

MEDIA, PARENT, AND PEER INFLUENCES IN TEEN FOOD SHOPPING

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Recently validated normative versus informative interpersonal influence susceptibility scales were extended to study the pattern of parent, peer and media influences that teens receive during food shopping. Ordinary versus special food shopping contexts were distinguished. Major findings from a sample of teens from two schools indicate that parents and media exert significant informative rather than normative influences on teens during both ordinary and special food shopping. Parents, however, influence teens both informatively and normatively more during special than during ordinary food shopping. The marketing implications of these findings are indicated.

INTRODUCTION

The psychology of teen behavior was a major interest in the 1950's and 1960's among behavioral researchers (e.g., Brittain 1963; Hamilton and Warden 1966; Psathas 1957). In the 1970's and 1980's teen behavior research focused on adolescent consumer socialization from a communications perspective (e.g., Churchill and Moschis 1979; Moore and Moschis 1981; Moschis 1976, 1985; Moschis and Moore 1979). In the 1990's the teen market is attracting the attention of a growing number of manufacturers, marketers, and advertisers, primarily because of expanding teen buying power (Graham and Hamdan 1988; Hauser 1986; Trachtenberg 1986). Apart from a few exploratory studies (Mascarenhas and Higby 1993a, 1993b), research on teens from a marketing perspective has not received much attention. The high volatility of teen behavior and consequent instability and unpredictability of teen shopping behavior might account for this scarcity.

Earlier studies on teen interpersonal influences have focused on teen shopping for apparel (Mascarenhas and Higby 1993a) and leisure products (Mascarenhas and Higby 1993b). Teen interpersonal influences in relation to food shopping have not been studied. This study seeks to fill the gap, since food shopping is a major activity among teens today (Blakkan 1983; Brill 1986; Hauser 1986; Stern 1985). Food marketers are beginning to realize the importance of reaching teens who

are now doing more food shopping, menu planning, and cooking for their families (Blakkan 1983). The growing teen market has been recently tapped by innovative marketers (Hauser 1986; Stern 1985; Trachtenberg 1986). Since more than half of the teens under fifteen are making brand decisions for their families and developing brand loyalties that may last into adulthood (Blakkan 1983), Kraft now advertises in teen magazines.

Following the methodology of Mascarenhas and Higby (1993a, 1993b), food shopping is studied under two categories: "ordinary" and "special" occasion food items. The former includes fast consumable items such as snacks, candy, pop, junk foods, and family groceries; "special-occasion" (hereafter designated as "special") food shopping includes entertaining, parties, and dining in restaurants.

Consumer socialization research has identified three major sources of adolescent influences: parents, media, and peers (e.g., Brittain 1963; Churchill and Moschis 1979; Moore and Moschis 1981). For instance, some have studied the influences of *family, peers, and television on children's decision making processes* such as information seeking, purchase motives, and product evaluation (McNeal 1978; Moschis 1976; Churchill and Moschis 1979). Others have focused on the influence of *parents and peers in adolescent decisions* (Brittain 1963; Moschis and Moore 1979). The influence of *parents and the media* on adolescent purchases has also been examined (Churchill and Moschis 1979; Moore and Moschis 1981). Some studies have focused just on media influence in adolescent consumer learning (Moore and Moschis 1981; Moschis and Moore 1979), linking teen advertising responses to

subsequent purchasing patterns (Moschis, Moore, and Stephens 1977). This study analyzes parent, media, and peer influences together. Understandably, "media" is an "impersonal" influence, but is a competing influence on teens in relation to peers and parents. Accordingly, the media influence is studied together with peer and parent interpersonal influences. The three influences in teen food shopping are defined as follows: *parent* influences stemming from one's father, mother, or guardian; *media* influences coming from newspapers, TV, radio, and teen magazines; and *peer* influences originating from one's brothers, sisters, and friends at school or workplace.

CONCEPTUAL BACKGROUND: INTERPERSONAL INFLUENCE SUSCEPTIBILITY

Most people are influenced by one's society or by one's significant others, although people differ in their responses to social influence (McGuire 1968). Susceptibility to interpersonal influence (SII) is a general trait that varies across persons. In general, a person's relative influenceability in one situation tends to positively affect that person's influenceability in a range of other social situations; people who conform to one influence source on one issue will be likely to conform to other sources on other issues (McGuire 1968).

In investigating the nature of interpersonal influence susceptibility, sociologists distinguish between normative and informative influences. According to Burnkrant and Cousineau (1975), "normative" influence is the tendency to conform to the expectation of others. Deutsch and Gerard (1955) define "informational" influence as the tendency to accept information from others as evidence about reality. Two sub-types are distinguished under the former: normative influence is "value-expressive" when influence is received for enhancing one's self-image or self-concept in relation to significant others; it is "utilitarian" when one conforms to the expectations of others to achieve rewards or avoid punishment. Informational influence may be sought either directly, by seeking information from knowledgeable people, or indirectly, making inferences while observing their behavior. Both normative and informative influences are found to affect consumer purchasing and use processes (Bearden and Etzel 1982; Burnkrant and Cousineau 1975; Park and Lessig 1977).

Susceptibility to interpersonal influence (SII) is presumably a tri-dimensional construct: informational, value-expressive, and utilitarian (Bearden and Etzel

1982; Burnkrant and Cousineau 1975; Park and Lessig 1977). In recent research, Bearden, Netemeyer, and Teel (1989) found the last two dimensions to be quite similar. That is, the value-expressive and utilitarian aspects of SII are not really two different dimensions of SII but just two different "reasons" for compliance with expectations of others: 1) the value-expressive influence operates through the process of identification, which occurs when one receives values or opinions of others as promoting one's self-enhancement, and 2) the utilitarian influence seeks compliance for achieving rewards and avoiding punishments, which is another way of seeking self enhancement. Bearden, Netemeyer, and Teel (1989) argued that SII is bi-dimensional and empirically demonstrated that consumer susceptibility to interpersonal influence (CSII) exhibited just two dimensions: normative and informative. Mascarenhas and Higby (1993a, 1993b) revalidated this finding relative to teen shopping for apparel and leisure products in relation to all three influence sources: parents, media, and peers. This paper seeks to revalidate the bi-dimensional categorization in relation to teen food shopping.

Susceptibility to Influence and Consumer Socialization

Consumer susceptibility to interpersonal influence (CSII) among teens may be considered as a significant component in their process of consumer socialization. Consumer socialization is defined as the process "by which young people acquire skills, knowledge, and attitudes relevant to their functioning in the marketplace" (Ward 1980, p. 380). It occurs through overt and covert interactions between teens and influence-sources in regard to purchase, use, and disposal of goods and services (Ward, Wackman, and Wartella 1977). Consumer socialization research indicates that parents influence children and adolescents by letting them observe and imitate their behaviors, by interacting with them in their consumption, and by providing them opportunities for guided consumption (Ward, Wackman, and Wartella 1977). Adolescents frequently communicate with their peers prior to making purchases in order to maintain group identity (Bearden and Randall 1990). This paper does not directly address teen consumer socialization, but socialization research does help one to understand and position the study of CSII among teens.

Hypotheses Formulation

The greatest and earliest source of consumer socialization is through interpersonal communication in a family

context (Churchill and Moschis 1978). Research suggests that guiding communications of parents help adolescents to learn rational consumer behaviors such as money management, comparative shopping, and assessing price-quality relationships (Ward, Wachman, and Wartella 1977). Most family influences persist well into adulthood becoming part of one's personality (Ward, Wachman, and Wartella 1977). Further, source credibility and consistency of influence have been found to be critical under both informative and normative influences (Mahajan, Muller, and Kerin 1984). If parents are considered credible and consistent, then their influence should be strong enough to surpass peer and media influences in the purchase of food products.

This stream of literature seems to suggest that parental influences will be significant in teen shopping. Trade literature (Blakkan 1983; Graham and Hamdan 1988) on teen market behavior indicates that teens today are relatively more independent and mature than their counterparts of a decade ago. This finding implies that teens may be more open to informative than normative influences. Based on literature from the academic and trade journals, the following hypothesis could be tested:

Hypothesis 1: Parental informative influences will dominate all other influences teens receive during shopping for food products.

As defined earlier, "special" food products are those which are bought less frequently, but are more expensive and socially more visible items than "ordinary" food products. Given this definition, one could hypothesize that teens would receive more influence from their parents while shopping for "special" than for "ordinary" food products. Higher parent influences for special products are expected, especially if parents finance most of the special food product purchases. A second testable hypothesis is:

Hypothesis 2: Teens will receive parental informative and normative influences more while shopping "special" than "ordinary" food products.

The role of the media in teen consumer behavior is well documented (e.g., McNeal 1987; Moore and Moschis 1981; Ward, Wachman, and Wartella 1977). Given increasing independence and maturity of teens today, one would hypothesize that they would be open to receive more informative than normative influence from the media. A third testable hypothesis is:

Hypothesis 3: With the exception of parental informative influences, media informative influences will dominate all other influences teens receive while food-shopping.

Socio-Demographic Determinants of Teen Food-Shopping Influences

Normative parental influences are found to decrease as children grow older. Consumer socialization literature also supports the view that parental influences decrease with the age of adolescents (Moschis and Moore 1979; Moschis, Moore, and Stephens 1977). The degree of teen shopping independence may differ with sex, social class, and social risk involved in products they buy (Moschis and Churchill 1978; Saunders, Samli, and Tozier 1973). Parent-teen consensus has been found to be higher for expressive than for less-expressive items (Saunders, Samli, and Tozier 1973). Other teen situations such as lack of parental presence in dual-income homes, large amounts of discretionary dollars and new shopping responsibilities for family food needs (Blakkan 1983; Brill 1986) may determine the type and level of peer influences. Some of these socio-demographic determinants will be investigated in relation to both ordinary and special food shopping influences.

Scale Development of Food-Related CSII

After reviewing studies on interpersonal influence susceptibility, Bearden, Netemeyer, and Teel (1989, p. 474) defined consumer susceptibility to interpersonal influence (CSII) as follows:

It is "the need to identify or enhance one's image with significant others through the acquisition and use of products and brands, the willingness to conform to the expectations of others regarding purchase decisions, and/or the tendency to learn about products and services by observing others and/or seeking information from others."

This definition implies the following:

1. Susceptibility to interpersonal influence (SII) occurs when there is a need to identify or enhance one's self-concept in relation to one's significant others. We assume teens have such needs.
2. As consumer susceptibility to interpersonal influence (CSII) increases the domain of influence is the purchase and use of products and brands.

The scale items used here will be related to the purchase and use of food products, food brands, and food stores.

3. CSII occurs through two basic ways such as: a) conformance or compliance to the expectations of others regarding purchase decisions and uses—this is "normative" influence; b) learning about products and services by observing others or by seeking information from others - this is "informative" influence.

Teen interpersonal food-shopping influence (TIFI) scale items will feature teen information-seeking and conformance patterns in relation to food shopping. Scale items on informative influences will be those that seek help and guidance in product, brand and store search and comprehension, whereas items describing normative influences will relate to accepting evaluations, choices and loyalties from influence sources (Bearden, Netemeyer, and Teel 1989). Scale item content was also suggested by teen food shopping-related trade literature (e.g., Blakkan 1983; Graham and Hamdan 1988).

In order to assess the impact of the three sources of influences (parents, media, and peers), and the two influence types (informative and normative), statements along six Teen Interpersonal Food Influence (TIFI) scales were developed. The Bearden, Netemeyer, and Teel (1989) interpersonal influence scale as well as teen apparel shopping-related scales (Mascarenhas and Higby 1993a) were closely followed with some extensions and modifications to reflect teen food shopping. The final instrument included 36 scale items. Teens responded to each of the 36 influence statements first under "ordinary" and then under "special" shopping situations, each situation marked with proper anchoring instructions. A five-point equal interval agreement-disagreement Likert scale was used for measuring responses to interpersonal influence statements [e.g., 5 = I totally agree with this statement; 4 = I agree more than disagree ...; 3 = I agree as much as disagree]. Relevant demographic items were also included in the survey. A brief explanation of the research objectives and key terms preceded test administrations.

Sample Research Design

Because of the exploratory nature of this research, convenience samples of teenage students from two comparable high-schools were chosen. "School one" sample consisted of 100 students from a public school in suburban Detroit, and "School two" sample was composed of 134 students from a private school of

suburban Philadelphia. Comparability between two schools was ascertained on several factors. Age-wise students in both schools ranged from 14 years to 18 years, both schools averaging about 16.4 years. Both schools samples had an almost equal proportion of male and female students. Respondents from both schools were asked to estimate their monthly expenditures on "casual" versus "special" food items, and how much of these expenses were financed from their own money, and how much by their parents. The following distribution of average monthly expenses clearly demonstrates the equivalence of the two sample schools. Annual parental allowances for children in both school samples averaged to \$392.00, and annual income earned by teens in school two (\$2745) was slightly higher than school one. Both schools are comparably upscale with no major socio-economic differences affecting data aggregation.

	Average Monthly		Self-Financed		Parent-Financed	
	School 1	School 2	School 1	School 2	School 1	School 2
Casual	\$ 84	\$ 81	\$31	\$29	\$ 53	\$ 52
Special	\$162	\$163	\$39	\$38	\$123	\$125

Additionally, comparability between the schools was established by studying how teens rank person- and media-related factors with respect to their influence in food shopping. Table 1 profiles the results. Pretests identified ten person-related and seven media-related factors that normally influence teens in their shopping. Inter-school ranks are parallel. Spearman's rank-order correlation coefficient between the two sample schools was 0.782 ($p < 0.001$) for the person factors, 0.714 ($p < 0.001$) for the media factors, and 0.870 ($p < 0.001$) for the combined 17 factors. Based on rank frequency sums on factors, Chi-square values for the two schools were 8.214 ($df = 9$), 4.171 ($df = 6$) and 12.489 ($df = 16$) for the person, media, and combined factors, respectively. None of these Chi-square values is significant at $p < 0.05$. Both schools are pooled together in subsequent data analysis.

Scale Revalidation Procedures

Given the hypothesized underlying dimensions (six TIFI scales) in the survey data, a confirmatory factor analysis would have been most appropriate. Since the research is a revalidation of an existing scale (Mascarenhas and Higby 1993a), a principal component factor analysis was executed to study the loading patterns of the scale items. As expected, six (varimax-rotated principal component) factors (very similar to those in Mascarenhas and Higby 1993a) resulted discriminating three influence sources (parents, media, and peers) and two

TABLE 1
RANK ANALYSIS OF FOOD SHOPPING INFLUENCE FACTORS
BETWEEN SAMPLE SCHOOLS

Influence Factors	Public School [n=100]				Private School [n=134]			
	Frequency Sum	WTD Rank*	Factor Rank+		Frequency Sum	WTD Rank*	Factor Rank+	
<i>Person-Factors</i>								
Teenage Friends	74	2.00	8	15	110	2.08	6	12
School/Class Mates	34	1.85	10	17	28	1.71	9	16
Mother	91	4.44	1	1	125	4.21	1	1
Grandparents	28	2.04	7	14	30	1.97	7	14
Siblings	60	2.30	6	12	85	2.25	4	9
Father	82	3.17	3	5	96	3.07	3	5
Aunts/Uncles	16	2.31	5	11	25	1.44	10	17
Workmates	15	1.86	9	16	31	1.74	8	15
Boy/Girl Friend	24	2.42	4	9	34	2.21	5	10
My Self	87	3.86	2	3	123	4.19	2	2
<i>Media Factors</i>								
Mail Catalogs	58	2.50	5	8	78	2.06	7	13
Teen Magazine Advertising	29	3.10	3	6	61	2.45	4	7
Tv Advertising	95	4.32	1	2	126	4.12	1	3
Radio Advertising	78	2.71	4	7	102	2.42	5	8
Store & Pop Advertising	85	3.29	2	4	118	3.39	2	4
Outdoor Advertising	59	2.10	7	13	73	2.15	6	11
Newspaper Advertising	75	2.37	6	10	103	2.82	3	6

* Respondents were asked to select five factors from each set that they considered most important in food shopping, and allocate ranks to them from 1 (most important) to 5 (least important). Weighted rank mean is calculated as follows: $[5x_n1 + 4x_n2 + 3x_n3 + 2x_n4 + 1x_n5]/n$, where n_i is frequency under rank i for a given factor, and n is the sum of frequencies across the five ranks for that factor.

+ Factor rank based on weighted ranks: the first column ranks within each set of factors; the second across both sets.

influence types (normative versus informative) under both special and ordinary shopping contexts. This result revalidates the normative/informative typology of Bear-den, Netemeyer, and Teel (1989), as well as the inter-personal influence susceptibility scales in relation to teen shopping for apparel products (Mascarenhas and Hibgy 1993a). The scale items with means and standard deviations are presented in Table 2.

Scale reliability was assessed by Cronbach's standardized alpha for each scale, each shopping situation, and under each sample school. The corresponding alphas reported in Table 3A are high enough for

exploratory research (Nunnally 1978). Using Kolmogorov-Smirnov tests, the two school samples were found to be statistically equivalent ($\alpha < 0.10$) on each of the six TIFI scales under both ordinary and special leisure product contexts. Since the two sample schools are equivalent, they serve as replications that support convergent validity of the TIFI scales. Table 3B correlates TIFI scales with the corresponding scale scores for apparel shopping (Mascarenhas and Hibgy 1993a) and leisure shopping (Mascarenhas and Hibgy 1993b). The significantly ($p < 0.01$) high Pearson correlation coefficients in Table 3B establish nomological validity of the TIFI scales.

TABLE 2
TIFI SCALE ITEM MEANS AND STANDARD DEVIATIONS:
ORDINARY VERSUS SPECIAL FOOD SHOPPING SITUATIONS

Food Shopping Statement	Ordinary		Special	
	mean	SD	mean	SD
<i>Peer-Normative</i>				
I rarely purchase the latest products until I am sure my peers approve of them.	1.50	0.89	1.71	1.04
It is important that my peers approve of the store where I buy.	1.52	0.92	1.63	1.01
I am very loyal to stores where my peers shop.	2.22	1.15	2.16	1.09
If I want to be like my peers, I always buy the brands they buy.	1.83	1.09	1.80	1.02
I work long hours and save to afford the things my friends buy.	2.02	1.24	2.03	1.16
I achieve a sense of belonging by buying the same brands my peers buy.	1.84	1.14	2.11	1.27
My peers very much influence the choice of my shopping friends.	1.68	1.14	1.74	1.06
<i>Peer-Informative</i>				
I regularly ask my friends regarding the latest fads and ashions.	2.11	1.14	1.97	1.06
I always talk to friends about prices and quality before I buy.	2.13	1.23	2.11	1.19
To make sure I buy the right product, I often watch my friends buy.	1.76	1.02	1.85	1.05
My siblings always talk to me about the ads before I buy anything.	1.85	1.14	2.18	1.23a
<i>Parent-Normative</i>				
I always follow my parents' decisions by buying the same products and brands.	2.24	1.27	2.84	1.41a
My parents accompany me when I purchase.	2.03	1.22	2.82	1.45a
What, where and which foods I buy are very much determined by my parents.	2.18	1.30	2.77	1.45a
I always shop with my parents.	1.98	1.19	2.63	1.38a
My parents decide all shopping needs.	1.75	1.20	2.41	1.47a
<i>Parent-Informative</i>				
I never buy any new product until my parents and I have discussed it.	1.77	1.49	2.28	1.28a
When I do not understand prices and quality I consult my parents.	3.27	1.39	3.57	1.27a
I often discuss purchase plans with parents.	2.15	1.30	2.73	1.42a
<i>Media-Normative</i>				
I buy only those products/brands that are advertised on TV, radio & teen magazines.	2.00	1.15	2.05	1.16
Radio and TV ads determine my loyalties.	2.26	1.15	2.36	1.18
I continue buying the same brands as long as my favorite rock stars endorse them.	1.51	1.05	1.59	1.07
<i>Media-Informative</i>				
I always consult the media to determine the best buys.	2.25	1.37	2.53	1.31
I always look at ads before I buy.	2.24	1.31	2.52	1.35

a: "Special" means exceeds "ordinary" means at p 0.01.

TABLE 3
CONVERGENT AND NOMOLOGICAL VALIDITY OF TIFI SCALES

TABLE 3A: CONVERGENT VALIDITY: CRONBACH'S STANDARDIZED ALPHAS

Multi-Group == >	Public School [n=100]		Private School [n=134]		Both Schools [N=234]	
Shopping Context == >	Ord.	Spl.	Ord.	Spl.	Ord.	Spl.
<i>TIFI Scale:</i>						
Peer Normative	.743	.736	.708	.620	.729	.699
Peer Informative	.590	.657	.581	.544	.591	.595
Parent Normative	.683	.667	.692	.690	.690	.691
Parent Informative	.522	.569	.574	.578	.551	.579
Media Normative	.484	.560	.490	.597	.486	.589
Media Informative	.468	.510	.489	.562	.478	.543

TABLE 3B: NOMOLOGICAL VALIDITY: CORRELATION COEFFICIENTS OF TIFI SCALES WITH CORRESPONDING APPAREL AND LEISURE SHOPPING SCALES

Scale Type	Apparel Shopping		Leisure Shopping	
	Ordinary	Special	Ordinary	Special
<i>Ordinary Food Shopping:</i>				
Peer Normative	.675	.617	.599	.563
Peer Informative	.654	.445	.607	.424
Parent Normative	.558	.328	.491	.193
Parent Informative	.621	.366	.542	.216
Media Normative	.813	.581	.584	.392
Media Informative	.654	.546	.570	.577
<i>Special Food Shopping:</i>				
Peer Normative	.569	.596	.469	.551
Peer Informative	.545	.589	.509	.544
Parent Normative	.346	.550	.273	.548
Parent Informative	.517	.612	.447	.569
Media Normative	.680	.654	.539	.543
Media Informative	.632	.616	.517	.606

Teen Food Shopping Influence Patterns: Results and Discussion

The scale item scores were summed and averaged for the six TIFI scales for ordinary and special shopping situations. Table 4A reports means and standard deviations. Judged by difference-of-two-means *t* values, parental influences in special occasion food shopping are significantly higher than those in ordinary food shopping under normative ($T = 7.835$, $p < 0.001$) and

informative ($T = 5.208$, $p < 0.001$) influence types. This finding supports Hypothesis 2. From the first five rows of Table 4B it is clear that parent informative influence significantly ($p < 0.05$) dominates all other influences, under both "ordinary" and "special" food shopping. Hypothesis 1 is also verified. Judged from the next four rows of Table 4B it is also apparent that media informative influence dominates all other influences except parent normative under "special" food shopping. Hypothesis 3 is partly verified.

TABLE 4
PATTERNS OF TEEN FOOD SHOPPING INFLUENCES
[N = 234]

TABLE 4A: ORDINARY VERSUS SPECIAL OCCASION FOOD SHOPPING

TIFI Scale	Ordinary		Special		Significance	
	Mean	SD	Mean	SD	t*	p
Peer normative	1.80	0.67	1.88	0.65	-1.311	N.S.
Peer informative	1.96	0.76	2.03	0.76	-0.935	N.S.
Parent normative	2.04	0.83	2.69	0.96	-7.835	<0.001
Parent informative	2.40	0.93	2.86	0.98	-5.208	<0.001
Media normative	1.93	0.78	2.00	0.82	-0.946	N.S.
Media informative	2.24	1.09	2.52	1.12	-2.741	<0.005

TABLE 4B: INTER-SOURCE COMPARISONS OF FOOD SHOPPING INFLUENCES

TIFI Scales Compared:	Teen Food Shopping Situation			
	Ordinary		Special	
	t*	p	t*	p
Parent Informative/Peer Normative	8.007	<0.001	12.748	<0.001
Parent Informative/Peer Informative	5.604	<0.001	10.238	<0.001
Parent Informative/Media Normative	5.923	<0.001	10.295	<0.001
Parent Informative/Media Informative	1.708	<0.050	3.495	<0.001
Parent Informative/Parent Normative	4.418	<0.001	1.896	<0.050
Media Informative/Media Normative	3.541	<0.001	5.731	<0.001
Media Informative/Peer Normative	5.261	<0.001	7.560	<0.001
Media Informative/Peer Informative	3.223	<0.001	5.538	<0.001
Media Informative/Parent Normative	2.233	<0.025	-1.763	<0.050
Peer Informative/Peer Normative	8.007	<0.001	12.748	<0.001
Parent Normative/Peer Normative	3.442	<0.001	10.687	<0.001
Parent Normative/Peer Informative	1.087	N.S.	8.246	<0.001
Parent Normative/Media Normative	1.477	N.S.	8.360	<0.001
Media Normative/Peer Normative	1.794	<0.050	1.755	<0.050
Media Normative/Peer Informative	0.421	N.S.	0.410	N.S.

* One-tailed difference-of-two-means t tests.

Socio-Economic Determinants of Media Influences

From survey responses, annualized dollars were calculated to assess "teen allowance" (weekly, holiday and vacation), "teen income" (earned part-time or full-time), and teen "gift money" (birthdays, holidays and achievements). Since both schools were located in upper middle-class neighborhoods, social-class status, as reflected by parents' education and occupational

levels, was considered similar and not included. Accordingly, four demographic variables (gender, teens' age, family size, birth order) and two composite economic variables (teen earned weekly income/parental weekly allowances, and teen's self-financed food expenses/parent financed food expenses for casual and special food items) were used as independent variables for OLS regression runs with each of the six TIFI scores as dependent variables. Table 5 presents the

results. "Birth order" or rank among siblings was not a significant factor for any of the twelve OLS regression runs, and hence is not included in Table 5.

As is clear from Table 5, socio-demographic variables explain very little variance in TIFI scores. In order to explain this phenomenon, linearity checks were run on each independent variable with each of the twelve dependent variables. Table 5 provides probability values of deviation-from-linearity F statistics. Since "gender" was entered as a two-category nominal variable, its relationship with each of the twelve TIFI scale scores is assumed to be linear. Given the other four independent variables included in the twelve regression equations, there are 48 linearity checks reported in Table 5, out of which only seven variables showed significant ($p < 0.05$) departure from linearity, and two out of these yielded significant betas (both under age and special food context, -0.27 for parent normative, and -0.14 for parent informative). This would suggest that non-linear regression models may not improve explanatory power of independent variables in relation to TIFI scores. Only gender emerges as a major explanatory variable.

Entered as a nominal variable (male = 1; female = 2), the consistently negative betas under gender in Table 5 indicate that teen boys receive more food shopping-related influences than teen girls.

CONCLUDING REMARKS AND MARKETING STRATEGY IMPLICATIONS

This study of interpersonal influences during teen food shopping considered three sources of influences (parent, media and peers) under the normative/informative influence dichotomies in the context of ordinary versus special leisure shopping situations. The findings of this exploratory research should be interpreted within the limiting context of sample size ($N=234$), sample space (two suburban schools from two large states), and time (the data were collected in 1990). Given that parent informative influence significantly dominates all other influences teens receive during ordinary and special food shopping (Hypothesis 1), media strategy directed at teens could also be channeled to their parents, especially with strong informative messages. Secondly, given that media informative influence is clearly the next dominant influence among teens during food shopping (Hypothesis 3), marketers should focus on informative rather than normative messages in teen-targeted food advertising. Lastly, parents play a significant higher informative and normative role in "special" than in "ordinary" food shopping (Hypothesis 2). This finding suggests that advertising to teen parents with clear informative and normative messages could be effective for "special" teen food products.

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TABLE 5
SOCIO-DEMOGRAPHIC DETERMINANTS OF TEEN FOOD INFLUENCES
OLS REGRESSION BETAS^a [N=234]

TABLE 5A: ORDINARY FOOD SHOPPING

Dependent Variable	Independent Variables					Model	
	Gender	Age	Family Size	Inc ^b	Fin ^c	R ²	Size
Peer normative	-.16					6.33	.03
		.70*	.28	.52	.38		
Peer informative	-.13					4.04	.02
		.71	.69	.11	.01		
Parent normative							
		.05	.54	.57	.05		
Parent informative							
		.10	.46	.31	.22		
Media normative	-.14					4.90	.02
		.43	.68	.12	.20		
Media informative	-.16					5.78	.02
		.24	.92	.50	.01		

TABLE 5B: SPECIAL FOOD SHOPPING

Dependent Variable	Gender	Age	Family Size	Inc ^b	Fin ^d	F	R ²
Peer normative							
		.93	.13	.02	.93		
Peer informative							
		.40	.57	.14	.87		
Parent normative		-.27				18.54	.07
		.03	.10	.95	.22		
Parent informative		-.14				4.85	.02
		.02	.07	.67	.69		
Media normative							
		.99	.69	.09	.30		
Media informative	-.14					4.98	.02
		.39	.71	.45	.55		

^a Only those with significant (p .05) values are included.

^b Inc = (teen earned weekly income)/(parental weekly allowances).

^c Fin = (teen's self-financed ordinary food expenses)/(parent financed teen's ordinary food expenses).

^d Fin = (teen's self-financed special food expenses)/(parent financed teen's special food expenses).

* Probability significance of non-linearity (corresponding independent and dependent variable) F test value. If probability value reported is 0.05, then deviation from linearity is not significant.

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