Mt model is the one that best explains the overall brand loyalty formation process. Our final model (i.e., Mt) and the other alternative model's standardized path coefficients are presented in Table 4. The path diagram of the Mt model is shown in Figure 2.

Test of Hypotheses

All coefficients except for H4 and H6 were significant (all $p < .01$) with expected signs in the final model (Mt, shown in Figure 2). H4 and H6, in which the direct effect of convictions on brand commitment were hypothesized, were not supported, because adding paths within the models (Mu1 and Mu2) didn't significantly improve overall fit in comparison to the Mt model. Furthermore, both path coefficients of H4 and H6 were not even significant in Mu models, even if they were significant in Mc models that constrained the effect of

the attitude strength construct. This result suggests that the attitude strength construct is a necessary mediator between consumer convictions and brand commitment.

A simple comparison of the same models, but one with true brand loyalty (i.e., the proposed model) and one with only repeated purchasing behavior instead of true brand loyalty, supported the strong relationship between commitment and true loyalty. The path coefficient for the model with repeated purchasing behavior items was .84, with an R^2 of .71, while the path coefficient for the true loyalty items model (i.e., proposed model) was .91, with an R^2 of .83. This suggests that true brand loyalty is better explained by brand commitment and that the relationship is substantive.

The final model (i.e., Mt) suggests that cognitive conviction strongly influences attitude strength more than affective conviction, although affective conviction considerably influences cognitive conviction. However, a closer examination shows that this is not the case: The standardized total effect of affective conviction on attitude strength is .59 [(.25 × .68) + .42], compared with the standardized direct effect of .68 for cognitive conviction. Although the total effect of affective conviction on attitude strength is still less than the direct effect of cognitive conviction, this effect comparison shows very similar magnitudes of influences of both affective and cognitive conviction on attitude strength formation. This result is important because heretofore, affective conviction has been missing from all models as an important result of brand credibility.

Brand credibility significantly influenced both cognitive and affective convictions, but the influence was much stronger on affective conviction (.75) than on cognitive conviction (.28). As shown in Table 5, the standardized indirect effect of brand credibility on attitude strength was also stronger for the affective route (BCR → ACV → AST = .32) than it was for the cognitive route (BCR → CCV → AST = .19). Adding the effect of combined ACV → CCV route (BCR → ACV → CCV → AST = .13), brand credibility was processed through the ACV-driven route (.45) more than through the CCV-driven route (.19). Although the model tested the simultaneous effect of brand credibility on cognitive and affective conviction, the considerable difference of effects may suggest the following sequence of psychological processes: Consumers initially recall the feelings associated with a certain brand rather than think about it; then they cognitively elaborate the affective information to form a certain level of attitude strength toward the brand. In this process, then, affective conviction seems to reinforce cognitive conviction, while it also acts as a direct influencer on attitude strength.

Mediating Role of Attitude Strength

Hypotheses 7a and 7b were tested to examine whether both conviction constructs are mediated by attitude strength in

TABLE 4
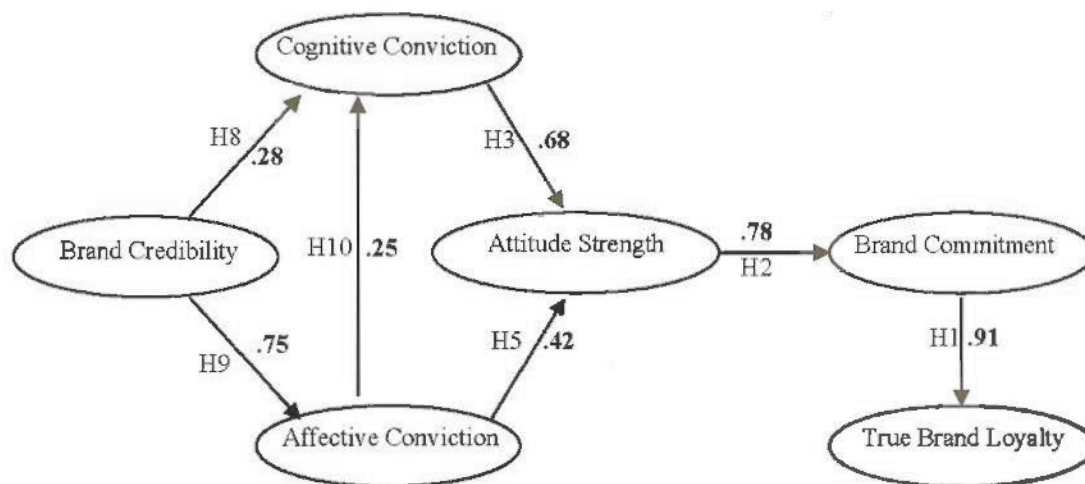### Standardized Path Coefficients in Competing Models

Hypothesis	Exogenous	Endogenous	Mt	Mc3	Mc2	Mc1	Mu1	Mu2
1	Brand commitment	Brand loyalty	.91	.92	.92	.91	.91	.91
2	Attitude strength	Brand commitment	.78	—	—	.77	.75	.77
3	Cognitive conviction	Attitude strength	.68	—	—	.72	.71	.68
4	Cognitive conviction	Brand commitment	—	.60	.58	—	.06*	.05*
5	Affective conviction	Attitude strength	.42	—	—	.41	.43	.43
6	Affective conviction	Brand commitment	—	.26	.26	—	−.05*	−.05*
8	Brand credibility	Cognitive conviction	.28	.48	.29	.48	.48	.29
9	Brand credibility	Affective conviction	.75	.74	.73	.75	.75	.75
10	Affective conviction	Cognitive conviction	.25	—	.24	—	—	.24

Note: Mt= theoretical model; Mc = constrained model; Mu = unconstrained model.

Mt is our final model.

* Denotes that the coefficient is not significant at the .05 level.

FIGURE 2
Final Model (Mt Model)

influencing brand commitment formation. To test these attitude strength mediation hypotheses, samples were divided into quartiles based on the levels of each conviction score.

For the cognitive conviction quartile division, all cognitive conviction items were first averaged to represent overall cognitive conviction, then the average was divided into quartiles. Significant differences in path coefficients were assessed by testing the χ^2 difference between the models: One model set the path coefficient (AST $\rightarrow$ BCM) of the two groups as the same, while the other freed the path coefficients. A significant χ^2 difference (over 5.99 difference for two degrees of freedom at the .05 level, because two groups were analyzed) between these two model sets would indicate that the path coefficient should be freed to estimate by group, thus implying a significant path coefficient difference. The coefficient from attitude strength (AST) to brand commitment (BCM) for the low cognitive

conviction group ($n = 251$) was .60, while that for the high cognitive conviction group ($n = 241$) was .78. Comparing the restricted coefficient model against the freed coefficient model yielded a significant χ^2 difference ($\Delta\chi^2 = 13.6 > 5.99$ at $p = .05$) that supports H7a.

For affective conviction, the basis of the quartile division was the pleasure measure of AdSAM because it was the only affective conviction measure that could be interpreted for directional evaluation (i.e., good to bad). Other affective items, arousal and dominance, are not directional measures, meaning that we cannot determine whether high arousal or dominance scores are good or bad. Comparison of path coefficient from attitude strength to brand commitment between the models with low ($n = 213$, 22.4%) and high ($n = 253$, 26.6%) affective conviction respondents showed significant difference, as described next. The coefficient from attitude strength to brand

TABLE 5
Path Coefficients Under Experiment Conditions

Path	High-involvement product group	Low-involvement product group	$\Delta\chi^2$ (at $\Delta df = 2$) between high and low involvement	Utilitarian product group	Hedonic product group	$\Delta\chi^2$ (at $\Delta df = 2$) between utilitarian and hedonic
BCM → TBL	.94	.89	382.60	.99	.86	405.60
AST → BCM	.78	.80	111.10	.81	.76	118.10
CCV → AST	.74	.61	380.30	.72	.64	396.60
ACV → AST	.42	.44	495.30	.41	.45	477.60
ACV → AST (Total)	.42	.75	—	.41	.64	—
BCR → CCV	.49	.15*	59.10	.28	.30	48.80
BCR → ACV	.74	.75	357.00	.79	.76	379.50
ACV → CCV	−.06*	.51	182.60	.16*	.29	141.60

Notes: BCM = brand commitment; TBL = true brand loyalty; AST = attitude strength; CCV = cognitive brand conviction; ACV = affective brand conviction; BCR = brand credibility.

If $\Delta\chi^2$ (at $\Delta df = 2$) > 5.99, the path coefficient difference between two groups are significant at $p = .05$. All pairs showed significant difference.

* Denotes that the coefficient is not significant at the .05 level.

commitment for the low affective conviction respondent group (n = 213) was .64, while that for the high affective conviction group (n = 253) was .78. Comparison of the path coefficient from attitude strength to brand commitment between the models with low and high affective conviction respondents also showed significant difference ($\Delta\chi^2$ = 71.4 > 5.99 at p = .05), which supports H7b.

Cognitive and Affective Convictions Under Different Involvement and Product Type Conditions

H11a–d were investigated to examine how cognitive and affective conviction work differently under specific conditions that differentiate the level of involvement and product types (i.e., hedonic and functional). Table 5 shows path coefficients across conditions. The same χ^2 difference test method previously used in the attitude strength mediation study was performed to examine the path coefficient differences across groups (i.e., high versus low involvement; functional versus hedonic).

Results showed no significant difference in path coefficients across comparison conditions, except for the coefficient of ACV → AST between high and low involvement. Though statistically significant, this coefficient difference was minimal (.02). This direct-effect-only comparison may seem to conclude that cognitive conviction more strongly influences attitude strength than does affective conviction, but the total effect (Table 5) comparison provides more insight into the relationship between convictions and attitude strength. The total effect comparison indicates that, in fact, affective conviction has more influence on attitude strength under the low-involvement condition (.75) than under the high-involvement condition (.61). This supports H11a. In addition, compared to cognitive conviction under the hedonic product condition, affective conviction showed equivalent influence (.64) on attitude strength (partial support for H11b). On the other hand, cognitive convictions more strongly influenced attitude strength under both high-involvement and functional product conditions. These results support H11c and H11d. Consequently, the results supporting H11 support a claim of robustness for our model.

Relationships Among Constructs Under Different Conditions

Although most path coefficients were very steady across the four cells, ACV → CCV and BCR → CCV paths changed across conditions. ACV → CCV paths demonstrate that cognitive conviction is highly independent from affective conviction under high-involvement conditions and for functional product type. Under a low-involvement condition, however, the ACV → CCV path has a significantly strong coefficient, indicating that cognitive conviction is highly dependent on affective conviction. Furthermore, the BCR → CCV path

under the low-involvement condition was not significant, whereas the BCR → ACV path coefficient was significant and strong. Therefore, the higher the involvement, the higher the BCR → CCV and the lower the ACV → CCV, implying that cognitive conviction is based more on brand credibility (rather than affective conviction) under high-involvement conditions than under low-involvement conditions. In addition, the lower the involvement, the lower the BCR → CCV and the higher the ACV → CCV, indicating that cognitive conviction is more dependent on affective conviction under the low-involvement condition. Compared to the unsteady BCR → CCV paths, BCR → ACV paths, which are highly stable across conditions, indicate that affective conviction is primarily influenced by brand credibility at all times, whereas cognitive conviction, especially under the low-involvement condition, is not. This weaker relationship of brand credibility to cognitive conviction under the low-involvement condition may be due to the tendency of consumers to use affect first and primarily because, as Zajonc (1980) argued, it might be easier and quicker to use affect than it is to use cognition-relevant information to make the low-involvement decisions.

The hedonic product condition models resembled our final model with pooled data. As with other conditions, BCR → ACV was stronger than BCR → CCV, while CCV influenced attitude strength (AST) to a greater degree than did ACV. Compared to the functional product group, the hedonic product group was not significantly different ($\Delta\chi^2_{df=1}$ < 3.84) in terms of path coefficients for CCV → AST and ACV → AST. Given that the products were hedonic-oriented (they seemed to be more affectively processed), this result may not appear correct at first glance. When compared to the functional product group, however, the ACV → CCV path indicates significance for the hedonic product group only. Thus, this suggests that consumers may process similarly established convictions toward attitude strength formation, but affective conviction more significantly influences the formation of cognitive conviction in the brand loyalty formation process for hedonic products.

DISCUSSION

Overall, our primary finding is that brand credibility is likely to serve as a source of cognitive and affective conviction, and that affective conviction often takes an elaborating role in cognitive conviction formation. Such convictions may steadily influence attitude strength, which might then help develop brand commitment, leading to true brand loyalty. In addition, attitude strength was found to have a critical role in connecting convictions to brand commitment.

The close relationship between brand commitment and true brand loyalty was confirmed through H1 and by the stronger path coefficient from brand commitment to brand loyalty

when "true brand loyalty" (instead of repeated purchasing behavior) was used as the indicator of brand loyalty. The necessity of attitude strength was confirmed via H2, and also by the comparison of models with attitude strength and others without it (e.g., Mc2 and Mc3 had poor fits). In addition, as examined in Mt and Mc1, direct links between convictions and commitment failed to exhibit significance when the attitude strength construct was present in the model. This finding implies that attitude strength is an important and necessary mediator between conviction and commitment. Without it, the link from conviction to commitment would be unstable. Affective and cognitive convictions were confirmed to be predictive of attitude strength. An important finding regarding this dual source effect (i.e., affective and cognitive conviction) is that those sources require the attitude strength construct to establish stability and proceed to commitment and loyalty. Thus, neither commitment nor loyalty may be directly connected to cognitive and affective conviction, but the mediator of these convictions seems to be attitude strength.

Paths that varied significantly across different conditions were BCR → CCV (H8: brand credibility → cognitive conviction) and ACV → CCV (H10: affective conviction → cognitive conviction), while BCR → ACV path (H9: brand credibility → affective conviction) was very steady and significant across all conditions. This stability of the BCR → ACV path coefficient implies that consumers may consistently use a certain amount of brand-relevant memory (i.e., brand credibility) as a source of affective conviction. This supports Zajonc's (2000) assertion that the affective quality of the original input is the first element to emerge when people try to retrieve an object.

In the relationships among brand credibility, affective conviction, and cognitive conviction, consumers may mainly use past experience (i.e., brand credibility) with a brand to determine feelings about a brand. In this process, past experience would give some cognitive information about the brand and generate the formation of cognitive conviction, which in turn is boosted and elaborated on by affective conviction. Although this elaboration effect of affective conviction is significant in the model with fully pooled data, some specific conditions did not have similar effects. Among the four manipulation conditions, the ACV → CCV (affective conviction → cognitive conviction) path was not significant in the high-involvement or the functional product condition. This suggests that although consumers might use both cognitive and affective conviction, they may not desire affective conviction to influence cognitive conviction in the high-involvement condition, perhaps because they want to process the brand information independently and rationally due to the relatively high risk associated with the outcomes of their loyalty behaviors. Similar results were observed for the functional product condition. This is convincing because consumers would not necessarily need affective

conviction to elaborate the cognitive conviction for functional products. On the other hand, the ACV → CCV path was significantly strong, especially under low-involvement conditions, whereas BCR → CCV (brand credibility → cognitive conviction) was not significant. These two results suggest that consumers use brand credibility information directly and exclusively for affective conviction, and that affective conviction strongly elaborates cognitive conviction. In fact, under low-involvement conditions, cognitive conviction is found to be highly dependent on affective conviction.

LIMITATIONS AND IMPLICATIONS

As with all research, this study has some limitations to be addressed. We do not claim the proposed model to be either true or causal. Limited sample characteristics (i.e., college students) and the limited number of products used should be noted in interpreting our study and applying it to other situations. Although we asked the participants to choose their own favorite brand name in the questionnaire to induce and measure the participants' brand-specific responses, we suspect that there might still be some product category–specific effects inevitably included in our study.

Nevertheless, this study provides various theoretical and managerial implications to marketing practitioners and researchers. Theoretically, we adopted the attitude strength theory (i.e., Abelson's conviction theory) of social psychology, which has been rarely used for brand loyalty studies, in spite of its theoretical applicability to the domain. We also balanced emotional as well as cognitive perspectives of the attitude strength antecedents (i.e., brand conviction). Since cognition and affect have been shown as distinct (though related) attitudinal constructs in many studies, investigating both constructs simultaneously provided more theoretical plausibility to the proposed model. Finally, the generalizability and robustness of the proposed model was examined via the use of multiple product classes representing hedonism/functionality and low/high involvement.

Managerially, our findings specifically about the critical and differential role of brand convictions and attitude strength can be used in developing brand messages in advertising and other marketing executions. We elaborate on this below.

We found that, rather than initially considering the cognitive aspects of the brand, consumers firstly rely on their feelings about a certain subject brand. Furthermore, we found that affective conviction influences cognitive conviction under low-involvement and hedonic product conditions. This finding strongly suggests that brand messages need to have the affective consistency of brand attributes, which consistently helps build the affective quality of brand credibility. In line with this finding, we suggest that the affective conviction, in addition to the cognitive conviction, be included in the brand loyalty modeling efforts.

Attitude strength showed different degrees of effects on brand commitment under different levels of brand conviction conditions. The effect was greater for high-conviction groups than low-conviction groups. The results thus suggest that advertising messages would work more effectively for the group of consumers with higher affective and cognitive convictions. This reflects the idea of customer-based brand equity defined as "the differential effect that brand knowledge has on consumer response to the marketing of that brand" (Keller 1998, p. 45). According to Keller, "a brand with positive customer-based brand equity might result in consumers being more accepting of a new brand extension, less sensitive to price increases and withdrawal of advertising support, or more willing to seek the brand in a new distribution channel" (1998, p. 45). Our study can be used as a strong basis of explaining where the customer-based brand equity really may come from. Our finding implies that a consumer with high affective and cognitive brand convictions would be more accepting of marketing efforts from the brand.

For all these reasons, we suggest that marketers identify whether affective or cognitive brand conviction is the major driver of brand loyalty formation in their product category. By understanding this, marketers would be able to create either cognition- or affect-based communication strategies to ultimately make their consumers truly loyal. This investigation will be important to undertake before creating any advertising or marketing communication strategy, especially for a new brand. Because making consumers truly brand loyal generally requires a long time, having a firm base for the brand's overall communication strategy, that is, emotion, cognition, or both, will make the long-term strategic communication planning process easier, more efficient, and most important, more effective. The product category classification scheme (i.e., HI-H, LI-H, HI-F, and LI-F) studied in this research can be used as a basis for strategy differentiation. Having a firm direction for overall long-term strategy will be critical in light of the wide practice of integrated marketing communications, the ultimate goal of which is to build brand value based on strong and long-term consumer support, that is, true brand loyalty.

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