Direct and indirect effects of self-image congruence on brand loyalty

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Abstract

The purpose of the paper is to test a model dealing with direct and indirect effects of self-image congruence on brand loyalty. The model posits that self-image congruence positively affects brand loyalty directly and indirectly through functional congruity, product involvement, and brand relationship quality. The model was tested using cars as the product stimulus in a survey of 600 car owners. We chose automobiles because cars are high in conspicuousness (therefore are likely to be evaluated using symbolic criteria) and are used across a variety of situations. The model was mostly supported by the data. First, the results document the paramount importance of self-congruity in predicting brand loyalty. Second, our study integrated the emerging construct of brand relationship quality into self-congruity theory. Third, in regards to the hypothesized effect of self-congruity on functional congruity, the data were supportive. Additional managerial implications are discussed.

Keywords: Self-image congruence; Self-congruity; Brand personality; Brand loyalty; Functional congruity; Product involvement

1. Introduction

The consumer behavior literature has increasingly shown that brand attitude or evaluation is not only determined by functional facets of the brand but also by symbolic criteria (Park et al., 1986; Sirgy, 1982). The motivation to express their own self is often the driving force that prompts consumers to purchase goods and services (Sirgy, 1986). Much research is available on self-image congruence (Sirgy et al., 2000; Sirgy and Su, 2000). Self-image congruence refers to the match between consumers’ self-concept (actual self, ideal self, etc.) and the user image (or “personality”) of a given product, brand, store, etc. “Self-image congruence”, “self-congruity”, “self-congruity”, and “image congruence” are used interchangeably in the consumer behavior literature.

We conducted a study to focus on the effects of self-image congruence on brand loyalty. The study contributes to the literature on self-image congruence in several ways. First, much of the research in self-image congruence has predicted product preference (e.g., clothing style), brand preference, brand choice, consumer satisfaction, and store loyalty (Sirgy, 1982). No studies were found dealing with the effects of self-image congruence on brand loyalty related to consumer goods. Our study focuses on investigating the effects of self-image congruence on brand loyalty in the context of automobiles.

Second, past research has shown that self-image congruence influences consumer behavior directly and indirectly through functional congruity (Sirgy et al., 1991). Functional congruity refers to the match between consumers’ ideal expectations of utilitarian product features and their perceptions of how the brand is perceived along the same features. Our study extends the research in this area by developing a model asserting that the self-congruity effect on functional congruity is moderated by product involvement. That is, self-congruity affects functional congruity under high than low product involvement conditions.

Third, the literature suggests that self-congruity plays a role in motivating consumers to process information (Mangleburg et al., 1998). That is, self-congruity heightens consumers’
involvement with the product category. Our model incorporated the role of product involvement in the indirect effects of self-congruity on brand loyalty and tested those hypotheses.

Finally, recent research on brand relationship quality (Fournier, 1994, 1998; Aaker, 1996; Thorbjörnsen et al., 2002; Aaker et al., 2004) has shown that this construct can be useful in predicting a variety of consumer behavior constructs. We put this construct to the test by arguing that self-congruity plays a role in brand relationship quality, which in turn contributes to predictive variance in brand loyalty. Our model also posits that the self-congruity effect on brand relationship quality is moderated by product involvement. That is, self-congruity is likely to positively influence brand relationship quality under high than low involvement conditions.

2. Conceptual development, model, and hypotheses

Our conceptual model is graphically shown in Fig. 1 (upper model). The model posits that self-congruity positively affects brand loyalty directly and indirectly through functional congruity, product involvement, and brand relationship quality.

To explain the model fully, first we will establish the case that self-congruity plays an important role in brand loyalty. Next we will argue that self-congruity affects brand loyalty through functional congruity, brand relationship quality, and product involvement.

2.1. The effect of self-congruity on brand loyalty

Much research has uncovered the fact that consumers purchase goods that act as a vehicle to express their identity (Aaker, 1996). Specifically, brands are considered to have a “personality” that reflect the stereotypic image of the typical user of the brand—brand-user image. Consumers attempt to evaluate a brand by matching the brand-user image (sometimes referred to as “symbolic attributes”) with their self-concept (actual self-ideal self, social self, etc.). This matching process involving the brand-user image with consumers’ self-concept is referred to as self-congruity (Sirgy, 1982, 1986). Self-congruity plays an important role in purchase motivation and brand loyalty (Malhotra, 1988; Sirgy, 1985; Sirgy and Samli, 1985).

Self-congruity is guided by self-concept motives such as the need for self-esteem and self-consistency (Aaker, 1997; Biel, 1997; Malhotra, 1981, 1988; Sirgy, 1982). That is, the greater the match between the brand-user image with the consumer’s ideal self-image, the more likely that consumers implicitly infer that the use of the brand should meet their need for self-esteem. This is because the behavior that allows people to reduce discrepancies between their actual and ideal self serve to boost self-esteem (Rosenberg, 1979). The need for self-consistency is another self-concept motive that motivates people to behave in ways consistent with how they see themselves—consistent with their actual self. People have beliefs about their own identities,
values, lifestyles, preferences, and habits. Once their “self-theories” (meta-beliefs) are established, they become highly motivated to protect them. Major threats to their self-theories account for mental breakdown and psychosis (Lecky, 1945; Epstein, 1980). Consumers’ need for self-consistency motivates purchase behavior and brand loyalty (Ericksen and Sirgy, 1989, 1992; Malhotra, 1981, 1988; Mangleburg et al., 1998; Sirgy and Samli, 1985).

Our study seeks to establish evidence of the direct link between self-congruity and brand loyalty. Only one study was found in the literature that documented the link between self-congruity and store loyalty, namely the Sirgy and Samli (1985) study. The current study attempts to establish the link between self-congruity and brand loyalty, in terms of consumer goods—specifically automobiles. Therefore, we hypothesize that the greater the self-congruity, the greater the loyalty and commitment to the brand of automobile one owns. This is because actual self-congruity implies that the brand serves to satisfy the consumer’s need for self-consistency prompting the consumer to evaluate one’s own brand positively. Similarly, ideal self-congruity implies that the brand serves to meet the need for self-esteem prompting the consumer to evaluate one’s own brand favorably leading to repurchase.

H1. The greater the self-congruity with a brand, the greater the brand loyalty.

2.2. The indirect effect of self-congruity on brand loyalty through functional congruity

Mittal et al. (1990) construed brand knowledge in terms of functional and symbolic brand associations. The former concept refers to attributes that reflect concrete performance aspects of the product, i.e., functional or utilitarian evaluative criteria. Consistent with the research conducted by Sirgy et al. (1991), we refer to this aspect of brand evaluation as functional congruity. Specifically, it is defined as an assessment of the brand by focusing on the extent to which functional attributes of the brand matches the consumer’s ideal or desired performance specifications. Performance specifications are consumer expectations regarding how the product should perform to accomplish the focal or central goal of the product. For example, functional attributes of an economy car may include the car’s reliability, durability, and cost. If a car is evaluated strictly based on the consumer’s desired performance specifications, then we infer that the evaluation is guided by the utilitarian motive. The utilitarian motive reflects the motivation to pursue products and services that serve their primary function best (i.e., quality) at the lowest cost (i.e., price) (Markus and Sentis, 1982).

If information processing of self-relevant attributes (i.e., the brand-user image or brand personality) leads to high self-congruity, then consumers are likely to form an initial favorable attitude toward the brand. In turn, this self-congruity is likely to favorably bias consumers in the way they process the utilitarian aspects of the brand. Conversely, if self-congruity is low, consumers are likely to form an unfavorable attitude toward the brand, which in turn should bias their evaluation of the brand based on the functional attributes. The likely result is low brand loyalty (Sirgy et al., 1991). Based on the notion that self-congruity biases the evaluation of the concrete-functional brand facets, we propose the following hypotheses:

H2. The greater the self-congruity with a brand, the greater the functional congruity with that brand.

H3. The greater the functional congruity with a brand, the greater the brand loyalty.

2.3. The indirect effect of self-congruity on brand loyalty through the interaction between functional congruity and product involvement

As previously stated, Sirgy and colleagues have long argued that functional congruity is biased by self-congruity (Mangleburg et al., 1998; Sirgy et al., 1991; Sirgy and Su, 2000). That is, self-congruity may take precedence over functional congruity. Consumers are more likely to evaluate a brand along its symbolic attributes first, followed by an evaluation of the brand along functional attributes. This occurs because symbolic attributes are easier to process, due to their self-relevance. Functional features of a brand are more cognitively taxing and less self-relevant.

Once the brand is accepted based on its symbolic attributes, the consumer becomes highly involved with the product (O’Cass, 2000; Zaichkowsky, 1985). Self-congruity heightens consumers’ involvement with the product motivating them to process the functional characteristics of the brand. If so, then the biasing effect of self-congruity on functional congruity is likely to be more evident under high than low product involvement conditions. Based on this discussion, we propose the following hypotheses:

H4. The greater the self-congruity with a brand, the greater the product involvement.

H5. The bias of self-congruity on functional congruity is more evident under high than low product involvement conditions.

2.4. The indirect effect of self-congruity on brand loyalty through brand relationship quality

Recent research has focused on intimate relationships consumers build with brands. The strength of such relationships has been termed brand relationship quality (Fournier, 1994, 1998; Aaker, 1996; Thorbjørnsen et al., 2002; Aaker et al., 2004). Fournier (1998) identified six dimensions of brand relationship quality: (1) love and passion describing a rich and affective recollection of love varying from warmth and affection to obsessive dependency; (2) the connection with a brand and the ability of the brand to address facets of the consumer personality; (3) interdependence between the consumer and the brand in that there is a mutual dependency; (4) commitment to the brand in that the consumer experiences a feeling of responsibility and emotional bond with the brand, enclosing the willingness to keep up the relationship; (5) intimacy, which refers to the extensive and significant amount of knowledge that the consumer has
about the brand and its performance; and (6) partner quality, which relates to the quality of the brand, the reliability of the brand’s messages, and compliance with the relationship rules, and belief in acceptable future behavior of the partner. For the purpose of our study, we used four of the original six dimensions: love/passion, interdependence, intimacy, and partner quality. These four dimensions were selected to ensure a conceptual distinction among brand relationship quality, self-congruity, and brand loyalty.

The source of motivation underlying brand relationship quality is social attachment. According to Baumeister and Leary (1996) “… the desire for interpersonal attachment (is) one of the most far-reaching and integrative constructs currently available to understand human nature.” Using interpersonal attachment as an analogy to product attachment, it seems reasonable to assume that people also build and maintain relationships with brands on an emotional level (Belk, 1988; Blackston, 1992; Fournier, 1994, 1998; Taylor et al., 2000).

In the context of interpersonal relationships, people extend their personalities to incorporate some desirable traits attributed to their partners. Specifically, the attractiveness of a partner depends on this partner’s potential for self-extension (Aron and Aron, 1996). This tendency is enhanced when the partner is perceived to be similar to one’s own ideal self. Thus, both similarity and positive dissimilarity in interpersonal relationships can enhance the quality of a relationship, which translates to consumers’ relationships with products and brands. We argue that self-congruity should be regarded as an antecedent construct to brand relationship quality than a reflective dimension. Both similarity and positive dissimilarity of the partners in the relationship can improve the quality of the relationship. This is because similarity and positive dissimilarity serve to satisfy the needs for self-confirmation and self-extension. These needs are highly akin to the needs of self-consistency and self-esteem discussed previously. Therefore, we introduce the following hypothesis:

H6. The greater the self-congruity with a brand, the higher the quality of the relationship with that brand.

H7. The greater the brand relationship quality, the higher the brand loyalty.

2.5. The indirect effect of self-congruity on brand loyalty through the interaction between brand relationship quality and product involvement

Remember we defined brand relationship quality in terms of love/passion, interdependence, intimacy, and partner quality (Fournier, 1998). One can argue that the extent to which self-congruity contributes to love/passion, interdependence, knowledge intimacy, and partner quality is likely to be accentuated when consumers are highly involved with the product category. Take for example the case of a consumer who is highly involved with cars. He reads Car and Driver Magazine; he follows all the news about automobile innovations; he discusses new cars with his friends and associates; and pays attention to car-related ads. This consumer may own, let’s say, a BMW. It is very likely that if he identifies with this BMW, he may also express deep and strong feelings about the BMW, knows the ins and outs of his BMW, feels that he is dependent on his BMW to maintain his lifestyle, and treats his BMW as a good “partner” in the way good partners depend and rely on each other. These feelings are not likely to be as strong if the same consumer identifies with his car but is not highly involved with cars in general. Based on this discussion, we propose the following hypothesis:

H8. The effect of self-congruity on brand relationship quality is more evident under high than low product involvement conditions.

3. Method

3.1. Product stimulus

The study focuses on automobiles as the product stimulus. We chose automobiles because cars are high in conspicuousness (therefore are likely to be evaluated using symbolic criteria) and are used across a variety of situations. In addition, because buying an automobile is a high-cost purchasing decision, it can be safely assumed that most consumers evaluate different brands of automobiles before they make a decision to purchase.

3.2. Sampling and data collection

We used a mail survey to gather data. Two thousand individuals (N=2000) were identified by selecting every nth (n=800) case from telephone directories (a large metropolitan area). The selection-process was computer-aided. Respondents were contacted by phone and asked for their participation in a consumer survey concerning automobiles. As an incentive, a lottery of cash prizes of approximately $450 was offered ($200, $100, 3 × $50). Seven hundred and twelve (n=712) agreed and were sent the survey questionnaire together with a stamped and self-addressed return envelope. The participants were asked to complete the questionnaire with respect to their own car. Finally, 667 respondents returned the questionnaire, of which 67 forms were so incomplete that they had to be deleted. The final number of usable cases was 600.

Furthermore, a preliminary study was conducted to identify all the functional attributes of automobiles. The sample of this study involved 121 consumers, who were also selected by the method of the nth case from a telephone directory.

3.3. Operationalizations of the model constructs

3.3.1. Functional congruity

In line with the much of the multiattribute attitude research that employs functional product attributes, we used an ideal-point model to measure functional congruity-match between the perceived functional attributes against the ideal level of the same attributes (Kokkinaki and Lunt, 1997; Myers and Alpert, 1977). An absolute difference score between perceived rating and ideal was calculated for each attribute. The functional attributes used in the ideal-point formulation were: cost, engine power, safety, gas consumption, appearance, and quality (see measures and
scales in Appendix section). These functional attributes were determined from the preliminary study. Responses to ratings of both perceived and ideal functional attributes were captured using semantic differential scales. For each attribute, a question tapping the perceived level of performance of one’s own brand was asked (“How do you evaluate the – functional attribute – of your car?”). Another question was posed referring to the level of performance of the ideal car of the product class to which one’s own brand belonged (“How do you assess the – functional attribute – of the ideal car of that class?”). The absolute difference between the perceived performance of one’s own and the ideal car was computed for each functional attribute to serve as an indicator. This absolute difference score was reversed to ensure that a lower value indicates lower functional congruity (a state of mismatch between perceived functional attributes and their ideal counterparts).

### 3.3.2. Self-congruity

To measure self-congruity (actual and ideal self-congruity), we used the difference scores between brand personality and self-image. Aaker’s (1997) brand personality measure consists of 15 brand personality facets (e.g., down-to-earth, honest, wholesome) reflecting five major dimensions (e.g., security, excitement, competence)—see the measure in the Appendix.

The brand personality inventory was used to capture (a) the actual self-image of the respondents [“To what extent the following personality attributes apply to you?”]; (b) the respondents’ ideal self-image [“Imagine how you would like to be. To what extent the following personality attributes apply to how you like to be?”]; (c) the brand-user image as perceived by the respondents [“Imagine your brand of car (e.g., BMW) as a person. Indicate the extent to which the following personality attributes apply to the brand or the typical user of the brand.”]; and (d) the perceived importance of each symbolic attribute [“How important is it for you that a person is... “]. Seven-point rating scales were used to capture perceived importance responses with “completely unimportant” (1) and “very important” (7).

The self-congruity scores ($D_k$) were computed using absolute difference scores between each brand personality ratings and its corresponding self-image ratings (actual and ideal self-image), and then averaged across all personality attributes for each respondent (Sirgy, 1982; Sirgy et al., 1991, 1997):

$$D_k = \frac{\sum_{i=1}^{n} |BP_{ik} - SI_{ik}|}{n} \quad (1)$$

- $n$: number of personality attributes ($n=15$)
- $i$: personality attribute ($i=1...n$)
- $BP_{ik}$: brand rating along personality attribute $i$ for respondent $k$
- $SI_{ik}$: self-image (actual or ideal) rating along personality attribute $i$ for respondent $k$

This general mathematical formulation was further operationalized into two self-congruity indices: actual self-congruity and ideal self-congruity. Furthermore, we incorporated the perceived importance of each brand personality attribute into each of the two self-congruity indices. We multiplied the index with $-1$ so that the larger values would indicate high self-congruity and vice versa. The indices we finally used are:

$$ASC_k = -\frac{\sum_{i=1}^{n} w_{ik} |BP_{ik} - ASI_{ik}|}{\sum_{i=1}^{n} w_{ik}} \quad (2a)$$

$$ISC_k = -\frac{\sum_{i=1}^{n} w_{ik} |BP_{ik} - ISI_{ik}|}{\sum_{i=1}^{n} w_{ik}} \quad (2b)$$

- $w_{ik}$: importance rating of personality attribute $i$ for respondent $k$
- $ASC_{ik}$: actual self-congruity (average weighted congruity between brand personality and actual self-image) for respondent $k$
- $ISC_{ik}$: ideal self-congruity (average weighted congruity between brand personality and ideal self-image) for respondent $k$
- $ASI_{ik}$: actual self-image rating of personality attribute $i$ for respondent $k$
- $ISI_{ik}$: ideal self-image rating of attribute $i$ for respondent $k$

Actual and ideal self-congruity indices were correlated highly (.81), as expected. As previously mentioned, we treated them as two indicators of self-congruity in the statistical model that was subjected to empirical testing.

### 3.3.3. Brand relationship quality

Fournier (1994) presented a seven-dimensional measure of the construct that later was reduced to six dimensions (Fournier, 1998; Thorbjörnsen et al., 2002; Hayes et al., 2000). Furthermore, Aaker et al. (2004) applied a measure of the construct using four dimensions (commitment, intimacy, self-connection, and satisfaction) and used “partner quality” as an antecedent construct of brand relationship quality.

In regard to our study, the dimensions of commitment and self-connection were not incorporated into our measure of brand relationship quality. This is because we wanted to avoid confounding our measure with measures of the model’s constructs. Fournier’s “commitment” dimension seems closely related to brand loyalty. Similarly, Fournier’s “self-connection” dimension is somewhat akin to our self-congruity construct. Furthermore, due to the length of the questionnaire we wanted to use a measure that was more parsimonious than Fournier’s original of 33 items. We also drew on the work of Hayes et al. (2000) who used a condensed version of Fournier’s measure capturing the dimensions of “interdependence,” “partner quality,” and “intimacy.” In relation to the dimension of “love and passion,” we conducted a pre-test in which 13 experts (all of
which held a doctoral degree in marketing) were requested to evaluate items from the Modified Interpersonal Relationship Scale (Garthoeffner et al., 1993) to the extent that these items can describe love and passion in a brand relationship. This led to the selection of three items capturing “love and passion.” Thus, our final set of items involved six items from the Hayes et al. scale and three items from our pre-test, resulting in nine items capturing “interdependence,” “partner quality,” “intimacy,” and “love and passion.”

An exploratory factor analysis was conducted on the nine items, and two factors were extracted. All the items pertaining to partner quality loaded highly on the second factor and the remaining items loaded highly on the first factor. The fact that only two and not four factors were extracted may be due to the use of the highly parsimonious measure (i.e., nine instead of 33 items). Thus, two average indices were computed, one as the average of the three partner quality items, the other of the remaining six items. A Pearson’s correlation of 0.593 (p<0.01) indicates that the indices are well suited to capture the construct of brand relationship quality. These indices served as indicators for the LISREL model.

3.3.4. Brand loyalty

The literature reports two groups of measures for brand loyalty: attitudinal- and behavior-oriented measures. With respect to the attitudinal measures, the focus of these measures is planned commitment (Bloemer and Kasper, 1995; Chaudhuri and Holbrook, 2001). Some attitudinal measures of brand loyalty incorporate items referring to repurchase intention and word-of-mouth (Narayandas, 1996; Sirdesmukh et al., 2002) or cross-buying potential (Kim et al., 2001). Examples of behavior-oriented measures of brand loyalty include share of wallet, percentage of brand purchases in a product category for fast moving consumer goods, and repurchase behavior (Baldinger et al., 2002; DeKimpe et al., 1997; Sirdesmukh et al., 2002). Because our model is theoretically grounded in the attitudinal aspect of brand loyalty, we developed a measure capturing intention to repurchase one’s brand—the brand of car that the respondent is currently driving. Specifically, we operationalized the brand loyalty construct using two items. One is the likelihood that the same brand will be purchased taking into account the person’s own current financial situation. “If you bought a new car today, would you stick to the same brand?” The other item captured purchasing intention given that the respondent can afford a vehicle of the brand of the class in question. “If you bought a new car and could just afford a car of your brand in the chosen class, would you stick to your brand?” Seven-point rating scales with “NO” and “YES” on polar extremes were used to capture responses.

3.3.5. Product involvement

Zaichkowsky (1985) developed a measure to capture enduring product involvement. That measure was modified several times and is considered lengthy (Bloch, 1981; McQuarrie and Munson, 1987). Instead, we selected another four-item measure for our study (Bruner and Hensel, 1994). This measure consisted of items capturing intensity of use of

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<td>1. Model fit statistics</td>
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* In each case the AVE is greater than the highest squared correlation of the correlation matrix.
cars, personal connection to cars, expertise with cars, and relative knowledge about cars. The item pertaining to the intensity of product use was eliminated due to a low item-to-total correlation (0.44), which led to an exactly identified measurement model. Cronbach Alpha for the remaining three item measure was 0.83.

3.3.6. Questionnaire design

The questionnaire presented to the respondents was organized as follows. First, after a short introduction, respondents were asked to record basic information regarding their own automobile. Then the personality facets were evaluated with regard to their personal importance for the respondent. Afterwards, the actual self, the ideal self, and the brand personality of the car were measured. The brand relationship quality measure came next. To avoid the problem of response bias from fatigue, we placed the “easy-to-answer” items of functional congruity, product involvement, and brand loyalty towards the end. Demographics questions were asked last.

4. Results

4.1. The measurement model

Most of the partial quality criteria were satisfied for the measurement model. As one can easily see from Table 1, the constructs of product involvement, brand relationship quality, and brand loyalty met all the required quality criteria.

The results of measurement model also indicate that the across-construct confirmatory factor analysis provided a good fit to the data (Satorra-Bentler $\chi^2=265.17$, df=83; GFI=0.94; AGFI=0.92; IFI=0.94; CFI=0.94; SMSR=0.06; RMSEA=0.06). All coefficients were significant ($t$-value $>8.89$). Except for the functional congruity construct, all constructs showed high internal consistency/reliability coefficients and high average variance extracted. In all cases, the average variance extracted is greater than the highest squared correlation in the correlation matrix, providing evidence for discriminant validity.

4.2. The structural model

The results of structural model indicate that the model fits the data well (see Table 2). The results indicate that self-congruity predicted brand loyalty positively and significantly ($\gamma_1=0.27$, $t=4.85$) providing support for H1. Self-congruity predicted functional congruity positively and significantly ($\gamma_2=0.37$, $t=7.72$) as hypothesized (supporting H2), and functional congruity predicted brand loyalty positively and significantly too ($\beta_1=0.24$, $t=4.63$), supporting H3. As expected, self-congruity predicted product involvement positively and significantly ($\gamma_3=0.16$, $t=3.69$) supporting H4.

With respect to the hypothesis pertaining to the interaction between self-congruity and product involvement on functional congruity (H5), we conducted an ANOVA test. We formed two groups of self-congruity based on a quartile split (we discarded the two middle groups and focused on the 1st and 4th quartiles). We did the same in relation to the product involvement variable. The results showed that self-congruity had a significant main effect on functional congruity ($F=24.122$, $p=0.000$), product involvement had a significant main effect on functional congruity ($F=13.218$, $p=0.000$), and most notably, self-congruity had a significant interaction effect with product involvement on functional congruity ($F=3.078$, $p=0.016$). In plotting the interaction effect, we noted that the self-congruity effect on functional congruity is more pronounced in the high than low involvement conditions. Specifically, under high involvement, low self-congruity produced a functional congruity mean of $-1.007$ compared to a mean of 0.265 for high self-congruity (a difference of 1.272, $p<.05$). Under low involvement, low self-congruity produced a functional congruity mean of 0.165 compared to a mean of 0.567 for high self-congruity (a difference of 0.402, $p>0.05$). This interaction effect is supportive of H5.

It should be noted that we did not hypothesize the product involvement effect on functional congruity. The ANOVA results showed that the greater the product involvement the greater the functional congruity. However, this result was not supported by a correlation analysis ($r=0.061; p>0.05$).

With respect to the self-congruity effect on brand relationship quality (H6), the results were supportive ($\gamma_4=0.43,$

| Partial criteria to determine the nomological validity of the model |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Squared multiple correlations of the endogenous latent variables |
| Eta1 | Eta2 | Eta3 | Eta4 |
| 0.0267 | 0.1410 | 0.3049 | 0.3283 |

| Standardized parameter estimates ($t$-value of the causal relation) |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Gamma1 (H1) | Gamma2 (H2) | Gamma3 (H3) | Gamma4 (H4) | Beta1 (H1) | Beta2 (H2) | Beta3 (H3) | Beta4 (H4) |
| 0.27 | 0.37 | 0.163 | 0.43 | 0.24 | 0.25 | 0.289 | (4.85) | (7.72) | (3.69) | (10.10) | (4.63) | (4.47) | (6.75) |

| Correlation matrix |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| SC | BRQ | FC | BL | PINV |
| 1.000 |
| 0.4726 | 1.0000 |
| 0.3755 | 0.1774 | 1.0000 |
| 0.4759 | 0.4210 | 0.3906 | 1.0000 |
| 0.1635 | 0.3590 | 0.0614 | 0.1490 | 1.0000 |

Eta1=product involvement.  
Eta2=functional congruity.  
Eta3=brand relationship quality.  
Eta4=brand loyalty.  
Gammai=paths between an exogenous and an endogenous construct.  
Betai=paths between endogenous constructs.  
SC=self-congruity.  
BRQ=brand relationship quality.  
FC= functional congruity.  
BL=brand loyalty.  
PINV=product involvement.  

a This hypothesis was not postulated in the conceptual model.
Brand relationship quality also successfully predicted brand loyalty ($\beta_2=0.25, \ t=4.47$), as expected (H7).

With respect to the interaction between self-congruity and product involvement on brand relationship quality (H8), we conducted an ANOVA test. We formed two groups of self-congruity based on a quartile split (we discarded the two middle groups and focused on the 1st and 4th quartiles). We did the same in relation to the product involvement variable. The results showed that self-congruity had a significant main effect on brand relationship quality ($F=41.524, \ p=.000$), product involvement had a significant main effect on brand relationship quality ($F=15.113, \ p=.000$), but notably, self-congruity did not have a significant interaction effect with product involvement on brand relationship quality ($F=0.882, \ p>0.05$). This lack of an interaction effect between self-congruity and product involvement on brand relationship quality failed to support H8.

It should be noted that we did not hypothesize the product involvement effect on brand relationship quality. The ANOVA results showed that the greater the product involvement the greater the brand relationship quality. This result was further supported by a correlation analysis ($r=0.359; \ p>.01$). We re-ran the LISREL analysis brand relationship quality as a direct function of product involvement. The path coefficient was 0.289 ($\beta_; \ t\text{-value}=6.75$). Taken together, the constructs of brand relationship quality, functional congruity, and self-congruity explained 33% of the variance in brand loyalty.

The study findings were mostly supportive of our model. Only H8 was not supported by the data. An explanation for this effect might be that consumers who feel involved with a product category are likely to experience an emotional bond with a brand in the product category. Therefore, we modified our model and incorporated the direct effect of product involvement on brand relationship quality. Our modified model suggested by the data is shown in Fig. 1 (lower model).

5. Discussion

The findings of the study have three major theoretical implications. First, the results document the paramount importance of self-congruity in predicting brand loyalty. The direct effect from self-congruity on brand loyalty equals the predictive power of functional congruity and brand relationship quality on brand loyalty.

Second, our study integrated the emerging construct of brand relationship quality into self-congruity theory. Until now, research has focused on the conceptualization and measurement of the construct (Fournier, 1994, 1998; Thorbjörnsen et al., 2002). Hayes et al. (2000) have suggested that brand personality does play an important role in brand relationship quality. Aaker et al. (2004) have investigated the impact of brand personality and brand transgression on brand relationship quality.

Third, in regards to the hypothesized effect of self-congruity on functional congruity, the data were supportive. Evidence for the biasing effect of self-congruity on functional congruity has been sparse so far (Sigg et al., 1991), and our study findings provide additional evidence to substantiate this effect.

5.1. Managerial implications

Our study findings indicate that self-congruity plays a very important role in brand loyalty. This is due to its strong direct and indirect effects. This finding suggests three marketing strategies. First, brand managers, especially in the automobile industry, should imbue their brands with a clear brand personality. The brand personality should be tailored to the actual or ideal self-concept of target consumers. Accordingly, brand managers should identify the self-concept of their target consumers and build a brand personality (mostly through promotion) to match the self-concept of their consumers.

Second, marketers are advised to recognize brand relationship quality as an important predictor of brand loyalty. Brand managers should make every effort to create positive customer–brand interactions. Doing so might foster a strong emotional bond between the customer and the brand, which strongly contributes to brand loyalty. Research should be conducted to identify a variety of social interactions with the brand that may lead to higher levels of brand relationship quality for target consumers. For example, a person who rates himself ideally very outdoorsy might be given a free weekend to try the brand’s newest off-road vehicle.

Our study also found that greater involvement with automobiles in general is likely to enhance brand relationship quality. Thus, we recommend that consumers who are highly involved with automobiles and experience high self-congruity with their cars should be targeted with special incentives and programs. Doing so should further strengthen their brand loyalty.

5.2. Study limitations and future research

There are two recommendations we like to make for future research. Our first recommendation has to do with the role of functional congruity on brand loyalty. Although our study has shown that functional congruity does play an important role in brand loyalty, the study also underscored the fact that functional congruity does not play an exclusive role. Perhaps this may be the case because in today’s automobile market there are so many competitor brands and there is little differentiation in terms of functional features.

Second, one can argue that single versus joint car ownership may affect brand relationship quality and brand loyalty. Specifically, it may be more difficult to establish a high quality relationship with one’s car if it is shared with another (e.g., spouse or sibling). Furthermore, one can argue that the length of the relationship with a given brand may play a pivotal role in brand relationship quality and brand loyalty. Imagine a family in which several generations bought a certain brand. Our study did not include measures of ownership status or length of relationship in the model. Future studies should investigate the moderating roles of ownership status and duration between self-congruity and brand relationship quality.
Appendix A

Functional attributes captured on semantic differential scales

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Semantic differential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine power</td>
<td>Very poor – very strong</td>
</tr>
<tr>
<td>Appearance</td>
<td>Very plain-looking – very good-looking</td>
</tr>
<tr>
<td>Safety</td>
<td>Very unsafe – very safe</td>
</tr>
<tr>
<td>Quality</td>
<td>Very low-grade – very high grade</td>
</tr>
<tr>
<td>Gas consumption</td>
<td>Very low – very high</td>
</tr>
<tr>
<td>Cost</td>
<td>Very expensive – very reasonable</td>
</tr>
</tbody>
</table>

Aaker’s brand personality measure

<table>
<thead>
<tr>
<th>Brand personality facets</th>
<th>Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Down-to-earth</td>
<td>Sincerity</td>
</tr>
<tr>
<td>Honest</td>
<td></td>
</tr>
<tr>
<td>Wholesome</td>
<td></td>
</tr>
<tr>
<td>Cheerful</td>
<td></td>
</tr>
<tr>
<td>Daring</td>
<td>Excitement</td>
</tr>
<tr>
<td>Spirited</td>
<td></td>
</tr>
<tr>
<td>Imaginative</td>
<td></td>
</tr>
<tr>
<td>Up-to-date</td>
<td></td>
</tr>
<tr>
<td>Reliable</td>
<td>Competence</td>
</tr>
<tr>
<td>Intelligent</td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td></td>
</tr>
<tr>
<td>Upper class</td>
<td></td>
</tr>
<tr>
<td>Charming</td>
<td></td>
</tr>
<tr>
<td>Outdoorsy</td>
<td></td>
</tr>
<tr>
<td>Tough</td>
<td></td>
</tr>
</tbody>
</table>

The brand loyalty measure

<table>
<thead>
<tr>
<th>Brand loyalty measure</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand loyalty 1</td>
<td>If you bought a new car today, would you stick to the same brand?</td>
</tr>
<tr>
<td>Brand loyalty 2</td>
<td>If you bought a new car and could just afford a car of your brand in the chosen class, would you stick to your brand?</td>
</tr>
</tbody>
</table>

Note: responses were captured using a 7-point rating scale: “YES” (7) and “NO” (1).

References


