

SIGNIFICANT OTHERS: THE ROLE OF PERCEIVED RISK, PERCEIVED VALUE AND PERCEIVED IMPORTANCE IN THE BRAND DECISIONS OF YOUNG ADULTS

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As discussed in previous studies (John, 1999; Feltham 1998; Feltham et al. 1994; Moschis and Churchill 1978), older adolescents and young adults have, as primary referents, parents, peers and roommates. Two studies further demonstrated that young adults have significant brand choice correspondence with these referents (Feltham 1998; Feltham et al. 1994). To explain this brand choice correspondence of young adults with parents and roommates, this study used three explanatory factors: perceived importance; perceived risk; and perceived value associated with the brand choice decision. The hypotheses that referent brand choice correspondence increases with higher levels of perceived importance, perceived risk, and perceived value were supported. Management implications and future research are discussed.

INTRODUCTION

Reference groups provide standards and values that can influence individual consumption behavior. Primary groups, including parents and roommates, exert the greatest influence (Peter and Olson 1999; Zikmund and d'Amico 1999). Reference group influence can take several forms. Influence has been categorized as informational, value expressive, and utilitarian in several studies (Bearden and Etzel 1982; Bearden, Netemeyer and Teel 1989). This categorization can be applied to the family. Parents have the opportunity to provide informational influence as children perceive parents as knowledgeable and observe parental consumption behavior (Park and Lessig 1977). A child's desire to enhance self-concept through identification with the family referent (Kelman 1961) and to be rewarded for compliance as a member of the family (Burnkrant and Cousineau 1975) provides the opportunity for value expressive and utilitarian influence.

The influence of the family is important from a consumer socialization perspective, since most

consumer behaviour is learned as a child. Therefore, much information and attitude development concerning products and services is based on the influence of the family. The family has a major influence on the availability of information and subsequent development of attitudes during the consumer's early years through continued exposure to or use of a product. A child learns by seeking information from respected sources (Sheth, Mittal, and Newman 1999). Exposure to information is the first step to brand awareness. Families are a primary source of product and usage information for children. This process is facilitated through communication and observed behaviour which are key to the transmission of values, behaviours and product information to children (Bearden and Etzel 1982, p.184).

Research on the impact of parents and peers on individual behavior has largely been confined to children and adolescents (Beatty and Talpade 1994; Moschis 1985; Moschis, Moore and Smith 1983; Moschis, Moore and Stephens 1977). Foxman, Tansuhaj and Ekstrom (1989) reasoned that eleven to nineteen year olds had reached full cognitive development and possessed consumer skills related to information processing; Palan and Wilkes (1997) echoed the same reasoning. However, this

developmental process would not end abruptly. Primary group influence, including the influence of parents and roommates, continues into post-adolescence (Feltham 1998; Feltham et al. 1994). The current study explores why these young adults choose the same brands as their parents and/or roommates – that is, theoretical constructs which explain these referent influences are examined.

CONCEPTUAL BACKGROUND

Parental and Roommate Influence

The consumer socialization model describes the process of acquiring consumer behavior as interactions between individuals and agents in social settings (Moschis 1987; Moschis and Churchill 1978). Influencing agents have the ability to exert societally-sanctioned pressure on the learner in the socialization process because of frequent contacts with the individual, importance to the individual, or control over outcomes (Moschis 1987). Shim (1996) found that parental influence on decision-making styles was strong and that peers played an important socialization role as well. With age, adolescents display more independent decision making and greater consumer competencies (Moschis and Churchill 1979; Moschis and Moore 1978; Shim 1996). Several studies have found increasing reliance on peers and less on parents (Bearden and Randall 1990; Moschis 1987; Shim 1996; Ward 1974). With the transformation of personal relationships between parent and child in late adolescence, the influence of parents is reduced. Informal groups have a definite influence on brands preferred by young adults. Frequent contact with roommates provides opportunity for communication and observation about brand choices. Peer influence is especially pronounced for publicly consumed goods, although young adult consumers continue to be influenced by their parents through the norms and attitudes they developed earlier in life (Sheth, Mittal, and Newman 1999). Parents and peers are both sources of continuing influence for adolescents in the socialization process (Keillor, Parker and Schaefer 1996).

Support for Post-adolescent Parental and Roommate Influence

Two current consumer behavior textbooks relate the common assumption that brands purchased by a family will often continue to be purchased by the children when they become adults. Berkman, Lindquist and Sirgy (1997) state that “[i]f Tide laundry detergent is the family favorite, this preference is easily passed on to the next generation. The same can be said for brands of toothpaste, running shoes, golf clubs, preferred restaurants, and favorite stores” (p.422-423). Peter and Olson (1999) similarly state that “[s]ome adults still use the same brands of products their parents purchased for them as children” (p.338). Feltham et al. (1994) empirically examined these assumptions and found substantial correspondence (an overall average of 46 percent) with parental brand choice for ten products surveyed. However, parental influence declined with time in university. Conversely, Feltham (1998), in examining another source of influence, the roommate, found a positive significant relationship between year in university and correspondence with roommate brand choice. The level of roommate correspondence across three products was substantial (50 percent overall), highly significant, and increased with time in university, i.e., from 39 percent in first year to fifty-five percent in fourth year; an increase of forty-one percent.

Determinants of Reference Group Influence

In attempting to explain the demonstrated correspondence between young adults’ brands and their parents’ and/or roommates’ brands (Feltham 1994, 1998), the focus of the current study is on factors which are related to reference group influence. Three primary factors are examined: perceived risk, perceived value, and perceived importance.

Perceived Risk. Theoretically, we are more likely to look to a referent for advice or information when we perceive risk in a purchase decision (Moschis 1985). Perceived risk has two facets: the perceived importance of negative consequences in making a

poor choice, and the perceived probability of making a mistake (Laurent and Kapferer 1985).

The family provides a low risk environment for exposure and affects the degree of perceived risk associated with various products and their usage (Engel, Blackwell, and Miniard 1995). Prior product use in a family setting can reduce perceived risk. Perceived risk can be functional, physical, financial, social and psychological. Physical risk is minimized because children become aware of the proper use of a product. Functional and financial risk diminish because the child knows the attributes and qualities of the product (Sirgy 1983). The influencing agents examined in the current study (parents and roommates) provided an environment for product exposure, and therefore, could affect the degree of perceived risk associated with various products and their usage (Engel, Blackwell and Miniard 1995; Sirgy 1983).

Given the nature of the products surveyed in this study (pain relievers and laundry detergent), it was felt that they would have little social significance (or social risk), but relatively greater negative consequences should an inferior brand be chosen (performance risk). The magnitude of perceived risk was expected to vary between pain relievers and laundry detergent. This type of risk would likely result in more influence from referents, i.e., their choices would be followed more extensively.

A number of researchers have made the distinction between product-level involvement and brand-choice level involvement (Bloch 1983; Mittal 1995; Mittal and Lee 1988; Zaichkowsky 1985). The current study is concerned with the influences on brand choices made by young adults within a product category. Correspondingly, brand-choice level of perceived risk was the appropriate level to measure (Mittal and Lee 1988). Items from the Consumer Involvement Profile (Laurent and Kapferer 1985; Mittal 1995) were used to measure perceived risk at the brand-choice level (see Appendix for items).

Perceived Value. In a previous study, fourth year university students reported comparing brands more and perceiving more brand differences than did first

year students (Feltham 1998). Given that a consumer perceives financial risk in a decision, a measure of the perceived value of that decision may explain a tendency to choose a referent's brand. A higher perceived value could translate to greater perceived risk. Two of the major components of perceived value are perceived quality and perceived monetary price. Measures of perceived, rather than actual, quality and price were developed for use in this study (see Appendix for items).

Perceived quality is defined as the consumer's overall judgement about a product's excellence or superiority; it is the benefit component of value (Zeithaml 1988). Quality evaluations are subjective and are made within the consumer's evoked set (Maynes 1976). Consumer judgements about product quality influence, and are related to, perceptions of price and willingness to pay (Monroe and Krishnan 1985; Noël and Hanna 1996).

Perceived price is defined as the cost component of value; it is what the consumer gives up to obtain a product or service (Zeithaml 1988). There is a distinction between objective and perceived prices (Allen, Harrell and Hutt 1976; Gabor and Granger 1961). Consumers encode price in ways that are meaningful to them (Dickson and Sawyer 1985; Zeithaml 1982, 1983). They may not encode the actual price, but rather a perception of the price as expensive or inexpensive.

Perceived Importance. When consumers are involved, they are more likely to be influenced by reference groups (Assael 1981). While involvement may be a significant factor in reference group influence, it may not stand alone. Laurent and Kapferer (1985) proposed that involvement was related to perceived risk in the following way. To be perceived as involving, a choice must have one of three antecedents: sign (badge) value, hedonic (pleasure) value, or perceived risk. Given the nature of the products surveyed in the current study, it was felt that there would be little sign value or hedonic value; thus perceived risk was investigated (as previously explained). Given this proposed relationship, it was decided to investigate the role of involvement in referent correspondence.

Involvement was defined as the reaction or response of an individual consumer with or to a stimulus, consistent with the work of Andrews, Durvasula and Akhter (1990), Cameron (1990), Costley (1988), and Mittal (1995). Items from the Consumer Involvement Profile (Laurent and Kapferer 1985, Mittal and Lee 1988, Mittal 1995), which defines involvement as perceived importance, were used in this study to measure involvement (see Appendix for items).

HYPOTHESES AND METHODOLOGY

Having previously found parental and roommate brand choice correspondence, the current study sought to investigate the underlying theoretical relationships - that is, what factors moderate young adult brand choice correspondence with parent and roommate brand choices.

Hypotheses

In the theory section above, three explanatory variables (perceived risk, perceived value, and perceived importance) were discussed as factors in predicting young adults' brand choice correspondence to primary referents (parents and roommates). Accordingly, if a consumer perceived that a mistake mattered (perceived risk), that a brand provided superior value (perceived value), or that a brand choice decision had personal relevance (perceived importance), the individual would be more likely to purchase the same brand as his or her parent and/or roommate. Correspondingly, it is hypothesized that:

- H₁: The brand-choice level of perceived risk is positively related to referent correspondence.
- H₂: Perceived value of the chosen brand is positively related to referent correspondence.
- H₃: The brand-choice level of perceived importance (involvement) is positively related to referent correspondence.

As discussed above, it has been argued that perceived risk is an antecedent to involvement (Mittal 1989, 1995; Mittal and Lee 1989). For an object to be

involving, an antecedent (in this study perceived risk) must be present. Accordingly, it is hypothesized that:

- H₄: The brand-choice level of perceived risk is an antecedent to the brand-choice level of perceived importance (involvement).

Methods

Parent and roommate brand choice correspondence, perceived risk, perceived value, perceived importance, and demographic information including academic year in program and living accommodations (to control for having left home) were measured (see Appendix for items). Brand-choice level items were used as the issues in question concern the choice of a brand, not the choice of a product category. Naturally occurring levels of perceived importance and perceived risk were measured, rather than manipulated experimentally.

Two products, laundry detergent and pain relievers, were used in the current analysis, as they had shown high levels of parental and roommate brand choice correspondence in previous studies (Feltham 1998; Feltham et al. 1994), they represented items frequently purchased by most students (household and personal care respectively), and they would give a basis for a limited generalization of findings. The questionnaire was administered to volunteers in each of the four years of an undergraduate business program. The final sample contained 400 usable questionnaires (approximately 25 percent in each year, 45 percent female).

Measures

The dependent variable, brand choice correspondence (0,1,2) was measured as an additive combination of two variables (Do your parents use this brand? Do your roommates use this brand?). An additive variable was constructed to reflect the three possible levels of correspondence: 0 if neither the parent nor the roommate used the same brand; 1 if either the parent or the roommate used the same

brand; and 2 if both the parent and the roommate used the same brand.

Observing the distribution of responses to each of the component items, 73 percent of respondents reported that they used the same brand of laundry detergent as their parents and 75 percent used the same pain reliever. A lower proportion of respondents reported using the same brand as a roommate, with 41 percent correspondence for laundry detergent and 48 percent correspondence for pain relievers. Of the 16-20 percent who did not use their parent's brands, 34-39 percent of these respondents also did not use their roommate's brands (see Table 1).

Table 1
Crosstab Results for Dependent Variable Items

Proportion Responding					
If you have roommates do they use this brand?		Do your parents use this brand?			
		Don't Know	No	Yes	Total
		Laundry Detergent			
Laundry Detergent	Don't Know	4.3%	3.6%	20.5%	28.4%
	No	2.0%	6.9%	22.0%	30.9%
	Yes	0.3%	9.7%	30.7%	40.7%
	Total	6.6%	20.2%	73.2%	100%
		Pain Relievers			
Pain Relievers	Don't Know	7.9%	2.2%	26.6%	36.7%
	No	0.5%	6.0%	9.2%	15.7%
	Yes	1.6%	7.3%	38.8%	47.7%
	Total	10.0%	15.5%	74.6%	100%

Note: N=391 for laundry detergent; N=369 for pain relievers

Correspondence to the brand choice of a parent or roommate is the measurement of influence used in this paper. If the respondents were not aware of what was purchased by referent others, if they merely followed a low price purchase strategy, or if they were not involved in the purchase decision, then this measurement of influence would be weakened. These influences did not appear to affect the results in this paper.

The questions used to construct this variable reflected respondent knowledge of parental and/or roommate brand behavior. Respondents, in indicating parental or roommate correspondence to own brand purchased, also implicitly indicated that they were

aware of the brand chosen by their parent and/or roommate. If they were uncertain, or did not know, they scored zero. As seen in Table 1, between seven and ten percent did not know if their parents used the same brands, while 28-37 percent did not know if their roommates used the same brands of laundry detergent or pain relievers.

If young adults were influencing their parents' brand choices, you would expect to see correspondence increase over time, but in fact Feltham (1994, 1998) found the opposite results. With respect to roommates and the direction of influence, the direction of the effect demonstrated increasing correspondence over time (Feltham 1998). For the purposes of this study, both parties were young adults; therefore, the conclusions do not rely on the direction of the influence.

As well, the survey evidence does not support a low price buying strategy. The large majority reported that they have a regular brand (laundry detergent 79 percent, pain relievers 88 percent) that is not purchased on sale (percent purchased on sale: laundry detergent 36 percent, pain relievers 10 percent) or with a coupon (percent purchased without a coupon: laundry detergent 89 percent, pain relievers 96 percent). Furthermore, they perceived that their brands of laundry detergent and pain relievers were of similar or higher price (laundry detergent 87 percent, pain relievers 91 percent) and quality (laundry detergent 98 percent, pain relievers 99 percent) to other brands on the market. They did not appear to be following a strategy of buying the cheapest product regardless of brand.

The survey data also addresses the issue of whether respondents merely used whatever the other roommate in the household purchased and was not involved in the shopping or purchase decisions. This was not the case for the individuals surveyed. The students who participated in the study were asked to report on *their* most recent purchase of laundry detergent and pain relievers. They were not asked to report on what was in the household inventory. In order to answer the questions, they had to be involved in the shopping and decision making. This

is not to say that they did not occasionally share products with roommates, or borrow when they were out of an item. They were not, however, reporting on those instances and it seems unlikely that they would answer detailed questions about *their most recent shopping experience* if the roommate, in fact, did the shopping and purchasing. In general, the evidence from the survey data supports the use of brand correspondence with a roommate or parent as a measure of influence. While not a process measure of influence-attempts, this variable represents more than mere correspondence to a referent without awareness.

Table 2
Overall Comparison of Reliability and Unidimensionality of Scales Utilized

Products surveyed:	Scales Used		
	Perceived Importance	Perceived Risk	Perceived Value
Laundry Detergent			
Factor Item Loadings ¹	.87-.90	.49-.72	0.75
Construct Variance Captured ²	0.88	0.63	0.75
Construct Reliability ³	0.93	0.69	0.66
Pain Relievers			
Factor Item Loadings	.85-.92	.53-.69	0.69
Construct Variance Captured	0.88	0.63	0.69
Construct Reliability	0.93	0.71	0.55

¹ Range of scale item factor loadings from confirmatory factor analysis in SPSS. Recommended loadings should be above 0.7.

² Percent of variance captured by the items in the scale - confirmatory factor analysis in SPSS. Recommended levels should be above 0.5.

³ Cronbach's α from reliability analysis in SPSS. Recommended levels should be 0.7 or higher.

The three independent variables: brand choice level of perceived importance (involvement), brand choice level of perceived risk, and brand choice level of perceived value were entered as factor scores from a confirmatory factor analysis. These measures were assessed for construct reliability, construct variance captured, and factor item loadings. Table 2 presents, for each of the three scales, the values across the two products, laundry detergent and pain relievers. The unweighted average mean score of the combined scale items for laundry detergent and pain relievers respectively was: 2.5 and 3.3 for perceived importance on a five-point scale ($t(382) = 9.853, p <$

.0001); 2.3 and 2.9 for perceived risk on a five-point scale ($t(383) = 11.325, p < .0001$); and 1.2 and 1.3 for perceived value (0,1,2 scale). In general, the perceived importance scale scored highly on all three measures, while perceived risk and perceived value had somewhat lower measures of reliability and unidimensionality. The scales were deemed satisfactory for use in further analysis.

RESULTS AND IMPLICATIONS

Results

The first stage of analysis examined the relationships between the predictor variables (perceived importance, perceived risk, and perceived value) and levels of referent brand choice correspondence with parents and roommates. The second stage examined the relationships between the predictor variables perceived importance and perceived risk.

Relationship between Predictor Variables and Brand Choice. Two models were estimated (one for laundry detergent and one for pain relievers) in the first stage. These models were specified as:

$$\text{CORRESPOND}_i = a + b_1 \text{IMPORTANCE}_i + b_2 \text{RISK}_i + b_3 \text{VALUE}_i + \varepsilon_i, \quad (1)$$

where: CORRESPOND_i is an additive combination of two variables, parental influence and roommate influence (CORRESPOND_i takes the value 0 if neither the parent nor the roommate used the same brand; 1 if either the parent or the roommate used the same brand; and 2 if both parent and roommate used the same brand) for the i th student; a is the intercept; IMPORTANCE_i is the brand choice level of perceived importance for detergent or pain relievers for the i th student; RISK_i is the brand choice level of perceived risk for detergent or pain relievers for the i th student; VALUE_i is the brand choice level of perceived value for detergent or pain relievers for the i th student; and ε_i is the error term for student i .

A discrete choice regression model was used as opposed to standard regression procedures. "[M]ethods like regression were designed for

analyzing variables that can assume any value within a range, that is, for continuous variables. . . . [i]t is often found that the outcome of the behavior is not continuous and standard regression procedures are inappropriate" (Train, 1986, p.3). To empirically test an ordering hypothesis, ordinal ranking techniques are appropriate. Through this statistical method we are formally testing the ordering that the levels of the moderators (IMPORTANCE, RISK, and VALUE) are lowest where neither referent used the same brand ($CORRESPOND_i = 0$), are higher where either a parent or a roommate used the same brand ($CORRESPOND_i = 1$), and are greatest where both referents used the same brand ($CORRESPOND_i = 2$). An ordered probit regression has the additional advantage that distances between categories are not forced to be equal. That is, no restriction is placed on the relative differences between levels of CORRESPOND. It is not hypothesized that the increase in the explanatory variables (IMPORTANCE, RISK, and VALUE) is increasing at a constant rate, but only that it is increasing monotonically by level of CORRESPOND. As a consequence, the increase in perceived value, risk and importance in moving from no referent correspondence to correspondence with either a parent or a roommate is not defined statistically as being equal to the increase in influence in moving from correspondence with either a parent or roommate to correspondence with both referents. Theory would not imply that these differences should be equal. The results are reported in Table 3, model A. The models were highly significant for both laundry detergent and pain relievers (Model A Laundry Detergent: $\chi^2 = 32.23$, 3 d.f., $N = 348$, $p < 0.0001$; Model A Pain Relievers: $\chi^2 = 25.07$, 3 d.f., $N = 348$, $p < 0.0001$) thus lending support to the overall power of perceived risk, perceived importance and perceived value in explaining young adult brand choice correspondence to referent brand choice. In support of H2, the coefficients for perceived value were positive and significant for both laundry detergent and pain relievers (see Table 3, model A). In other words, higher perceived values (for a respondent's chosen brands) were associated with higher levels of brand choice correspondence to parental or roommate brands. Similarly, the coefficients for perceived risk were positive and

significant for both laundry detergent and pain relievers (see Table 3, model A), thus supporting H₁. Higher perceived risk (for a respondent's chosen brands) was associated with higher levels of brand choice correspondence with parental or roommate brands. When there was perceived risk in the choice of a brand, respondents chose the same brand as a referent other.

Table 3
Ordered Probit Regression Results

	Perceived Importance	Perceived Risk	Perceived Value
Model A			
Laundry Detergent			
Coefficient	-0.05	0.17	0.30
z-score	-0.59	2.12 ^a	4.18 ^b
Pain Relievers			
Coefficient	-0.11	0.20	0.24
z-score	-1.24	2.37 ^a	3.39 ^b
Model B			
Laundry Detergent			
Coefficient		0.14	0.29
z-score		2.22 ^a	4.38 ^b
Pain Relievers			
Coefficient		0.13	0.22
z-score		2.07 ^a	3.41 ^b
Model C			
Laundry Detergent			
Coefficient	-0.4		
z-score	-4.40 ^b		
Pain Relievers			
Coefficient	0.52		
z-score	6.60 ^b		

Note: Ordered probit analysis was conducted with a Dependent Variable (0,1,2) defined as a combination of two variables (Do your parents use this brand? no=0, yes=1; and Do your roommates use this brand? no=0, yes=1). Equations for the models: Model A Laundry Detergent: $c^2 = 32.23$, 3 d.f., $N = 348$, $p < 0.0001$; Model A Pain Relievers: $c^2 = 25.07$, 3 d.f., $N = 348$, $p < 0.0001$; Model B Laundry Detergent: $c^2 = 31.89$, 2 d.f., $N = 348$, $p < 0.0001$; Model B Pain Relievers: $c^2 = 23.50$, 2 d.f., $N = 348$, $p < 0.0001$; Model C Laundry Detergent: $c^2 = 17.87$, 1 d.f., $N = 348$, $p < 0.0001$; Model C Pain Relievers: $c^2 = 36.93$, 1 d.f., $N = 348$, $p < 0.0001$.

a $p < .05$

b $p < .001$

Relationship between Perceived Importance and Perceived Risk. As observed in Model A (Table 3), the coefficients for perceived importance were not significant for either laundry detergent or pain relievers – that is, perceived importance was not positively related to brand choice correspondence (H₃). However, it has previously been argued (Mittal 1989, 1995; Mittal and Lee 1989), and was

hypothesized in the current study (H_4), that perceived risk is an antecedent to involvement (measured as perceived importance). If perceived risk is an antecedent to perceived involvement, one would expect to see significant correlation between the two variables. Indeed, the correlation between perceived importance and perceived risk was positive and significant ($p < .001$) for both laundry detergent (.6573) and pain relievers (.6908), lending support to the antecedent relationship of perceived risk to perceived importance (H_4).

Additional support for H_4 was found by examining the crosstabs of perceived importance by perceived risk (see Table 4). If risk is a necessary condition to have involvement, then crosstabs of the two measures should reveal a pattern where individuals who scored low on perceived risk would not score high on perceived importance. Indeed this is the pattern in the data for both products in the study (see Table 4). For laundry detergent, where the three measures of risk had a cumulative value of 5 or less (low risk), in 83 cases involvement was also 5 or less (low involvement) and in only a single case was involvement 13 or more (high involvement). The results are similar for pain relievers. In other words, without risk there was not involvement. It is interesting to note that very few individuals scored high on perceived risk and low on perceived importance, although theory does not rule out this combination.

Having established support for perceived risk as an antecedent to perceived importance, a two stage ordered probit regression analysis was employed to retest the relationship of perceived importance to referent correspondence (H_3). The following model was first estimated (once for each product) without perceived importance:

$CORRESPOND_i = a + b_1 RISK_i + b_2 VALUE_i + O_i$, (2)
where: $CORRESPOND_i$ is again the additive combination of the two referent influence variables (taking values of 0,1,2 through adding: Do your parents use this brand? no=0, yes=1; and Do your roommates use this brand? no=0, yes=1) for the i th student; a is the intercept; $RISK_i$ is the brand-choice level of perceived risk for detergent or pain relievers

for the i th student; $VALUE_i$ is the brand-choice level of perceived value for detergent or pain relievers for the i th student; and O_i is the error term for student i .

The results are reported in Table 3, model B. The models were highly significant for both laundry detergent and pain relievers (Model B Laundry Detergent: $\chi^2 = 31.89$, 2 *d.f.*, $N = 348$, $p < 0.0001$; Model B Pain Relievers: $\chi^2 = 23.50$, 2 *d.f.*, $N = 348$, $p < 0.0001$) and the coefficients remained significant.

The second step in modeling this two-stage regression is to regress perceived importance on the residuals from the above equation, O_i . This removes the effect of perceived risk and perceived value from the regression and allows for a test of the explanatory power of perceived importance alone. In other words, this allows us to test whether perceived importance significantly predicts correspondence to parental or roommate brand choice when the effects of perceived risk and perceived value are removed. The following model was estimated in this fashion:

$O_i = a + b IMPORTANCE_i + \epsilon_i$, (3)
where: O_i is the residual term for the i th student from Model B; a is the intercept; $IMPORTANCE_i$ is the brand choice level of perceived importance for detergent or pain relievers for the i th student; and ϵ_i is the error term for student i .

The models were highly significant for both laundry detergent and pain relievers (Model C Laundry Detergent: $\chi^2 = 17.87$, 1 *d.f.*, $N = 348$, $p < 0.0001$; Model C Pain Relievers: $\chi^2 = 36.93$, 1 *d.f.*, $N = 348$, $p < 0.0001$) and the coefficients for perceived importance were significant for both products tested (Table 3, Model C). Thus, support for H_3 was mixed. The hypothesis was supported for pain relievers – perceived importance provided significant predictive power in explaining brand choice correspondence beyond that of perceived risk. This relationship did not hold for Laundry Detergent (the sign was reversed).

Table 4
Crosstab Results for Perceived Importance by Perceived Risk
 Shaded areas represent low risk and either low importance (left) or high importance (right)

		Laundry Detergent Perceived Importance Scale														
Perceived Risk		low			medium										high	
		3	4	5	6	7	8	9	10	11	12	13	14	15	Row Total	
low	3	42	9	3	5	3	2	3	1			1			69	
	4	3	9	4	14	1	3	1	2						37	
	5	5	3	5	6	3	3	4		2	2				33	
	6	2	2	2	19	13	6	4	6	4					58	
	7	16	2	5	9	1	5	5	8	3	4			1	59	
	8				8	1	5	5	4	4	6	2	1	1	37	
medium	9	2		2	3	2	2	13	4	2	6	2			38	
	10	3						5	3	4	8		3	1	27	
	11	1						3	4	2	3	2	1		16	
	12	1		1							3		1	1	7	
	13										2	2	4	2	10	
	14										1	1	1		3	
high	15													5	5	
Column Total		75	25	22	64	24	26	43	32	21	35	10	11	11	399	

		Pain Relievers Perceived Importance Scale														
Perceived Risk		low			medium										high	Row Total
		3	4	5	6	7	8	9	10	11	12	13	14	15		
low	3	23	4	2	1	1		1	2		1				35	
	4	1		1	4			1	2	1				10		
	5	1			2		1	3	1	1	1				10	
	6			2	5	3	2	1	8	1	2				24	
	7	9			4	2	1	5	6	3	4	1	1	1	37	
	8				10	4	2	5	7	4	5	2	1		40	
medium	9	1	1		4	4	3	32	2	7	9	1	1	1	66	
	10				1		1	4	6	4	18	3	5	7	49	
	11	2					1	1	5	4	9	3	5	8	38	
	12				1	1			3	7	15	2	2	3	34	
	13							2		3	3		3	7	18	
	14										1	1	2	7	11	
high	15							1			1			9	11	
Column Total		37	5	5	32	15	11	56	42	35	69	13	20	43	383	

Implications

The results of this paper suggest that increased perceptions of risk, value, and involvement correlate

with choosing the same brands as a referent other. Regardless of whether the parental or roommate variable was modeled, the data suggested reliance on an external other for advice or reassurance.

Perceived risk, perceived value, and perceived importance help explain why a young adult purchases the same brands as a parent or roommate.

This study also provided further support for previous literature (Mittal 1989, 1995; Mittal and Lee 1989) which proposed that perceived risk is an antecedent to involvement. It was found that involvement (measured as perceived importance) provided significant explanatory power for the dependent variable (parental or roommate brand choice correspondence), but only after the effects of perceived risk were accounted for and removed.

Several differences were noted with respect to the products used in this study. As expected, the mean levels of perceived risk and perceived importance varied between products. Laundry detergent was seen as less risky and less important than pain relievers were. Corresponding to this perception, more respondents used their parent's brand of pain reliever (75 percent) than their parent's brand of laundry detergent (73 percent). Similarly, 48 percent of respondents used their roommate's brand of pain reliever and 41 percent used their roommate's brand of laundry detergent. The consequences of a bad choice of pain reliever would seem to be greater than a bad choice of laundry detergent. The level of correspondence to either a parent or a roommate's brand was 83 percent for each product, replicating earlier findings of generally high correspondence among young adults.

The change in consumer lifestyle from adolescent to independent consumer would appear to provide a marketing opportunity. This window is an important chance to affect brand choice. When individuals perceive risk in a brand choice, thus heightening levels of involvement, they are likely to choose the same brand as a referent other. The referent other is likely to be a parent when they first leave home. However, this loyalty may be short-lived as roommate influence increases (Feltham 1998). Regardless of the source of referent influence, a marketer may encourage brand switching by reducing the perceived risk of the brand choice for the consumer. A reduction in perceived risk should lead to less reliance on a referent other for brand

preferences among this targeted demographic. Conversely, to retain customers whose families used these products, campaigns that reinforce the value of the brand may be effective. In this study, individuals who chose the same brands as referent others, perceived that their brands were of a higher value (measured in terms of price and quality) than those who did not purchase the same brands as a parent or roommate.

Limitations and Future Research

As with most research, this article is subject to limitations. It is limited in scope, due to the use of young adults in a post-secondary educational setting and the inclusion of only two products. The inclusion of young adults in other settings would add to the ability to generalize to adults aged 18-24, as would expanding the number of surveyed products. The development of a process measure for referent influence would add to the strength of the findings, and is a limitation of this study. In addition, relationships over time can only be inferred as the study used a cross-sectional survey technique, which did not follow the same individuals for an extended period. Ideally, a group of individuals should be followed for a significant period of time to see how individual brand choices change. Such a longitudinal study may provide further insight into the dynamics at work.

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APPENDIX

Selected Questionnaire Items

Mittal and Lee (1988) examine four types of involvement at the product and brand choice level (adapting Laurent and Kapferer 1985). For this study, brand choice level items were employed.

Brand choice level of perceived importance:

(Response categories: five point scale anchored by strongly agree/strongly disagree)

I choose my laundry detergent (pain reliever) very carefully.

Which laundry detergent (pain reliever) I use matters to me a lot.

Choosing a laundry detergent (pain reliever) is an important decision for me.

Brand choice level of perceived risk:

(Response categories: five point scale anchored by strongly agree/strongly disagree)

When you buy a laundry detergent (pain reliever), it is not a big deal if you buy a wrong brand by mistake.

A bad buy of laundry detergent (pain reliever) could bring you grief.

If my usual brand of laundry detergent (pain reliever) were not available, making a right choice of laundry detergent (pain reliever) would not be easy.

The following items were developed for this study:

Brand choice level of perceived value:

How would you rate the regular price of this brand compared to other brands? (lower, similar, higher)

How would you rate the quality of this brand compared to other brands? (lower, similar, higher)

Dependent variable items measured:

For your most recent laundry detergent (pain reliever) purchase:

If you have roommates, do they use this brand? (yes, no)

Do your parents use this brand? (yes, no)

Demographic items measured:

Academic year in program: (1, 2, 3, 4)

Where do you live? (on-campus, off-campus alone, off-campus with roommate(s), at home with family, other)