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POINT OF VIEW: CIGARETTE ADVERTISING AND YOUNG SMOKERS

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One of the recent debates of great interest to advertisers and policy makers focuses on the effects of cigarette advertising (print advertising, in particular) on young people. Legislation has been proposed that would ban cigarette advertising in print media and on billboards on the grounds that messages in these media tend to affect youths' initiation and maintenance of the smoking habit, not just brand switching as claimed by advertisers.

The purpose of this article is to: (a) present existing views on cigarette smoking initiation and maintenance; and (b) review and appraise relevant literature in the context of these different views. Specifically, the article first outlines several popular perspectives relevant to the development of the smoking habit among youths. Next, it presents information useful in understanding and assessing advertising processes and effects. Third, a state-of-the-art review of the available evidence is presented, and the evidence is appraised on the basis of its strengths and weaknesses relative to the available theoretical and methodological perspectives. Finally, conclusions are drawn based on our current understanding and assessment of the evidence, and directions for future research are discussed.

Background Materials

Views on Smoking Initiation. Previous research on consumer behavior and consumer socialization of young people suggests three different views on smoking initiation and maintenance, each reflecting different location of the causal factor. The causal factor may be located either *within* the individual, or in relationships *between* the person and various sources of outside influence, or *in* a large sociocultural system; and, of course, in any combination of the above (Moschis, 1987).

The *first* proposition, that smoking initiation and maintenance is the result of individual-related factors, would require evidence showing that smoking is the result of biophysical and/or psychological processes occurring within the individual, in isolation from environmental influences. If this view is supported, one must accept the notion that cigarette advertising plays virtually no role, at least in the short run, in the process of habit formation.

The *second* thesis, that youths develop the smoking habit as a result of their relationships with certain sources of information (agents of change), is even more challenging. Although there is ample evidence to suggest that a great deal of consumer socialization occurs in early life, the nature of influence and the role of socialization agents (mass media, peers, parents, etc.) is not clearly understood (e.g., Moschis, 1987). Within this premise, a set of subpropositions has been advanced pertaining to the influence of a specific source (e.g., peers, television programs, television ads,

print ads, family), which might explain the development of smoking habits (Moschis, 1987).

(1) The specific source of influence (e.g., peers, print ads, TV programs) affects cigarette smoking behavior.
(2) The youth's exposure to, and influence by, one source is determined by his or her level of interaction with, and influence by, other sources.
(3) Select antecedent variables affect the youth's interaction with, and susceptibility to, the source of influence.
(4) The youth's communication processes with one source affect the interpretation of stimuli in, and influence of, other sources of consumer information.

On the basis of these propositions, one would expect cigarette advertising exposure to have: a direct effect on youths' smoking behavior; to mediate, or to be mediated by, the effect of other potential sources of influence; to be the result of the youths' relations with other sources; or to be conditioned by select characteristics of the youth.

The *third* thesis assumes that the causal factor is located in a sociocultural system of which the youth is a part. The behavior, or lack of it, represents a cultural norm and applies equally to all members of that culture. Thus, for example, the fact that smoking is more prevalent among men than among women in Arab countries can be attributed to cultural norms, while lower smoking rates in the United States are due to society's perception of this behavior. This argument is probably the weakest since it is rather difficult to locate the causal factor which makes the differences in smoking behavior between sociocultural systems or time periods (Moschis, 1987).

These propositions provide a framework for exploration, representing different broad views on the development of consumer behaviors among youths; and they are particularly helpful in assessing or interpreting the effects of specific factors in the context of broader theoretical perspectives.

Models of Advertising Effects. Most popular models of advertising effects are based on the premise that the key causal factor for the behavior may be found in relationships between the individual and various advertising stimuli. Individual-related factors, sociocultural norms, as well as other sources of information are primarily seen either as mediating, moderating, or conditioning the effects of advertising.

The traditional view of how advertising works is exemplified in the "limited effects" model, known to marketers and advertisers as the high involvement model (Robertson, 1976). According to this view, advertising messages reinforce existing predispositions; the consumer pays a lot of attention to the messages but ignores certain appeals and challenging arguments made in the ads through selective exposure, attention, and retention processes. In the event of a new product or idea, the consumer is expected to form favorable opinions about the new product/idea before acting (buying or using it). In forming opinions, personal influences play an important role.

Another theory of advertising effects claims that consumers are passive or indifferent to messages, either because the product is not important enough to justify expenditure of mental or physical effort or because consumers have more important things to do with their time than to attend to ads. Under such "low involvement" conditions, the passive learning view has been offered as an explanation of how advertising works (Robertson, 1976). Because consumers are not as preoccupied with advertising messages, they tend to let down their cognitive defense mechanisms, and the messages, through constant repetition, are likely to "get through"; that is, the ads are passively processed with little critical resistance and, over the long run, people develop favorable opinions about the products or ideas advertised.

There is also a third view which is considered to be a combination of the first two. This view makes the assumption that exposure alone might not be sufficient for effects and seeks additional explanation for the influence of advertising content on the individual's predispositions, motives, and uses of information to which he or she is exposed (Moschis, 1987).

In the context of cigarette advertising, the first view (high involvement) would apply only to those individuals who already have developed favorable or unfavorable opinions toward smoking. These individuals, for example, would be the least likely to be affected by antismoking ads. However, for those individuals who do not hold strong opinions about cigarette smoking, brand or antismoking advertising would be expected to be effective in the long run (low involvement view). The third model would apply to those who, for example, care enough about cigarette smoking (or nonsmoking) and they look up to advertisements to get information (both positive and negative) and learn about the advertised products.

Approaches to Assessing Advertising Effects on Youths. There are several ways one can go about assessing the effects of mass media advertising on youths' consumption. One can

address the question from (1) the advertiser's or company's point of view, (2) the youth's standpoint, and (3) the researcher's perspective. First, advertisers/companies can be asked to indicate the extent to which they think their ads are effective, based on their experiences and observations of changes in factors such as sales volume or market share as a result of different levels of advertising expenditures. This is perhaps the least reliable approach, since changes in demand may be interwoven with the effects of other company-related policies (e.g., dealer support, new-product introductions), competitors' actions/reactions, and environmental factors (e.g., legislation, economic).

Advertising effects can also be assessed from the influencee's perspective by asking the youth to assess his or her response to the ads in various media. While this self-reported method of assessing advertising effects may help us isolate or separate the effects of advertisements from other factors likely to elicit similar behaviors (e.g., sales promotions), the self-reported approach relies upon the youth's ability for accurate assessment.

Finally, the effects of advertising can be assessed from the researcher's point of view by examining associations of degrees of exposure to advertising messages and consumption behavior. The influence of advertising is usually inferred from strong associations (statistically significant relationships) found between measures of advertising interaction (e.g., exposure to ads) and consumption attitudes or behaviors.

In using the latter approach, the influence of advertising can be assessed at two levels: micro and macro level. One can assess advertising effects at a micro level by relating (correlating) an individual's level (frequency) of interaction with or exposure to ads and his or her level of consumption regarding the specific product advertised. An average correlation is computed for all individuals observed, leading to the conclusion of whether advertising is associated with consumption. Alternatively, the effects of advertising can be assessed at the aggregate level by correlating statistics which apply to collectivities of units (e.g., companies, countries). For example, company annual advertising expenditures can be related to market share among a sample of companies, and total national advertising expenditures for a year can be related to levels of consumption among a group of countries, respectively. While this approach to determining advertising effects appears to have a great appeal, it can not help us determine the extent to which advertising actually *causes* certain aspects of consumption behavior.

Required Evidence for Inferring Advertising Effects. The process of scientific inquiry imposes heavy demands upon researchers seeking to accumulate evidence which would lead them to the conclusion that mass media advertising affects consumption or other aspects of human behavior. First, the researcher must demonstrate that two factors, such as exposure to advertising and cigarette smoking, measured with a high degree of accuracy (reliability), are correlated. Second, an advertising factor (e.g., cigarette advertising exposure) must occur first before we can observe its effect (e.g., consumption of cigarettes). Third, the researcher must rule out all other possible outside factors which might be associated with the two key variables. After the researcher has demonstrated that his or her research has satisfied these three conditions, one would be able to infer that advertising causes an increase in consumption—that is, causality can only be inferred but never can be proven (e.g., Churchill, 1987).

Assessment of Existing Evidence

Issues of cigarette advertising can be categorized as either direct or indirect effects on the initiation and maintenance of smoking habits (Warner *et al.*, 1986). Advocates of restrictions on cigarette advertising contend that advertising and other promotion techniques either directly encourage the initiation and maintenance of the smoking habit or indirectly do so by portraying smoking as a pleasurable activity associated with desirable images and lifestyles. In particular, critics of cigarette promotions argue that health messages in advertisements attempt to reduce anxiety and the perceptions of hazards associated with smoking. Defenders of advertising, on the other hand, deny that advertising encourages smoking, contending that it merely influences brand selection.

The available evidence is reviewed and assessed from the perspective of (a) existing views on the development of consumer behaviors, in general, (b) specific views on how advertising may affect consumer behavior, (c) the various approaches to assessing advertising effects, and (d) the required evidence for referring such affects. The evidence is grouped into five categories: orientations toward ads, self-reported influences, aggregate data, social images, and youth characteristics.

Orientations toward Ads. Several studies have assessed cigarette advertising effects on young people by relating youths' awareness of cigarette ads, atti-

tudes toward cigarette ads, and perceptions of advertising models to his or her smoking habits or brand preferences.

Ad Awareness. A number of studies examined the relationship between youths' recognition of cigarette advertising and their smoking habits or brand preferences. For example, Chapman and Fitzgerald (1982) examined the relationship between smoking, brand preferences, and cigarette advertising recall among 1,195 Australian 7th and 8th graders. They found smokers to be more likely than nonsmokers to correctly identify edited cigarette ads and slogans. Similarly, Goldstein and his associates (1986) found a relationship between youths' smoking level and their cigarette advertising recognition in a study conducted among 9th through 12th graders.

Attitudes toward Ads. Favorable opinions of advertisements were also found to be associated with adolescents' smoking. A study of 258 fifteen-year olds conducted by Potts and her colleagues (1986) found smokers to be more likely than nonsmokers to believe that cigarette ads used in that study were exciting, interesting, eye-catching, glamorous, and witty. In a longitudinal study, Alexander and others (1983) found children who held favorable attitudes toward smoking and advertising were more likely to adopt or maintain smoking behavior than those whose attitudes were more disapproving. The authors concluded that these attitudes changed and remained congruent with smoking behavior as part of the reinforcement process. Similarly, other studies reported high cigarette brand preferences among children who smoked (McNeil *et al.*, 1985; Ledwith, 1984; Goldstein *et al.*, 1987).

These findings do not necessarily suggest that cigarette advertising causes adolescent smoking, since it is likely that those who smoke are more likely to pay attention to ads and hold positive attitudes or brand preferences than those who do not. The relationship between advertising recognition, brand preference, and smoking may also be the result of another (third) factor. For example, smoking is associated with increasing age during adolescence, and age is likely to be associated with increasing recognition of brand imagery and brand preferences (Aitken *et al.*, 1985; McNeil *et al.*, 1985). Because of cognitive developmental processes characterizing adolescence (Moschis, 1987), it is not surprising that recognition of cigarette advertising stimuli are related to smoking likelihood.

Perception of Models. In a recent study by McCarthy and Gritz (1987), the influence of ads was assessed based on the relationship between smokers' greater tendency than nonsmokers to overestimate the prevalence of regular cigarette smoking among adults and youths' perception of (exposure to) a large percentage of young models in cigarette ads. However, these results may also be attributed to what Sherman and others (1983) call "false concensus effect." Some youths are selectively exposed to individuals in their environment with similar characteristics and beliefs, and since their own (smoking) behaviors and those of their closest "significant others" will be most available in memory, the false concensus effect due to selective exposure may explain such perceptions.

Self-Reported Influences. Researchers have sought more direct evidence of the effects of cigarette advertising by asking youths to indicate the influence these ads have on their smoking behavior. Gordon (1986) studied 2,339 seventh- and eighth-grade students and found that exsmokers were more likely than nonsmokers to say that cigarette ads made them want to smoke; also, smokers indicated greater advertising influence than exsmokers. Monismith and his associates (1981) examined the opinions of 3,100 seventh- to twelfth-graders regarding the perceived effectiveness of various components of both prosmoking and antismoking messages. Unlike Gordon's findings, students claimed that promotional smoking advertisements did not exert a direct influence on the adoption of smoking during adolescence. In a somewhat similar study, McCarthy and Gritz (1987) found the majority (92 percent) of teenage respondents denying that they were even influenced by cigarette ads to smoke; another 61 percent thought that public service ads would be effective in discouraging smoking. Finally, in a study reported by Arbogast (1986), high-school sophomores and juniors reported that they learn as much about smoking from the media as they do from interpersonal sources. Unfortunately, the study did not single out the effects of ads from general media content (e.g., movies, editorial content).

Not only do these studies which rely on self-reported evidence provide little evidence in support of either position, but they also rely on youths' abilities and memories to recall advertising effects on their smoking initiation and smoking maintenance.

Aggregate Data. Another set of studies examined the question of cigarette advertising effects from an aggregate point of view. These studies draw conclusions from data which are either the result of aggregate statistical comparisons or of more sophisti-

cated statistical (econometric) analyses.

Magazine Readership. There are studies claiming advertising influence of ads in magazines which youths are likely to read. For example, researchers have inferred that the high level of cigarette advertising awareness and cigarette smoking are due to youths' relatively high exposure to cigarette ads in magazines likely to be read by young people. Magazines such as . . . *Glamour, Mademoiselle, Psychology Today,* and *Vogue* contain large numbers of ads which are likely to be seen by the young person and influence his or her smoking behavior (Gritz, 1984; McCarthy and Gritz, 1987). While this assumption is intuitively appealing and is supported by the stimulus-response theory (low involvement view), this simplistic "mere exposure equals effect" model is not supported by available data. Cigarette consumption among readers of some of these magazines is fairly similar to the consumption levels of readers of magazines which do not accept cigarette advertising, e.g., *Good Housekeeping, Seventeen* (Mediamark Research, Inc., 1985).

Advertising Expenditures. Studies have also related cigarette consumption levels to changes in advertising expenditure patterns, including cigarette advertising banning. One analysis, for example, showed that while advertising and promotion expenditures increased approximately threefold (after adjusting for inflation) from 1974 through 1984, daily cigarette smoking among high-school seniors fell from 29 percent in 1976 to 20 percent in 1981 and remained at the latter level through 1985 (Davis, 1987). Generally, aggregate analysis of cigarette demand does not seem to be related to total advertising expenditures on cigarette advertising by tobacco companies (Teel *et al.*, 1979). Some individuals argue that this is because of recent antismoking promotional programs which may have counterbalanced cigarette advertising. Teel and her colleagues (1979) reported the results of an econometric analysis of aggregate cigarette consumption during the period 1926 to 1970 which found antismoking commercials tended to reduce per capita consumption by approximately two times as much as cigarette advertising tended to increase it. Similarly, banning of cigarette advertising, which was "proven" to be effective in countries like Norway in deterring smoking (Lochsen *et al.*, 1983), was combined with antismoking programs at school (Arbogast, 1986). An econometric analysis of demand for cigarettes in the United Kingdom for the period 1957 to 1968 suggested a possible impact of advertising on sales and that the impact was only partly offset by the amount of publicity given to the health effects of smoking (McGuinness and Cowling, 1975).

While these studies suggest that antismoking campaigns may have been successful in decreasing cigarette consumption, other studies question the effectiveness of antismoking campaigns. In a study conducted in the early 1970s, antismoking media such as posters and mobiles were not found to be effective in decreasing the number of cigarettes smoked in rooms containing such visual media (Auger *et al.*, 1972). Similarly, reports from Great Britain suggest that antismoking propaganda has done little to deter schoolchildren from smoking, according to a survey (Sattur and Bell, 1984).

Influences on juvenile smoking initiation were also investigated in Norway, Hong Kong, Spain, Australia, and the United States among children aged 7 through 16 years of age. The evidence presented suggests that advertising plays only a miniscule role. The proportions of 7- to 15-year-olds smoking were similar across the countries surveyed. The incidence of regular smoking among 15-year-olds was highest in Norway, a country with a total advertising ban for tobacco and lowest in Hong Kong where there are relatively few restrictions on tobacco advertising (Boddewyn, 1986).

Fishbein (1977) reviewed earlier econometric studies of cigarette advertising effects on sales and concluded that while these studies generally found a relationship between the two, they fail to show the direction of influence. (For example, the level of company sales often determines how much money is spent on advertising rather than the opposite.) Furthermore, these studies do not single out the young population but they refer to aggregate numbers.

Social Images. Finally, there are studies which claim cigarette advertising influence on youths' smoking habits by providing evidence which indirectly link the two. Specifically, they attempt to relate a set of factors to cigarette advertising and the same set of factors to smoking. For example, a study by Yankelovich, Skelly, and White (1977) conducted for the American Cancer Society suggests that cigarette advertisements show people who are described as attractive, sexy, young, healthy, well-dressed, and enjoying themselves; they help reinforce and enhance the image of the teenage smoker as young, attractive, healthy, and sexy. The Federal Trade Commission also suggested that major advertising themes for 1982 and 1983 associated cigarette smoking with high-style living, healthy activities, and economic, social, and professional success (Davis, 1987). These attributes and life-

styles are believed to be of special appeal to young people and they are consistent with their real or ideal self-image. Such image factors, in turn, have been associated with smoking or smoking intentions.

Barton and his associates (1982) found desirable social image factors to be associated with smoking intentions. The more positively adolescents rated the smoking models relative to nonsmoking models, the more likely they were to report intentions to smoke. Similarly, Chasin and her associates (1985) found that intentions to smoke were related to both real and ideal self-concepts that were closer to the smoking image and farther from the nonuser image. Toughness, which boys associate with smoking, appears to provide an incentive both for nonsmokers to take up smoking and smokers to continue to smoke, according to a study by McKennell and Bynner (1969).

Although these studies do not directly show that smoking behavior is the result of various desirable image factors created by print ads, some researchers argue that this may be the case. For example, Gorn and Goldberg (1977), in an unpublished paper, discuss a series of attributes reported by male and female teenage smokers which were more characteristic of a female smoker than a female nonsmoker. They indicate that although the image of the female smoker may not be the result of cigarette advertising, such images parallel those cigarette advertisers attempt to convey. In a similar vein, Gritz (1984) argues that smoking by adolescents may reflect their desire to project their real or ideal self-concepts, with such self-concepts likely to be the result of exposure to print ads.

Although it appears logical and tempting to make the inference that smoking is the result of image factors created by print ads, data are lacking to validate this argument. Neither the Gorn and Goldberg (1977) nor the Gritz (1984) study provides any evidence to support their line of reasoning, while the results of some other studies do not support the indirect effect of magazine ads via image creation and image enhancement reasons for smoking. For example, sexual embedding was not effective in creating favorable evaluation of a cigarette ad in a recent study of college students conducted by Kilbourne and his colleagues (1985). It might be that attributes found in cigarette ads are present in most ads of products, especially those marketed to youths, not just cigarette ads. Furthermore, another study of youths' self-reported motivations for smoking did not find that youths smoke for image enhancement reasons (McKennell, 1970).

Even if we accepted the argument that image factors are related to the initiation and maintenance of the smoking habit among youths, the researcher is still confronted with the difficult task of proving that these image factors are the result of cigarette advertising and not other (tertiary) factors and that the advertising themes do not reflect cultural values (reverse causality). It is widely accepted that the adolescent's social environment has a lot to do with his or her smoking habits (e.g., Gordon, 1986; Yankelovich, Skelly, and White, 1977; National Institute of Education, 1979) and with the formation of the youth's self-concepts, in general (e.g., Barton *et al.*, 1982). Thus, the youth's desire to initiate smoking may be due to his or her desire to project images congruent with those of significant others and those admired and to be reinforced by individuals in the youth's social environment. Chassin and others (1985), for example, found that smoking among adolescents was more likely when the youth has parents and siblings as well as close friends who smoke. In the distant social environment, youths mentioned famous smokers who were actors or actresses (78.6 percent) followed by rock musicians (19.8 percent) who smoke.

It is also likely that the causal (tertiary) factor is located not in the individual's social environment but within the individual in the form of a general psychological trait. For example, Coe *et al.*'s (1982) study revealed that adolescent smokers were also more likely to engage in other risk-taking behaviors such as smoking marijuana and drinking alcoholic beverages. They concluded that: "These findings support the notion that smoking behavior by adolescents is part of a larger pattern of risk-taking behavior, possibly symbolizing resistance to authority and the assertion of independence."

Finally, researchers attempting to establish cigarette advertising effects through the formation of self-concepts must address the most enduring issue concerning mass media effects on societal values, specifically, whether cigarette advertising changes societal values and behaviors or whether changes in social climate foster changes in cigarette advertising themes and smoking behavior (e.g., Elkind, 1985; Kahle *et al.*, 1988).

Youth Characteristics. While the studies presented generally assume a homogeneous youth market, few studies have addressed youth characteristics which are most likely to be associated with smoking habits and perhaps susceptibility to advertising. For example, it has been found that smoking is most prevalent among blacks, Mexican-Americans, youths of lower so-