RJR Nabisco's Cartoon Camel Promotes Camel Cigarettes to Children

Joseph R. DiFranza, MD; John W. Richards, Jr, MD; Paul M. Paulman, MD; Nancy Wolf-Gillespie, MA; Christopher Fletcher, MD; Robert D. Jaffe, MD; David Murray, PhD.

Objectives.—To determine if RJR Nabisco's cartoon-theme advertising is more effective in promoting Camel cigarettes to children or to adults. To determine if children see, remember, and are influenced by cigarette advertising.

Design.—Use of four standard marketing measures to compare the effects of Camel's Old Joe cartoon advertising on children and adults.

Subjects.—High school students, grades 9 through 12, from five regions of the United States, and adults, aged 21 years and over, from Massachusetts.

Outcome Measures.—Recognition of Camel's Old Joe cartoon character, product and brand name recall, brand preference, appeal of advertising themes.

Results.—Children were more likely to report prior exposure to the Old Joe cartoon character (97.7% vs 72.2%; P < .0001). Children were better able to identify the type of product being advertised (97.5% vs 67.0%; P < .0001) and the Camel cigarette brand name (93.8% vs 57.7%; P < .0001). Children also found the Camel cigarette advertisements more appealing (P < .0001). Camel's share of the illegal children's cigarette market segment has increased from 0.5% to 32.8%, representing sales estimated at $476 million per year.

Conclusion.—Old Joe Camel cartoon advertisements are far more successful at marketing Camel cigarettes to children than to adults. This finding is consistent with tobacco industry documents that indicate that a major function of tobacco advertising is to promote and maintain tobacco addiction among children.

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WITH the number of US smokers declining by about 1 million each year, the tobacco industry's viability is critically dependent on its ability to recruit replacement smokers.1 Since children and teenagers constitute 90% of all new smokers, their importance to the industry is obvious.2 Many experts are convinced that the industry is actively promoting nicotine addiction among youth.34

See also pp 3145, 3154, and 3185.

Spokespersons for the tobacco industry assert that they do not advertise to people under 21 years of age, the sole purpose of their advertising being to promote brand switching and brand loyalty among adult smokers.54 However, industry advertising expenditures cannot be economically justified on this basis alone.9 This study was therefore undertaken to determine the relative impact of tobacco advertising on children and adults.

There is abundant evidence that tobacco advertising influences children's images of smoking.10 In Britain, the proportion of children who give "looks tough" as a reason for smoking declined after tough images were banned from cigarette advertisements.11 Children as young as the age of 6 years can reliably recall tobacco advertisements12 and match personality sketches with the brands using that imagery.10 In fact, cigarette advertising establishes such imagery among children who are cognitively too immature to understand the purpose of advertising.13 Subsequently, children who are most attuned to cigarette advertising have the most positive attitudes toward smoking, whether or not they already smoke.11 Children who are more aware of, or who approve of, cigarette advertisements are more likely to smoke,13,11,12,13 and those who do smoke buy the most heavily advertised brands.14,17

Historically, one brand that children have not bought is Camel. In seven surveys, involving 3400 smokers in the seventh through 12th grades, conducted between 1976 and 1988 in Georgia, Louisiana, and Minnesota, Camel was given as the preferred brand by less than 0.5% (Saundra MacD. Hunter, PhD, Weihang Bao, PhD, Larry S. Webber, PhD, and Gerald S. Berenson, MD, unpublished data, 1991; D.M., unpublished data, 1981).14,15,19 In 1988, Camels were most popular with smokers over the age of 65 years, of whom 4.4% chose Camels, and least popular among those 17 to 24 years of age, of whom only 2.7% preferred Camels.20

In 1988, RJR Nabisco launched the "smooth character" advertising campaign, featuring Old Joe, a cartoon camel modeled after James Bond and Don Johnson of "Miami Vice."8 Many industry analysts believe that the goal of this campaign is to reposition Camel to compete with Philip Morris's Marlboro brand for the illegal children's market segment. To determine the relative impact of Camel's Old Joe cartoon advertising on children and adults, we used four standard marketing measures.

1. Recognition. We compared the proportions of teenagers and adults aged 21 years and over who recognize Camel's Old Joe cartoon character.

2. Recall. We compared the ability of teenagers and adults to recall a masked Old Joe advertisement the type of product being advertised and the brand name.

3. Appeal. We compared how interesting and appealing a series of Old Joe cartoon character advertisements were to teenagers and adults.

4. Brand preference. We compared brand preferences of teenaged smokers prior to the Old Joe cartoon character campaign with those 3 years into the campaign to determine if the campaign had been more effective with children or with adults, and to determine if Camel had been repositioned as a children's brand.

METHODS

Subjects

Since adolescent brand preferences may vary from one geographic location to another (Saundra MacD. Hunter,
PhD, Weihang Bao, PhD, Larry S. Weber, PhD, and Gerald S. Berenson, MD, unpublished data, 1991; D.M., unpublished data, 1991). We selected children from Georgia, Massachusetts, Nebraska, New Mexico, and Washington, representing five regions. One school in each state was selected based on its administration's willingness to participate. Schools with a smoking prevention program focused on tobacco advertising were excluded.

A target of 60 students in each grade, 9 through 12, from each school was set. In large schools, classes were selected to obtain a sample representative of all levels of academic ability. Students were told that the study concerned advertising and were invited to participate anonymously.

Since adult brand preferences are available from national surveys, adult subjects were recruited only at the Massachusetts site. All drivers, regardless of age, who were renewing their licenses at the Registry of Motor Vehicles on the days of the study during the 1990-1991 school year were asked to participate. Since licenses must be renewed in person, this is a heterogeneous population.

Materials

Seven Camel Old Joe cartoon character advertisements were obtained from popular magazines during the 3 years prior to the study. One ad was masked to hide all clues (except Old Joe) as to the product and brand being advertised (Fig 1).

The survey instrument collected demographic information and information on past and present use of tobacco, including brand preference. Children were considered to be smokers if they had smoked one or more cigarettes during the previous week. Previously validated questions were used to determine children's intentions regarding smoking in the next month and year and their attitudes toward the advertised social benefits of smoking.

Subjects rated the ads as "cool or stupid" and "interesting or boring." Subjects were asked if they thought Old Joe was "cool" and if they would like to be friends with him. Each positive response to these four questions was scored as a one, a negative response as a zero. The "appeal score" was the arithmetic sum of the responses to these four questions, with the lowest possible score per respondent being a zero and the highest a four.

Procedure

Subjects were first shown the masked ad and asked if they had seen the Old Joe character before. They were then asked to identify the product being advertised and the brand name of the product. Subjects who could not answer these questions were required to respond "Don't know" so they would not be able to write in the correct answer when the unmasked advertisements were shown. The subjects were then shown, one at a time, the six unmasked advertisements and asked to rate how the advertisements and the Old Joe cartoon character appealed to them. Subjects then completed the remainder of the survey instrument.

Adolescent brand preference data from this study were compared with the data obtained by seven surveys completed prior to the kickoff of Camel's Old Joe cartoon character campaign early in 1988 (Sandra Mack, Hunter, PhD, Weihang Bao, PhD, Larry S. Weber, PhD, and Gerald S. Berenson, MD, unpublished data, 1991; D.M., unpublished data, 1991).

Tests of significance were made using the Two-tailed Student's t Test for continuous data and the χ2 and Fisher's Exact Test for discrete data. A P value of less than .05 was used to define statistical significance.

The study was conducted during the 1990-1991 school year.

RESULTS

A total of 1060 students and 491 subjects from the Registry of Motor Vehicles were asked to participate. Usable surveys were obtained from 1055 students (99%) and 415 license renewal applicants (84.5%). Seventy drivers were under 21 years of age, leaving 245 adults aged 21 years or older. Students ranged in age from 12 to 19 years (mean, 15.99 years) and adults from 21 to 87 years (mean, 40.47 years). Females represented 51.0% of the students and 54.8% of the adults.

Children were much more likely than adults to recognize Camel's Old Joe cartoon character (97.7% vs 72.2%; P<.0001) (Table). It is not plausible that the children were simply saying they had seen Old Joe on television when they had not, since they also demonstrated a greater familiarity with the advertisement on the two objective measures.

When shown the masked advertisement, the children were much more successful than the adults in identifying the product being advertised (97.5% vs 87.0%; P<.0001) and the Camel brand...
Comparison of Student and Adult Responses to Camel's Old Joe Cartoon Character Advertisements

<table>
<thead>
<tr>
<th></th>
<th>Georgia Students</th>
<th>Massachusetts Students</th>
<th>Nebraska Students</th>
<th>New Mexico Students</th>
<th>Washington Students</th>
<th>Total Students*</th>
<th>Total Adults†</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of subjects</td>
<td>212</td>
<td>224</td>
<td>232</td>
<td>210</td>
<td>177</td>
<td>1553</td>
<td>345</td>
</tr>
<tr>
<td>Have seen Old Joe, %</td>
<td>98.1</td>
<td>99.6</td>
<td>96.6</td>
<td>95.7</td>
<td>98.9</td>
<td>97.7%</td>
<td>72.2%</td>
</tr>
<tr>
<td>Know product, %</td>
<td>95.3</td>
<td>100</td>
<td>97.8</td>
<td>95.7</td>
<td>98.9</td>
<td>97.2%</td>
<td>67.0%</td>
</tr>
<tr>
<td>Know brand, %</td>
<td>92.9</td>
<td>97.3</td>
<td>91.8</td>
<td>90.0</td>
<td>95.6</td>
<td>94.6%</td>
<td>67.7%</td>
</tr>
<tr>
<td>Think ads look cool, %</td>
<td>82.4</td>
<td>54.1</td>
<td>57.4</td>
<td>61.2</td>
<td>55.1</td>
<td>56.0%</td>
<td>39.9%</td>
</tr>
<tr>
<td>Ads are interesting, %</td>
<td>83.4</td>
<td>73.9</td>
<td>77.3</td>
<td>62.3</td>
<td>69.9</td>
<td>73.6%</td>
<td>55.1%</td>
</tr>
<tr>
<td>Like Joe as friend, %</td>
<td>46.2</td>
<td>31.1</td>
<td>33.9</td>
<td>31.4</td>
<td>32.6</td>
<td>35.0%</td>
<td>14.4%</td>
</tr>
<tr>
<td>Think Joe is cool, %</td>
<td>51.0</td>
<td>38.6</td>
<td>44.1</td>
<td>40.9</td>
<td>40.0</td>
<td>43.0%</td>
<td>25.7%</td>
</tr>
<tr>
<td>Mean appeal score</td>
<td>2.4</td>
<td>2.0</td>
<td>2.1</td>
<td>1.9</td>
<td>2.2</td>
<td>2.1%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Smoke Camel (%)</td>
<td>23/29 (29.5)</td>
<td>12/55 (22.2)</td>
<td>13/52 (25.0)</td>
<td>23/43</td>
<td>9/25</td>
<td>89/251</td>
<td>802</td>
</tr>
</tbody>
</table>

*Age range, 12 to 19 years.
†Age range, 21 to 87 years.
‡This is the total number of subjects in each category; due to incomplete questionnaires, respondents for some questions may be fewer.
§P<.0001.
+See text for explanation.
*Percentage of smokers who identify Camel as their favorite brand.

name (39.6% vs 57.7%; P<.0001). Even when the analysis was limited to those subjects who were familiar with the Old Joe cartoon character, children were still more likely than adults to remember the product (98.6% vs 59.6%; P<.0001) and the Camel brand name (95.0% vs 75.1%; P<.0001). This confirms that Old Joe cartoon advertisements are more effective at communicating product and brand name information to children than to adults.

Because Massachusetts adults may not be representative of adults in the other four states where children were surveyed, the above analyses were repeated comparing only Massachusetts children and adults. In all cases the differences between adults and children were significant and of even greater magnitude (P<.0001), excluding the possibility that the above findings were due to a lighter level of advertising exposure in the Massachusetts area.

On all four measures, the children found the Camel cartoon advertisements more appealing than did the adults. Children were more likely to think the advertisements looked "cool" (58.0% vs 39.9%; P<.0001) or "interesting" (73.6% vs 55.1%; P<.0001). More of the children thought Old Joe was "cool" (43.0% vs 25.7%; P<.0001) and wanted to be friends with him (35.0% vs 14.4%; P<.0001).

The brand preference data revealed a dramatic reversal in the market segment pattern that existed prior to Camel's Old Joe cartoon character campaign. Camel was given as the preferred brand by 32.5% of children up to the age of 18 years who smoked, 32.1% of Massachusetts adults who smoked aged 19 and 20 years, and 8.7% of those 21 years of age and over. The figures for the Massachusetts adults were significantly higher than the national market share for Camel, 4.4%.

Children were more likely to smoke if they believed that smoking was pleasurable (relative risk [RR], 6.8; P<.0001) and that it makes a person more popular (RR, 2.0; P<.0001), and attractive (RR, 2.5; P<.0001), all common themes in cigarette advertising. Among nonsmoking children, those who believed that smoking would make them more attractive were eight times more likely to express an intention to smoke in the next year (P<.0001).

**TABLE**

<table>
<thead>
<tr>
<th>Name</th>
<th>Percentage</th>
<th>Years</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joe</td>
<td>79.1%</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Cool</td>
<td>58.0%</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Interesting</td>
<td>73.6%</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Friends</td>
<td>35.0%</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Target</td>
<td>57.4%</td>
<td></td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

**COMMENT**

Our data demonstrate that in just 3 years Camel's Old Joe cartoon character had an astounding influence on children's smoking behavior. The proportion of smokers under 18 years of age who choose Camels has risen from 0.5% to 32.3%. Given that children under 18 years account for 3.3% of all cigarette sales, and given a national market share of 4.4% for Camel, we compute that Camel's adult market share is actually 3.4%. Given a current average price of 138.3 cents per pack, the illegal sale of Camel cigarettes to children under 18 years of age is estimated to have risen from $6 million per year prior to the Camel campaign to $476 million per year now, accounting for one quarter of all Camel sales.

From both a legal and moral perspective, it is important to determine if the tobacco industry is actively promoting nicotine addiction among youngsters. However, from a public health perspective it is irrelevant whether the effects of tobacco advertising on children are intentional. If tobacco advertising is a proximate cause of disease, it must be addressed accordingly. In the following discussion we will examine the evidence produced by this study, the marketing practices used by RJR Nabisco, in particular, to promote Camel cigarettes. The quotations cited below are from tobacco industry personnel and from documents obtained during litigation over Canada's ban of tobacco advertising.

Our data show that children are much more familiar with Camel's Old Joe cartoon character than are adults. This may be because children have more exposure to these advertisements, or because the advertisements are inherently more appealing to youngsters. The tobacco industry has long followed a policy of preferentially placing Camel advertisements where children are most likely to see them. For example, print advertisements are placed in magazines...
people as "specifically designed to reach young people. Paid cigarette brand promotions appear in dozens of teen movies. Camel are featured in the Walt Disney movies 'Who Framed Roger Rabbit' and 'Honey I Shrunk the Kids'.

The industry targets poster advertisements for "key youth locations/meeting places in the proximity of theaters, records [sic] stores, video arcades, etc." It is common to see Old Joe poster advertisements in malls, an obvious gathering spot for young teens. Billboards, T-shirts, baseball caps, posters, candy cigarettes, and the sponsorship of television sporting events and entertainment events such as the Camel "Mud and Monster" series are all used to promote Cames. All are effective marketing techniques for reaching children.

The fact that children are much more attracted to the themes used in the Old Joe cartoon character advertisements may also explain why they are more familiar with them. The themes used in tobacco advertising that is targeted at children are the result of extensive research on children conducted by the tobacco industry to "learn everything there was to learn about how smoking begins." Their research identifies the major psychological vulnerabilities of children, which can then be exploited by advertising to foster and maintain nicotine addiction.

The marketing plan for "Export A" cigarettes describes their "psychological benefits": "Export smokers will be perceived as ... characterized by their self-confidence, strength of character and individuality which makes them popular and admired by their peers." Consider a child's vulnerability to peer pressure. According to one industry study, "The goading and cajoling that exists at the age of 11 or 12 to get non-smokers to start smoking is virtually gone from the peer group circles by 16 or 17." If peer influence is virtually gone by the age of 16, who is the intended target group for RJR-MacDonald's Tempo brand, described as individuals who are "[t]wice as exposed by their peer group." (RJR-MacDonald is a wholly owned subsidiary of RJR Nabisco.) The recommended strategy for promoting this brand is the "[m]ajor usage of imagery which portrays the positive social appeal of peer group acceptance." In one Camel advertisement, a cowboy (a Marlboro smoker?) is being denied admission to a party because "only smooth characters [ie, Camel smokers] need apply." Fig. 2. It appears that Camel advertisements are also targeted at individuals who are influenced by their peer group.

Children use tobacco, quite simply, because they believe the benefits outweigh the risks. To the insecure child, the benefits are the "psychological benefits" promised in tobacco advertisements: confidence, an improved image, and popularity.

Previous research makes it clear that children derive some of their positive images of smoking from advertising. Children who are aware of tobacco advertising, and those who approve of it, are also more likely to be smokers. Children's favorable attitudes toward smoking and advertising precede actual tobacco use and correlate with the child's intention to smoke, suggesting that the images children derive from advertising encourage them to smoke. Our data confirm these earlier findings. Among nonsmoking children, those who were more approving of the Old Joe advertisements were more likely to be ambivalent about their smoking intentions or to express a definite intent to smoke. Nonsmoking children who believed that smoking would make them more popular times more likely to express an intention to smoke in the future.

Since a child's intention to smoke is considered to be a good predictor of future smoking behavior, it seems reasonable to conclude that a belief in the psychological benefits of smoking, derived from advertising, precedes, and contributes to, the adoption of smoking.

There are other lines of evidence indicating that tobacco advertising increases the number of children who use tobacco. In countries where advertising has been totally banned or severely restricted, the percentage of young people who smoke has decreased more rapidly than in countries where tobacco promotion has been less restricted. After a 24-year decline in smokeless tobacco sales, an aggressive youth-oriented marketing campaign has been followed by what has been termed "an epidemic" of smokeless tobacco use among children, with the average age for new users being 10 years.

Many of the tobacco industry documents cited above provide abundant evidence that one purpose of tobacco advertising is to attract children to tobacco. In the words of one advertising consultant, "Where I worked we were trying very hard to influence kids who were 14 to start to smoke." Two marketing strategy documents for Export A also reveal that it is the youngest children who are after. "Whose behavior are we trying to affect?: new users." The goal is to [optimizing product and user imagery of Export 'A' against young starter smokers." The average age for starter smokers is 15 years.

The industry also researches the best ways of keeping children from quitting once they are "hooked on smoking." The purpose of one tobacco industry study was to assess the feasibility of marketing low-tar brands to teens as an alternative to quitting. The study found that for boys, "[t]he single most commonly voiced reason for quitting among those who had done so... was sports." The tobacco industry's sponsorship of sporting events, such as the Camel Supercross motorcycle race, should be seen in relation to its need to discourage teen age boys from quitting. Similarly, its emphasis on slimness serves as a constant reinforcement of teenage girls' fears of gaining weight as a result of quitting.

Our study provides further evidence that tobacco advertising promotes and maintains nicotine addiction among children and adolescents. A total ban of tobacco advertising and promotions, as part of an effort to protect children from the dangers of tobacco, can be based on sound scientific reasoning.

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