CONSUMER SOCIALIZATION IN A WIRED WORLD: THE EFFECTS OF INTERNET USE AND PARENTAL COMMUNICATION ON THE DEVELOPMENT OF SKEPTICISM TO ADVERTISING

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A reasonable degree of consumer prudence is needed to function in today's commercially-oriented society such that skepticism is considered a positive and important outcome of the consumer socialization process particularly in adolescents. This study identifies the characteristics associated with skeptical adolescents and links these to various environmental factors focusing in particular on Internet use and the *type* and *intensity* of parenting communication adopted in the adolescent's household. In doing so we monitor the role of the Internet in the consumer socialization process and are thereby able to update previous studies based on a more limited range of media. The empirical results suggest that the Internet hampers the development of skepticism to advertising unless it is used in the context of telewebbing (simultaneous Internet and television use). We also find as parental communication moves toward a concept-oriented approach, the development of skepticism to advertising increases.

INTRODUCTION

Consumer socialization is the process by which individuals acquire skills, knowledge, and attitudes relevant to their functioning as consumers in the marketplace (Ward 1974). By the mid-sixties experts concluded that much of this development occurred during childhood years in three distinct but overlapping stages – the preschool stage (2-7 yrs), the child stage (5-11 yrs), and the adolescent stage (11 –17 yrs) – and the bulk of the research on consumer socialization in the young can be divided accordingly. This study looks at the adolescent stage, and we empirically determine some of the factors that make adolescents more (or less) 'gullible', *i.e.* skeptical, to advertisers' claims and various marketing strategies. S*kepticism* is defined as a consumer's negatively positioned attitude toward the motives and claims made by advertisers and marketers (Boush, Friedstad, and Rose 1994).

Why investigate adolescent skepticism? A certain degree of skepticism in adolescent consumers is considered to be a positive and important outcome of the consumer socialization process as it assists in gathering, processing, and interpreting marketplace knowledge, producing 'better' consumers (Brucks et al. 1988). The main objective of this study, then, is to identify the characteristics of skeptical adolescents (e.g. 'good' consumers) and to link these to various environmental factors focusing in particular on Internet use and on the *type* and *intensity* of parent communication adopted in the adolescent's

household. Little is known about the effects of Internet use on consumer socialization (Roedder-John 1999). We address parenting as a secondary focus because of the influence parents have over adolescent every-day activities like that of the Internet. The relatively low regulatory structure of the Internet provides an additional incentive for parents, policy-makers, and other groups with vested interests in adolescent welfare to monitor the susceptibility of adolescents to advertising (of whatever sort) transmitted through the Web. If our and similar studies suggest that certain adolescents fall short of a 'healthy' level of skepticism towards advertising, it may be necessary to consider more stringent marketing policies and/or enlist the help of educators to aid in protecting the young from being exploited in the marketplace. Finally, teens use the Internet everyday for activities like email, surfing, shopping, chatting, playing games, and downloading music (Technology 1999; Pastore 2001a; Pastore 2001b). Media communications are crucial in advertising and other marketing activities, and the advent of such a powerful and interactive communication tool is bound to have an impact on *how* adolescents become consumers in the marketplace (consumer socialization).

Another important trend amongst the adolescent segment is their growing financial importance in consumer markets. We live in an affluent society with an average spending power that is increasing along with the number and quality of consumer goods and services we have access to. We are also witnessing a decrease in the average number of children per household and an increase in two-working parent families, implying a higher per capita income. This, coupled with a social tendency to compensate for the lack of family time with material goods, has led to a substantial increase in the amount of pocket money and spending freedom (*e.g.* through the use of family credit cards) available to the typical 16- year- old American adolescent. According to a recent report in Forbes, American teenagers will spend $175 billion this year on products alone (Wells 2004). There has also been an explosion in the outlets where this money can be spent with shops open around the clock, transactions completed by phone and/or over the Internet, and catalog orders. In other words, adolescents today have more money, more things to spend it on, and more time to spend it.

THE CONSUMER SOCIALIZATION PROCESS AND ITS COMPONENTS

The underlying theoretical framework used in this study is that proposed by Moschis and Churchill (1978). They model consumer socialization by first assuming that it is a process that can be described by four different components: 1) social structural variables including life cycle position (gender, age, socio-economic status, and other demographic factors); 2) the socializing agents – those who influence the consumer socialization process; 3) the agent-learner relationships or learning methods (*i.e.* various combinations of modeling, and reinforcement activities) used by the agents to socialize the subject; and 4) learning outcomes (Moschis and Churchill 1978). The outcomes of the consumer socialization process refer to the set of knowledge, skills, and attitudes acquired through having experienced the socialization process. Skepticism, the dependent variable throughout our analyses, is one of these.

Roedder-John (1999) provides a more recent review of the consumer socialization literature and highlights the need to address the Internet as a socialization agent. For practical purposes we have concentrated our efforts on gathering information about the social structural variables and socialization agents in the consumer socialization process and attempted to explain only one of the potential learning outcomes associated with the consumer socialization process, *i.e.* that of skepticism or the ability to correctly assess the intent of advertisements and their content. Given the interactions between the four components some of the variables used in this study invariably capture effects that are created by agent-learner relationships and/or other learning outcomes. In other words, some of the quantitative and qualitative significance of our findings may be affected by these omitted variables and the reader should note these limitations. However none of the empirical studies we came across take into account the entire set of potential factors. To do so would be statistically cumbersome. Instead authors have used the most relevant structural social variables and socializing agents to explain one or two of the potential learning outcomes. (See for instance Mangleburg and Bristol 1998; Carlson and Grossbart 1988; Mascarenhas and Higby 1993; Moore and Stephens 1975; Moschis and Churchill 1978; Moschis and Moore 1978). We do so here by positioning 'skepticism' as our dependent variable and hypothesising that a combination of social structural variables, socializing agents, and measures of market-based knowledge (another learning outcome) can help us gain valuable insights into what makes a given adolescent more skeptical than another.

TEENS AND THE INTERNET

We cite numerous reports that track *how many* teens are online, but *what* are they doing on the Internet? Shopping, chatting, playing online games, surfing, and instant-messaging according to an in-depth study by La Ferle, Edwards, and Lee (2000), however little is known about the effects of Internet use on the adolescent consumer as it relates to their consumer learning or consumer behavior. To our knowledge no research has been conducted on, for example, brand awareness or market knowledge and exposure to the Internet. However, studies have been conducted on the effects of other non-traditional media on consumer behavior and/or consumer learning (exploring the teen market). Several studies suggest MTV has an influence on teenage consumption particularly in providing a reference for consumption (Cleland 1995). Strasburger and Hendron (1995) report that MTV help teens define their social and cultural boundaries. Other studies have focused on the media in general and find that teens use media

as a means of personal identification (Arnett 1995) including how they view the world (Steele and Brown 1995), and what opportunities life holds for them (Davis and Davis 1995).

La Ferle, Edwards, and Lee (2000) find that there is a difference between male and female teens with respect to the type of information they look up when using the Internet. This information is valuable to marketers who can then target each gender differently. They also find that teens that use the Internet from home are more likely to rely on search engines, ask friends, or look at newspaper advertisements to find Web sites implying that cross promotion strategies can be advantageous when marketing to adolescents. Finally, this study reports that teens trust the Internet for fast and confidential information. More generally however, little is known about the effects of the Internet on adolescent consumer learning and attitudes. Does the Internet affect the consumer learning process, or its outcomes?

CONSUMER SOCIALIZATION AND HYPOTHESES

Socio-Structural Variables (Set 1)

We use hierarchical regression to input three sets of variables that follow the causal sequence of the consumer socialization process (socio-structural variables, socialization agents, and Internet use). Our objective is to explore the consumer socialization process including the effects of parenting and the Internet on formation of skepticism to advertising.

Socio-structural influences are the first component of the consumer socialization process. Moschis and Churchill (1978) include variables that capture the life cycle position such as age, gender, socio-economic status, and other demographic factors. We follow previous research (age, gender, socio-economic status) but also capture the effects of the teens' contribution to their own socio-economic position. Teens spend an average of $264 per month from sources including parents, other family members, employment, and allowance (Texas Banking 2004). Mangleburg and Bristol (1998) find a positive relationship between marketplace knowledge and the development of skepticism to advertising. In a similar vein it is not unreasonable to suppose that having more experience in the marketplace will lead to the development of skepticism to advertising. In other words, teens that earn money and/or have money to spend will have more experience in the marketplace. We rely on conventional wisdom to suggest that females are more skeptical to advertising because they tend to be more communicative than their male counterparts. It also reasonable to assume that the older the teen, the more experienced he/she is in the marketplace leading to the development of skepticism to advertising (Boush, Friedstad, and Rose 1994). Based on these assumptions and previous research we conclude the following:

H1: Skepticism to advertising is positively related to age.

H2: Female adolescents are more skeptical to advertising than their male counterparts.

H3: Socio-economic status is positively related to the development of skepticism to advertising.

H4: Employment is positively related to the development of skepticism to advertising.

H5: Earning an allowance is positively related to the formation of skepticism to advertising.

Socialization Agents and Other influences (Set 2)

Parents

Parents are an important influence on the development of consumer skills. One method for framing the debate of the parental influence on adolescent consumer socialization is using 'family communication' which directly refers to the child's family communication environment and is associated with a distinct and widely used theoretical construct (Carlson, Grossbart, and Tripp 1992). Within this trend, parental influence or family communication is conceptualized as having two uncorrelated communication dimensions, *socio-oriented family communication (SOFC)* and *concept-oriented family communication (COFC)* (McLeod and O'Keefe 1972; Moschis and Moore 1979; Moschis, Prahasto, and Mitchell 1986; Carlson, Grossbart, and Stuenkel 1990b;). SOFC centers on maintaining harmonious family relationships by encouraging deference to authority while COFC centers on teaching children to "develop their own skills as consumers" thereby allowing children to form their own opinions of the world around them, (Moore and Stephens 1975; Ward and Wackman 1971). Concept-oriented family communication and SOFC can further be arranged by forming a two by two typology that results in four parental communication patterns: *Laissez-faire* (low COFC, low COFC), *Protective* (low COFC, high SOFC), *Pluralistic* (high COFC, low SOFC), and *Consensual* (high COFC, high SOFC) (Moschis and Moore 1978, 1979; Moore and Moschis 1981; Moschis 1985; Carlson, Grossbart, and Tripp 1990;). Parents who use little or no communication with their offspring are classified as Laissez-faire while protective parents rely on a higher degree of SOFC. Pluralistic parents encourage their children to develop their own opinions thereby relying on a higher degree of COFC. Consensual parents engage in high levels of both COFC and SOFC; they encourage teens to develop their own opinions but they also expect their teens to conform to their own ideas and values (Carlson, Grossbart, and Tripp 1990). We address this four-way typology in our sixth hypothesis.

Previous work by Moschis (1985) suggests COFC fosters an understanding of consumer needs and behaviors based on their objective attributes. However, he also suggests teens raised in homes where SOFC is used will make consumer decisions based on the evaluation and opinions of others—because

SOFC encourages deference to authority. Previous research also indicates that mothers who use COFC develop their children's competence as consumers (Carlson, Grossbart, and Strunkel 1992) Moreover, Mangleburg and Bristol (1998) find a positive relationship between the development of skepticism to advertising and COFC but find no relationship between the development of skepticism and SOFC.

A number of authors have used the four groupings associated with the combinations of COFC and SOFC parenting communication patterns (laissez-faire, protective, pluralistic, and consensual) including Moschis and Moore (1978; 1979), Moore and Moschis (1981), Moschis (1985), and Carlson, Grossbart, and Tripp (1990). We build on this approach by ranking these groups and creating a measure of 'parenting communication intensity' (we call this variable PARINT). More specifically, each respondent was given one of four possible ranks (where 1 = least intensive parenting communication, 4 = most intensive parenting communication) reflecting the 'intensity' of parenting communication used in the household based on their combination of SOFC and COFC scores. From low intensity to high intensity, *laissez-faire* includes those with low SOFC *and* low COFC; *pluralistics* demonstrate low SOFC but high COFC; *protective* are those parents who demonstrate high SOFC but low COFC; finally, *consensuals* are high SOFC *and* high COFC.

The variable PARINT is clearly based on a subjective assessment of parenting communication, and some would disagree with a higher weighting of COFC over SOFC. It is, nonetheless, supported by previous research on parenting (Cooper et al.1982, 1983). We argue that effective parents are those who *do not* discourage individual expression in favor of family harmony, implying that COFC dominates SOFC although a combination of both methods is likely to be most effective. According to, Carlson, Laczniak, and Walsh (2001), Gardner (1982), and Rose, Bush, and Kahle (1998) 'good' parents tend to communicate freely with their children and encourage self-expression while emphasizing the balance between the children's rights and responsibilities. It is reasonable to interpret such views as indicating that a combination of COFC and SOFC is preferable, but that COFC is superior to SOFC when used as a single method of parenting.

Our ranks reflect assumptions that can be summarized by the following three propositions: (i) Any form of family communication is better than none (consensual, pluralistic, and protective > laissez-faire); (ii) Different parenting skills are required in different situations and at different times such that a household where both types of parenting communication are used is likely to dominate one which focuses on a single method (consensual >pluralistic>protective parenting communication); (iii) Finally, there is also a small but growing literature suggesting that children – adolescents in particular – respond better to a supportive and encouraging approach to discipline as embodied in the methods of COFC (Baumrind 1971, 1991; Henderson and Berla 1994). Together (i), (ii), and (iii) imply that in terms of parenting communication intensity, consensual > pluralistic > protective > laissez-faire. Together these assumptions form the basis of our sixth hypothesis:

H6: 'Parenting communication intensity' is positively related to the development of adolescent skepticism to advertising.

Peers

As adolescents move out of early childhood into adulthood, the relative importance of peers versus parents grows dramatically. Campbell (1969) argues that this phenomenon is a necessary psychological event that provides adolescents with the much needed self-assurance required to interact with the world outside the closed family circle. He identifies the core components of this relationship with peers as that of association, communication, and interpersonal salience. Bandura's (1969) work also emphasizes that adolescents identify with their peers and it is with them that they share interests, attitudes, and role behaviors. Moore and Stephens (1975) found that friends and peers constitute the most influential source of information when a purchase exceeds five dollars while Moschis (1978) confirms that peer communication could be used as a significant predictor of adolescent attitudes toward advertising. Moschis and Moore (1978), in subsequent but related research, highlight the major role played by peers in forming adolescents' consumer related skills, particularly with regards to brand knowledge, price accuracy, legal knowledge, and consumer role perceptions.

To capture peer influence on adolescent consumer socialization we have used the concept of 'susceptibility to interpersonal influence' based on the work of Bearden, Netemeyer, and Teel (1989) This is a construct that measures the need for individuals to identify with or enhance their image by purchasing products that conform to the norms in their peer group(s) and has been used in several subsequent studies including Meyer and Anderson (2000), Miller (1998), Gilly et al. (1998), Achenreiner (1997), Schroeder (1996). It is a theoretical and empirically attractive construct in that it distinguishes between susceptibility to 'normative' and 'informative' influences. Susceptibility to normative peer influence, 'NPI', refers to one's willingness to *conform* to the expectation of others through purchase decisions while informative influence, 'IPI', refers to gathering of information by observing and interacting with peers with regard to purchase decisions (Bearden, Netemeyer, and Teel 1989).

Boush, Friedstad, and Rose (1994) and Mangleburg and Bristol (1998) find a negative relationship between susceptibility to normative peer influence and the development of skepticism to advertising. However, Mangleburg and Bristol (1998) also find susceptibility to informative influence will have a positive effect on the development of skepticism to advertising. Their research suggests teens will provide their

peers with information that is critical of advertisements and/or help them develop a skeptical outlook to advertising. Moreover teens will yield to their peer's perception of what is 'cool' over what advertisements depict as 'cool'.

H7: Susceptibility to normative peer influence is negatively related to the formation of a skeptical attitude toward advertisements in adolescents.

H8: Susceptibility to informative peer influence is related positively to the formation of a skeptical attitude toward advertisements in adolescents.

Television

In a pre-Internet era, Beuf (1976) suggested that television had replaced the socialization agents of the past to become the primary disseminator of moral values to the population at large—a task that was traditionally associated with the various churches. In her view, television, through its entertainment, information, and advertisement contents, provides a common set of experiences for the population thereby exposing children to a core set of values and morals.

Research conducted since indicates that by age five, children are able to distinguish commercials from regular programming (Butter et al. 1981) and by age seven or eight, they are also able to understand the intent of advertising as well as some of the biases and deceptions invariably contained in television advertising (Robertson and Rossiter 1974). By the teenage years, they are believed to have developed a good degree of skepticism towards advertising, a positive socialization outcome. Recall that skepticism is the dependent variable in this research and refers to the adolescent consumer's ability to understand the motivation and biases of advertisers (Boush, Friedstad, and Rose, 1994).

Other related work on this medium and its socializing impact concludes that television has the potential to guide adolescents in the 'expressive' aspects of consumption behavior – *i.e.* behaviors and comportments that are acquired through imitation and observations – as opposed to the more rational aspects of consumption behavior which are typically acquired through guidance from parents and other mentors. Moschis and Churchill (1978) attempted to quantify this relationship and showed that statistically significant and positive relationship exists between the amount (in hours) of television viewing and the viewer's expressive influence. Of particular interest to us are Mangleburg and Bristol's (1998) finding that the extent of television viewing *enhances* skepticism towards advertising by improving the adolescent's marketplace knowledge. Their research also suggests that television is an important complement to interaction with family and peers, two of the key agents in the formation of skepticism. In their view then, television is instrumental in helping adolescents develop healthy levels of skepticism. Churchill and Moschis (1979) and Moore and Moschis (1981) also report that television viewing declines in the later years of adolescence, as teenagers become increasingly more likely to visit friends and engage in activities away from the home. While the influence of television may vary in its intensity with the amount of viewing and the age of the viewer, it is generally agreed that television, television advertising in particular, acts as a normative influence rather than an informative one. (The latter help consumers decide upon brand, price, and store as well as other practical issues while the former influences opinions and attitudes in product evaluation and product loyalty (see Mascarenhas and Higby 1993; Moschis and Moore 1982).

H9: Television use is related positively to the development of skepticism to advertising in adolescents.

Other factors that influence Consumer Socialization

Conventional wisdom suggests that as teens talk with their parents about shopping and consumer-related issues they will become more knowledgeable consumers and will therefore be able to discern the claims of advertisers. Moschis (1985) suggests that both overt and cognitive communication with parents will foster consumer learning in teens. Studies in the educational field also indicate that children of parents who communicate with them and are actively involved in their media activities will do better and go further in their education (Henderson and Berla 1994). Hypothesis ten suggests that the more teens talk about shopping and shopping related behaviors with their parents the more skeptical of advertising they will become.

H10: Talking about shopping is related positively to the development of adolescent skepticism to advertising.

Mangleburg and Bristol (1998) find a positive relationship between marketplace knowledge and the development of skepticism to advertising. With a greater knowledge of the marketplace it is reasonable to assume teens will become more savvy in the marketplace and able to decipher the claims made by advertisers. Boush, Friedstad, and Rose (1994) report a similar finding. In their study they find a positive relationship between age and skepticism to advertising. In other words as teens get older and therefore have more experience with the marketplace they will become more knowledgeable consumers, *i.e.*:

H11: Marketplace knowledge is related positively to the development of adolescent skepticism to advertising

The Internet (Set 3)

Advertisers communicate with consumers through the media, and these media have changed dramatically in the last decade, principally through the emergence of the World Wide Web. Industry analysts report that over 50% of the American

population are online with the fastest growing segments composed of adolescents and the elderly, unsurprisingly perhaps given the amount of leisure time generally available to these demographic subgroups (Pastore 2001a; Pastore 2001b). The U.S. Department of Education's National Center of Education Statistics states that over 95% of schools had Internet access in 1999 up from 35% in 1994, and practically 0% in 1990 (Statistics 2000).

No research to date explores adolescent use of the Internet and its role as a consumer socialization agent. This is surprising given that use of the Internet is becoming the 'norm' for the average adolescent living in America. The U.S. Census Bureau reports that nine in ten (90%) American children aged between 5-17 years have access to a computer, four in five (80 %) have access to the Internet at school, while two in three (67 %) have access to the Internet at home (NewBurger 2001). Datamonitor reports similar figures with 65 million children ages 5 to 17 having Internet access at home while another 53 million gaining access to the Internet at school. They also report that these children spend an estimated five billion hours online annually (Pastore 2001b). More recently a study from the Pew Internet and American Life Project found 87% of teens 12-17 used the Internet in 2004 and in that same time span their frequency of use rose 51% (Kerner 2005). It is reasonable to assume that these figures have grown since the publication of these reports. Investigating the effects of this medium on adolescent skepticism is bound to produce interesting insights.

Marketers will increase online advertising from $7.8 billion in 2004 to a projected $10.2 billion in 2005 resulting in an estimated 30% growth rate while overall, advertising is expected to grow at 4.8% in 2005 (McGann 2004). This has resulted in a steady increase in the number and types of advertisements 'served' to Internet users while they surf the Net. These advertising messages take the form of pop ups, interstitials, and daughter windows (Frost and Strauss 2003). In addition most companies today manage a Web site used as another means of Internet marketing communication and engage in alternative communication strategies such as product placement (*e.g.* www.candystand.com), branded sponsorships and partnerships (*e.g.* www.amazon.com), and direct marketing (*e.g.* www.jcpenney.com). With similar strategies used with the television medium like commercial advertising, sponsorships, product placement within programming, and direct marketing, an obvious parallel emerges between the two media and the marketing communications models they rely upon. In light of what is known about the effects of television on consumer learning—e.g. increased materialism (Churchill and Moschis 1979) and increased levels of skepticism to advertising (Mangleburg and Bristol 1998), it is reasonable to assume that Internet use will similar effect consumer learning.

H12: Internet use is positively related to adolescents' skepticism toward advertising.

Other sources report that adolescents use the Internet for chatting, homework, socializing, browsing, and "surfing" (Technology 1999). They also report an increase in 'telewebbing' which refers to the simultaneous use of the Internet and television. Jupiter Communications reports that 11% of teens are telewebbers (Kennedy 2001) and Gartner Communications suggests that 82% of U.S. households teleweb at least once a week (McCall 2000). A more recent study of the adult population suggests a 72% increase in the time spent telewebbing (McGann 2005). Despite the growing popularity of telewebbing, overall, the Internet is used at the expense of other media (Berman 2001). Nevertheless we make the assumption that using both television and the Internet together will result in exposure to additional quantities of advertising and marketing messages thereby increasing skepticism (H13) —this is in line with the findings of Mangleburg and Bristol (1998) with regard to television viewing alone.

H13: Simultaneous television and Internet use is positively related to adolescents' skepticism toward advertising

Skepticism and Consumer Socialization (Dependent Variable)

We follow Moschis and Moore (1978) and others including Carlson (1988), Mangleburg (1998), Mascarenhas (1993), Moore and Stephens (1975), and Moschis (1976; 1978a; 1978b) by assuming that parents, peers, and media (*i.e.* television and the Internet) have the greatest potential to directly and significantly effect adolescents ability to critically assess advertisements and other marketing phenomenon. Skepticism constitutes our dependent variable It is measured using previously validated survey-based methodology that produces a numerical index that is subsequently used in linear hierarchical regression analyses.

METHODOLOGY

A review of the empirical literature and discussions with experts suggested that the survey method most suited for the purposes of this study was to design a 'traditional' pen-and-paper questionnaire that would be administered to a large group of adolescents, aged 13-18 yrs inclusively, residing in Mount-Pleasant, Michigan, USA. Mount-Pleasant was chosen for a number of practical reasons including its reputation amongst polling organizations as a representative of 'average America' in terms of characteristics and values (*e.g.* income, demographic composition, ethnic background, religious and political views, and aspirations). It also holds a 'typical' distribution of stores, malls, and other commercial outlets of importance in a study such as ours.

Survey Development and Design

A number of focus groups were conducted to gain insight into adolescent's online activities, their favorite sites, their

understanding of the terms used in the questionnaire, and whether the introductory instructions were sufficiently clear. A final draft of the questionnaire was piloted to teenagers aged 14-17 yrs. not attending the designated high school. We were advised that surveying during homeroom – the daily welcoming sessions during which students of a same cohort/class are gathered for attendance, registration, and public announcements – was likely to maximize response rates while minimizing administrative error. Homerooms are compulsory and take place first thing in the morning, thereby ensuring a good response rate as well as higher quality responses. The questionnaire included detailed instructions and a total of 144 semi-structured questions (mostly multiple-choice). Completion in two separate sessions made the questionnaire less onerous for the students. To secure goodwill and reduce potential item nonresponse and outright refusals, draws were organized in each of the homerooms (prize vouchers of $15.00 exchangeable at a local music retailer). An honorarium was also donated to the high school for their collaboration although the students were unaware of this arrangement.

The questionnaires were distributed and collected by school officials and staff who had previously been informed of the procedural requirements. A total of 966 computer-read scan sheets were successfully collected, but the scanning exercise reported that only 738 contained a full set of answers. Statistical analyses of the missing entries and nonresponse items detected no systematic patterns and the 228 incomplete questionnaires were omitted from the final database. (A copy of the questionnaire is available from the authors upon request.)

A closer look at the gender, age, and ethnic composition of the student body of the high school suggests that it is fairly representative of the population we are interested in (*i.e.* American adolescents aged 14 - 17 yrs). The ethnic background of respondents was 75% White, 4% Black, 3% Hispanic, 4% Asian, 3% Native American (11% chose not to answer this noncompulsory question) and this is, according to information gathered through the 2000 National Census, consistent with national averages. The four main age groups (14-15 yrs), (15-16 yrs), (16-17 yrs), (17-18 yrs) were fairly evenly represented with associated percentage figures of 20.5%, 25.3%, 23%, and 18%. Few participants were aged 13 and 19 (2% and 0.4%) as average entry age for the first year of high school is 14 and 17 for entry to the final year.

Measures

We divide the data into three sets, or categories, for analysis using hierarchical regression. The three sets closely follow the theoretical consumer socialization model as we explained previously. Set one includes the socio-structural variables, set two includes socialization agents, and set three includes Internet use and simultaneous television and Internet use.

Socio-cultural/economic (Set 1)

While information regarding gender, ethnic background, and age are fairly straightforward to gather, measuring socio-economic status is more controversial. The procedure adopted in this paper involved asking respondents to list the occupation of each of the parent(s) or guardian(s) in the household and to specify whether these were pursued on a full-time or part-time basis. Occupations were then coded on a scale ranging between 0-100 according to Duncan's Socio-economic Index. In the case of two earning couples, the highest score was selected (Nakao and Treas 1994). The resulting variable was labelled SES, ranges from a low of 26 to a high of 97 and is associated with a mean score of 63.9 and standard deviation of 16.51.

While SES is clearly correlated with parents' earnings, it may be only loosely associated with the adolescent's own spending powers. Households differ in the size and frequency of allowances they distribute to their children, and not all parents encourage their teenagers to seek part-time employment outside the home. Because 'pocket-money' is an important catalyst to consumer activities, we asked respondents to provide details of their weekly allowances, their access to credit cards and bank accounts (checks), whether they had a regular job, and if so what were their weekly earnings. Employment may also indicate a certain degree of maturity and autonomy and hence be associated with a more skeptical attitude to advertising. In our survey, over half the students (53.6%) had an after-school, or weekend job.

Socialization Agents (Set 2)

The following variables measure the importance of the three major socializing agents in the respondent's environment: parents, peers, and media. As with SES, these measures are not directly observable nor can they be 'stated'. They must be inferred from respondents' answers to a series of targeted questions and subsequently scaled for comparison and statistical manipulations. Reliability coefficients were computed to measure the consistency of the multiple measurements of each variable. The general acceptable lower limit for Cronbach's alpha (the reliability measure used in this research) is .70; however .60 is an acceptable lower limit for exploratory research (Hair et al.1998).

The concept-oriented family communication (COFC), socio-oriented family communication (SOFC), susceptibility to normative (NPI) and informative (IPI) peer influence constructs were measured by multiple measure likert-type scales. Items used to capture the COFC and SOFC constructs were based on the work of Moschis, Moore, and Smith (1984). Items used to capture NPI and IPI were based on the work of Bearden, Netemeyer, and Teel 1989).

TABLE 1
PARENTING COMMUNICATION INTENSITY (PARINT)

PARINT	COFC and SOFC values*	Frequency	Valid Percent	Cumulative Percent
1	Low COFC – Low SOFC	77	20.4	20.4
2	Low COFC – Hi SOFC	100	26.5	46.9
3	Hi COFC – Low SOFC	83	22	69
4	Hi COFC - Hi SOFC	117	31	100
TOTAL		377	100	100

**Individuals are low/hi COFC/SOFC if their score is below/above the median value of COFC/SOFC*

The COFC and SOFC indices were subsequently used to assess the level of parenting communication intensity of the household. Group membership was determined by a simple rule of thumb: if the respondent's score was above/below the median value of COFC/SOFC than he/she was categorized as high/low COFC/SOFC resulting in 4 orthogonal dimensions as in Carlson, Grossbart, and Walsh (1990b). We then 'rank' the parenting groups from low intensity to high intensity of parenting communication by assigning a number of 1-4 as shown in Table 1 to create the PARINT variable.

As explained earlier we argue that previous research supports our ranking of the parenting groups and that PARINT can act as a proxy of the 'parenting communication intensity' in the household. Although based on a number of reasonable propositions grounded in previous research (Baumrind 1971, 1991; Henderson and Berla 1994), it remains a subjective assessment. Also included in this set is television viewing, talking about shopping, and marketplace knowledge.

'TV" was captured by measuring usage (hours per week based on five hour increments). No households are without television and over 80% of respondents have access to Internet at home. We include TV in set 2 as its use has been associated with previous research and we are interested in evaluating the effect of Internet use and simultaneous TV and Internet use separately. "SHOPT TALK" refers to the amount of shopping related discussions held between the adolescent and his/her parents. This dichotomous variable takes the value of '1' if parents are the prime participants in these discussions and '0' otherwise. A total of 247 or 65.5% scored '1'. We also asked respondents to rate their own experience as consumers, or to self assess their level of agreement on a 7 point scale where 0=strongly agree and 6=strongly disagree to the statement "I am a knowledgeable consumer." This variable is adapted from Mangleburg and Bristol (1998) and produced a mean score of 3.59 and a standard deviation of 1.39.

Internet Use (Set 3)

Internet use (INT) and simultaneous television and Internet use (TV&INT) were measured using the same method as was used for television use, respondents were asked to identify their usage in 5 hour increments. We add these into our third regression block to determine how these two variables contribute jointly to variations in skeptical levels across our respondents.

Skepticism to Advertising (Dependent Variable)

The variables described above are, we argue, instrumental in explaining skepticism (SKEP) in adolescent consumers. SKEP is therefore the dependent variable in our regressions. It is based on the operational definition proposed by Bearden (1999) which refers to the consumer's tendency toward disbelief of advertising claims. It is measured on a 7-point agreement scale using the items found in Bearden (1999). The survey included 11 items with statements such as "We can depend on getting the truth from most advertisements," "The goal of advertising is to inform the buyer," "I believe advertising offers valuable information," and "Advertising is truth well told."

RESULTS

The underlying hypothesis is that skepticism is a function of three groups of variables: socio-structural controls, socializing agents (and we include in this set other household interest in consumer issues including marketplace knowledge and parent-child conversations about shopping), and Internet use (independent Internet use and simultaneous Internet and television use). We used linear hierarchical regression equations (LHRE) and entered the predictors according to the theoretical sequence of the consumer socialization framework. The increments in the adjusted R-squares and the t-tests for the standardized beta coefficients of the parenting and Internet variables provide an indication of their importance in explaining variations in skepticism levels across a relatively large sample of adolescent consumers. The LHRE can be represented as follows:

$$SKEP = f((AGE, GENDER, SES, EMPLOY, ALLOWANCE) \quad (SET\ 1)$$

$$SKEP = f((AGE, GENDER, SES, EMPLOY, ALLOWANCE), (PARINT, NPI, IPI, TV, SHOPTALK, MKPKNOW)) \quad (SET\ 2)$$

$$SKEP = f((AGE, GENDER, SES, EMPLOY, ALLOWANCE), (PARINT, NPI, IPI, TV, SHOPTALK, MKPKNOW,), (INTERNET, TV\&INT)) \quad (SET\ 3)$$

The variables used in our regressions are those various authors suggested were instrumental in explaining skepticism in adolescence. We are thus able to confirm and verify the

TABLE 2
REGRESSION RESULTS

Variables	*Set 1*	*Set 2*	*Set 3*
CONSTANT	3.990	1.964	1.841
AGE (H1)	-.143**	-.086*	-.076*
GENDER (H3)	.040	.109**	.084*
SES (H4)	-.146**	-.146**	-.137**
EMPLOY (H5)	.182**	.162**	.159**
ALLOW (H6)	.136**	.108**	.109**
PARINT (H7)		.119**	.126**
NPI (H8)		.315**	.314**
IPI (H9)		.044	.035
TV (H10)		.126**	.096**
TALKSHOP (H11)		.111**	.113**
MPK (H2)		.202**	.198**
INT (H12)			-.090*
TV&INT (H13)			.156**
R Square	0.07	0.28	0.30
Adjusted R-Square	0.06	0.26	0.27
Std Error of Estimate	0.75	0.67	0.66
F-Statistic	5.62**	12.95**	11.874**
Df	5	11	13

**Significant at $p< 0.05$; * Significant at $p< 0.01$.

predictions of previous studies while specifying the qualitative and quantitative impacts of 'parenting communication intensity' and a new media form, the Internet. We use the equations to model not only in terms of the direct effects on skepticism but also in terms of its effects on other variables.

Our first sequential input to the LHRE is the socio-economic predictors (Set 1). As expected the adjusted R-square increases significantly as the second set of predictors are included (Set 2). Adding the last two predictors (Set 3) further improves the fit of the regression although the F-statistic decreases slightly. All the coefficients are significant except for the IPI variable which remains insignificant throughout the LHRE procedures. On the basis of these regressions all of our hypotheses are accepted except for H9. In other words, we cannot support the claim that susceptibility to informative peer influence (IPI) is related positively to the formation of a skeptical attitude toward advertisements in adolescents.

The data indicate positive and significant results associated with the PARINT variable (H6). In other words, as parenting communication intensity increases or moves toward using more concept-oriented family communication along with socio-oriented family communication skepticism to advertising increases (H6 is supported).

While Mangleburg and Bristol (1998) hypothesized that NPI should be negative our data reveals that on the contrary, if and when an adolescent is susceptible to normative peer influence – *i.e.* interested in being considered "in" by friends – he/she will rely on peer perceptions of what is "in" and what is not. In other words, NPI-sensitive teens will reject the claims made by advertisers when these are in conflict with peers' opinion (H7 is rejected, p<.000). The analysis also show that IPI is not related to skepticism to advertising (H8)

Television watching (TV) -- despite its undesirable side effects (including decreased levels of fitness) -- has a *positive* effect on adolescent consumers by helping them develop healthy levels of advertising skepticism (H9). This is consistent with previous studies and as Mangleburg and Bristol (1998) explain, reflects the fact that adolescents become more 'experienced' at evaluating the claims of advertisers the longer they spend watching television.

Previous research and conventional wisdom suggest Internet use will assist in the development of a skeptical attitude toward advertisements—yet the data show the relationship is a negative one. A different story emerges when the Internet and television are used *simultaneously*. The positive (and significant) sign on the variable TV/INT suggests that telewebbing does assist in the development of skepticism to advertising. Telewebbers appear to be 'better' consumers.

DISCUSSION

Regression 1 suggests that other things equal, older and higher (socially) ranked adolescents tend to be less skeptical while adolescents with after school jobs who discuss shopping-related issues with their parents and have a fair knowledge of the marketplace develop more healthy levels of skepticism. The negative coefficient on age is perhaps less intuitive. One possibility is that older adolescents have different aspirations and are interested in different product markets (*e.g.* alcohol and cigarettes, beauty and health products, travel) which are targeted at older crowds. They are more 'naïve' in this market and may be relatively less discriminating. While our model 'captures' the fact that older teenagers watch less TV and generally have more pocket money, it does not take into account the changing nature of their consumption patterns and this is a limitation of our study. The negative relationship between those with higher SES and skepticism may be explained by the increased spending power of higher SES

families and the resulting decrease in the need to closely monitor household expenditures. Moschis and Churchill (1979) support this claim by demonstrating that family communication about consumption issues increases as SES decreases. In other words, those with lower SES may have a monetary constraint that "forces" them to critically evaluate the claims made by advertisers.

The coefficient on PARINT is positive and significant suggesting, as we anticipated, that an increase in parenting communication intensity particularly of the COFC nature, favors a healthy level of skepticism in adolescents. From a managerial perspective this implies that marketing communication that encourages parents and educators alike to use COFC based methods and other critical thinking techniques will favor the formation of 'better' consumers. In other words, marketers should encourage teen consumers to discuss purchases with their parents—this is different from current policies that require marketers to communicate to younger children (under the age of 13) that they should obtain parental permission (e.g. to go a Web site associated with the product, Children's Online Privacy Protection Act, or COPPA). It also suggests that as parents become more active in allowing teens to think for themselves with guidance and support of parents, they will become more adept in the marketplace. This is in line with previous studies that suggest that 'authoritative' parents – defined as guardians who are caring, supportive, and encouraging of exploration – are the most effective in the development of "competent" adolescents. According to Bush et al. (1999), the authoritative parent is in effect one who relies heavily on concept-oriented family communication. We suggest that marketers adopt a 'communicate and discuss' orientation when marketing to the adolescent market. This is different from the 'parental permission' orientation used when marketing to the pre-adolescent market.

We limit the remainder of our discussion to the finding that surprisingly - unlike television viewing - Internet use is *negatively* related to skepticism. We suggest there are four possible explanations for this result. First, the Internet is a 'consumer-controlled medium' and its users can skip advertisements and visit only the sites *they* are interested in. While this may also appear to be the case with television, we argue that because advertisements are inserted within TV shows, avoiding them are more difficult. In other words, Internet users are *active participants* in that they create their own viewing schedule while TV watchers are passive and can only choose amongst a number of fixed programs. Internet users are not subjected to the usual diet of advertisements which - if viewed a sufficient number of times - are instrumental in generating skepticism (Mangleburg and Bristol 1998).

Second, heavy Internet users may be fundamentally different from other adolescents in their tastes, attitudes, and consumer orientation, and this selection bias is captured by the Internet variable. Unlike the above claim that there is something inherent to the Internet that actively prevents the development of skepticism, here we propose that heavy users may already possess the characteristics that make them less skeptical consumers. It is not unreasonable to suggest that heavy Internet users are likely to be less sportive, social, and perhaps more secluded (in terms of direct peers and family interactions) than the average more rounded teenager, and this may effect their development as consumers. More research is warranted to explore the differences between teens and their interests and how this might affect their Internet use and subsequent development of a consumerist attitude.

Third, what is it that teens do online? A recent report from the Pew Internet and American Life Project suggests a difference between what activities teens and adults engage in while online (Lenhart and Madden 2005). This study reports that teens engage in a higher rate of activities like playing online games (81% versus 32% of adults) and sending or receiving instant messages (75% versus 42% of adults) but engage in a lower rate of activities like buying things such as books clothing or music (43% versus 67% of adults) and looking for health, dieting, or fitness information (43% versus 67% of adults). The report finds these two groups rate about the same for email use (89% versus 90% of adults) and getting news or information about current events (76% versus 73% of adults). Activities like online gaming and instant messaging are unlikely to contribute to the development of skepticism to advertising. However, making purchases online may result in the development of skepticism to advertising. Our study does not correlate specific Internet activities to the formation of skepticism and this is not only a limitation of our study but an opportunity for more research on what teens do online (versus amount of time spent online) and how their activities affect the development of skepticism to advertising and other consumer socialization outcomes.

Finally, unlike television, Internet use occurs at the expense of other activities including interactions with parents and peers. While some of this substitution effect is accounted for by the variables PARINT, NPI, IPI, and 'Talk about Shopping', the remainder will be captured by the Internet coefficient thereby increasing its significance. In our opinion, these four factors (the consumer-controlled nature of the Internet, the selection bias, the activities teens engage in while online, and the substitution effects) are reasonable suppositions that explain the negative coefficient. More research needs to be done to determine the relative importance of these factors and what they imply in terms of marketing strategy and the design of consumer policies.

Also noteworthy is the finding that *simultaneous* Internet and television use has a positive effect on the development of skepticism to advertising. One likely explanation is that telewebbing increases interactions with advertising concepts and help adolescents form a more rational attitude towards advertisements. Another possibility is that teens use the

Internet to gather additional information on the products they see advertised on TV precisely because they do not trust or understand the advertisement and want to find out more. In other words telewebbers may be naturally more sceptical to advertising and unlike Internet-only users they use the medium to explore consumption opportunities as opposed to other less non-commercial activities (e.g. chat rooms). From a managerial perspective this finding suggests marketers should engage in interactive marketing strategies (TV and Web) with the adolescent market. If teens are encouraged to go to the product Web site for more information, when they are confused about a product or unaware of its benefits, the Web site becomes a useful means of clarifying product use, benefits, and value. Lenhart and Madden (2005) suggest teens are less likely than adults to engage in buying activities online but the two groups are about equal in terms of going to the Internet for information on current events (76% of teens engage in this activity versus 73% of adults). It seems reasonable to assume that the adolescent market, having grown up with the Internet, will rely on it for information about the products they consume—particularly if they are curious or confused about the product. This study is limited in that we did not explore teens' motivation for using the Internet and type of Internet activities they engage in.

Little is known about why and what teens do on the Internet from a consumer perspective. Does the Internet assist in the development of marketplace knowledge in adolescents? Does interacting with peers on the Internet about products and services help teens become better consumers? Do teens rely on the Internet, more than other media, for their consumption decisions? Are heavy teen Internet users different from their counterparts relative to consumer attitudes and behaviors, and if so, how? Does surfing on the Net provide more information and therefore more opportunities for teens to discuss consumer issues with parents? Many of these questions have yet to be answered because the Internet is a relatively new medium. This and other works indicate that it is likely to have an enormous impact on adolescent consumer learning and therefore, the online marketing strategies used to reach this group.

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