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AUTHOR Moore, Roy L.; Moschis, George P.
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ABSTRACT

A longitudinal study examined both the short term and the long term effects of television advertising on the development of adolescents' consumption-related orientations. Questionnaires were administered to 556 adolescents in a number of schools in a southern state; a second wave of questionnaires was administered to a subsample of 230 of these students approximately 14 months later. The items on the questionnaires elicited information concerning the respondents' (1) consumer role perceptions, (2) consumer activity, (3) materialism, (4) sex role conceptions, (5) and television advertising viewing. The resulting data suggested that television advertising had both short and long term effects on consumer socialization. Some negative effects appeared to occur directly, especially among families in which communication about consumption was low. The data also showed that interpersonal processes might condition an adolescent's attention to and learning from television, causing both negative and positive effects on socialization. Finally, the results suggested that the long term effects of television differ from those in the short run, indicating that researchers should separate the two variables in future studies. (FL)

A LONGITUDINAL ANALYSIS OF TELEVISION ADVERTISING EFFECTS ON ADOLESCENTS

By

Roy L. Moore
Department of Journalism
Georgia State University
Atlanta, Georgia 30303

and

George P. Moschis
Department of Marketing
Georgia State University
Atlanta, Georgia 30303

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A LONGITUDINAL ANALYSIS OF TELEVISION ADVERTISING EFFECTS ON ADOLESCENTS

Concern has been expressed with respect to the effects of advertising, television advertising in particular, on the youth's development of consumer behavior, values and attitudes. Many advertising critics contend that advertising strongly influences the youths and results in undesirable socialization (e.g., nonrational, impulse-oriented choices, materialistic values). On the other hand, defenders of advertising practices argue that the main sources of such behaviors and cognitions are parents and peers, with advertising resulting in desirable consumer socialization (e.g., socially desirable consumer behaviors, knowledge of the consumption process)(cf. Ward 1979).

In order to answer questions relating to the effects of television advertising on consumer behavior, three basic kinds of evidence need to be presented: (a) concomitant variation -- i.e. correlation of televion advertising with specific aspects of consumer behavior; (b) time order of occurrence -- i.e. advertising must occur before consumer behavior changes; and (c) elimination of other possible casual factors -- i.e. elimination of other explanations of consumer behavior, besides advertising (Seltiz 1959).

In previous cross-sectional studies addressing issues relating to television advertising effects on consumer socialization only the first condition was satisfied, albeit cross-sectional studies do not allow for assessing directionality of the influence (e.g., Robertson, Rossiter and Gleason 1979). Time order of occurrence has been addressed in several experimental studies (e.g., Goldberg et al. 1978.

Goldberg and Gorn 1979). However,, aside from the drawbacks associated with research in laboratories (e.g., Murray 1980), the permanence of advertising effects has not been assessed in these studies (Adler et al. 1977). Finally, with respect to alternative explanations of advertising effects, interpersonal processes have been suggested as alternate explanations of advertising effects, mediating the impact of advertising (Robertson 1979). In addition, cognitive development effects have been offered as an alternative explanation of social learning (advertising and interpersonal) effects. For example, changes in the youth's consumer behavior may be due to either cummulative exposure to the number of ads as the person grows older, due to learning from significant others, or due to maturation and experience (Adler et al. 1977).

These omissions in previous research are reflections of the conclusions reached in a recent report on literature review of studies of television advertising effects (Adler et al. 1977). The report, which was prepared with support of the National Science Foundation, indicated that the effects of TV advertising on youths and their families were not clear and suggested several areas to be addressed in future research, including the following (Adler et al. 1977):

(a) What are the long-term effects of television advertising on the development of consumer skills and other social benefits? (p.117)

(b) Does TV advertising contribute to "effective" or "good" consumer behavior patterns? (p. 131)

(c) Does TV advertising contribute to any long-range socialization effects? (p. 131)

(d) Are there any differences between long-term and short-term advertising effects? (p. 124)

(e) What stereotyped beliefs result from heavy exposure to television commercials? (p. 60)

While several of these research questions require longitudinal research designs, nearly all previous research studies were either cross-sectional or experimental in nature. Some longitudinal studies examined the formation and persistence of brand loyalty, excluding the examination of television advertising effects (e.g., Guest 1955 and 1964, Fauman 1966, Arndt 1971, Madison Avenue, 1980). Thus, although longitudinal research is often advocated it is seldom used to study consumer socialization in general and advertising effects in particular (e.g., Ward 1979, McLeod 1974). In fact, we know of no longitudinal study that has examined advertising effects on the youths and their families.

This research examines the effects of television advertising, both in the short run as well as in the longer run, on the development of some consumption-related orientations related to the main issues of television advertising effects: (a) consumer role perceptions: (b) normative consumer activities; (c) materialistic values; and (d) sex-role perceptions.

BACKGROUND AND HYPOTHESES

Research into the acquisition of thought and action patterns that comprise consumer behavior is based mainly on two models of human learning: the cognitive development model and the social learning model. The cognitive development approach essentially views learning as a cognitive-psychological process of adjustment to one's environment, with age used as a proxy variable for cognitive development.

The social learning model, on the other hand, focuses on sources of influence--commonly known as "socialization agents" which transmit attitudes, motivations, and values to the learner. Learning is assumed to be taking place during the person's interaction with socialization agents in various social settings.

Previous studies of consumer learning have used a conceptual framework of consumer socialization based upon the two main socialization theories (Moschis and Moore 1978 and 1979; Moschis and Churchill 1978; Churchill and Moschis 1979). The conceptual model incorporates five five different types of variables: learning properties, age or life cycle position, social structural variables, socialization agents, and learning processes, (Moschis and Churchill 1978). The five variables are classified under "antecedent variables," "socialization process," and "outcomes."

Antecedent variables include social structural variables that locate the individual in his social environment and developmental variables. Examples of social structural variables are social class, race, sex, and education, while developmental variables are normally limited to either age or life cycle. Socialization processes refer to agent-learner relationships, which incorporate the specific agent and learning process operating. Socialization agents often include mass media, parents, peers, and school, while learning processes include modeling (imitation of learner's behavior), reinforcement (positive or negative) and social interaction (it may include both modeling and reinforcement).

Outcomes in the model include consumer knowledge, attitudes and

norms. Such orientations can be categorized into those properties that help the person function in any given social system, and are socially desirable, and those properties that are related to the individual's behavior regardless of the social demands, including socially undesirables orientations (McLeod and O'Keefe 1972).

In this research, socially desirable consumer role perceptions and consumer activities can be viewed as socially desirable properties (social benefits, while materialism and sex-role stereotyping (perceptions) as less desirable from the society's standpoint (see for example, McLeod and O'Keefe 1972, Churchill and Moschis 1979). The main focus is the effects of the teenager's interaction with television advertising stimuli on these dependent variables, with age, race, sex, and social class serving as antecedent (control) variables[1], and interpersonal communication about consumption with family and peers serving as possible mediators of television advertising effects.

Two theories of mass media influence on individuals seem to prevail in the literature. One model views mass communication effects as powerful, with exposure to the mass media being "persuasive" per se. This model makes the tactic assumption that media content equals audience effects. Bandura (1971) argues that this rather simple stimulus-response model explains how material objects acquire social meaning through the mass media advertising:

> As a rule, observed rewards increase, and observed punishments decrease imitative behavior. This principle is widely applied in advertising appeals. In positive appeals, following the recommended action results in a host of rewarding outcomes. Smoking a brand of cigarettes or using a particular hair lotion wins the loving admiration of voluptuous belles, enhances job performance, masculinizes one's self-concept, tranquilizes irritable nerves, invites

social recognition and amicable responsiveness from total strangers.

According to the "limited effects" model (Klapper 1960, Bauer 1964), on the other hand, mass media reinforce existing predispositions through selective exposure, and mass media effects are largely neutralized by interpersonal processes in a two-step flow process. While the reinforcement point of view has been attacked on several counts by socialization researchers (cf. Chaffee et al. 1970), the "two-step-flow" process seems to be more directly related to the area of consumer socialization. Research findings suggest that the mass media may induce youngsters to discuss consumption matters among themselves or with their parents and peers (e.g., Ward and wackman 1971, Moore and Stephens 1975, Churchill and Moschis 1979). Such mediation is more likely to result in attitude formation and change than in reinforcement of existing attitudes (Ward and Wackman 1971, Chaffee et al. 1970).

If television advertising has a direct effect on the consumer behavior or youths, as critics argue, then consumer socialization may occur in line with the stimulus-response model of mass media effects, regardless of mediating interpersonal processes. In this case, TV advertising viewing is expected to be related to the dependent measures both in the short run as well as in the longer run. However, it is possible that existing levels cognitions may induce differential levels of exposure/attention to TV advertising - i.e. reverse direction of influence in the short run as it has been speculated in several research studies (e.g., Moschis and Churchill 1978, Robertson et al. 1979, Adler 1977), resulting in additional long-term learning

of such cognitions. This point is in similar vein of research on television viewing and agression.[2] If this is the case, the partial correlations between TV advertising viewing at T^1 and the dependent measures at T^2 would have to be zero, after controlling for dependent measures at T^1.

On the other hand, if consumer socialization takes place in line with the "limited effects" model then interpersonal processes should mediate advertising effects and television influences should be neutralized by such processes. In this case, the impact of advertising would be expected to vary by level of interpersonal communication. In addition, interpersonal processes should be expected to have a strong effect on consumer socialization, regardless of the level of TV advertising viewing, in line with the "two-step-flow" model.

METHODS

Sample

Our two-wave panel study of adolescents with a little over one-year lag provided an opportunity to explore relationships between TV advertising viewing and consumer learning. Adolescents from several cities and towns in five counties in urban, suburban, semirural and rural Georgia in junior and senior high schools were asked to participate in a longitudinal study completing anonymous self-administered questionnaires. Specific schools were selected after personal interviews with school officials to ascertain schools demographically representative of their respective regions.

Questionnaires were administered to 556 eligible respondents[3] in

sixth through twelfth grades; a second wave of questionnaires was administered to a subsample of 230 of the original students approximately 14 months later. Several of the students in the first wave were not included in the second wave due to graduation, absence or relocation. Matching of the questionnaires was done using the respondent's birthdate and other demographics, whenever necessary. The sample was generally representative with respect to sex (44% males, 56% females), age (57% middle schoolers and 43% high schoolers), race (14% blacks and 86% whites) amd socioeconomic status measured on Duncan's (1961) scale (mean=50.3). These demographic characteristics are not very different from the characteristics of samples used in previous studies of consumer socialization. Matching of the questionnaires from both waves was done using the respondent's birthday and other demographic characteristics, whenever necessary. Because some of the questionnaires were incomplete or had errors in birthdays, the final usable sample consisted of 211 respondents.

Definition and Measurement of Variables

Consumer role perceptions refer to the accuracy of the individual's cognitions and perceptions of what the consumer role consists of in terms of functions, obligations, position, and rights involved in role description (e.g., Shaw and Costanzo 1970, Moschis and Moore 1978). Respondents were asked to indicate how much they would do or wouldn't do 11 behaviors behaviors associated with (un)wise purchase and consumption of goods (e.g., "Check warranties and guarantees before buying." "Buy throwaway bottles instead of returnable ones") when they start work and raise a family. Responses

were scored on a five-point "definitely would do" to "definitely wouldn't do" scale. High scores represent positive or desirable consumer behavior. The alpha reliability coefficients were .66 and .51 for Time 1 and Time 2 measures, respectively.

Consumer activity refers to the ability to buy and use products and services in a rational and efficient way (e.g., Moschis and Churchill 1978). It was measured by summing responses to ten items measured on a five-point, "Quite a Lot-Don't Know" scale. Typical items were "I plan how to spend my money," "I carefully read most of the things they write on packages or labels," and "I compare prices and brands before buying something that costs a lot of money." The index could range from 10 to 50; its reliability, as measured by coefficient alpha was .66.

Materialism is operationally defined as an orientation emphasizing possession and money for personal happiness and social progress (Ward and Wackman 1971). This variable was measured by responses to six items such as "It is really tru that money can buy happiness," using a five-point "strongly agree - strongly disagree" Likert-type scale. The reliability coeffecient of the scales were .71 and .53.

Sex-Role conceptions in family decision making refer to the adolescent's perceptions regarding the relative influence of husband and wife in family decisions. Perceptions were measured across 12 different decisions representing different degrees of husband-wife specialization. Using Herbst's (1952) typology, two decisions were selected to represent each one of six possible categories: Husband's Household Duties (HH), Wife's Household Duties (HW), Common Household

Duties (HB), Child Control and Care (Ch), Economic Activities (E), and Social Activities (S).

The following question was asked of respondents: "In a family with small children, check who you think should have the most say in deciding about the following things." The 12 decisions were then listed with four response alternatives: "Husband should have most say," "Wife should have most say," "Husband and Wife should have equal say," and "I don't know." The extent of the adolescent's perceptions of equaliterian sex-roles in family decision making was measured by summing responses to "Husband and wife should have equal say" category to form a 0-to-12 point index. The reliability coefficients for the two measures were .65 and .72.

Because exposure to television advertising measured by the amount of time a person spends with the medium does not enable the researcher to separate programming from advertising effects, "closer" measures of the individual's frequency of interaction with socialization agents in general have been recommended by several researchers (e.g., Ward et al. 1977, McLeod 1974). While products-specific TV advertising exposure measures are often possible to construct (e.g., Robertson et al. 1979), measures of the individual's total exposure to advertisements often incorporate several dimensions of the person's communication behavior (e.g., Atkin and Heald 1976).

In this research exposure frequency and motivations for exposure were combined. Television advertising viewing frequency, was a direct measure of the adolescent's frequency of viewing motivations relating to TV commercials as a means of gathering information for consumer

decision making as well as information about life styles and behaviors associated with consumer products. This measure of frequency and motivations for interaction with the medium has been suggested by previous socialization researchers (e.g., McLeod 1974) as better measure of television advertising than gross measures of "time spent with," or "frequency of viewing" television. Respondents were asked to indicate on a four-point "very often--never" scale the extent to which they watched TV ads for seven reasons such as "to find out how good a product is" and "to find out what things to buy to impress others." Responses were summed across the seven items to form this scale, which had a reliability coefficient of .83 for T1 measure. External validation of this measure was performed correlating it with television viewing frequency. The correlation was .23 ($p < .001$), providing additional support for this measure.

RESULTS

The first consideration in data analysis was the extent to which television advertising viewing relates to the dependent measures in the short run as well as the longer run.

Table 1 shows product-moment and partial correlations between television advertising viewing and the four dependent measures both in the short run and the longer run. Television advertising viewing correlates with role perceptions ($r=.35$, $p < .001$) and materialism ($r=.32$, $p < .001$) in the short run. However, similarly to previous cross-sectional studies (e.g., Robertson et al. 1979), the directionality of the influence is difficult to establish. More valuable information may be obtained by examining longer term TV advertising

effects - i.e. correlations between TV advertising viewing at Time 1 and the dependent variables measured at Time 2, especially after controlling for T1 measures of the criterion variables.

TV advertising viewing is weakly associated with consumer role perceptions ($r=.05$, $p < .23$). This relationship remains insiginficant after controlling for previous levels of consumer role perceptions at T1 ($r=-.08$, $p < .13$). Similarly, the relationship between TV advertising viewing and consumer activity in the longer run is not significant ($r=.07$, $p < .15$) and remains insignificant after controlling for previous levels of activity measured at Time 1($r=.06$, $p < .20$).

Although the product moment correlation between TV advertising viewing and materialism is statistically significant ($r=.19$, $p < .001$) the correlationbecomes insignificant when previous levels of materialism are partialed out. The correlation between traditional sex-role perceptions and television advertising viewing viewing approaches significance ($r=-.10$, $p < .07$); the correlation becomes significant after controlling for previous levels of this measure at T1 ($r=-.12$, $p < .04$).

These results suggest that TV advertising viewing may have little direct effects on social benefits in the longer run. Early exposure to television advertisements may be associated with later development of materialism and traditional sex-roles, depending upon previous levels of such predispositions.

The role of previously learned cognitions on learning from television advertising was assessed by splitting T1 measures of the dependent variables into "high" and "low." We had expected that, if

existing cognitions lead one to pay attention to TV ads and learn consumer skills from them, those who scored high on these measures at T1 to be more responsive to (i.e. affected by) TV advertising in the longer run.

Table 2 shows long-term relationships between TV advertising viewing measures at T1 and the criterion variables at T2, by level of previously held cognitions and behaviors at T1. The data suggest that among those who scored low on consumer activity at T1, television advertising had significantly negative effects on consumer activity at T2 than among those scoring high ($r=-.22$, $p < .01$). The relationship remains unchanged after controlling for other variables. Television advertising effects on materialism and sex-roles also appear to be the strongest among those respondents who initially scored low on these measures. The correlation between television viewing motives at T1 and materialism at T2 was .24 ($p < .01$), after controlling for antecedent variables, while the partial correlation between television viewing motives at T1 and equalitarian sex-role perceptions at T2 was -.19 ($p < .03$). These data seem to provide little support for the reinforcement function of TV advertising, highlighting the significance of television advertising in the development and change of consumer orientations. The data also suggest that consumer learning may be contingent upon previous levels of learning with little selective perception process operating.

To address the research question concerning the role of peers and family as mediators of TV advertising effects, the influence of TV advertising was analysed by level of communication with parents and

peers. Table 3 shows long term and short term relationships between TV advertising viewing and the dependent variables by level of interpersonal communication.

The relationship between TV advertising viewing and consumer role perceptions is strong both among families where interpersonal communication about consumption is frequent as well as among those where it is infrequent ($r=.20$, $p < .02$ and $.39$, $p < .001$, respectively) only in the short run, but the direction of the influence is not clear. Apparently TV advertising effects on role perceptions in the longer run are independent of the level of family communication frequency. The relationship between TV advertising and consumer activity is insignificant both in the long run and short run among both types of families. The relationship between TV advertising viewing and materialism is significant in the short run, both among families where discussion of consumption matters is infrequent as well as frequent ($r=.17$, $p < .05$ and $r=.35$, $p < .001$), respectively. However, in the longer run the influence of television advertising is significant only among families where communication about consumption is not a frequent occurrence ($r=.22$, $p < .01$). Similarly, television advertising effects are statistically significant only in the long run and only among families that do not discuss consumption on a frequent basis. These data suggest that the family may be a mediator of some television advertising effects by discussing consumption matters with the child.

With respect to the role of peers as mediators of advertising effects, the data showed strong positive relationships in the short

run between TV advertising viewing and role perceptions and materialism, regardless of the level of peer interaction but little longer-term effects, suggesting a possible selective exposure to communication process. Thus, it appears that the "limited effects" model of mass communications applies only in cases involving the learning of less desirable consumer orientations, such as materialism and traditional sex-role stereotypes, and only among families which are likely to discuss consumption matters with their children.

Finally, to examine the extent to which interpersonal influences affect consumer socialization in isolation from TV advertising, and whether advertising serves as a catalyst in the process (Adler 1977, p. 131) the influence of interpersonal communication processes on the dependent measures were assessed by levels of TV advertising viewing frequency. The results of these analyses are shown in Table 4.

The effects of family interaction on consumer role perceptions are significant only in the short-run and only among adolescents frequently viewing TV ads. However, family interaction effects are also likely to increase the adolescent's level of consumer knowledge in the short run in the presence of heavy TV ad viewing; longer run effects of family are likely to occur in the absence of viewing TV advertising viewing.

The family is likely to have some influence on the adolescents' development of equalitarian sex-roles in the short run to the extent that there is little interaction with TV advertising ($r=.16$, $p < .05$), but long effects are more likely in the presence of frequent TV advertising exposure ($r=.20$, $p < .02$).

Peer communication effects also appear to be conditioned by the level of TV advertising exposure. Among those adolescents with low television advertising viewing frequency, peer communication relates to the development of consumer role perceptions ($r=.20$, $p < .02$) and materialism ($r=.17$, $p < .05$). Among those adolescents with frequent exposure to TV ads the effects of interpersonal discussion appear to be long lasting, affecting their consumer role perceptions ($r=.16$, $p < .05$) consumer activity ($r=.24$, $p < .01$) and the development of traditional sex-role perceptions in decision making ($r=.19$, $p < .03$.

DISCUSSION

Two basic issues were addressed in this study. The first deals with learning from television commercials; the second deals with the process of learning. Like other previous similar studies (e.g., Robertson and Rossiter 1979), this research was not guided by any single theoretical framework and as such, it stems from a social policy problem rather than a particular theoretical concern. As a result, the study did not examine every aspect of consumer behavior but rather selected consumption orientations of interest to policy makers.

Some short-run effects of TV advertising viewing emerged, but since the directionality of the influence is not clear, these results should be interpreted with great caution. Some television advertising effects in the longer run emerged, but in many cases the learning from television was found to be associated with previous levels of consumer values and cognitions. Specifically, advertising viewing frequency seems to decrease the person's likelihood of believing in a socially

desirable manner as consumer, but only among those who are not likely to perform such activities to begin with. It does seem to contribute to the development of materialistic values and traditional sex-role perceptions among those who have not yet developed such predispositions. These findings are not consistent with the selective exposure/perception hypothesis advanced in studies of television violence and aggression (Murray 1980), but are consistent with findings in the related area of political socialization (Atkin and Gantz 1978).

In addressing the question of whether television advertising has a direct effect or is mediated through interpersonal processes, it was found that the family communication environment may perform such a mediating function. Specifically, television advertising appears to have some effects on the development of materialism and traditional sex-roles among those families which are not likely to discuss consumption matters with their children, apparently placing the child at the mercy of advertising, a finding consistent with previous research (e.g., Churchill and Moschis 1979, Comstock et al. 1978).

Television advertising effects on adolescents interacting different with their peers were noticed in the short run, but these results cast some doubt on the directionality of such influence. Apparently peers play minor mediating roles in the process of mass communication at least in the long run.

Whether family and peer interaction results in a more or less effective learning appears to be conditioned to some extent by the level of the adolescents viewing of television commercials. Thus,

learning from television may be a second-order consequence of interpersonal processes, with television serving as a catalyst in the process. This finding appears to be consistent with longitudinal findings in political socialization (Atkin and Gantz 1978); it is also in line with speculations about learning from television based on cross-sectional data (Moschis and Churchill 1978).

In summary, the data suggest that television advertising viewing may have some short term and longer term effects on consumer socialization. It may have some negative effects directly, especially among families lacking of interpersonal communication about consumption; families discussing consumption are likely to neutralize such effects to be more complex and far from being conclusive. The data suggest that interpersonal processes may condition the youth's attention to and learning from television commercials, resulting in not only negative but also positive socialization.

Finally, the data suggest that the effects of television advertising may be different in the short run from those effects in the longer run, suggesting the need for separating short-term from longer-term TV advertising effects. While this study does not provide answers to all questions regarding television advertising effects on consumer socialization, it is an effort to address such questions using longitudinal rather than commonly used cross-sectional data. By focusing on longitudinal designs one can begin answering some of the pressing questions regarding television advertising effects.

TABLE 1

Relationships Between Television Advertising Viewing at Time 1 (T1) and Dependent Measures at Time 1 (T1) and Time 2 (T2)

	Product-Moment Correlations	Partial Correlations[a]
Consumer Role Perceptions		
T1	.35***	
T2	.05	-.08
Consumer Activity		
T1	.04	
T2	.07	.06
Materialism		
T1	.32***	
T2	.19	.09
Sex-Roles		
T1	.02	
T2	-.10	-.12

*p < .05
**p < .01
***p < .001

[a]Controlling for Measurement of Dependent Variable at T1

TABLE 2

Long Term Relationships Between Television Advertising Measuring (T1) and Dependent Variables (T2) by Previous Level of Dependent Measure (T1)

Control Variable	Product-Moment Correlation	Partial Correlation[a]
Role Perceptions (T1)		
Low (N=110)	.01	.02
High (N=101)	-.06	-.10
Consumer Activity		
Low (N=99)	-.22**	-.22**
High (N=112)	.06	-.02
Materialism (T1)		
Low (N=113)	.23*	.24**
High (N=98)	.12	.09
Sex-Roles (T1)		
Low (N=121)	-.20**	-.19*
High (N=90)	-.02	-.05

*$p < .05$
**$p < .01$

[a]partially out the effects of age, race, sex, social class and communication with parents and peers

TABLE 3

SHORT-TERM AND LONG-TERM TELEVISION ADVERTISING EFFECTS BY LEVELS OF INTERPERSONAL COMMUNICATION

	Interpersonal Communication			
	Family (T1)[a]		Peers (T1)[b]	
	low (N=108)	high (N=103)	low (N=92)	high (N=119)
Role Perceptions				
Short-Term (T_1)	.20*	.39*	.41*	.20**
Long-Term (T_2)	.02	.02	-.11	-.05
Consumer Activity				
Short-Term (T_1)	.00	.05	.16	.11
Long-Term (T_2)	.08	.03	.00	.06
Materialism				
Short-Term (T_1)	.17*	.35*	.24**	.35**
Long-Term (T_2)	.22**	.14	.13	.04
Sex-Roles				
Short-Term (T_1)	-.01	.11	.07	.03
Long-Term (T_2)	-.18	-.05	-.09	-.13

[a]Entries are partial correlations, controlling for age, sex, race, social class, peer communication and previous level of respective dependent variable at T_1 in analyzing long-term effects.

[b]Entries are partial correlations, controlling for age, sex, race, social class, family communication and previous level of respective dependent variable at T_1 in analyzing long-term effects.

TABLE 4

SHORT-TERM AND LONG-TERM INTERPERSONAL COMMUNICATION RELATIONSHIPS WITH DEPENDENT MEASURES, BY LEVEL OF TV ADVERTISING VIEWING[a]

	Family Communication (T_1)		Peer Communication (T_1)	
	TV Ad Viewing Frequency (T_1)		TV Ad Viewing Frequency (T_1)	
	Low (N=107)	High (N=104)	Low (N=107)	High (N=104)
Role Perceptions				
Short-Term (T_1)	.08	.21*	.20*	.11
Long-Term (T_2)	.03	.05	.00	.16*
Consumer Activity				
Short-Term (T_1)	.12	.19*	.09	.02
Long-Term (T_2)	.18*	-.07	.12	.24**
Materialism				
Short-Term (T_1)	-.10	.01	.17*	.08
Long-Term (T_2)	.07	-.07	-.08	.03
Sex-Roles				
Short-Term (T_1)	.16*	-.07	-.06	.02
Long-Term (T_2)	-.05	.20*	.08	-.19

[a]Entries are partial correlations, controlling for the effects of age, sex, race, social class, peer communication or family communication, and previous level of learning in analysis long-term effects.

TABLE 1

Relationships Between Television Advertising Viewing at Time 1 (T1) and Dependent Measures at Time 1 (T1) and Time 2 (T2)

		Product-Moment Correlations	Partial Correlations[a]
Consumer Role Perceptions			
	T1	.35***	
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Consumer Activity			
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	T2	.07	.06
Materialism			
	T1	.32***	
	T2	.19	.09
Sex-Roles			
	T1	.02	
	T2	-.10	-.12

*p < .05
**p < .01
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*p < .05
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Long-Term (T_2)	.02	.02	-.11	-.05
Consumer Activity				
Short-Term (T_1)	.00	.05	.16	.11
Long-Term (T_2)	.08	.03	.00	.06
Materialism				
Short-Term (T_1)	.17*	.35*	.24**	.35**
Long-Term (T_2)	.22**	.14	.13	.04
Sex-Roles				
Short-Term (T_1)	.01	.11	.07	.03
Long-Term (T_2)	-.18	-.05	-.09	-.13

[a]Entries are partial correlations, controlling for age, sex, race, social class, peer communication and previous level of respective dependent variable at T_1 in analyzing long-term effects.

[b]Entries are partial correlations, controlling for age, sex, race, social class, family communication and previous level of respective dependent variable at T_1 in analyzing long-term effects.

TABLE 4

SHORT-TERM AND LONG-TERM INTERPERSONAL COMMUNICATION RELATIONSHIPS WITH DEPENDENT MEASURES, BY LEVEL OF TV ADVERTISING VIEWING[a]

	Family Communication (T_1)		Peer Communication (T_1)	
	TV Ad Viewing Frequency (T_1)		TV Ad Viewing Frequency (T_1)	
	Low (N=107)	High (N=104)	Low (N=107)	High (N=104)
Role Perceptions				
Short-Term (T_1)	.08	.21*	.20*	.11
Long-Term (T_2)	.03	.05	.00	.16*
Consumer Activity				
Short-Term (T_1)	.12	.19*	.09	.02
Long-Term (T_2)	.18*	-.07	.12	.24**
Materialism				
Short-Term (T_1)	-.10	.01	.17*	.08
Long-Term (T_2)	.07	-.07	-.08	.03
Sex-Roles				
Short-Term (T_1)	.16*	-.07	-.06	.02
Long-Term (T_2)	-.05	.20*	.08	-.19

[a]Entries are partial correlations, controlling for the effects of age, sex, race, social class, peer communication or family communication, and previous level of learning in analysis long-term effects.

FOOTNOTES

[1]Previous research showed that adolescence is an important period of consumer socialization (e.g., Moschis and Churchill 1978, Ward and Wackman 1971). The selection of the antecedent variables was based upon previous research showing that these background characteristics may affect the way a young person responds to advertising (e.g., Adler 1977, Moschis 1981, Christiansen 1979).

[2]According to this view, two most likely rival hypotheses are: (a) early preference for watching violent television contributes to the (later) development of aggressive behavior; and (b) early aggression causes both early preference for violence viewing and later aggression (Murray 1980, pp. 33-34).

[3]Student eligibility was merely based upon school policies regarding the use of students and student information in surveys.

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