Tobacco advertising through French TV in 2005: frequent illicit broadcasting; its impact on teenagers and young adults

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ABSTRACT

Background Sports sponsorship is one of the tobacco industry’s main strategies to recruit new smokers among teenagers and young adults.

Methods Monitoring Motor sports illicit broadcasting based on six channels in 2005; Dakar Rally (DR) and China Grand Prix impact evaluated with a one on one questionnaire administered on 12–24-year-old males and females (n = 805).

Results 75 000 TV tobacco sponsoring appearances (90 h) were observed, total value: €200.106; Mild Seven, Marlboro, West, Lucky Strike, Gauloises Blondes accounted for 92% appearances and 95% of euro values, with illegal broadcasting value worth €19.106. A high interest in DR (71%) and Formula One (F1) (66%) was observed among males (versus females; P, 0.001), increasing with age (P, 0.05). Levels of spontaneous and assisted recall of cigarette brands were high among individuals interested in DR and F1, with better recall of brand names (versus non interested; P, 0.01); all individuals made correct associations between tobacco brands and car colors (P, 0.01). A non-significant higher percentage of daily smokers was observed among respondents interested in DR (34 versus 21%; P, 0.01) and F1 (30 versus 24%; P = 0.10).

Conclusion This high level of indirect advertising for tobacco through motor sport sponsoring confirms the urgent need for a worldwide absolute ban on tobacco advertising in motor sports.

Keywords Dakar Rally, Formula One, illicit broadcasting, motor sports, television, tobacco sponsorship

Introduction

The current quest by tobacco industry to prevent any kind of broadcasting ban on motor sports sponsorship is direct proof of its importance to the industry, as confirmed by several internal tobacco company memos: ‘How to keep Marlboro young, fresh and dynamic’… ¹,² ‘The research shows that Lucky Strike is achieving its objectives through its sponsorship of Formula One (F1). Interest in F1 is high among ASU30 in 2000 in Lucky Strike’s key markets, mainly in Europe’ (ASU30 means ‘young people’).³ Both the World Health Organization (WHO)⁴ and the European Union ⁵ have been calling for the implementation of a progressive total ban on this sponsorship.

In France, the law specifically forbids all kinds of advertising and sponsorship, direct or indirect, of tobacco brands and tobacco products, with tobacco brand names and logos blurring during all broadcasts. However, TV broadcasting without blurring is allowed if races are organized abroad, if, it is a ‘live’ broadcast, and if tobacco advertising during motor sports is legal in the country where the race takes place.

Methods

TV illicit broadcasting in 2005

TNS Media Intelligence Pôle Information Sports (Paris, France) was hired in order to record all broadcasts of motor

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sports during 2005 by six main French TV channels, five non-specialized channels (TF1, France 2, France 3, M6, Canal +) and one specialized channel: Eurosport. Their respective 2005 mean audiences were: TV1: 32.3%, France 2: 19.8%, France 3: 14.9%, Canal +: 3.6%, M6: 12.6% and Eurosport: 1.9%.

Fifty-three motor sports events were monitored according to tobacco sponsoring: 19 F1 Grand Prix (GP), 17 motorbike GP, 17 rallies, with the following criteria: event, channel, program, date, duration, cost according to its duration, as well as to the channel and the timing of each broadcasting (€), tobacco brand, support (car, truck, textile, poster . . . ), live or recorded broadcast, type of publicity (name, logo, color), licit or illicit according to French law.

Dakar rally study
Organized in January since 1978, Dakar Rally (DR) runs through Africa, and conveys an image of power, adventure, freedom, risk . . .

The 2005 DR was organized from 31 December 2004 to 16 January 2005. A random population of 400 French individuals ("selected individuals") representative of the 12–24 age group was selected by TNS Media (a large French nation-wide private company carrying out surveys for all purposes) from 9 February to 23 February 2005, as a representative sample of the general population of this age, for a one on one questionnaire, with a few questions not related to tobacco use and motor sports. Each participant was contacted by TNS Media for personal meeting.

The population was sampled in order to represent the French population with respect to gender, country/cities/Paris ratios, age and socioeconomic status; the sample was composed of 186 females (92 aged 12–17 years and 94 aged 18–24 years) and 214 males (80 aged 12–17 years and 134 aged 18–24 years).

With respect to the assisted recall of cigarette-brand advertising, a list of names was proposed to all individuals. This list included all sponsors whose names were observed during the monitoring of TV illicit broadcasting in 2005.

F1 study
This survey was conducted from 5 November to 14 November 2005, by TNS Media Intelligence, following China F1 Grand Prix on 16 October 2005. A random population of 405 French individuals ("selected individuals") aged 12–24 was selected, as a representative sample of the general population of this age, for a one on one questionnaire with a few questions unrelated to tobacco use and motor sports. Each participant was contacted by TNS Media for personal meeting.

The population was composed of 195 females (91 aged 12–17 years and 104 aged 18–24 years) and 210 males (119 aged 12–17 years and 91 aged 18–24 years).

With respect to the assisted recall of cigarette-brand advertising, a list of names was proposed to all individuals. This list included all sponsors whose names were observed during the monitoring of TV illicit broadcasting in 2005.

Statistical analysis
Statistical analysis was carried out with the SAS statistical software. All results were statistically analyzed by a two-sided t-test. All intergroup differences were assessed with Pearson’s chi-square or the Fisher exact test, if necessary. A P-value of <0.05 was deemed statistically significant.

Results
French TV broadcasting of motor sports with tobacco advertising
Beside live broadcasts of all 53 motor sport events, 34 non-live programs broadcasts were aired through 2005. Altogether, 74 647 appearances, lasting 88 h 39 min 13 s, were broadcasted, live or not, with a total value of €205 268 496. About 91.6% appearances involved 5 of 12 monitored tobacco brands; it represented about 95% of the total euro values: Mild Seven, Marlboro, West, Lucky Strike, Gauloises Blondes according to cumulative durations and total euro values due to the specific cost of 1 s for each channel.

Delayed broadcast accounted for 44.9% duration of all appearances, and 27.1% of the total value: €55 597 638. With respect to public channels (France 2, France 3), not a second was recorded as live broadcasting, while these two channels non-live cumulative broadcasts duration was 2.5 h, i.e. 6.8% of total recorded broadcasting, with a total cost of €6 230 150 (11.2% of the total value).

With respect to TF1, the most popular private French channel, live broadcasting represented 93.9% of total duration and of 62% non-live broadcasting.

The total euro cost corresponding to each tobacco brand was not evenly distributed among all channels: Benson and Hedges: 92.3% on TF1; Camel: 83.7% on Eurosport; Fortuna: 85.7% on Eurosport; Gauloises Blondes: 34.6% on TF1, 34.6% on Eurosport, 11.6% on France 2, 11.6% on France 3; Gitanes blondes: 100% on TF1; JPS Cigar: 100% on TF1; Lucky Strike: 91.9% on TF1; Marlboro: 85% on TF1; Mild Seven: 89% on TF1; Rothmans: 97.6% on TF1; Sobranie: 91.4% on TF1; West: 92.2% on TF1. These
values are likely to be explained, at least in part, by the various contracts written by each channel.

With respect to duration, brand colors accounted for 73.0%, logos for 11.2% and brand names for 15.7%; according to total euro values, colors accounted for 74.2%, logos for 11.3% and brand names for 14.4%. Thus, the cumulative value of logos and brand names broadcasting was €52 892 277. Consequently, based on a very conservative valuation, by only taking into account recorded broadcasts (i.e. when there is an easy possible control on the picture using blurring) with an explicit visibility of logos and/or brand names, 10 417 appearances were observed, with a total cost of almost €19.106, accounting for about 10% of the total global value.

Illicit broadcasts were seen on all types of supports from bunches of flowers to brand incrustations on screens. However, most of them were seen straight on vehicles (cars, bikes, 78% of apparitions, 80% of euro values), then on sportsmen themselves (helmets, jumpsuits, gloves, shirts ... 8.5% of apparitions, 7% of euro values), or were integrated in the background of the races (stands, podiums, umbrellas, parasols, streamers, billboards; ... 11.5% of apparition, 13% of euro values).

Profile of the population interested in DR and F1

In order to evaluate the effects of DR on the general population, a sample of 400 individuals (214 males, 186 females) was selected with, among them, 50% declaring a specific interest in DR and 50% who did not. This distribution was very similar to the one observed in the general population during this sampling. Among those interested, 151 were boys and 49 girls, while, among those not interested, 137 were girls and 63 boys (P < 0.001). When all 400 respondents were asked about their interest in several other events with high media coverage, the Tsunami in Southeast Asia came first with 76% of the respondents indicating it was of ‘major or significant’ interest. DR was second and several other motor sports events were respectively in third, fifth and sixth place.

Among the selected individuals, 71% were males, but only 26% of females, declared a ‘major or important’ interest in DR. This interest increased with age (Fig. 1A and B), for boys, as well as girls: 41% for those aged 12–14 years versus 57% for those aged 20–24 years (P < 0.05).

The interest of the general population in F1 was evaluated using a panel of 405 individuals (210 males, 195 females). The percentage of young people interested in the general population was close to 46%, similar to the percentage observed in our panel. Among the 188 individuals interested in F1, 139 were males (66% of all males) and 49 females, while, among those not interested, 146 were females and 71 were males (P < 0.001). A non-significant increase of interest with age was observed only for females, rising from 20% for those under 18, to 29% for those aged 18–24 (P = 0.2).

Among the 188 individuals interested in F1, 79% were also interested in the World Rally Championship and 78% in the Motorcycle GP.

When all 405 selected individuals were asked if they played video games, only 46% of females and 89% of males answered yes (P < 0.001); 65% of those interested in F1 played video games, but only 55% of those not interested were players (P < 0.05).

The perceived image of F1 was evaluated and compared with DR perception. Only 85% of those interested in F1 declared ‘F1 to be a dangerous race’, versus 94% of those interested in DR who declared ‘DR to be a dangerous race’ (P < 0.01). Furthermore, 83% of those interested in F1 declared that ‘F1 rivals go to the top of their physical abilities’, versus 92% of those interested in DR, with respect to DR drivers (P < 0.01).

Recall of cigarette-brand advertising

With respect to cigarette-brand advertising, all 200 respondents interested in DR were first asked if they...
‘spontaneously’ could recall a sponsor name. Gauloises came first with 58% of spontaneous recall (Fig. 2A). They were subsequently asked if they could recognize one or more sponsors from a proposed list, established as described in methods. The percentage of people who answered Gauloises (81%) came third, just after Total and Elf (84% each) (Fig. 2B).

All 400 respondents were asked if they could spontaneously, and correctly, associate a vehicle color with a sponsor. While 59% were able to associate a color with a car make, 51% were able to do it for a cigarette brand (Fig. 3).

All respondents were then shown pictures of different DR and F1 vehicles, with all cigarettes brands and logos blurred (not shown). Marlboro came first (85%) and Gauloises came second, as cigarette brands directly associated with vehicle color (Fig. 4). With respect to Gauloises, the association of color with brand was correct for 51% of all individuals, including 62% of those interested in DR and 40% of those not interested in DR ($P < 0.01$).

All 188 individuals interested in F1 were asked if they ‘spontaneously’ could recall a sponsor. A wider panel of sponsors, proposed from a list established as described in methods, was recognized by respondents than for DR (Fig. 2C), including not only tobacco and oil companies, but tire and phone companies as well. Marlboro was the most cited (83%), while Gauloises was not cited at all, in comparison with 58% citations for DR.

Fig. 2 Recall of several different sponsors of DR and F1: (A) and (B) percentage of the 200 individuals interested in DR who expressed spontaneous (A, first step) or assisted (B, second step) recall of DR sponsors and (C) percentage of the 188 individuals interested in F1 who expressed spontaneous recall of F1 sponsors.
Assisted recognition of cigarette brands among the 188 respondents interested in F1 confirmed the dominance of Marlboro (95%). Gauloises was cited by 47% of them, even though Gauloises only sponsored the Monaco GP in 2005. No significant difference was observed between respondents interested in DR versus F1, as far as the association of a color with a car or cigarette brand was concerned. With respect to F1, the level of good association between car color and cigarette brand was as follows: Marlboro 89%, Benson and Hedges 49%, Mild Seven 37%, Lucky Strike 28% and West 11%. Obviously, some confusion among brands was observed at the expense of lesser-known brands. If the level of correct association for Marlboro was high for those interested in F1 (95%), it was significantly lower, but still quite high, for those not interested in F1 (83%). Values were, respectively, 37 and 20% for Lucky Strike ($P < 0.001$ for both cigarette brands).

**Population attitude and behavior concerning cigarette smoking**

Finally, when all respondents were asked if smoking was bad for their health, 71% of them answered yes, with no significant difference between those interested or not in DR. However, when asked if they ‘currently smoked’, 31% of all respondents answered yes, with 38% among those interested in DR and 25% among those not interested ($P < 0.01$). Furthermore, when asked if they smoked every day, the results were 27% for all individuals, 34% for those interested in DR and 21% for those not interested in DR ($P < 0.01$).

When all respondents were asked if smoking was bad for their health, 72% of them answered yes, with 66% of those interested in F1 versus 77% for those not interested ($P = 0.025$). Compared with DR, while 29% of all respondents said they ‘currently smoked’, a not significant difference, was observed between those interested in F1 and those not interested (32 versus 27%). Furthermore, while 27% of all respondents said that they ‘smoked every day’, a clear, but not statistically significant difference ($P = 0.10$) was observed between those interested and those not interested: 30 versus 24%.

Finally, when the small group of respondents ($n = 42$) who were unable to associate at least one car color with one cigarette brand was compared with respondents who were able to make at least one correct association, none of the 42
individuals was a daily smoker versus 29% for the others ($P < 0.001$).

**Discussion**

**Main finding of this study**

This study demonstrates the following:

- In 2005, based on a very conservative valuation, illegal French TV broadcasting value was worth about €19.10$^6$;
- Young males were more interested than females in motor sports, and this interest increased with age. Individuals interested in F1 played video games more often than those not interested.
- Spontaneous and assisted recall of tobacco industry sponsors was high among individuals interested in DR and F1; but, even if those interested in DR and F1 performed better, all respondents in both studies, made correct associations of cigarette brands with car colors at a high rate.
- A significantly higher percentage of daily smokers was observed among those interested in DR versus those not interested. A higher, but not statistically significant, percentage of daily smokers was observed among those interested in F1 versus those not interested. None of the individuals who failed to associate any tobacco brand with a car color were daily smokers.

**What is already known on this topic**

In France, most, if not all, national and regional media are particularly involved in promoting DR, mainly just before, during and after the rally. Competitors are famous and convey, with the help of the media, a strong image of adventure, danger, achievement, exoticism... This study confirms the efficiency of this strategy, since the vast majority of all interested individuals, agreed with these characteristics of DR (not shown).

Recruiting new smokers is the main, if not the sole, objective of tobacco advertising and sponsorship,$^5$ by creating a spontaneous positive association between cigarettes smoking and perceived self-image in young people’s minds.$^1$ Tobacco companies develop ‘extensive pre-promotion and post-promotion campaigns for sponsored events, making full use of the event site for sponsorship identification, ensuring that sponsored events are televised...’$^6$, and often enhancing their ‘symbolic imagery through co-sponsor third party advertising’. $^5$

F1 and several other motor sports rallies remain one of the main sectors of investment by tobacco companies,$^8,^9$ bypassing the different television bans$^{10,11}$ and the WHO Framework Convention on Tobacco Control (FCTC),$^{12}$ and by relocating races to countries with limited legislation and enforcement.

Indeed, published marketing studies provide strong evidence of the efficacy of sporting event sponsorship,$^{13,14}$ with motor sports sponsorship allowing tobacco companies to reach more than 50 billion people in 2003, with about 23:00 h of F1 television coverage.$^5$ Thus, Marlboro (Ferrari), Mild Seven (Renault), Lucky Strike (Bar-Honda) and West (McLaren, Mercedes), respectively, spent 70, 43, 38 and 40 million euros in 2004 for F1 sponsorship.$^{15}$ Third, young males spend several hours a day in front of a television set and enjoy motor sports,$^{8,16}$ and cigarette brands associate themselves with motor sports in order to convey values of modernity, virility and boldness.

A causal inference between tobacco marketing and adolescent smoking has been observed.$^{17}$ Tobacco brand recognition and ever-smoking rates both declined among young children, following an advertisement ban in Hong Kong.$^{18}$ Furthermore, young boys (12–13 year olds) whose favorite television sport is motor racing are more likely to take up smoking than other boys,$^{19}$ and motor sports are an efficient way to increase cigarette consumption by older male adolescents.$^{20}$

**What this study adds**

We observed that those most interested in F1, mainly boys, play video games more often than those not interested. It is likely that tobacco companies are aware of this relationship.

The high level of correct spontaneous and assisted recognition of cigarette-brand sponsorship of F1 and DR observed in respondents interested in these events is a proof of the successful promotion of brand awareness through TV, as previously shown.$^{21}$ Forty percent of 12–24 year olds not interested in DR were able to make a correct association between the color and Gauloises. Furthermore, 83 and 20% of individuals not interested in F1 were able to make the correct association between car color and, respectively, Marlboro and Lucky Strike. In the survey following DR, Gauloises was second among cigarette brands when it came to associating brand with vehicle color, while Marlboro was, by far, first in the survey following F1, not a surprise since Gauloises sponsors DR and Philip Morris F1.

Since there is no other obvious explanation for the association of these two characteristics—being a smoker and being interested in DR/F1—it is most likely that the regular and massive exposure to tobacco advertising of people interested in DR/F1 results, at least in part, in their smoking. In this respect, the observation that none of the individuals...
who failed to associate any tobacco brand with a car color were smokers is a good argument for a direct relationship between motor sport sponsorship by tobacco companies and young adult smoking.

This work confirms that tobacco sponsorship of motor sports is an efficient way to promote cigarette use. It strongly supports the WHO FCTC article 13 concerning ‘tobacco advertising, promotion and sponsorship’. Indeed the strong appealing effects of motor sports, mainly on boys and also on some girls, are one of the last support for transnational tobacco promotion through sponsorship and this should be totally banned worldwide.22

Limitations of this study

Several limitations of this study can be suggested. All observations related to illicit broadcasting impact on teenagers and young adults are limited to one country, 1 year and two limited population samples. Furthermore, DR broadcasting is mainly directed to French speaking countries; but this is not the case for China F1 GP. However, with respect to the monitoring of Motor sport illicit broadcasting, our evaluation is quite accurate, even if it is limited to the main TV channels. Finally, it would be interesting not to limit further studies only to young people, since adults interested in motor sports may play a role by introducing young children and adolescents to these sports.

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