FEAR APPEALS IN SOCIAL MARKETING ADVERTISING

by

ANNE MARIE LAVACK

B.Sc., The University of Toronto, 1984
M.B.A., The University of Manitoba, 1988

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Department of **MARKETING**

The University of British Columbia
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Fear Appeals in Social Marketing Advertising

Abstract

This thesis includes several studies on the use of fear appeals in social marketing advertising. The first study uses a content analysis to examine the use of fear appeals in a sample of 589 social marketing television ads. The social marketing ads represented five health-related behaviors (smoking, drinking, driving while impaired, drug abuse, unsafe sex) in five countries (Canada, United States, Great Britain, Australia, New Zealand), covering the period from 1980 through to 1994. The sample was content analyzed to examine the incidence of fear appeals, the adherence to the prescriptions of the Ordered Protection Motivation (OPM) model (Tanner, Hunt, and Eppright 1991), and whether fear appeals vary by country-of-origin, the types of behavior being targeted by social marketing advertising (smoking, drinking, driving while impaired, drug abuse, unsafe sex), and the choice of an intended target group (by age and/or sex). Findings suggest that ads generally adhere to the major tenets of the OPM model. In terms of incidence, the use of fear appeals is less common when the sponsor is a for-profit corporation, when the ads are targeted at a youthful target group, and when the behaviors being targeted are perceived to be less serious. Fear appeals appear to be more common in ads from Australia, as compared to the United States or Canada.

To examine the idea that different target groups may respond differently to fear appeal ads, two experiments and a focus group were conducted. First, an exploratory experiment used drinking and driving (DUI) ads as a stimulus to examine the differential effectiveness of two different types of ads against different behavioral risk groups. This study compared an "OPM" social marketing print ad (i.e., one using fear appeals of the format prescribed by the OPM model), to a "MALADAPT" social marketing print ad (i.e., one which simply presents
counter-arguments against maladaptive responses, beliefs, and behaviors). Individuals who differed in the extent to which they engaged in the targeted risky behavior (i.e., those who do engage in DUI versus those who do not engage in DUI) were exposed to either the "OPM" or "MALADAPT" social marketing ads, or to a control condition. It was expected that the non-DUI group would experience the greatest change in attitudes and behavioral intentions when exposed to the traditional "OPM" social marketing ad, while the DUI group would experience the greatest attitudinal/behavioral change when exposed to the "MALADAPT" social marketing ad. However, the results of the initial exploratory experiment were inconclusive, and further study of the DUI target group was warranted.

Therefore, a focus group was conducted which examined the attitudes and beliefs of the DUI group. A key finding from this qualitative research was that DUI individuals are unconcerned about getting into an accident, but are instead primarily concerned with getting caught by the police. This suggests that some of the traditional high-fear appeals which feature bloody accidents may not be effective with this high-risk target group, and reinforces the idea that the MALADAPT ad which tries to attack maladaptive beliefs may be the most effective means of influencing this DUI target group.

Insights from the focus group provided the means for improving the ad stimuli and questionnaire for a replication of the experiment. Pretests for the ad stimuli helped in developing ads which were compelling and interesting for all experimental conditions. Based on these inputs, the experiment was refined and replicated. Findings indicated that the "MALADAPT" ad (which attacked maladaptive coping responses) was actually more effective with the high risk DUI group than the traditional OPM fear-appeal type of ad.
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My interest in social marketing advertising goes back to 1984 when I was employed at McKim Advertising, a major Canadian advertising agency, where I worked on a teen non-smoking campaign for Health and Welfare Canada. In subsequent years I worked on behalf of many other government and nonprofit clients to help develop social marketing campaigns against driving while impaired, drug abuse, sexually transmitted diseases (STDs), AIDS, and wife abuse. Therefore, I would also like to acknowledge and thank the many clients and colleagues with whom I worked during these earlier years, who inspired my interest in social marketing.
INTRODUCTION
Social marketing campaigns open people's minds; they expose people to choices and alternatives they otherwise might not have known existed. They change attitudes; sometimes, they save lives.

- Wallach 1988, p. 118

The purpose of this dissertation is to examine the use of fear appeals in social marketing advertising. This introduction will briefly explain the idea of social marketing, as well as the role of fear appeals in social marketing. This will be followed by an outline of the research that has been conducted in preparing this dissertation.

Advertising and marketing are most frequently applied to stimulating or changing purchasing behavior for products or services. Social marketing, however, differs from mainstream marketing in that the intent is often to promote ideas, change attitudes, or alter health-related behaviors, rather than influencing purchasing behavior. The ultimate objective when promoting ideas through social marketing may still be a behavior change; however, the behavior that is being targeted is not necessarily an ordinary purchasing behavior. Social marketing is a growing field of increasing interest to both marketing practitioners and academics (Riggs 1990).

One use of social marketing is to decrease consumption or attack maladaptive behaviors. When applied to advertising or communications, this approach is known variously as de-marketing, counter-advertising, or public service advertising. De-marketing is usually used in contexts where consumers are being persuaded or influenced to reduce their consumption of a particular product (Budden and Hossain 1986; Kotler and Levy 1971). Counter-advertising usually describes advertising whose purpose is to counter or oppose the advertising, promotion, and sales of potentially harmful substances (e.g., ads which try to
eliminate or reduce harmful consumption behavior, such as smoking or excessive alcohol consumption; Colford 1990). Public service announcements (PSA) are a generic name for social marketing advertising messages, but the use of the term PSA tends to imply that the airtime or space for the advertisement is donated rather than paid. In this dissertation the term social marketing advertising will be used to broadly refer to any type of persuasive media communication or message intended to promote social marketing goals.

Fear appeals are used as a persuasive tool in some advertising messages. Arousing fear about a potential threat is used as a means of getting the consumer to take action and buy a product. Fears about bad breath, taking care of one's family, and automobile safety are appeals that have been effectively used in ads for mouthwash, life insurance, and tires, respectively.

Fear appeals are also used in social marketing advertising as a means of persuading individuals to act. The action being encouraged in this case, however, is usually to change one's behavior in ways which will bring improved health, safety, or benefits to society. Social marketing ads have contained fear-arousing scenes of highway carnage, death by drug-overdose, blackened lungs, dying cancer patients, and family violence, all in the name of trying to change behavior to ultimately benefit individuals or society.

Yet there is much that is not known about the use of fear appeals in social marketing advertising. First, we know little about the incidence of this type of appeal. All of us can recall ads of this type, but we do not actually know whether fear appeals are the norm, or whether fear appeals are actually used infrequently. Also, we do not know whether the use of fear appeals varies as a function of such factors as its intended target group, the type of behavior being targeted, the type of sponsor, or the country in which it is produced. And although there are prescriptive theories about fear appeals, we do not know whether social
marketing ads which contain fear appeals actually adhere to the tenets of these theories.

Second, we know relatively little about the effectiveness of fear appeals with different target groups. Perhaps some individuals can be frightened into changing their behavior, but will this work for everyone? A key concern is that we do not really know whether fear appeals are effective with the target group of individuals who repeatedly engage in particular high-risk behaviors. For example, when we see a high-fear ad campaign credited with reducing the incidence of driving under the influence (DUI), we do not really know whether those who occasionally DUI have stopped doing it altogether, or whether those who frequently DUI are doing it less often. Either or both of these phenomena could account for an overall drop in DUI.

This dissertation is comprised of two main types of studies which examine the use of fear appeals in social marketing advertising. Chapters One through Three describe a content analysis which uses a five-country sample of English-language social marketing TV commercials. It examines the incidence of fear appeals in social marketing ads, and attempts to determine how the use of fear appeals varies as a function of country of origin, type of ad sponsor, type of behavior being targeted, and attributes of the intended target group. As well, it examines whether social marketing ads which contain fear appeals adhere to the Protection Motivation model (Rogers 1975, 1983) or the Ordered Protection Motivation model (Tanner, Hunt, and Eppright 1991).

Chapters Four through Seven describe an exploratory experiment, a focus group, and a subsequent replication of the experiment. The purpose of the experiments is to compare the effectiveness of fear appeal ads with a second type of ad which attacks maladaptive coping responses. Using these two types of ads for DUI and two groups of subjects who differ in the extent to which they engage in DUI (i.e., those who DUI versus those who do not DUI), it
Introduction

will be possible to determine which type of ad is more effective with which type of behavioral target group.

Finally, Chapter Eight will present a synthesis of the results of the studies, and present some guidelines for future research. While the research contained in this dissertation provides some insights into the role of fear appeals in social marketing ads, there are still many avenues for future research which can be fruitfully explored.
CHAPTER ONE

EXAMINING FEAR APPEALS IN SOCIAL MARKETING TELEVISION ADS THROUGH CONTENT ANALYSIS:

PROBLEM DEFINITION AND OVERVIEW
Horrifying images of car crashes, bloody accident scenes, clanging jail cell doors, funerals, crying children, blackened lungs, broken families, death, and despair haunt our television sets. These scenes, and many others like them, seem to be frequently used by social marketers as a persuasive tool, arousing fear in order to change destructive behaviors, to encourage the adoption of healthier lifestyles, and to exhort individuals to obey the law. This research will examine these fear-arousing images in social marketing television commercials, in the context of previous research about fear appeal incidence and prescriptive models.

Problem Definition

Fear appeals have been relatively common in marketing communications in the twentieth century (Pollay 1985; Stern 1988), particularly in advertising products in which emotions play a key role in consumer behavior and decision-making. Social marketing ads in particular are thought to make fairly frequent use of fear appeals (Freimuth, Hammond, Edgar, and Monahan 1990). This is perhaps not surprising, since social marketing ads frequently deal with sensitive issues and emotional topics (Kotler and Andreasen 1996). Additionally, the unselfish intentions behind social marketing advertising render it less likely that the use of fear appeals would result in ethical concerns about exploitation.

A number of issues and questions arise regarding the incidence of fear appeals in social marketing ads:

• How frequently are fear appeals used in social marketing ads?
• Does the incidence of fear appeals in social marketing ads differ as a function of situational factors, such as country-of-origin, type of sponsor, type of behavior being targeted, or the intended target group?

Additionally, questions arise about the intensity of fear arousal in social marketing ads:

• Does the intensity of the fear appeal differ as a function of situational factors (country-of-origin, type of sponsor, type of behavior being targeted, or the intended target group)?

Finally, questions exist concerning the content or format of the social marketing fear appeal ad, and its adherence to prescriptive theory:

• Does the format of the ad follow the prescriptive advice suggested by theories of fear appeals, such as the Ordered Protection Motivation model (Tanner, Hunt, and Epptight 1991)?

The content analysis described in Chapters Two and Three uses a comprehensive non-probability sample of English-language social marketing TV ads which were produced between 1980 and 1994 in five English-speaking countries (Canada, the United States, Great Britain, Australia, New Zealand), targeting five health-related behaviors (smoking, drinking, driving while impaired, drug abuse, unsafe sex). The use of this non-probability sample permits an in-depth and thorough study of social marketing advertising targeting these five specific types of behavior.

While a primary goal of the content analysis study was to test some specific a priori hypotheses, it was also expected that the content analysis would be partially exploratory in nature, and might help to identify some interesting trends or lead to the development of new research ideas. The a priori hypotheses will be put forward where there is a basis in the literature to develop such hypotheses. Exploratory analyses will be used to examine interesting areas where there are few pointers in the literature to suggest an a priori hypothesis.
This Chapter will begin by examining the literature on theories of fear appeals, including an examination of the literature on the incidence of fear appeals. This will be followed by a brief review and discussion of cross-national\(^1\) differences in advertising, types of ad sponsorship, and types of intended target audiences, and how these all relate to the use of fear appeals in social marketing ads. Finally, this will be followed by an outline of the literature on social marketing campaigns, with particular reference to the literature on the five behavioral areas that will be examined in the content analysis. A review of content analysis techniques and methodology will be outlined later on in Chapter Two where the content analysis research methodology is discussed.

**Theories and Models of Fear Appeals**

Over the past 40 years a large literature has evolved on the use of fear appeals in persuasive messages, which has been reviewed extensively elsewhere (e.g., Boster and Mongeau 1984; Dillard 1994; Higbee 1969; Janis 1967; Leventhal 1970; Miller and Hewgill 1966; Ray and Wilkie 1970; Rotfeld 1988; Sternthal and Craig 1974; Sutton 1982). The literature on fear appeals is full of contradictory results and conflicting models. Some of the early research indicated that mild fear appeals were more effective than strong fear appeals, suggesting an inverse relationship between level of fear and persuasiveness (e.g., Janis and Feshbach 1954). However, much of the later research has contradicted this finding. Other studies have indicated that moderate fear levels are most effective, suggesting a curvilinear or inverse-U relationship between level of fear and level of persuasiveness (e.g., Krisher, Darley, and Darley 1973; Schwarz, Servay, and Kumpf 1985). The majority of the studies, however,

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\(^1\) The terms *cross-cultural* and *cross-national* will be used interchangeably.
have indicated that strong fear appeals are more persuasive than mild ones, suggesting a direct relationship between level of fear and level of persuasiveness (e.g., Miller and Hewgill 1966; Sternthal and Craig 1974).

Essentially, there are five models of fear appeals which have gained prominence over the years in the literature: (1) the Fear Drive model, (2) the Parallel Response model, (3) the Inverted-U model, (4) the Protection Motivation model, and (5) the Ordered Protection Motivation model. Each of these models are reviewed here.

*The Fear-Drive Model*

The Fear-Drive model (Hovland, Janis, and Kelley 1953) is based on the idea that the information contained in a message evokes an emotional reaction, which in turn motivates a coping response (see Figure 1.1). This model assumes that the emotional response of fear functions as a drive which mediates belief change and behavior change. A fear appeal "is most likely to induce an audience to accept the communicator's conclusion if a) the emotional tension aroused during the communication is sufficiently intense to constitute a drive state; and b) silent rehearsal of the recommended belief or attitude is immediately followed by reduction of tension" (Hovland, Janis, and Kelley 1953, p. 62). The more serious the potential damage to one's physical or social self, the more likely the person will be to follow the recommended option. However, when the fearful drive state becomes so intense that the recommended actions are no longer sufficiently reassuring, individuals become motivated to reduce their fear by other means, such as defensive avoidance. People can defensively avoid the fear message by such things as calling into question the credibility of the communicator, or by minimizing their perceived susceptibility to the threat.

Consequently, this model suggests that moderate levels of fear arousal are most likely
to facilitate persuasion, whereas further increases in fear arousal are likely to encourage defensive avoidance and thus discourage persuasion. In essence, the Fear-Drive model proposes a curvilinear relationship between the level of negative arousal being experienced by the individual and the subsequent acceptance of the recommendations, since moderate levels of fear arousal are thought to be optimal.

The Inverted-U Model

The Inverted-U model (Janis 1967) also offers a theory of the curvilinear relationship between the amount of persuasion and the level of fear arousal in response to a threat communication. This model proposes that moderate fear levels are more effective than either low fear levels or high fear levels. Low fear levels are insufficient to motivate the individual to take preventive action, while high fear levels create a sense of paralysis, in which the individual becomes unable to respond. This model assumes that increases in fear have multiple effects, some of which facilitate persuasion and others of which have an interfering effect. As the level of fear arousal is increased, the facilitation increases more rapidly than the interference; however, at some point the interference starts to increase at a more rapid rate.
The resulting relationship between fear and acceptance takes the form of an inverted-U shaped curve with the optimal point occurring at that level of fear at which the interfering effects start to increase faster than the facilitating effects (see Figure 1.2).

Thus, when the message recipient is either extremely fearful or has very little fear, little attitude or behavioral conformity toward the message recommendation will occur. The optimal amount of conformity is produced when the listener is moderately fearful. At low levels of fear, the audience is unaffected because they dismiss all information as being inconsequential by means of blanket reassurances (e.g., we need not change because we are not convinced of the danger). At high levels of fear, the audience exhibits defense mechanisms (e.g., denial, detachment, and minimizing rationalization) which interfere with acceptance of the message. At moderate levels of fear, "the average person's vigilance and reassurance tendencies are stimulated which is the optimal condition for developing compromise attitudes of the type.
required for acceptance of the recommended action" (Janis and Leventhal 1968, p. 1056).²

A practical limitation of the Inverted-U model is that, like the Fear-Drive model, it leaves researchers searching for an optimal level of fear. In practice it may be difficult to measure a moderate level of fear arousal, as distinct from a low or high level of fear arousal. A key reason for this is that the level of fear arousal may vary among individuals or among target segments. Therefore, practical testing of its predictions is extremely difficult. As well, numerous studies have not found any support for the curvilinear model (see Allen and Preiss 1990; Boster and Mongeau 1984; Sutton 1992).

**The Parallel Response Model**

Unlike the two afore-mentioned models which restrict threat coping to an emotional process, the Parallel Response model (Leventhal 1970) does not rely on fear arousal reduction as the principal mechanism underlying the effects of fear appeals. Instead, emotional and adaptive responses to threat messages are considered to be two independent and parallel processes (see Figure 1.3). Threat messages may make people fearful, but any protective actions that are taken result from a desire to control the danger, not to reduce the fear, according to this model.

Essentially, the Parallel Response model suggests that two independent but parallel processes are at play when fear appeals are used. These two forces, danger control and fear control, are activated simultaneously in response to a fearful stimulus.

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² A two-dimensional (tension and energy) formulation of fear arousal effects has also been examined, in which stimulation of fear parallels a two-part continuum of increasing tension. Increasing tension generates energy up to a certain point, and beyond that threshold, increasing tension arouses anxiety which begins to deplete energy (LaTour and Zahra 1989; LaTour and Pitts 1989; Henthorne, LaTour, and Natarajan 1993). This mimics the results of the curvilinear model.
The first process, danger control, is an objective process which guides an individual's problem solving behavior and action. This objective-cognitive process generates a representation of the threat, and it also generates action plans to cope with the threat based on its representation. As problem solving proceeds, the external cues (such as information about the danger, and feedback regarding the adequacy of the action taken) influence subsequent adaptive behavior.

The second process, fear control, is a subjective process which deals with the emotional component of the persuasive appeal. It is an emotion-coping process in which the message receiver strives to reduce the fear. Emotions are aroused by the message independent from thought, and behaviors are needed to cope with and control these emotions. These behaviors may be different than those behaviors needed to cope with the threats. For example, gory images and verbal statements regarding the severe consequences of noncompliance may heighten internal cues and induce behaviors such as denying the threat, resting, drinking, or eating to cope with the emotional response, even these do not affect the adaptive behavior that is needed to cope with the threat.
"In the parallel-response model, emotional arousal is not a necessary antecedent of adaptive behavior ... both types of behavior, emotional and adaptive, are consequences of environmental stimulation. They do not cause one another" (Leventhal 1970, p. 124). In summary, the danger control process guides adaptive behavior while the fear control process guides emotional responses.

There are several criticisms of the Parallel Response model. One problem is that Leventhal refers to aspects of the stimulus situation that can facilitate or inhibit the danger control and fear control processes, but he doesn't clearly specify what these aspects are or how they affect these two processes. Thus, it is a difficult model to test, since it is hard to predict the manifestation of danger control and fear control (Sutton 1982). Another criticism is that Leventhal initially assumes that danger control and fear control are independent processes, but he later suggested that these two processes may sometimes interact. It is clear that although these two processes are conceived as being independent, they may affect one another during the course of decision-making. A highly emotional response may disrupt adaptive behavior, or performance may disrupt the emotional response. For example, strong fear motivates avoidance behaviors, which in turn may disrupt danger control. The fear control process can arouse emotions that lead to behavior which may inhibit or lessen the persuasiveness of the message (McDaniel and Zeithaml 1984). Also, the Parallel Response model provided prescriptive guidelines that ultimately produce conflicting results (Beck and Frankel 1981; Boster and Mongeau 1984; Rogers 1975).

Recently, the Parallel Response model has been further developed into the Extended Parallel Process Model (EPPM; Witte 1992), which specifies the relationship between threat and efficacy. In effect, the EPPM suggests that fear leads to message rejection, while cognitions (i.e., perceived threat and efficacy) lead to message acceptance.
The Protection Motivation Model

The most recent of the fear models, the protection motivation (PM) model (Rogers 1975, 1983) has increasingly gained acceptance among academics (Roser and Thompson 1995). The protection motivation model suggests that fear arousing persuasive messages are comprised of three variables: (1) levels of noxiousness of an event, (2) the probability that the event will occur without behavioral change, and (3) the effectiveness of a coping response that can reduce or eliminate the noxious event (see Figure 1.4). Each of these crucial elements "initiates corresponding cognitive appraisal processes that mediate attitude change" by arousing what has been termed "protection motivation" (Rogers 1975, p. 93). Like Leventhal (1970), Rogers (1975) believes that emotional arousal is less important than a person's cognitive appraisal of the threat. Contrary to Leventhal (1970), however, Rogers (1975) is very specific about the cognitions involved in threat appraisal. His model focuses on the above-mentioned three factors, and he claims that people will accept or reject recommendations based on their assessment of these variables.

Whether or not the viewer acts on the coping advice, or chooses a maladaptive coping response (e.g., ignoring the threat, discounting the probability of occurrence, etc.) is mediated by four cognitive appraisal processes (Rogers 1983). These four processes are appraisals of: (1) the available information about the perceived severity of the threat; (2) the perceived probability that the threat will occur; (3) the perceived ability of the recommended coping response to remove the threat (response efficacy); and (4) the individual's perceived ability to carry out the recommended coping response (self-efficacy). While both response efficacy and

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3 Dillard (1994) has recently argued that some fear theories have become divorced from the notion of fear, and calls for using an emotional perspective on fear appeals to examine the role of fear appeals in persuasive communications.
self-efficacy are important, some authors have suggested that self-efficacy is somewhat more important than response efficacy in determining the likelihood of acting on coping advice (Bandura 1990, 1977a; Bandura, Adams, and Beyer 1977; Beck 1981; Beck and Frankel 1981; Beck and Lund 1981).

A social marketing ad may provide information that is relevant to each of these four elements of the PM model. First, it is likely to give specific information about the potential threats, and may even suggest the degree to which each threat is serious or severe. Second, a social marketing ad may include information about the likelihood or probability that the threat will occur. Third, since the purpose of a social marketing ad is not simply to frighten, but rather, to mobilize action, a social marketing ad is also likely to give specific pieces of advice or information about actions that can or should be taken to prevent, ameliorate, reduce, eliminate, or cope with the threatened outcome, and may advise about the efficacy of the recommended action. Finally, a social marketing ad may provide a message of encouragement or reassurance in order to bolster the target group’s sense of personal self-efficacy and confidence in their own ability to actually carry out the recommended actions (Maddux and Rogers 1983).

![Components of a Fear Appeals and Cognitive Mediating Processes](image)

**Figure 1.4** The Protection Motivation Model (Source: Rogers 1975)
One criticism of the Protection Motivation model is that it does a poor job of accounting for the consequences of emotional arousal, and therefore leaves the receiver lost in thought since it does not predict what actions will take place (i.e., what is the actual relationship predicted to be?) (Leventhal et al. 1983). It has also been pointed out that in this model the relations between behavior and fear arousal are complex and multifactorial, and therefore it is unlikely that any single variable will explain a high proportion of the variance (Boster and Mongeau 1984).

The Ordered Protection Motivation Model

The Ordered Protection Motivation (OPM) model, a variant on the Protection Motivation model, has been developed recently in the marketing literature (Tanner, Hunt, and Eppright 1991). It seems likely that the PM or OPM models of fear appeals have the greatest applicability to social marketing advertising (Van der Velde and Van der Pligt 1991). Looking back over the past 40 years of fear appeals research, there appears to be significant support for the precepts of the OPM model (Hunt, Tanner, and Eppright 1995). The OPM model is shown in Figure 1.5.

Under the Ordered Protection Motivation (OPM) model (Tanner, Hunt, and Eppright 1991), the ordered component of the model suggests that within a given communication or message, the threat information should precede the coping information. The cognitive processing of the threat information must occur prior to the cognitive processing of the coping information, in order for a given message to be effective. Research has indicated that the optimum position for the fear message is immediately prior to the recommendations (Skilbeck, Tulips, and Ley 1977). Therefore, the present content analysis will examine the order of threat and coping information in social marketing ads, to determine the extent to which social
marketing ads conform to this prescription from the OPM model.

Some research has also examined the relative effectiveness of grouping multiple threats and recommendations (coping advice) within one ad, or whether it is more effective to alternate threats and coping advice, by following each individual threat with a meaningful recommendation (Boyd 1995). These two different patterns of presenting threats and coping advice may be differentially effective for different target groups, thereby increasing the importance of the "ordered" component of the OPM model.
Summary of Theoretical Models of Fear Appeals

The above five models present conflicting views of the impact of fear appeals on persuasiveness of a message. There are several reasons why there have been conflicting findings with regard to the relationship between level of fear and level of persuasiveness. First, there is a question as to whether much of the early research had even measured fear arousal, since the level of fear intended by the researcher may not match (or may be confounded with) the level of fear perceived by the subjects (Dillard 1994; Higbee 1969; Witte 1993). Second, a key problem with some of the studies is that fear is operationalized in different ways, and that variables called "fear" may variously also be thought of as being anxiety, nausea, worry, or even concern (Higbee 1974; Witte 1993). Third, it has been widely suggested that there may be mediating variables which have an impact on the persuasiveness of fear appeals, including source credibility (Dembroski, Lasater, and Ramirez 1978; Hewgill and Miller 1965), familiarity of the topic (Karlins and Abelson 1970), credulity of the subjects (Ray and Wilkie 1970), self-esteem of the subjects (Leventhal and Perloe 1962; Leventhal and Watts 1966), etc. These and other mediating variables may have an impact on how persuasive fear appeals are perceived to be. Finally, the fear-persuasion relationship might be segment specific, meaning that fear may be more effective for some individuals or groups than for others (Burnett and Oliver 1979; Burnett and Wilkes 1980).

As well, some of the conflicting results may be due to: (1) the nature and object of fear studied; (2) the range of fear manipulations; (3) the heterogeneity of subject pools; (4) the variety of methods of presentation that have been employed; and (5) the diversity of measures used to establish persuasive effects (Rotfeld 1988). It has also been noted that much of the previous research may have limited applicability to social marketing advertising or public service announcements, since the persuasive communications utilized ranged from voice
recordings to personal interactions to written passages to films, and seldom used ads or promotional materials (Rotfeld 1988).

Two important meta-analyses (Boster and Mongeau 1984; Sutton 1982) have demonstrated that the weight of evidence in the literature supports the premise of a positive relationship between level of fear arousal and message persuasiveness.\(^4\) The Protection Motivation model and the Ordered Protection Motivation Model have gained widespread support, and are thought to be the most useful models, particularly for prescriptive purposes. For this reason, the content analysis study will examine adherence to the Ordered Protection Motivation (OPM) model within social marketing ads. Specifically, the following hypotheses with regard to the OPM model will be tested:

H1a  The majority of social marketing ads will contain one or more threats or negative consequences.

H1b  Of the ads which contain one or more threats or negative consequences, the majority will also contain action recommendations or advice for coping with the threat.

H1c  In social marketing ads which include both threat(s) and coping information, the threat(s) will tend to temporally precede the coping information.

\(^4\) Allen and Preiss (1990) conducted an interesting examination of 34 textbooks which dealt with persuasion and public speaking. In 25 of these 34 textbooks the use of fear appeals was discussed; 15 of the 25 disagreed with the hypothesis of a positive linear relationship between fear and persuasiveness, in spite of the fact that two major meta-analyses (Boster and Mongeau 1984; Sutton 1982) have found extensive support for this relationship. Instead, many textbooks continue to promulgate the Janis and Feshbach (1953) curvilinear hypothesis which recommends moderate fear appeals as being most effective. Allen and Preiss (1990) suggest that textbook authors may commonly rely on their own narrative review of the fear literature, rather than conducting a systematic meta-analysis of the literature in which effect sizes are taken into account. This use of a narrative review approach, rather than a meta-analytic approach, may lead some textbook authors to erroneous conclusions.
Incidence of Fear Appeals in Advertising Messages

Fear is an emotion which is thought to have considerable persuasive ability. Fear appeals generally create a sense of fear or dread, which appears to lend a high level of importance or credibility to the message (Zeitlin and Westwood 1986). The use of negative emotions can be a successful mediator of attitudes in advertising appeals (Edell and Burke 1987; Moore and Hoenig 1989). It appears that fear appeals have been a relatively common device in marketing communications during the twentieth century (Pollay 1985; Stern 1988), particularly in the areas of insurance marketing, political advertising (Calantone and Warshaw 1985), and other areas where emotions play a role in consumer decision making.

Only one content analysis study has been uncovered which focuses on the prevalence of fear appeals (Unger and Stearns 1983). The Unger and Stearns (1983) study examined 675 TV commercials which aired during sampled day-parts during a 4-week period in July 1982. That study found that fear appeals were present in 16.6% of the ads. The most common fear types were social disapproval (in 45% of the fear ads) and physical threat (in 46%), followed by financial fear (15%) and functional fear⁵ (8%; totals equal more than 100% due to multiple fear types in some TV commercials). The Unger and Stearns (1983) study illustrated the prevalence of fear appeals in television commercials in general, but did not examine the frequency of fear appeals within social marketing television commercials in particular. (The present content analysis study will remedy that situation by focusing specifically on fear appeals in social marketing advertising.)

The high prevalence of fear appeals found in the Unger and Stearns (1983) study is

⁵ Functional fear refers to "the threat of product malfunction" (Unger and Stearns 1983, p. 18). This would clearly be an important type of fear variable in product advertising, but is not relevant for social marketing advertising.
probably due to the successful impact of fear appeals on attitude change (Johnson 1991; Natarajan 1977; Smith, Frankenberger, and Kahle 1990). Fear appeals also appear to be relatively common in the narrower field of social marketing advertising, although there has been little research conducted which estimates their incidence of occurrence.

A key reason for this lack of research is that there are relatively few social marketing ads on television, compared to the large number of television commercials representing for-profit products and services. Wallack and Dorfman (1992) conducted a content analysis of a composite day of television comprising 20 randomly selected hours of TV programming\textsuperscript{6} over a three week period in April/May 1989. They found that PSAs comprised only 5.8% of the commercials in this sample, and less than half of these PSAs were health-related messages (i.e., less than 7 minutes of health-related PSAs in the 20 hour sample of television programming). Somewhat surprisingly, not one of the PSAs in the sample addressed the issues of tobacco or alcohol, two of the leading behavioral risk factors for poor health. This low incidence of health-related PSAs indicates the difficulty that would be encountered in trying to obtain a probability sample of social marketing TV ads.

A similar but larger scale content analysis was conducted by Hanneman, McEwen, and Coyne (1973) which covered four television stations in Hartford, Connecticut over a one-week period in June, 1972. This study made use of both data coded by 18 different observers covering over 500 hours of airtime (55% of the airtime hours during the week), as well as broadcast station logs. Because of the larger size of the database of TV commercials (500 hours of airtime, as compared to 20 hours of airtime in the Wallack and Dorfman (1992)

\textsuperscript{6} TV programming usually consists of approximately 12 minutes of TV commercials and 48 minutes of TV show per hour. This means that TV commercials comprise only 20% of TV programming.
study), it was possible to study PSAs in more detail in this study. A total of 1159 PSAs aired during the week, representing 747 minutes or 12.45 hours of public service advertising; this compares to 530 hours of total on-the-air time for the four stations. PSAs represented 2% of the total viewing time, while commercial advertising accounted for 20% of the total air time. One-third (33%) of the PSA commercials dealt with medical/health issues or social problems (drug abuse 5%, alcoholism 2%, venereal disease 2%, population growth 2%, and civil liberties/pollution/discrimination 7%). Fear appeals were used in 24% of the PSAs. A PSA was coded as employing a fear appeal if it showed or discussed the harmful or painful social or physical consequences of not doing what the message directed. The 24% incidence of fear appeals was relatively high in this study, compared to the 16.6% incidence of fear appeals found in the Unger and Stearns (1983) study, and indicates the importance of studying fear appeals in the context of social marketing commercials. A comparison of these three major content analysis studies is shown in Table 1.1.
<table>
<thead>
<tr>
<th>Table 1.1</th>
<th>Comparison of Three Content Analysis Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampling Frame</td>
<td>- sampled dayparts over a 4-week period across 3 TV networks</td>
</tr>
<tr>
<td>Timing</td>
<td>July 1982</td>
</tr>
<tr>
<td>Type of Commercials</td>
<td>all types</td>
</tr>
<tr>
<td>Total Number of Commercials</td>
<td>675 commercials</td>
</tr>
<tr>
<td>Number of PSAs/Social Marketing Commercials</td>
<td>n/a</td>
</tr>
<tr>
<td>Incidence of PSAs/Social Marketing Commercials</td>
<td>n/a</td>
</tr>
<tr>
<td>Incidence of Fear Appeals</td>
<td>16.6% of all commercials</td>
</tr>
<tr>
<td>How Fear was Measured</td>
<td>- coded as fear appeal if the threat of a negative consequence was used</td>
</tr>
<tr>
<td>Number of Coders</td>
<td>2</td>
</tr>
<tr>
<td>Other Variables Measured</td>
<td>- guilt messages - degree of emotion - degree of vividness - # of &quot;you&quot; references - # of references to negative consequences - social/physical/financial/functional types of fear</td>
</tr>
</tbody>
</table>
Based on this evidence, it is anticipated that fear appeals will be present in 24% of the social marketing ads in the proposed sample. Since social marketing ads in this sample are aimed at changing negative behaviors, it seems likely that a substantial proportion of these ads will focus on the threats to health that are the result of the behaviors in question. Because of the inclusion of health threats in this type of ad, it is expected that this approach will be fear-arousing in a significant proportion of cases. Given the evidence in the Hanneman, McEwen, and Coyne (1973) study, this proportion is expected to be equivalent to that found in their study, or approximately 24%. There is no evidence to suggest that the incidence of fear appeals has changed since 1973; therefore, the null hypothesis that the incidence of fear appeals has stayed the same will be put forward. Therefore the following is hypothesized:

H2 Approximately 24% of the social marketing ads will contain fear appeals.

Ethical Concerns Regarding the Use of Fear Appeals

The use of fear appeals in product advertising is sometimes thought to create ethical concerns (Benet, Pitts, and LaTour 1993; Duke, Pickett, Carlson, and Grove 1993; LaTour, Natarajan, and Henthorne 1993; Spence and Moinpour 1972). The use of fear appeals in social marketing advertising, however, is deemed to be more socially acceptable (Benet, Pitts, and LaTour 1993; Duke, Pickett, Carlson, and Grove 1993). The general acceptability of fear appeals in social marketing advertising is another reason why fear appeals are expected to be used more commonly in a sample of social marketing ads than they might be in a sample of...
Chapter One  Examining Fear Appeals in Social Marketing Television Ads Through Content Analysis

ads for products/services.\textsuperscript{8}

\textit{Health Threats vs. Social Threats}

It has been suggested that threats in fear-arousing ads, while most commonly of the health-related variety, can also be related to a social context (Powell and Miller 1967; Tanner, Hunt, and Eppright 1991). For example, rather than using fairly distant threatening health-related consequences like lung cancer in social marketing ads against teenage smoking, more immediate negative social consequences like bad breath could be featured. As well, the literature suggests that most fear-arousing threats are related to consequences for oneself, although it is also possible to have threats which have consequences for close others (Hewgill and Miller 1965; Shelton and Rogers 1981; Stuteville 1970), or even for society in general (Hine and Gifford 1991). For example, DUI ads can threaten jail sentences for the driver, risk of accident or death for loved ones in the car, or risk of killing or maiming unknown others (King and Reid 1990). The present content analysis will code the nature of the threats found in social marketing ads, and identify whether they are health-related or social in nature, and whether the threats have consequences for oneself, close others, or for society in general. This part of the analysis will be exploratory, and no specific hypotheses will be proposed.

\textsuperscript{8} The incidence of fear appeals in social marketing ads in the Hanneman, McEwen, and Coyne (1973) study was 24\%, as compared to the 16.6\% incidence of fear appeals in a sample of all types of ads in the Unger and Stearns (1983) study.
Other Dependent Variables

Positive Appeals

The opposite of a fear appeal could be thought of as being a positive appeal. A social marketing ad could be considered positive if it either: (1) presents the message in an upbeat, light-hearted, or humorous manner; or (2) presents the message in a neutral, factual manner without any mention of the negative consequences of failing to comply with the recommended behavior. Much of the literature on the use of persuasive appeals with regard to health-related behaviors has dealt with fear-arousing appeals, and only a few studies have examined "positive" appeals or compared negative (fear) and positive appeals (e.g., Evans et al. 1968, 1970; Robberson and Rogers 1988).

Robberson and Rogers (1988) found that a negative fear appeal was more persuasive than a positive appeal; however, when self-esteem was involved, a positive appeal was superior to a negative appeal. In a study involving toothbrushing behavior, Evans et al. (1968) found that a message with positive affect arousal was just as effective as a negative fear appeal.

Based on this evidence, some practitioners and academics have suggested that it may be preferable to use positive appeals, or even humorous appeals (Brooker 1981). There may be particular issues which lend themselves more readily to positive appeals than to fear appeals (Boyle 1984; Riggs 1990). As well, there has been some concern that fear appeals may be less effective with particular target segments (Burnett and Oliver 1979; Burnett and Wilkes 1980; Quinn, Meenaghan, and Brannick 1992). Some authors strongly believe that fear appeals are counterproductive (Steele and Southwick 1981) or ineffective (Boyle 1984; Singh 1974; Tripp and Davenport 1989), and that positive appeals should be used instead. The present content analysis will code for the presence of positive appeals and neutral appeals in addition to fear appeals.
Humor

The use of humor is common in many types of advertising (Kelly and Solomon 1975; Weinberger and Spotts 1989). There has been considerable controversy over the effect of using humor in advertising, although in general humor seems to improve liking for a commercial, reduce irritation with a commercial, and increase liking for the product advertised (Duncan and Nelson 1985). Two models attempt to describe how humor could influence persuasion (Gelb and Zinkhan 1986). The cognitive model suggests that humor can be used to gain attention for the substance of a message. Enhanced attention leads to more central processing which should result in greater persuasion (Petty and Cacioppo 1986). Alternatively, the classical conditioning model suggests that humor creates positive affect toward the ad, and this positive affect is then transferred to the brand. While these two models suggest that humor may aid persuasion, it is also thought that humor may harm recall and comprehension for complex messages because it acts as a distractor. However, humor is thought to have a greater persuasive impact when the message recipient has a favorable prior brand evaluation (Chattopadhyay and Basu 1990), although it is not clear how this would apply in the case of counter-advertising where brand names are not applicable. Perhaps if the message recipient has a favorable prior evaluation for counter-ads against the specific targeted behavior (which might suggest a somewhat negative attitude toward the specific targeted behavior)

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9 In social marketing advertising there is often an undesirable or negative behavior that is being addressed, and a recommended coping response that is provided. The message recipient might have a positive attitude toward the undesirable behavior and a negative attitude toward the recommended coping response. Alternatively, the message recipient might have a negative attitude toward the undesirable behavior and a positive attitude toward the recommended coping response. It is this latter situation which might be analogous to having a positive attitude toward a brand, since a brand is usually presented as a solution to a problem (i.e., a recommended coping response). Therefore, humor may have a greater persuasive impact in social marketing ads where the message recipient has a positive attitude toward the recommended coping response.
behavior), then the use of humor in the message would have a greater persuasive effect.

Although some content analysis studies have examined the use of humor in advertising in general (e.g., Kelly and Solomon 1975; Weinberger and Spotts 1989), little is known about the extent to which humor is used in counter-advertising. Gelb and Pickett (1983) used a non-smoking ad in their experimental study on humor, remarking that humor has been used previously in non-smoking campaigns in the U.S.: "a Chicago physicians group, Doctors Ought to Care (DOC) began in 1980 to sponsor satiric print and radio advertising, such as an ad for 'Emphysema Slims.'

Ads parodied cigarette promotions and were designed to make fun of cigarette advertisers" (p. 36). Gelb and Zinkhan (1985) point out that "Freudian theory ... interprets a joke as a way to reduce anxiety" (p. 13), which suggests that humor can be useful in defusing the tension or anxiety inherent in thinking about the types of issues that counter-advertising typically addresses. Therefore, humor may be able to play a role in persuasive health-related messages, although it is expected that it would not be used to a large extent. Weinberger and Campbell (1990-91) point out that humor is used least often in high-involvement product categories (only 10-15% of the time, compared to about 30% of the time for advertising in general). Since counter-ads tend to discuss high involvement topics, this suggests that counter-ads would not frequently make use of humor. While humor will not be used frequently in counter-advertising, when it is used it will tend to be under one or more of the following circumstances: where there is a youthful intended target group; where the consequences of the targeted behavior are less serious or less immediate (e.g., smoking); or where the sponsor of the counter-ad is a for-profit corporation using humor to defuse anxieties and avoid alienating their customers.

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10 The Emphysema Slims ad was a take-off on the Virginia Slims cigarette brand.
Humor is ephemeral and difficult to define or measure; however, Sternthal and Craig (1973) suggest three methods. One method (which presents considerable methodological difficulties) is to measure the response of the subject, in terms of arousal, smiles, or laughter. A second method, most commonly used in experimental work on humor, simply requires subjects to give pencil and paper perceptual ratings of humor. These two methods are both suitable for laboratory experiments, where the success of a humor manipulation depends more upon whether the subject has actually perceived it to be humorous, rather than whether the advertiser intended it to be funny (Duncan and Nelson 1985).

A third method for measuring humor is to define the type of humor being used, i.e., whether it is a double entendre, incongruity, irony, joke, pun, satire, slapstick, turn of phrase, or understatement (Sternthal and Craig 1973). This categorization of the humor residing within the communication measures whether there is an intention or attempt to be humorous, thus making it a suitable method for humor categorization in a content analysis study. Another humor typology used in content analysis is to define the nature of a humorous communication as being of either the 'aggressive,' 'sexual,' or 'nonsense' variety (Goldstein and McGhee 1972; Madden and Weinberger 1982). This latter typology may have less discriminatory power, however, since one study using this classification scheme found that all ads in their sample belonged to the 'nonsense' category (Madden and Weinberger 1982).

A content analysis coding scheme which has previously been used successfully (Kelly and Solomon 1975; Weinberger and Spotts 1989) collected the following information:

1. Humorous intent (yes, no)
2. Prominence/role of humor (central, secondary)
3. Type of humorous device (irony, joke, ludicrous, pun, satire, understatement)
4. Integration of the use of humor with the product/issue; is humor related to the
product/issue (yes, no)

In defining whether humor is integrated with, or related to the product, Weinberger and Campbell (1990-91) provide some definitions: "Unrelated humor is operationally defined as humor that is not closely linked to the product and is almost incidental to the product. Related humor is operationally defined as humor that is linked to the product and the fabric of the commercial" (p. 46-7). The above four coding points were all found to have high intercoder reliabilities of .95, .93, .82, and .89 respectively in the Weinberger and Spotts (1989) study, and therefore these four points present a reliable scheme for coding humor.

Previous research has identified cross-cultural differences in the use of humor in advertising. Weinberger and Spotts (1989) have noted that there is a greater use of humor in British advertising than in American advertising, with 35.5% of British ads in their sample containing humorous attempts while only 24.4% of U.S. ads contained humorous attempts. British ads in their study gave humor a more central role, and were more likely to integrate the humor with the product. It is expected that these cross-national differences in the use of humor in general advertising would apply to counter-advertising as well.

The present content analysis will code only for the presence or absence of humorous intent. Since the main purpose of the study is to examine the use of fear appeals, humor is of interest only insofar as it may exist when fear appeals are absent, or may be inversely correlated to the presence of fear appeals.

Other Message Content Variables

Most cross-cultural content analyses conducted previously have focused on general advertising rather than social marketing advertising. This means that some of the message
content variables coded in previous studies pertain specifically to brand name products or services, and are therefore not relevant to social marketing advertising. For example, Tse, Belk, and Zhou (1989) coded print ads for product-related key concepts, themes, and promises. Zandpour, Chang, and Catalano (1992) coded TV commercials for product categories, Simon's (1971) 10 Creative Strategies, and the Resnik-Stern (1977) Information Content Classification System (e.g., price-value, quality, and other variables relating to products). Because the present content analysis is limited to social marketing ads, the coding schemes used in previous content analysis studies about product advertising are largely irrelevant.

The present study will gather data in some categories other than those reported within this thesis, for the purposes of future research. The data reported in this thesis will be that which relates specifically to the use of fear appeals.

**Factors Influencing the Use of Fear Appeals**

Little or nothing is known about the factors which facilitate or reduce the use of fear appeals in social marketing ads. Previous content analyses which have examined social marketing ads have not examined factors such as the country-of-origin, the ad’s sponsor, the behavior it is targeting, or the assumed characteristics of the intended target audience.

The premise of this research is that the use of fear appeals in social marketing advertising varies as a function of the ad’s country-of-origin, its sponsor, the behavior it is targeting, and the characteristics of the intended target audience.

This content analysis of television social marketing advertising is intended to examine the relationships outlined in Figure 1.6. It is expected that country-of-origin, type of sponsor, the behavior targeted, and the intended target group will each have an impact on the use of
fear appeals in social marketing ads. This is not to say that there may not be other variables which influence the use of fear appeals. However, a thorough examination of the fear appeals literature suggests that these are four interesting variables which have not been examined extensively, and so they are areas that are ripe for research.\textsuperscript{11} Let us now examine each of these factors in turn.

\textsuperscript{11} Figure 1.6 should not be thought of as a structural model or a causal model in which all possible influencing relationships are included, but rather as a conceptual picture of four potential influencing factors. The reason that this should not be thought of as a structural model is that there may well be relevant variables which have been excluded. Such variables, if included in the model, could have a significant impact on the size and direction of other relationships in the model. Some of these variables could include factors which affect the decision-makers who are involved in producing these television commercials, and could not possibly be determined through a content analysis of the television commercials themselves. Since one goal of a model is to strive for simplicity, the fewest number of relevant explanatory variables should be chosen. The variables chosen in in Figure 1.6 have been selected as being the most relevant and interesting set of variables which will be investigated in this study.
Cross-national Differences in Advertising

It is not known whether the incidence of fear appeals differs as a function of country-of-origin, or whether there may be cross-national differences in the intensity of fear appeals. Several studies have found evidence that advertising in general differs significantly between countries. However, the incidence of fear appeals between countries has not been examined. The study of cross-national differences in advertising is an area that has been increasingly gaining attention from academics, particularly during the past decade. Unique cultural, social, political, and historical factors within each country contribute to differences in cognition (Pick 1976; Triandis 1965), as well as differences in attitudes, values, and beliefs (Davidson and Thomson 1976; Hall 1990; Hofstede 1984). These differences in cognitions, attitudes, values, and beliefs are, in turn, likely to result in variations in the kinds of advertising that are produced across countries. For example, there may be cross-cultural differences in the types of persuasive approaches and message content that are used in social marketing ads. The extent to which fear appeals are used may differ between countries.

Content analysis is a technique that has been of considerable value in examining cross-cultural differences in advertising messages. A number of cross-cultural content analyses of advertising have previously been conducted, including a longitudinal study of print ads from Hong Kong, the People's Republic of China, and Taiwan (Tse, Belk, and Zhou 1989); comparisons of U.S. and Japanese print advertising (Belk, Bryce, and Pollay 1985; Belk and Pollay 1985b; Hong, Muderrisoglu, and Zinkhan 1987; Ramaprasad and Hasegawa 1992); a comparison of French, Taiwanese, and U.S. television commercials (Zandpour, Chang, and Catalano 1992); a comparison of humor in U.S. and U.K. television commercials (Weinberger and Spotts 1989); and a comparison of sex roles in television advertising in Australia, Mexico, and the United States (Gilly 1988). The studies cited have all made use of a probability
sample of ads appearing in a particular advertising medium. While the use of a probability sample allows for a statistically testable comparison between countries, such a sample of ads is seldom large enough to examine a particular small genre of advertising like social marketing advertising. Therefore, it is not surprising that none of the above cross-cultural studies have specifically examined social marketing advertising.

The research which is the subject of this dissertation is intended to fill this gap in the literature, by conducting a cross-cultural content analysis of television social marketing advertising. The television medium has been chosen because it is a common choice for carrying social marketing ads and PSAs, primarily due to its mass reach and dramatic impact. The use of a cross-cultural approach will illuminate similarities and differences in the use of fear appeals in social marketing TV advertising between the countries under study.

It is anticipated that country-of-origin (i.e., the country in which the social marketing ad was produced) will have an impact on the use of fear appeals in social marketing ads. For example, previous studies have suggested that Australia uses fear appeals in their social marketing ads against AIDS to a greater extent than the United States does (Johnson and LaTour 1991; LaTour and Pitts 1989). Similarly, Australia is noted for its fear-arousing approach in its ads for the Traffic Accident Commission (TAC).

The reason for the perhaps higher use of fear appeals in Australia may lie in the collective Australian psyche of machismo (Connell 1991; Moraes-Gorecki 1988). Australian society, particularly Australian men, comprise a rough and ready society, reminiscent of the old West in North America (Gilding 1992). It is thought that this toughness may necessitate a more hard-line approach in social marketing ads in Australia, whereby the message recipient must be jolted out of complacency by being scared or frightened into action (Loxley, Saunders, and Blaze-Temple 1990). Therefore, the following hypothesis is proposed:
H3 It is expected that a higher percentage of social marketing ads in Australia will use fear appeals, as compared to the United States.

Sponsorship

The sponsor of an ad is usually the party who is paying for the ad. For a traditional product ad, the sponsor is the manufacturer or company (e.g., Proctor and Gamble), and the clear-cut purpose of the ad is to promote that company's brand name product (e.g., Tide detergent). The purpose for advertising is definitely corporate self-interest; Proctor and Gamble uses advertising to increase sales of Tide detergent.

In the case of social marketing advertising, sponsorship and purpose are not always so clear-cut. For example, social marketing advertising against DUI (driving under the influence of alcohol) is often sponsored by federal or provincial government departments, such as Health Canada or the Department of the Attorney General. In this case, these two sponsors are both promoting the same general social objective or "product," since they both wish to discourage DUI; however, they each have vested interests which can strongly influence the content of their social marketing advertising messages. Health Canada is likely more interested in the health aspects of DUI, so their advertising message may be more likely to emphasize the threatening health consequences; the coping response they would likely recommend would be abstention or reduced alcohol consumption. On the other hand, Department of the Attorney General is more concerned about the legal aspects of DUI, so they would likely emphasize the threatening legal consequences, such as jail sentences or suspension of one's driver's license; their recommended coping response would more likely include planning alternative transportation strategies, instead of reducing the amount of alcohol consumed. In this case, two government departments have the same goal of reducing DUI, but each department would
have a very different communications approach.¹²

When the sponsor of a social marketing ad against DUI is a for-profit corporation, such as a brewery or distiller, the situation becomes even more complex. Such corporations do not really want to ask their audience to drink less, because that would go against their corporate self-interest. When a brewery or distiller sponsors a social marketing ad against DUI, it seems likely that they would minimize the threat content of their DUI social marketing ad. Rather than emphasizing the negative health or legal consequences of DUI, their message would perhaps simply advise that drinking and driving don’t mix. In essence, their coping advice would not be of the sort that would substantially reduce the amount of alcohol consumed. This point is reinforced in a review of alcohol moderation/DUI campaigns which were sponsored by Anheuser-Busch, Coors, and Miller, the three major brewing companies in the U.S. (DeJong, Atkin, and Wallack 1992). This study points out that some alcohol moderation TV ads are virtually indistinguishable from beer ads when the volume is turned off. Further, these ads make a point of promoting the social acceptability of alcohol consumption (DeJong, Atkin, and Wallack 1992).

Sometimes brewers or distillers sponsor social marketing advertising which encourages drinkers to consume alcohol responsibly or in moderation. At first glance, advertising against over-drinking might seem to be an irrational act on the part of the corporate sponsor, since telling people to consume less of their alcoholic beverage product may have a negative impact on the sponsor’s sales and profits. However, there are "ulterior commercial motives" (Oldenburg 1992, p. 23) involved in this type of advertising, since some corporate benefits

¹² A further problem exists when governments earn revenue as a result of products such as tobacco or alcohol. Campaigns to reduce usage of these products among the public may be weighed against the amount of revenue lost from reduced sales of these products as consumption declines.
accrue to the sponsor. One benefit could be that the company is perceived to be more socially responsible or a good corporate citizen, descriptions which may be highly desirable in forestalling restrictive legislation or strengthening the case for industry self-regulation. A second benefit might be that such advertising actually reinforces the social acceptability of consuming alcohol in moderation, thereby enhancing the acceptability of alcohol consumption in general, and making moderate and light drinkers feel more secure about the social acceptability of their behavior. A third benefit of such advertising is that it puts the corporate sponsor's name in the public eye, as in the case of a Seagram's television campaign which highlighted the equivalency of various serving sizes of beer, wine, and spirits, thereby covertly advertising their brand on television in contravention of industry guidelines (Tucker, Hovland, and Wilcox 1987). Finally, depending on message content and style, this type of social marketing advertising against immoderate drinking may have relatively little impact on heavy drinkers or problem drinkers, so the sponsor's customer franchise would not necessarily be seriously threatened.

Because a significant amount of time, money, and effort is involved in producing a television ad with a social marketing message, the sponsor inevitably expects some type of payback. In the case of a government or nonprofit organization, the desired payback is simply a reduction in the incidence of the targeted behavior. Sometimes governments may gain a long run financial benefit from reducing the incidence of the targeted behavior (e.g., reducing

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13 On November 7, 1996 the U.S. liquor companies announced that they were lifting a 48-year old self-imposed ban on television and radio advertising. This significant change in the liquor industry's advertising guidelines was probably introduced in an attempt to stem a 15-year decline in consumption of hard liquor. However, the result has been a public backlash which may lead to legislation limiting the liquor industry's ability to advertise on TV and radio (Leonhardt and France 1996).
publicly funded health care costs). More often, the payback is simply a reduction in social or human costs, so there is a relatively low degree of self-interest in government social marketing advertising. However, in the case of a self-interested for-profit corporate sponsor, there are likely to be other sorts of desired payoffs besides (or instead of) a reduction in the targeted behavior. It may be more important to the for-profit sponsor to be perceived to be taking action against the problem behavior; the degree of behavior change that actually occurs is secondary.

The self-interest of the sponsor can be thought of as being placed somewhere along a continuum, with governments and non-profit organizations at the low end of the self-interest spectrum, and breweries or distillers at the high end of the self-interest spectrum (see Figure 1.7).

![Figure 1.7 Continuum in Sponsor Self-interest](image)

A sponsor's degree of self-interest is expected to influence the content of the social marketing ad messages that the sponsor is willing to put forward. Because sponsors with a high level of self-interest are likely to be more concerned about alienating their audience, one

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14 Typically, the long term gain from reduced health care costs would more than offset the short term loss from reduced government tax revenues on products like tobacco or alcohol.

15 For the purposes of this model, governments will be assumed to be concerned only about the well-being of citizens, and unconcerned about the potential loss of tax revenues from reduced sales of tobacco or alcohol, and equally unconcerned about the potential loss of votes or campaign contributions from manufacturers of alcohol or tobacco products.
would expect to see a reduced incidence of fear appeals, and an increased use of humor or positive appeals in their social marketing ads.

A second issue regarding the use of fear appeals in social marketing advertising by for-profit corporations concerns situations where fear appeals are used to encourage use of the sponsor's product as part of the recommended behavioral change (e.g., condom use to prevent disease). For example, high fear appeals in persuasive messages against unsafe sex (i.e., use condoms to reduce the spread of AIDS) have generally been found to be effective (LaTour and Pitts 1989; Plympton and Hibbard 1991; Rhodes and Wolitski 1990; Witte 1991). However, high fear appeals against unsafe sex which are sponsored by a particular brand of condoms have been found less effective than more moderate fear appeals (Hill 1988; Struckman-Johnson et al. 1990). In this case, the self-interest of the sponsor, or the trust that the audience has in the sponsor, may have an impact upon the perceived credibility of the sponsor's social marketing ads. This reduction in source credibility would have an impact on the persuasiveness of a fear appeal (Hewgill and Miller 1965; Stainback and Rogers 1983). However, if "there is a high degree of compatibility between the public good and advertisers' self-interests" (LaTour and Zahra 1989, p. 67), then fear appeals seem more acceptable. This provides further support for the idea that use of fear appeals among corporate sponsors is likely to be fairly limited. Therefore, the following hypothesis is proposed:

H4a Corporate sponsors will be less likely than other organizations to use messages which incorporate threats or fear appeals.

H4b Corporate sponsors will be more likely to use messages which are positive.

H4c Corporate sponsors will be more likely to use messages which are humorous.
Targeted Behavior

It has been said that the content of advertising in general mirrors or reflects a society’s cultural values (Belk and Pollay 1985a; Holbrook 1987; Pollay 1983, 1986; Pollay and Gallagher 1990). If this is so, then it seems likely that the content of social marketing advertising mirrors or reveals society’s social concerns, including concerns about what has been referred to as the "dark side of consumer behavior" (Hirschman 1991, p.1). On the other hand, the prevalence of a particular social problem may not necessarily be reflected in social marketing advertising. A study by Wallack and Dorfman (1992) indicates that none of the PSAs found in their content analysis sample were for tobacco, alcohol, or diet, three leading behavioral risk factors for poor health. However, their sample contained only 14 health message PSAs (out of a total of 654 TV commercials in a 20-hour sample of TV programming).

The type of behavior which is targeted is expected to have an impact on the social marketing ad’s message content variables. The potential threats or consequences associated with targeted behaviors will differ in their level of seriousness and probability of occurrence (Rogers 1983). There may be differences in perceptions of seriousness of behavioral consequences when comparing the social marketer’s point of view to the general public’s point of view (or a specific target group’s point of view). For the purposes of this research, it will be assumed that seriousness is being measured from the general public’s point of view.
be greater than the seriousness of the threat of contracting lung cancer through smoking, because AIDS virtually always results in death, while lung cancer victims may lose a lung but still survive. The more serious or threatening the potential consequences, the more likely it is that fear appeals could be used successfully in social marketing ads against that behavior.

Sometimes the threatening consequences of engaging in a behavior are more social than physical. For example, anti-smoking ads might threaten either social rejection or lung cancer. The threat of social rejection from smoking may be much less serious than the health threat of lung cancer; however, the probability of suffering social rejection might seem much higher and more immediately relevant than the probability of contracting lung cancer. Harmful social consequences would seem to lend themselves more readily to a positive or humorous approach (Robberson and Rogers 1988). Therefore, the following is hypothesized:

H5a The more serious the potential consequences of a targeted behavior, the more likely it is that fear appeals will be used in social marketing ads against that behavior.

H5b The less serious the potential consequences of a targeted behavior, the more likely it is that positive appeals will be used in social marketing ads against that behavior.

H5c The less serious the potential consequences of a targeted behavior, the more likely it is that humorous appeals will be used in social marketing ads against that behavior.

17 The perceived probability of threats can also differ (although this is not investigated in this study). The perceived probability of suffering harm from DUI might seem greater than the perceived probability of suffering harm from smoking cigarettes, because the chance of getting caught by police with a breathalyzer test or getting in a DUI car accident may seem greater than the chance of contracting lung cancer from smoking.
Chapter One   Examining Fear Appeals in Social Marketing Television Ads Through Content Analysis

Intended Target Audience

Content analysis usually examines the manifest content of audio, video, or text. It catalogues the actual content, without making inferences about the communicator’s intentions. However, in some cases it is worthwhile to contravene this content analysis convention in order to make inferences about the intentions of the ad sponsor. In the present content analysis, a variable known as "intended target audience" will be coded to indicate situations where the social marketing ad seems overtly aimed at a particular target group. Television is a mass medium, and so many of the social marketing TV ads will simply be aimed at a mass audience. However, some social marketing ads will appear to be overtly targeted at a particular audience segment, and it is important to recognize this when it occurs. For this reason, when a social marketing TV ad appears to be overtly targeted at a particular segment (e.g., women, teens, homosexuals, the elderly), then it will be coded as such.

There have been some criticisms of target marketing. Targeting that involves consumers who are viewed as equal participants in transactions is regarded as acceptable, but objections are almost certain if targeting entails disadvantaged or vulnerable consumers participating in transactions involving potentially addictive products such as alcohol and cigarettes (Ringold 1995). However, targeting of social marketing campaigns has typically not been criticized, but instead is seen as a necessary means of conserving the scarce resources of governments and nonprofit organizations (Kotler and Andreasen 1996; Lovelock and Weinberg 1989). Targeting specific segments of the population can be used to address target groups which have a greater incidence of a given problem (Wyllie and Casswell 1993), or can be used in prevention efforts.

Targeting of specific target audiences tells us something about how society views and treats those particular target groups, and about how society balances the special needs and
concerns of those groups against the needs and concerns of society as a whole. Cross-national differences in choice of intended target group will be illuminating, since this may reveal something about differences between countries regarding the way in which these specific groups are viewed. This analysis will be exploratory, and no specific hypotheses will be put forward regarding the interaction of intended target audience and country-of-origin.

The choice of intended target group is expected to have an impact on the use of fear appeals. For example, social marketing ads directed specifically at youths should look substantially different than social marketing ads directed at adult target groups. Adolescents have different perceptions of risk than adults do, and are more likely to engage in high risk behavior (Burns, Hampson, Severson, and Slovic 1993; Severson, Slovic and Hampson 1993). Also, the beginnings of substance use (alcohol, drugs, cigarettes) and sexual behavior often begin in adolescence, and early patterns may have an impact on later behavior. The mass media has often been pointed to as being a prime source of information about sexuality, cigarettes, and alcohol (Davies 1993).

Humor, positive approaches, or the use of celebrity spokespersons may be more appropriate or prevalent in social marketing ads directed at teens, while fear appeals may be less prevalent. It has been suggested that youth generally feel invulnerable to threats or negative occurrences, and that they discount both the seriousness of threats and their probability of occurrence (Lastovicka, Murry, Joachimsthaler, Bhalla, and Scheurich 1987). If this is so, then fear-arousing social marketing ads may be less effective with a youthful target group. Therefore, social marketing ads targeted at youth might be more likely to use positive/humorous appeals. For this reason, the following hypotheses are proposed:

H6a Social marketing ads targeted at youth will be less likely to make use of fear appeals.
H6b  Social marketing ads targeted at youth will be more likely to make use of positive appeals.

H6c  Social marketing ads targeted at youth will be more likely to make use of humorous appeals.

Social Marketing Campaigns

There have been many recent calls to marketers and consumer psychologists to become involved in social marketing research. For example, Hirschman (1991) recommends addressing research toward the "dark side of consumer behavior" (p.1), while Andreasen (1993) suggests that research into social marketing can address some of society’s many ills and contribute to quality of life. Goldberg (1995) suggests taking a more radical approach in social marketing that emphasizes changing the negative social structural influences on individual behavior. Wallack (1984) emphasizes that prevention is a collective responsibility that must be shared, and not simply placed solely on the individual who is at risk.

Social marketing advertising can be an important part of health promotion campaigns. Health promotion has been defined as the process of enabling people to increase control over their health, and to improve it (Kelly 1990; Ottawa Charter for Health Promotion 1986). A comprehensive approach to health promotion encourages individuals to adopt and maintain personal behaviors that would prevent disease and promote health, while discouraging health-damaging behaviors and eliminating health hazards from the environment (Breslow 1990; Brown 1991). In the United States, the Healthy People 2000 program is one such approach (Mason and McGinnis 1990; Mason 1990, 1991).
Mass Media and Social Marketing

Existing evidence indicates that mass media efforts to improve public health through social marketing campaigns can be highly influential (DeJong and Winsten 1990; Roberts and Bachen 1981; Solomon 1982). Mass media can be particularly effective in the early stages of a health promotion campaign due to its ability to expose large numbers of individuals to new ideas or behaviors (Green and McAlister 1984). Mass media campaigns can successfully accomplish some of the following tasks: (1) increase awareness of a health problem; (2) raise the level of information about health topics; (3) make a health topic or problem more salient, making the audience more receptive to other campaign efforts; (4) stimulate interpersonal influence via conversations with family, friends, and health professionals; (5) generate information seeking behavior; and (6) reinforce existing attitudes and behaviors (Schlinger 1976). Although mass media can be highly successful at raising awareness and knowledge, it is somewhat more difficult to effect attitude change and motivation to act (Novelli 1989). The power of mass media is sometimes overemphasized (Tomes 1981), and many mass media campaigns do not achieve their objectives in terms of changing attitudes or behavior (Budd and McCron 1981). It has been suggested that mass media is most effective in initiating behavior change if the change sought is relatively minor and if consumers have low information needs (Robertson and Wortzel 1978). Mass media campaigns are most likely to induce permanent attitude and behavior change if they are presented and repeated over long time periods via multiple sources, at different times of the day, using novel and involving techniques, using appeals to multiple motives, focusing on developing social support, and providing appropriate behavioral skills, alternatives, and reinforcement (Flay, DiTecco, and Schlegel 1980). In any PSA campaign it is important to ensure that commercial messages are given sufficient time,
frequency of exposure, and consistency in order to ensure their effectiveness (Wooden 1994).

**Choosing Social Marketing Topic Areas**

In developing this content analysis, it was necessary to choose social marketing topic areas which would fit the following criteria:

- were important public health issues
- were the subject of a sizeable number of television commercials
- were relatively similar to one another in terms of psychology, motivations, and behavior change processes.

The five behavioral areas that were selected as the topic areas in this content analysis are smoking cessation, illegal drug use, DUI, alcohol moderation, and AIDS prevention. These five areas fit the criteria of being important public health issues, and have each been the subject of a relatively large number of television commercials. Also, based on a typology of health change behaviors presented in Table 1.2 (drawn from Cooper-Martin and Stephens 1990), it appears that the behaviors under study in this content analysis are fairly similar to each other, in terms of their frequency, convenience, etc., as explained below.

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18 Recall and persuasiveness of an ad decay with the passing of time, hence the need for repetition to keep the message top-of-mind.
Chapter One  Examining Fear Appeals in Social Marketing Television Ads Through Content Analysis

Table 1.2  Comparing Health Change Behaviors

<table>
<thead>
<tr>
<th>Health Change Behavior</th>
<th>Frequency</th>
<th>Convenience</th>
<th>Individual/Passive</th>
<th>Private/Public</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking cessation</td>
<td>Every time</td>
<td>Low</td>
<td>Individual</td>
<td>Private &amp; public</td>
<td>Others &amp; self</td>
</tr>
<tr>
<td>Illegal drug use cessation</td>
<td>Every time</td>
<td>Low</td>
<td>Individual</td>
<td>Private</td>
<td>Others &amp; self</td>
</tr>
<tr>
<td>DUI cessation</td>
<td>Every time</td>
<td>Low</td>
<td>Individual</td>
<td>Private &amp; public</td>
<td>Others &amp; self</td>
</tr>
<tr>
<td>Alcohol moderation</td>
<td>Every time</td>
<td>Low-moderate</td>
<td>Individual</td>
<td>Private &amp; public</td>
<td>Others &amp; self</td>
</tr>
<tr>
<td>Condom usage</td>
<td>Every time</td>
<td>Low</td>
<td>Individual</td>
<td>Private</td>
<td>Others &amp; self</td>
</tr>
</tbody>
</table>

Source: Based on Cooper-Martin and Stephens 1990

All of the five health change behaviors shown in Table 1.2 are high involvement\(^9\), and changing them is a process that must be repeated over and over again. It is relatively inconvenient to adopt the recommended remedial behaviors, and all five problem behaviors can be characterized as being an individual’s choice, rather than being passive situations in which individuals do not make choices. All five behaviors have a large private component (i.e., they are often conducted in private), and four out of the five also have public components (only AIDS prevention is a completely private act). All five health change behaviors have consequences not only for the individual who engages in the problem behavior,

\(^9\) High-involvement behavior can be thought of as existing under one or more of the following conditions: (1) the behavior will reflect upon the individual’s self-image; (2) there are high economic or personal costs for behaving incorrectly; (3) there are high personal or social risks of making a wrong decision about the behavior; and (4) outside reference group pressures to act in a particular way are strong and one’s motivation to comply is strong (Kotler and Andreasen 1996).
but also for others around them. An additional problem entailed in smoking, illegal drug use, and alcohol use is the addictive component, which makes it much more difficult for individuals to voluntarily control or change their behavior (Hirschman 1995). The recommended coping response for four of these behaviors is to simply quit or stop engaging in the behavior; however, for alcohol moderation the appropriate recommended coping response is to reduce alcohol consumption, not necessarily to quit drinking completely. Because there is a large degree of overall similarity in these five behaviors, they were selected as topic choices in this content analysis. The following sections will briefly review some of the literature in each of these five topic areas, and highlight any content analyses or other studies which may be relevant.

AIDS Prevention Campaigns

When social marketing campaigns for AIDS prevention started in North America and other parts of the world in 1985-86, they were considered to be highly controversial (Bush and Davies 1989; Sherr 1987). Prior to that time, advertising for condoms was seldom aired on television, and was not accepted by the major US networks. However, TV networks had to decide whether their responsibility was to inform, or simply not to offend (Litman and Bain 1987), with the ultimate result that most television stations now accept advertising for condoms and welcome ads for AIDS prevention. This trend has also followed in other countries: for example, South Africa okayed condom ads in 1993, and the South Africa Broadcasting Corp. received very few complaints in spite of their fears about public outrage (Barnes 1993).

It seems apparent that the nature and role of AIDS campaigns has changed over a period of several years. For example, in the U.S. the "America Responds to AIDS" advertising campaign progressed from building an awareness of the facts in 1987, to building
worry and fear in 1988, to providing a coping response in 1989 (Bush and Boller 1991). Critics have charged that this campaign used minimal segmentation or targeting (Winett, Altman, and King 1990). However, in reality, many targeted commercials were actually produced by the Centre for Disease Control (CDC) to aim at specific targets such as blacks, Hispanics, families, etc. Unfortunately, the choice of which commercials to use was left up to individual states, and most chose to use commercials which had bland general messages (Bush and Davies 1989). Public service announcements on AIDS prevention tend to have a high level of credibility or believability among college students, but college students say that they are somewhat less likely to act upon or use the information provided in PSAs as compared to interpersonal sources (Cline and Engel 1991). Pamphlets appear to have a high degree of credibility, although when a pamphlet was sent out to every home in the United States in 1988 only half the sample in one study remembered receiving it (Snyder 1991).

Australian AIDS prevention ads have been some of the most explicit and forceful (Pritchard 1993). In Australia the AIDS campaign which began in April 1987 was launched with the "Grim Reaper" commercial, which "showed a series of death-like images ('Grim Reapers' with skeletal faces, each carrying scythes) wreaking destruction at bowling alleys with bowls aimed with deadly intent at the 'pins' in the form of men, women and children unable to avoid the relentless onslaught.... The Australian campaign was distinctive in that there was particularly heavy emphasis upon the use of shock tactics to arouse public interest and to shake people out of a supposed state of apathy about AIDS.... It was decided that the Australian campaign should begin with a strong message giving an emotional shock to the general community in order to raise awareness and public concern" (Ross, Rigby, Rosser, Anagnostou, and Brown 1990, p. 340). This ad was clearly intended to be fear-arousing, given its strong emphasis on the negative consequences of unsafe sex, as well as its attempt
to arouse fear through the use of frightening images and gloomy atmosphere (LaTour and Pitts 1989). The "Grim Reaper" commercial was highly memorable, with 90% of respondents recalling the commercial even after a period of 5 months had passed since its last airdate. The campaign was successful in changing attitudes and beliefs, even though there was no change in knowledge levels (Ross et al. 1990; Rigby et al. 1989).

One problem with AIDS prevention campaigns may be a reluctance on the part of campaign sponsors to provide explicit advice to viewers (Prewitt 1989). For example, a Norwegian campaign which used the slogan, "Talk about sex, about being in love, and about love," referred to AIDS only indirectly, and did not generate higher condom usage among those adolescents who were aware of the campaign (Traeen 1992). This campaign might have been more successful if it had been more direct and provided more specific instructions about condom use (Traeen 1992).

A campaign produced by the Health Education Authority in Great Britain in Spring 1988 used two television commercials aimed at 16-30 year olds featuring "boy meets girl" scenarios. These two commercials were evaluated in qualitative research conducted by the Scottish Health Education Group:

"Both films emphasized that the risk of AIDS from heterosexual contact should influence the decision of either sex to sleep with a new partner. The final slogan of each film was 'AIDS: you know the risks, the decision is yours.'... The films were also severely criticized [by subjects in the research study] because they offered no help on how to reduce the risk of heterosexual transmission. They simply highlighted the problem and passed it on to the audience without attempting to suggest solutions. In short, they ended where they should have begun." (Hastings, Eadie, and Scott 1990)

On the other hand, a successful campaign in the Netherlands was directed at young people and targeted inappropriate beliefs about the transmission of HIV and STDs which were considered to function as rationalizations and excuses for individuals and their sexual partners not to take preventive measures (de Vroome, Sandfort, de Vries, Paalman, and Tielman 1991).
In a study of 21 international AIDS TV commercials which were evaluated by an audience sample of 56 laypersons, those announcements perceived as the most educationally effective were those presenting hard facts about AIDS in a simple, straightforward manner (Baggaley 1988). Interestingly, however, three of the five PSAs which were perceived to be the most effective were never sanctioned for broadcast use in their respective countries, presumably because they were considered to be too explicit. Conversely, those PSAs perceived by the audience to be least effective had been broadcast in their respective countries much more frequently, undoubtedly because they were relatively bland and inoffensive.

Some research suggests that while college students appear to be factually knowledgeable about AIDS, some still report engaging in high risk sexual behaviors (Golden and Suder 1994). Also, men and women feel different emotions when they think about AIDS, indicating that there may be a need for separately targeted health promotion efforts for the two sexes (Golden and Suder 1994). Some research has suggested that the most important determinant of condom use behavior is perceived normative pressure, which suggests that mass media campaigns should focus on this aspect (Fishbein, Middlestadt, and Trafimow 1993).20 One concern about mass media, however, may be that those target groups most at risk for contracting and spreading AIDS distrust the accuracy and objectivity of the media (Reardon and Richardson 1991). Media monitoring and analysis is one method that has been advocated for determining key issues and information that need to be communicated publicly with regards to AIDS (Schechter, Middlestadt, and Doner 1993).

Freimuth, Hammond, Edgar, and Monahan (1990) conducted a content analysis of 127

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20 In terms of creating normative beliefs, it is interesting to note that Sapolsky and Tabarlet (1991) compared the amount of sex shown in primetime television programming in 1979 versus 1989, and found that issues of safe sex or sexually transmitted disease were rarely discussed on television programs.
AIDS PSAs in the United States. Results show that these PSAs were generally not targeted according to risk behavior, but were instead directed to general audiences. The messages tended to use rational rather than emotional appeals, provided some facts to the audience, and encouraged the audience to seek more information rather than adopt a specific preventive behavior. Fear appeals were used in 26% of the spots. For example, a PSA entitled "Dance With Death" portrayed a young woman dancing with various partners, the last of whom is a specter. This particular study is similar in methodology to the present research, and specific comparisons can be made between the two studies with regard to a few of the variables.

Calvert, Cocking, and Smrcek (1991) conducted a content analysis of 31 AIDS prevention PSAs using a sample which included 10 German spots, 9 Austrian spots, and 12 American spots. This study found that the commercials from these three countries were remarkably similar in terms of content, but this was primarily because they all presented very little factual information. No specific target audience was selected for any of the commercials, making it difficult for viewers to feel that the commercials might be personally relevant to them.

Lupton (1992) conducted a content analysis of articles mentioning AIDS published in the Australian press between July 1986 and June 1988, and found that the focus of reporting of AIDS changed during that time from representing AIDS as a risk to only homosexuals and intravenous drug users, to generating panic-stricken articles suggesting that everyone was now threatened in support of the "Grim Reaper" PSA campaign. Articles in the popular press may parallel the types of messages that would be seen in PSAs, since PR campaigns may serve as an alternative to paid or PSA media campaigns.
DUI/Alcohol Moderation Campaigns

Alcohol consumption appears to be widespread on television, according to content analyses of television programming (Breed and Defoe 1972; Gerbner, Morgan, and Signorielli 1982). Content analysis of alcohol ads has demonstrated that these ads present favorable portrayals of alcohol, including benefits such as social camaraderie, escape, refreshment, relaxation, social approval, romance, and elegance (Atkin and Block 1984). Watching alcohol advertising can actually prime further alcohol consumption among those who have already had a drink prior to viewing (McCarty and Ewing 1983).

It has been suggested that the alcohol industry damages the black community by targeting them with specific products and promotional programs (Hacker, Collins, and Jacobson 1987). Furthermore, marketers introduce new products which specifically target and appeal to young drinkers either by their flavor (Goldberg, Gorn, and Lavack 1994) or high alcohol content (Vancouver Sun 1993).

Of particular concern is the fact that these alcohol messages reach children and teens. Children spend more time watching television than they spend in school (Singer 1983), so there is a significant opportunity for exposure to beer ads and alcohol images. Even if children are not presently consumers of a product class, exposure to TV advertising for adult products can influence their perspective (Gorn and Florsheim 1985), and television advertising can play a dominant role in shaping children’s product preferences (Atkin 1982). Even very young children aged three to six years old can be aware of the intent of television commercials (Donohue, Henke, and Donohue 1980). The exposure of children and teens to these glamorized images and attractive new alcohol products is an important reason why social marketing ads with messages about alcohol moderation are needed.

Several authors have argued for increasing the number of alcohol counteradvertising
and PSAs, as well as for increasing their effectiveness (Andrews, 1995; Mazis, 1990). Hudson and Bloom (1984) have tried to demonstrate how eight social change strategies (Sheth and Frazier 1982) can be used by social marketers to create more effective communications campaigns in order to combat the drinking and driving problem. These eight strategies are: (1) informing and education; (2) persuasion and propaganda; (3) social controls; (4) delivery systems; (5) economic incentives; (6) economic disincentives; (7) clinical counseling and behavior modification; and (8) mandatory rules and regulations. Social marketing advertising and mass media can play a role in all eight of these strategies (Murry 1991).

An interesting aspect of DUI campaigns has been the use of segmentation and target marketing (Wyllie and Casswell 1993). Some anti-drinking and driving campaigns have been successful in reducing the incidence of drinking and driving among youths (Murry, Lastovicka, and Stam 1991). While most DUI campaigns are directed at young male drinkers (Lastovicka, Murry, Joachimsthaler, Bhalla, and Scheurich 1987), or at the general public, there is some evidence that there may be a need for campaigns which are directed at young women (Celis 1994).

There seem to be many recent DUI campaigns which have elected to take a fear-arousing approach, including those in the Canadian provinces of Quebec (Chiasson 1994), Alberta (Bullick 1994), and Ontario (Kryhul 1994). It has been suggested that fear appeals may not be effective among young men, since a young man’s desire to maintain a macho image might preclude allowing himself to be influenced by fear (Lastovicka et al. 1987). However, other researchers have called for the use of stronger fear arousal arguments, presumably because of their effectiveness with other target audiences (King and Reid 1990).
Chapter One  Examining Fear Appeals in Social Marketing Television Ads Through Content Analysis

Anti-Smoking Campaigns

Why do youths continue to smoke despite the well-known health risks? The uptake of smoking is associated with beliefs or stereotypes that picture smokers as having socially desirable attributes (Chapman 1985; Pechmann and Ratneshwar 1993), and cigarette advertising helps to perpetuate these positive beliefs (Pollay and Lavack 1993; Pollay, Siddarth, et al. 1996). The impact of cigarette advertising and sponsorship on young children is of particular concern (Aitken, Leathar, and O’Hagan 1985).

It appears that counteradvertising and PSAs have played an important role in facilitating a sharp reduction in cigarette consumption (Schuster and Powell, 1987; Warner, 1977), although it is difficult to accurately estimate the magnitude of this effect (McAuliffe, 1988). While some anti-smoking campaigns such as the California campaign have been credited with reducing the incidence of smoking (Tyrer 1994), others like Health Canada’s Break Free campaign have been deemed to be rather ineffective (Sutter 1994).

There has been criticism of some anti-smoking ads which have had the unintended side-effect of offending certain societal groups (Chapman 1988). For example, there are two commercials produced in Australia by the New South Wales Department of Health which:

- show amputation as a consequence of the peripheral vascular disease that is caused by smoking. In one, a youth is seen in an artificial limb factory saying "some people think that smoking is attractive.... I don’t think artificial legs are very attractive". The other is a poster of a line of one-legged people which is captioned "Gangrene -- one of the least attractive aspects of smoking".... After the screening of this advertisement in Britain, the parents of a child with an artificial leg complained that the child was distressed that artificial legs were being described as unattractive. The advertisement subsequently was withdrawn from broadcasting. (Chapman 1988, p. 259).

Another example of smoking prevention ads which have been singled out for criticism are those which focus on bad breath as a motivation for young women to quit smoking. These have been criticized as being trivial and belittling of women’s health concerns. However, the
reality is that young women are much more motivated to quit smoking due to social concerns about bad breath rather than because of fears about lung cancer or other future health effects (Chapman 1988). Perhaps social marketers and health promoters need to think more about what types of messages will change the behavior of their target markets, and worry less about what the general public will think (Willard 1985).

Anti-Drug Abuse Campaigns

Much effort goes into developing and testing effective anti-drug abuse campaigns (Ray and Ward 1976; Freimuth, Greenberg, Romano, and Wagner 1981), and some, such as the campaign run by Florida in the late 1970s, have been highly effective (Wotring, Heald, Carpenter, and Schmeling 1979). However, not all anti-drug abuse campaigns are effective. For example, Smart and Fejer (1974) found that anti-marijuana messages had little impact on high school students because they already had well-developed orientations toward the drug. Further, Ray and Ward (1976) found that there was a high counterargument rate among older teenagers watching anti-drug abuse television PSAs. Feingold and Knapp (1977) found that anti-drug abuse radio PSAs were not only ineffective with teenagers, but led to a boomerang effect by stimulating interest in drugs. As well, Hanneman and McEwen (1973) found that drug abuse appeals were often telecast during low audience viewing times, and were directed at a general audience rather than a specific target group. Drug abuse campaigns of the late 1960s and early 1970s seemed to be dominated by negative messages that relied on anxiety or fear-arousing content (Capalaces and Starr 1973). Even a more recent campaign from 1989/1990 used fear tactics to frighten viewers into feeling that drugs cause harm:

"This is drugs," the announcer says as butter burns in the frying pan. A broken egg drops into the frying pan and as the egg sizzles, the announcer continues, "This is your brain on drugs -- Any questions?" (Calvert, Cocking, and Smrcek 1991)
Some of the recent drug campaigns have relied on positive themes, rather than fear appeals, as evidenced by this description of a voice-over from a recent TV commercial produced by the Partnership for a Drug-Free America:

"Last night, Lisa Watson got higher than she's ever been," the spot’s voice-over says, showing blurred pictures of a girl. It continues, as Lisa comes into focus, completing a gymnastics dismount: "And the only thing she took was first place." (Cleland 1994)

The Partnership for a Drug-Free America, a coalition of ad agencies and the media, has been spending over $250 million per year in donated media time and space for the last several years (Cutler and Thomas 1994).

Hanneman and McEwen (1973) conducted a content analysis of anti-drug abuse commercials. Among their findings was the fact that drug abuse appeals are often telecast late at night or during other low audience viewing times, rather than during prime time, which tends to limit the viewership of these commercials. Another finding was that many of these types of spots are directed at a general audience rather than a specific target group, which may also limit their effectiveness.

Walker (1990) conducted a content analysis of 46 anti-drug abuse TV commercials and 60 print ads produced between 1980-89. A key finding was that 52% of ads made use of fear appeals, and 84% of the PSAs used at least one fear-inducing element in the ad. Fear appeals seemed to be used more frequently when targeting children or teens, or when addressing parents. Interestingly, 56% of spots in this sample specifically mentioned cocaine or crack, rather than simply discussing drugs in general.

Summary

This Chapter has attempted to outline the background literature that is relevant to the content analysis study that will be described in Chapters Two and Three. Several models of
fear appeals were outlined, and justification was provided for coding the characteristics of the
Ordered Protection Motivation model in the content analysis. As well, some previous content
analysis studies which have examined incidence or use of fear appeals were outlined. In
addition, some of the literature on the structural characteristics that may affect the use of fear
appeals was discussed, including sections on country-of-origin, type of sponsor, intended target
audiences, and types of targeted behaviors. Finally, literature on each of the five types of
targeted behaviors was described, with particular reference to any content analysis studies
which had been conducted in these areas.

Chapter Two will describe the methodology used in conducting the content analysis,
as well as the characteristics of the sample. Chapter Three will then present the results of the
content analysis, with particular reference to the hypotheses which were presented earlier in
this Chapter. For ease of use, these hypotheses are summarized on the following page.
Chapter One  Examining Fear Appeals in Social Marketing Television Ads Through Content Analysis

Summary of Hypotheses

H1a  The majority of social marketing ads will contain one or more threats or negative consequences.

H1b  Of the ads which contain one or more threats or negative consequences, the majority will also contain action recommendations or advice for coping with the threat.

H1c  In social marketing ads which include both threat(s) and coping information, the threat(s) will tend to temporally precede the coping information.

H2  Approximately 24% of the social marketing ads will contain fear appeals.

H3  It is expected that a higher percentage of social marketing ads in Australia will use fear appeals, as compared to the United States.

H4a  Corporate sponsors will be less likely than other organizations to use messages which incorporate threats or fear appeals.

H4b  Corporate sponsors will be more likely to use messages which are positive.

H4c  Corporate sponsors will be more likely to use messages which are humorous.

H5a  The more serious the potential consequences of a targeted behavior, the more likely it is that fear appeals will be used in social marketing ads against that behavior.

H5b  The less serious the potential consequences of a targeted behavior, the more likely it is that positive appeals will be used in social marketing ads against that behavior.

H5c  The less serious the potential consequences of a targeted behavior, the more likely it is that humorous appeals will be used in social marketing ads against that behavior.

H6a  Social marketing ads targeted at youth will be less likely to make use of fear appeals.

H6b  Social marketing ads targeted at youth will be more likely to make use of positive appeals.

H6c  Social marketing ads targeted at youth will be more likely to make use of humorous appeals.
CHAPTER TWO

CONTENT ANALYSIS RESEARCH DESIGN
CHAPTER TWO

CONTENT ANALYSIS RESEARCH DESIGN

Content Analysis

Content analysis is "the study of the message itself, and not the communicator or the audience" (Kassarjian 1977, p. 8). Content analysis has frequently been used to study advertising as well as many other forms of written documents or transcripts, visual or graphic materials, and verbal protocols, and it seems a particularly appropriate technique for studying social marketing advertising. Content analysis has been used to examine a wide range of advertising message or content variables, such as information content or claims (Healey and Kassarjian 1983; James and Vanden Bergh 1990; Kassarjian and Kassarjian 1988; Resnik and Stern 1977; Rice and Lu 1988; Ringold and Calfee 1989), use of the problem-resolution format in television commercials (Marlowe, Selnow, and Blosser 1989), use of time-oriented appeals in magazine ads (Gross and Sheth 1989), use of color (Lee and Barnes 1989), ecology themes (Peterson 1991), social responsibility themes (Lill, Gross, and Peterson 1986), use of humor in television commercials (Weinberger and Spotts 1989), and many other areas.

As outlined in Chapter 1, only a handful of content analysis studies have dealt with fear appeals (Unger and Stearns 1983) or social marketing advertisements in general (e.g., Hanneman, McEwen, and Coyne 1973; Wallack and Dorfman 1992). Several content analyses have dealt with specific types of social marketing commercials, such as AIDS prevention commercials (Calvert, Cocking, and Smrcek 1991; Freimuth, Hammond, Edgar, and Monahan 1990), and anti-drug abuse commercials (Hanneman and McEwen 1973; Walker 1990). Still other content analysis studies have touched on subjects which are of more peripheral interest to social marketing, such as AIDS press coverage (Lupton 1992), sex in primetime television
programming (Sapolsky and Tabarlet 1991), alcohol ads (Atkin and Block 1984), and alcohol use shown in television programming (Breed and Defoe 1972; Gerbner, Morgan, and Signorielli 1982).

While some of the above studies examine some aspects of social marketing ads, none of them have the scope or breadth of the social marketing content analysis study that was carried out for this dissertation. For this reason, the present study presents a useful contribution to the literature on social marketing.

The remainder of this chapter will outline the methodology and procedures employed for the content analysis study, including collecting the sample of TV commercials, the development of the data collection instrument, the training of coders, the process of conducting the coding, the methods used for analyzing the resulting data, and the sample characteristics. Chapter 3 will then outline the content analysis results.

**Sampling Procedure**

The sample for this content analysis was a comprehensive snowball sample of TV social marketing ads which met the following criteria:

1. English-language social marketing TV ads from one of the following five countries: Canada, United States, Great Britain, Australia, New Zealand

2. Targeted at one of the following five behaviors: smoking, illicit drug use, DUI, excessive alcohol consumption, unsafe sex.


Looking at five different behaviors allows for an in-depth analysis of each behavioral category, with the ability to make comparisons between the categories. The five behaviors are also different enough from each other that they represent a good cross-section of social
marketing commercials. The study is limited to five English-speaking countries to facilitate the analysis of social marketing ads. Eliminating non-English speaking countries avoids the problem of trying to compare accurately ads from different languages. Finally, the 15-year time span covers a broad enough period that potential changes in communication philosophy may be uncovered by comparing the early and latter parts of the sample.

Social marketing ads were collected from industry sources including national television bureaus (e.g., Television Bureau of Canada), government agencies (e.g., Health Canada, U.S. Department of Health and Human Services, etc.), and relevant nonprofit organizations (e.g., Mothers Against Drunk Driving, Addiction Research Foundation, Cancer Society, etc.). A complete list of all organizations contacted is included in Appendix 1. The letter that was used to contact these individuals is contained in Appendix 2. The sampling methodology used was a type of nonprobability sample called snowball sampling, where those individuals who were initially asked to provide relevant TV social marketing ads were also asked to identify their counterparts in other agencies or countries who would be in a position to provide additional relevant social marketing ads. Individuals and agencies were contacted in successive waves, until few new or previously unknown social marketing ads were emerging, and it was deemed that the collection of social marketing ads from each of the five countries was relatively complete.

The process started with obtaining five videotapes from the Television Bureau of Canada, one on each of the five behavioral areas (i.e., social marketing ads against smoking, illegal drug use, DUI, excessive alcohol consumption, and unsafe sex), which contained over 100 television commercials from over 50 organizations in the five countries. These organizations formed part of the initial list, and their addresses were sought using various directories and other resources. As well, these directories and other resources were used to
obtain additional names of organizations and contact persons, bringing the initial mailing list to 163 organizations.

When organizations replied to this mailing indicating that they did or did not have any TV relevant commercials, they often provided the names of other organizations. In many cases, these names were duplicates of names that were initially on the list; however, an additional 75 organizations were uncovered in this way, bringing the total number of organizations to 238. Because the initial mailing list was so exhaustive, it is not surprising that relatively few additional names were found through the snowball approach.

Many of the organizations were able to provide not only their own television commercials, but also the television commercials which they had in their libraries which had been produced by other organizations. For this reason, a total of 589 commercials were obtained, a much larger number than the total number of organizations contacted. Therefore, this method of snowball sampling through industry sources was successful in providing a relatively large pool of commercials in each of the five specific targeted behavior areas (i.e., social marketing ads against smoking, illegal drug use, DUI, excessive alcohol consumption, and unsafe sex).

A sample size of 589 is considered to be quite large for a content analysis of TV commercials (Kolbe and Burnett 1991). Collecting specific categories of social marketing ads through industry sources provides a relatively complete population of social marketing ads which have aired since 1980. This longitudinal sample may allow for a limited exploratory comparison of social marketing ads over time (e.g., early 1980s versus early 1990s). Having a large pool of each type of social marketing ad also allows for relatively more in-depth analysis and comparison. Differences in incidence of fear appeals between social marketing ad groups can more readily be attributed to differences in the grouping category under...
consideration (i.e., country of origin, sponsor type, targeted behavior, intended target group).

Data Collection Instrument

The data collection instrument used in this study was refined through a series of stages. First, a draft instrument was prepared. The author and an assistant used the draft instrument to code 20 commercials chosen randomly from the sample. Based on this initial pretest, the data collection instrument was modified. This modified version was tried out on an additional 15 commercials randomly selected from the sample. Based on the second pretest, a few further refinements were made to the instrument. These refinements included additional categories for some variables, to ensure that there would not be large numbers of commercials under a miscellaneous type of category. The data collection instrument included many questions that were common to all types of social marketing TV commercials, but there were also five sections that were unique to each of the five behavioral categories of the commercials in the sample (i.e., smoking, illegal drug use, DUI, excessive alcohol consumption, and unsafe sex). In total, over 200 variables were coded.

The data collection instrument was refined through this process to answer all potential questions considered relevant to the study. A copy of the finalized data collection instrument (five versions, customized for each of the five targeted behaviors in the set of commercials being examined) is included in Appendix 3.

Coder Training

Four undergraduate students were trained to effectively and consistently code the TV commercials. Their training procedure consisted of about two hours of practice at coding 10 social marketing TV commercials which were not part of the sample (two commercials from
each behavioral category). For each of these 10 commercials, the coders followed the same procedure. They would view a commercial several times, while individually coding their responses with the finalized data collection instrument. After they had finished their individual coding for a given commercial, they would discuss their responses as a group. This discussion helped the coders to reach a consensus about the appropriate way to code some of the items which required a small degree of judgment. At the conclusion of coding the tenth training commercial, the coders felt well-prepared to handle the main coding task. (Had they not felt well-prepared at that point, the training session would have continued until the coders did perceive themselves to be competent, and confident in their abilities to carry out the task accurately.) This procedure is in accordance with that recommended by Kassarjian (1977) in his seminal paper on content analysis.

Data Collection Procedure

Each of the 589 social marketing TV commercials was analyzed and coded by the four independent coders using the data collection instrument. During the coding process, each social marketing ad was viewed several times by each coder to ensure that all of the relevant features were rated or recorded. Although all four coders watched the television commercials together in the same room, each of the coders filled out their data collection instrument independently for each TV commercial. The coders were supervised to ensure that they were, indeed, filling out their coding sheets independently without discussion or peeking at each others’ work. As well, there was no real incentive for coders to cheat at this task, since there was no right or wrong answer.

After the coders had completed filling out their data collection instrument for a given commercial, the four coding sheets would be compared. All items of agreement would be
recorded on a master coding sheet. Items of disagreement were recorded separately, through the procedure described here. While there was a very high degree of agreement on the majority of the variables (in excess of 95%), coders sometimes disagreed on some items. These items would be discussed, and the TV commercial would be replayed in order to attempt to resolve the differences. This procedure was generally sufficient to resolve differences in judgment between coders, and the concensus agreement would then be recorded on the master coding sheet for that TV commercial. In the few cases where this procedure was followed yet coders still failed to come to an agreement, the principal investigator would make a judgment for that variable. These judgments would then be recorded on the master coding sheet for that particular commercial. The result of this process was a master coding sheet for each of the 589 TV commercials.

The entire coding process took approximately 90 hours spread over 3 weeks. This means that it took approximately 9 minutes per coder to code each commercial. The 9-minute average would include viewing the commercial 3-7 times, comparing coding sheets, and discussion and agreement on any items where the coders had failed to code identically. Longer commercials and more complex commercials would take longer to code, primarily due to the need for repeated viewings and a somewhat greater level of disagreement among coders, while shorter and simpler commercials would take less time to code.

1 Differences of opinion most often occurred on items which required some judgment on the part of the coders. The two questions on which this happened most often were those dealing with intended target group, and coding of the level of fear (no/low/medium/high). Coders were given guidelines for rating level of fear and had practised assigning commercials to fear categories, but this was still a difficult area where individual coder opinion sometimes played a role. The rate of inter-coder agreement on these two questions, where all four coders agreed on the rating, is approximately 82%. If these two questions are excluded from the analysis of inter-coder agreement, the rate of agreement is in excess of 98%.
Composition of the Sample

Of the 589 commercials collected, a majority came from the U.S. (57%) and Canada (27%). The distribution of commercials in each of the five behavioral categories is shown in Table 2.1.

<table>
<thead>
<tr>
<th></th>
<th>Canada</th>
<th>U.S.A.</th>
<th>Britain</th>
<th>Australia</th>
<th>New Zealand</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS</td>
<td>34</td>
<td>48</td>
<td>8</td>
<td>1</td>
<td>6</td>
<td>97</td>
</tr>
<tr>
<td></td>
<td>21.66%</td>
<td>14.16%</td>
<td>17.02%</td>
<td>4.00%</td>
<td>28.57%</td>
<td>16.47%</td>
</tr>
<tr>
<td>Alcohol Moderation</td>
<td>14</td>
<td>29</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>8.92%</td>
<td>8.55%</td>
<td>2.13%</td>
<td>8.00%</td>
<td>14.29%</td>
<td>8.32%</td>
</tr>
<tr>
<td>DUI</td>
<td>63</td>
<td>97</td>
<td>4</td>
<td>13</td>
<td>11</td>
<td>188</td>
</tr>
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<td>40.13%</td>
<td>28.61%</td>
<td>8.51%</td>
<td>52.00%</td>
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<td>31.92%</td>
</tr>
<tr>
<td>Drugs</td>
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<td>9</td>
<td>0</td>
<td>0</td>
<td>105</td>
</tr>
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<td></td>
<td>13.38%</td>
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<td>19.15%</td>
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<td>Smoking</td>
<td>25</td>
<td>90</td>
<td>25</td>
<td>9</td>
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<td>150</td>
</tr>
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<td></td>
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<td>53.19%</td>
<td>36.00%</td>
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<td>339</td>
<td>47</td>
<td>25</td>
<td>21</td>
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</tr>
<tr>
<td></td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>589</td>
</tr>
</tbody>
</table>

The sparsity of the sample from Australia and New Zealand, and even to some extent from Great Britain, makes it difficult to conduct cross-national comparisons within specific behavioral categories. However, the sample size as a whole is sufficient to test the general hypotheses about fear appeals.

It is perhaps a limitation of this study that there is a paucity of commercials gathered from Great Britain, Australia, and New Zealand. One explanation for this might simply be
that there were relatively few relevant commercials produced in these areas that were suitable for inclusion in this study. The reason for the lesser amount of TV commercial production might be due to a number of factors, including differences in organization of government departments, and differences in budgetary levels. In North America many public health concerns appear to be relegated to the state and provincial level. Given the 50 states in the United States and 10 provinces in Canada, the result is many more social marketing TV ads in North America, particularly in categories such as DUI and smoking. The overall result is that Canada and the U.S. produce many more social marketing TV commercials, given that many health promotion efforts are regional in nature.

However, an alternative explanation for having collected fewer commercials from these three countries might be the relative difficulty involved in communicating with overseas countries (real or perceived barriers such as time zone differences, delivery distances, etc.). Because of delays in communicating with overseas countries, it is more difficult to conduct a snowball sample which has an implicit need for making contacts on an iterative basis. However, there is little reason to believe that having a collection of commercials from some countries which is possibly less complete will systematically change the nature of the results. There was no systematic bias in the types of organizations contacted, or the relative levels of response from different types of organizations, so while the sample from some countries is smaller, these smaller samples do not necessarily introduce systematic biases.

It is the belief of the author that, although the effort to collect commercials from all five countries involved was an intensive one, the greater number of commercials in the sample from Canada and the U.S. reflects a combination of these two factors: greater numbers of commercials produced in Canada and the United States, and increased difficulty in obtaining commercials from outside Canada and the United States. The result is that the results will be
fairly reliable for Canada and the United States, but the results for other countries may need to be treated with caution.

While every effort was made to ensure that the sample of commercials was as complete as possible, it is apparent that it does not include every commercial ever produced in these countries. For example, the present study collected a total of 48 AIDS prevention TV commercials in the United States; however, a study by Freimuth, Hammond, Edgar, and Monahan (1990) collected 127 AIDS prevention TV commercials. Attempts to obtain this videotape of 127 AIDS TV commercials from these authors for inclusion in the present study were unsuccessful. The longitudinal nature of the collection of commercials in this study means that it is more difficult to obtain commercials from earlier years, relative to more recent years. This difficulty means that it is possible only to make observations about longitudinal comparisons, but it is not possible to test longitudinal hypotheses.
CHAPTER THREE

CONTENT ANALYSIS RESEARCH RESULTS
CHAPTER THREE
CONTENT ANALYSIS RESEARCH RESULTS

This chapter will outline the results obtained from analyzing the data from the content analysis study. For ease of presentation, the results will generally be provided in the order that the hypotheses were presented.

Protection Motivation Theory (Hypotheses 1a, 1b, and 1c)

Of the 589 commercials in the sample, 436 contain one or more threats, while 153 contain no threats. This provides support for H1a, which suggested that the majority of ads would contain one or more threats or negative consequences.

H1b deals with the degree to which the TV commercials adhere to the tenets of the Protection Motivation model, stating that the majority of social marketing ads which contain threats should also contain action recommendations or advice for coping with the threat. Analyses for this H1b were limited to those 436 commercials which included one or more threats. In general, H1b appears to be supported in the majority of the commercials. In total, 69.27% of the 436 ads that contain a threat also contain some coping advice; 30.73% of the ads that contain a threat do not contain any coping advice (see Table 3.1). This provides significant support for H1b.

In exploring the data by country in Table 3.1, there do not appear to be significant differences between countries with regard to adherence to the Protection Motivation model’s recommendation to couple threats with coping advice (chi-square=2.194, d.f. =4, p=0.700).
Table 3.1
Presence of Coping Advice in Ads Which Contain Threats
By Country

<table>
<thead>
<tr>
<th></th>
<th>Canada</th>
<th>U.S.A.</th>
<th>Britain</th>
<th>Australia</th>
<th>New Zealand</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat but No Advice</td>
<td>29</td>
<td>81</td>
<td>11</td>
<td>6</td>
<td>7</td>
<td>134</td>
</tr>
<tr>
<td></td>
<td>27.36%</td>
<td>32.40%</td>
<td>27.50%</td>
<td>26.09%</td>
<td>41.18%</td>
<td>30.73%</td>
</tr>
<tr>
<td>Threat and Advice</td>
<td>77</td>
<td>169</td>
<td>29</td>
<td>17</td>
<td>10</td>
<td>302</td>
</tr>
<tr>
<td></td>
<td>72.64%</td>
<td>67.60%</td>
<td>72.50%</td>
<td>73.91%</td>
<td>58.82%</td>
<td>69.27%</td>
</tr>
<tr>
<td>No Threat</td>
<td>51</td>
<td>89</td>
<td>7</td>
<td>2</td>
<td>4</td>
<td>153</td>
</tr>
</tbody>
</table>

When exploring the data by behavioral category (Table 3.2), it becomes apparent that the degree to which the commercials conform to the tenets of the Protection Motivation model differs, depending on the behavior in question. DUI, drug, and smoking commercials are much more likely to offer threats with no advice, while AIDS commercials are the least likely to offer a threat without also offering advice (chi-square=24.057, d.f.=4, p=.000).
Table 3.2
Presence of Coping Advice in Ads Which Contain Threats
By Behavioral Category

<table>
<thead>
<tr>
<th></th>
<th>AIDS</th>
<th>Alcohol</th>
<th>DUI</th>
<th>Drugs</th>
<th>Smoking</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat but No Advice</td>
<td>8</td>
<td>8</td>
<td>53</td>
<td>29</td>
<td>36</td>
<td>134</td>
</tr>
<tr>
<td></td>
<td>10.13%</td>
<td>22.86%</td>
<td>40.77%</td>
<td>35.80%</td>
<td>32.43%</td>
<td>30.73%</td>
</tr>
<tr>
<td>Threat and Advice</td>
<td>71</td>
<td>27</td>
<td>77</td>
<td>52</td>
<td>75</td>
<td>302</td>
</tr>
<tr>
<td></td>
<td>89.87%</td>
<td>77.14%</td>
<td>59.23%</td>
<td>64.20%</td>
<td>67.57%</td>
<td>69.27%</td>
</tr>
<tr>
<td>No Threat</td>
<td>18</td>
<td>14</td>
<td>58</td>
<td>24</td>
<td>39</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>14%</td>
<td>22.86%</td>
<td>30.73%</td>
<td>22.86%</td>
<td>24.95%</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>97</td>
<td>49</td>
<td>188</td>
<td>105</td>
<td>150</td>
<td>589</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

It is not entirely clear why the behavioral category should have an impact on the degree to which the commercials offer advice in situations where they also offer a threat. One explanation could have to do with the age of the commercial; perhaps more recent commercials are more likely to conform to the tenets of the PM model, by including coping advice when threats are used.¹ Table 3.3 examines this possibility using the 350 TV commercials in the sample for which the year of production was available². Using a median split on the data, the first 7 years (1980-1986) were compared to the last 8 years (1987-1994).³ The results

¹ This presumes that there has been diffusion of the PM and OPM models among social marketing practitioners. It is entirely possible that many social marketing practitioners do not know this model, but there is likely to be a sub-set of practitioners who are interested in theoretical advances and who would be knowledgeable about the model.

² Only 350 of the 589 commercials had a confirmed date of production. Numerous commercials for the sample were provided with a range of possible years which might have been the original production date, but unless a definitive year was provided, the production date was left blank during the data input phase.

³ The Protection Motivation model was first published by Rogers in 1975 (revised Rogers 1983). Therefore, one might expect to see the tenets of this model applied to even the earliest social marketing commercials in this sample which covers 1980-1994. However, one would
Chapter Three  Content Analysis Research Results

appeared to be directionally supportive of the idea that the tenets of the PM model were adhered to, but this outcome was not statistically significant (chi-square=2.209, d.f.=1, p=.137).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat but No Advice</td>
<td>46</td>
<td>32</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>35.38%</td>
<td>26.67%</td>
<td>31.20%</td>
</tr>
<tr>
<td>Threat and Advice</td>
<td>84</td>
<td>88</td>
<td>172</td>
</tr>
<tr>
<td></td>
<td>64.62%</td>
<td>73.33%</td>
<td>68.80%</td>
</tr>
<tr>
<td>No Threat</td>
<td>40</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>24.00%</td>
<td>33.33%</td>
<td>31.43%</td>
</tr>
<tr>
<td>N</td>
<td>170</td>
<td>180</td>
<td>350</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Hypothesis 1b suggests that in social marketing ads which include both threat(s) and coping information, the threat(s) will tend to temporally precede the coping information. Table 3.4 demonstrates that this appears to be true in the sample as a whole, since 57.11% of all ads containing threats do have the threat coming prior to the advice, thereby confirming H1c. As well, when exploring the data for each country individually in Table 3.4, there appear to be only relatively small differences in the degree to which different countries adhere to this principle in their ads (chi-square=7.860, d.f.=4, p=0.097).

expect that with the passage of time, there would be greater acceptance of the model, and greater adherence to its precepts [particularly since no other well-known fear appeals model has come along to replace this one; the OPM model (Tanner, Hunt, and Eppright 1991) provides only an extension to the PM model]. Therefore, if there were to be a difference in adherence to the tenets of the PM model, one would expect that there would be more adherence in more recent years.
Chapter Three  Content Analysis Research Results

Table 3.4
Order of Threats and Coping Advice in Ads
By Country

<table>
<thead>
<tr>
<th></th>
<th>Canada</th>
<th>U.S.A.</th>
<th>Britain</th>
<th>Australia</th>
<th>New Zealand</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>first, then Advice</td>
<td>63</td>
<td>133</td>
<td>28</td>
<td>17</td>
<td>8</td>
<td>249</td>
</tr>
<tr>
<td></td>
<td>59.43%</td>
<td>53.20%</td>
<td>70.00%</td>
<td>73.91%</td>
<td>47.06%</td>
<td>57.11%</td>
</tr>
<tr>
<td>Other Order</td>
<td>43</td>
<td>117</td>
<td>12</td>
<td>6</td>
<td>9</td>
<td>187</td>
</tr>
<tr>
<td></td>
<td>40.57%</td>
<td>46.80%</td>
<td>30.00%</td>
<td>26.09%</td>
<td>52.94%</td>
<td>42.89%</td>
</tr>
<tr>
<td>No Threat(^4)</td>
<td>51</td>
<td>89</td>
<td>7</td>
<td>2</td>
<td>4</td>
<td>153</td>
</tr>
<tr>
<td>N</td>
<td>157</td>
<td>339</td>
<td>47</td>
<td>25</td>
<td>21</td>
<td>589</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

When exploring the data by behavioral category, Table 3.5 demonstrates that there are some differences between behavioral categories in terms of the extent to which threats precede coping advice in commercials (chi-square=12.515, d.f.=4, p=0.014). Overall, however, there is relatively high adherence to the principle of following threats with coping advice in commercials which contain both, regardless of behavioral category.\(^5\)

---

\(^4\) This category includes ads which offer advice only, as well as ads where there is neither a threat nor advice.

\(^5\) It seems possible that in some campaigns, the threats and advice may appear in different commercials (i.e., the threats in some of the early commercials appearing in the campaign, and the advice in later commercials in the campaign). Because the unit of analysis in this study is the individual commercial and not campaigns, it is not possible to measure whether this phenomenon may be occurring. However, it presents an interesting topic for future research.
Other important aspects of the Protection Motivation model concerned response efficacy and self efficacy. Although no hypotheses specifically addressed this question, it is worthwhile to explore this aspect of the data. Table 3.6 explores the issue of whether or not the social marketing commercials contain information about response efficacy. In fact, the vast majority (84.04%) of the commercials do not include any elements of response efficacy; they may give advice, but they do not give any information about how effective acting on the advice will be in preventing the negative outcomes. Table 3.6 also explores whether there are differences in the use of response efficacy between countries, but there appear to be few significant differences (chi-square=2.298, d.f.=4, p=0.681).

---

6 The PM and OPM models would suggest that response efficacy and self efficacy are important elements of the ad message, so a hypothesis could have been put forward stating that ads should contain these elements. However, there was nothing in the literature which indicated that actual ads would include these elements. Therefore, this was treated as an exploratory variable rather than one for which a priori hypotheses were put forward.
Table 3.6
Does the Commercial Contain Information About Response Efficacy?
By Country

<table>
<thead>
<tr>
<th></th>
<th>Canada</th>
<th>U.S.A.</th>
<th>Britain</th>
<th>Australia</th>
<th>New Zealand</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>129</td>
<td>284</td>
<td>40</td>
<td>23</td>
<td>19</td>
<td>495</td>
</tr>
<tr>
<td></td>
<td>82.17%</td>
<td>83.78%</td>
<td>85.11%</td>
<td>92.00%</td>
<td>90.48%</td>
<td>84.04%</td>
</tr>
<tr>
<td>Yes</td>
<td>28</td>
<td>55</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>17.83%</td>
<td>16.22%</td>
<td>14.89%</td>
<td>8.00%</td>
<td>9.52%</td>
<td>15.96%</td>
</tr>
<tr>
<td>N</td>
<td>157</td>
<td>339</td>
<td>47</td>
<td>25</td>
<td>21</td>
<td>589</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Table 3.7 explores the use of response efficacy within social marketing commercials belonging to different behavioral categories. There do appear to be significant differences between categories of commercials, with the AIDS commercials being most likely to include elements of response efficacy (chi-square=62.670, d.f. =4, p<0.001).

Table 3.7
Does the Commercial Contain Information About Response Efficacy?
By Behavioral Category

<table>
<thead>
<tr>
<th></th>
<th>AIDS</th>
<th>Alcohol</th>
<th>DUI</th>
<th>Drugs</th>
<th>Smoking</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>58</td>
<td>43</td>
<td>174</td>
<td>99</td>
<td>121</td>
<td>495</td>
</tr>
<tr>
<td></td>
<td>58.79%</td>
<td>87.76%</td>
<td>92.55%</td>
<td>94.29%</td>
<td>80.67%</td>
<td>84.04%</td>
</tr>
<tr>
<td>Yes</td>
<td>39</td>
<td>6</td>
<td>14</td>
<td>6</td>
<td>29</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>40.21%</td>
<td>12.24%</td>
<td>7.45%</td>
<td>5.71%</td>
<td>19.33%</td>
<td>15.96%</td>
</tr>
<tr>
<td>N</td>
<td>97</td>
<td>49</td>
<td>188</td>
<td>105</td>
<td>150</td>
<td>589</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

It is not clear why these differences exist between types of commercials. One explanation is that the kind of advice most often given in AIDS prevention commercials is to use a condom, a relatively straightforward behavior, which is highly effective in preventing...
AIDS. This effectiveness of condoms is often stressed in AIDS prevention commercials as a means of encouraging people to adopt the behavior. The other four behaviors examined (drugs, smoking, DUI, alcohol moderation) all have potentially addictive aspects to the behavior (i.e., drug addiction, nicotine addiction, alcoholism), which make it relatively infeasible to prescribe any advice or solution except for abstention. Such advice regarding abstention is so obvious that it is usually implicit rather than explicit. If advice to abstain was not mentioned explicitly in the commercials, then it was not coded as being present.

Table 3.8 examines the issue of including elements of self efficacy in social marketing commercials. In general, few commercials (6.96%) actually include any self efficacy message. When exploring whether different countries have a different prevalence of including self efficacy messages, it appears that there are no significant differences (chi-square=6.839, d.f. =4, p= 0.145).

<table>
<thead>
<tr>
<th></th>
<th>Canada</th>
<th>U.S.A.</th>
<th>Britain</th>
<th>Australia</th>
<th>New Zealand</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>140</td>
<td>321</td>
<td>43</td>
<td>23</td>
<td>21</td>
<td>548</td>
</tr>
<tr>
<td></td>
<td>89.17%</td>
<td>94.69%</td>
<td>91.49%</td>
<td>92.00%</td>
<td>100.00%</td>
<td>93.04%</td>
</tr>
<tr>
<td>Yes</td>
<td>17</td>
<td>18</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>10.83%</td>
<td>5.31%</td>
<td>8.51%</td>
<td>8.00%</td>
<td>0.00%</td>
<td>6.96%</td>
</tr>
<tr>
<td>N Total</td>
<td>157</td>
<td>339</td>
<td>47</td>
<td>25</td>
<td>21</td>
<td>589</td>
</tr>
<tr>
<td></td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

In exploring whether different behavioral categories display differential usage of self efficacy messages, we see in Table 3.9 that smoking commercials are somewhat more likely to include self efficacy messages (13.33%), while DUI and drug abuse commercials are least
likely to include self efficacy messages (3.72% and 2.86% respectively; chi-square=15.297, d.f. =4, p=0.004).

<table>
<thead>
<tr>
<th>Table 3.9</th>
<th>Does the Commercial Contain Encouragement for Self Efficacy? By Behavioral Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AIDS</td>
</tr>
<tr>
<td>No</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>92.78%</td>
</tr>
<tr>
<td>Yes</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>7.22%</td>
</tr>
<tr>
<td>N Total</td>
<td>97</td>
</tr>
<tr>
<td></td>
<td>100.00%</td>
</tr>
</tbody>
</table>

A qualitative examination of the 20 smoking commercials which did contain encouragement for self efficacy revealed that these commercials had a "you can do it" type of message. This message was intended to make the smoker feel more confident in his/her ability to quit, and in some cases, took the form of explaining how many people had already quit and encouraging the smoker to join these successful quitters.

Incidence of Fear Appeals (Hypothesis 2)

H2 states that 24% of the social marketing ads will be intended to be fear arousing (i.e., ads which stress negative outcomes or threats). This was intended to be in line with Hanneman, McEwen, and Coyne (1973), who coded a commercial as containing a fear appeal if it showed or discussed the harmful (or painful) social or physical consequences of not doing what the message directed. However, in the present study, there are three different ways of measuring the presence or absence of fear. First, it is possible to measure whether there were
Chapter Three  Content Analysis Research Results

one or more specific threats.\(^7\) Second, the commercial was rated as having a low, medium, or high level of fear arousal.\(^8\) Finally, the commercial was rated as having an overall tone of fear-arousal (i.e., giving an overall impression of being fear-arousing).\(^9\)

In fact, 74.02\% of the commercials in the sample contained at least one or more specific threats or negative consequences (reported and discussed later on by country in Table 3.12). However, some of these threats or negative consequences were very mild, so that only 53.99\% of the commercials were perceived to have low, medium, or high levels of fear arousal (reported and discussed later on by country in Table 3.13). Thus, 46.01\% of the commercials contain either no or minimal fear-arousing elements. Most importantly, though, in examining the overall tone of the commercial, only 21.39\% of the commercials gave an overall impression of being fear-arousing (reported and discussed later on by country in Table 3.10). This suggests that while slightly more than half the commercials contained some fear-arousing elements, slightly less than one-quarter were judged to leave an overall impression of being fear-arousing. This latter percentage is comparable to that identified by Hanneman, McEwen, and Coyne (1973), who found that fear appeals were used in 24\% of PSAs in their

---

\(^7\) A threat or negative consequence may be relatively minor, in which case, it might not be perceived as a fear appeal according to the definition given by Hanneman, McEwen, and Coyne (1973).

\(^8\) A commercial could contain a low level of fear arousal, yet not be perceived as having an overall impression or overall tone of being fear-arousing. Many commercials with low or medium levels of fear arousal in the first part of the commercial tried to alleviate this emotion by lightening the tone or atmosphere in the latter part of the commercial. This would result in an overall tone or overall impression of the commercial which was not fear-arousing.

\(^9\) The overall tone of the commercial is simply the coders’ impression of whether or not the ad was fear-arousing. For example, it is possible for an ad to contain a mild threat and to have a low level of fear arousal, but if that fear is dismissed near the end of the commercial by the introduction of humor, then the overall tone of the commercial might be rated as neutral or positive.
sample. Therefore, using a t-test of proportions, H2 is supported, since the proportion of social marketing ads in the present study which were of the fear-arousing variety was not significantly different from the 24% reported by Hanneman, McEwen, and Coyne (1973) (t = 1.4833, p > .05).

**Country-of-Origin and Fear Appeals (Hypothesis 3)**

H3 suggests that there will be differences between the countries under study with regard to the frequency of the use of fear appeals. Specifically, it is expected that Australia will use fear appeals to a greater extent than the United States does, as measured as a proportion of social marketing ads collected. Table 3.10 demonstrates that in terms of the overall tone of the commercials, Australia is indeed the most likely to use an overall tone that is fear-provoking (chi-square = 13.865, d.f. = 4, p = .008).

<table>
<thead>
<tr>
<th>Table 3.10</th>
<th>Overall Tone of the Commercial By Country</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Canada</td>
</tr>
<tr>
<td>Neutral/Positive</td>
<td>120</td>
</tr>
<tr>
<td>Fear</td>
<td>37</td>
</tr>
<tr>
<td>N Total</td>
<td>157</td>
</tr>
</tbody>
</table>

In a one-way ANOVA conducted on the "overall tone" variable, there were significant differences between the means of the countries, with Australia clearly being the country most
likely to have an overall tone that was fear-provoking (\(x_{Australia}=1.56, x_{Britain}=1.74,\)
\(x_{USA}=1.88, x_{Canada}=1.92, x_{New Zealand}=2.05; F=3.783, p<0.005;\) see Table 3.11). A
Newman-Keuls post hoc test indicated that there was a significant difference between Australia
and the U.S.A., but that other countries were not significantly different from the U.S.A.
(t=4.1641, p < .05).

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td>4.165</td>
<td>4</td>
<td>1.041</td>
<td>3.783</td>
<td>0.005</td>
</tr>
<tr>
<td>Error</td>
<td>160.769</td>
<td>584</td>
<td>0.275</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Australia is also the country most likely to mention or show one or more specific
threats (chi-square=11.199, d.f.=4, p=0.024). These results are shown in Table 3.12.

<table>
<thead>
<tr>
<th>No</th>
<th>Canada</th>
<th>U.S.A.</th>
<th>Britain</th>
<th>Australia</th>
<th>New Zealand</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>51</td>
<td>89</td>
<td>7</td>
<td>2</td>
<td>4</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>32.48%</td>
<td>26.25%</td>
<td>14.89%</td>
<td>8.00%</td>
<td>19.05%</td>
<td>25.98%</td>
</tr>
<tr>
<td>Yes</td>
<td>106</td>
<td>250</td>
<td>40</td>
<td>23</td>
<td>17</td>
<td>436</td>
</tr>
<tr>
<td></td>
<td>67.52%</td>
<td>73.75%</td>
<td>85.11%</td>
<td>92.00%</td>
<td>80.95%</td>
<td>74.02%</td>
</tr>
</tbody>
</table>

| N Total  | 157     | 339    | 47      | 25        | 21          | 589     |
|          | 100.00% | 100.00%| 100.00% | 100.00%   | 100.00%     | 100.00% |

Finally, Australia is also the most likely to use medium or high levels of fear arousal,
and the least likely to use no fear arousal (chi-square=20.544, d.f.=8, p=0.008). These results are shown in Table 3.13.

<table>
<thead>
<tr>
<th></th>
<th>Canada</th>
<th>U.S.A.</th>
<th>Britain</th>
<th>Australia</th>
<th>New Zealand</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>79</td>
<td>157</td>
<td>18</td>
<td>7</td>
<td>10</td>
<td>271</td>
</tr>
<tr>
<td></td>
<td>50.32%</td>
<td>46.31%</td>
<td>38.30%</td>
<td>28.00%</td>
<td>47.62%</td>
<td>46.01%</td>
</tr>
<tr>
<td>Low</td>
<td>60</td>
<td>156</td>
<td>19</td>
<td>11</td>
<td>10</td>
<td>256</td>
</tr>
<tr>
<td></td>
<td>38.22%</td>
<td>46.02%</td>
<td>40.43%</td>
<td>44.00%</td>
<td>47.62%</td>
<td>43.46%</td>
</tr>
<tr>
<td>Medium/High</td>
<td>18</td>
<td>26</td>
<td>10</td>
<td>7</td>
<td>1</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>11.46%</td>
<td>7.67%</td>
<td>21.28%</td>
<td>28.00%</td>
<td>4.76%</td>
<td>10.53%</td>
</tr>
<tr>
<td>N</td>
<td>157</td>
<td>339</td>
<td>47</td>
<td>25</td>
<td>21</td>
<td>589</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

This last result was confirmed with a one-way ANOVA which examined the "amount of fear arousal" variable, and determined that there were significant differences in the means for the various countries, with commercials from Australia containing the largest degree of fear arousal ($\bar{x}_{\text{Australia}}=1.12$, $\bar{x}_{\text{Britain}}=0.83$, $\bar{x}_{\text{USA}}=0.61$, $\bar{x}_{\text{Canada}}=0.61$, $\bar{x}_{\text{New Zealand}}=0.57$; $F=4.375$, $p<.002$; see Table 3.14). A Newman-Keuls post hoc test indicated that Australia was significantly different from the USA ($t=5.194$, $p<.01$).
Table 3.14
One-way Analysis of Variance Table
Amount of Fear Arousal in the Commercial
By Country

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td>7.854</td>
<td>4</td>
<td>1.964</td>
<td>4.375</td>
<td>0.002</td>
</tr>
<tr>
<td>Error</td>
<td>262.098</td>
<td>584</td>
<td>0.449</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All of these results provide significant support for H3, indicating that there are differences between the countries in terms of the use of fear appeals. Australia appears to make significantly more use of fear appeals than any of the other countries.

Sponsorship and Fear Appeals (Hypotheses 4a, 4b, and 4c)

To begin with, it is interesting to examine the distribution of sponsorship types\(^\text{10}\) by country (see Table 3.15). This table shows that corporate sponsorships of the social marketing commercials were limited almost exclusively to Canada and the United States (chi-square = 13.475, d.f. = 4, p = 0.009). This suggests that sponsorship of social marketing ads may be largely a North American phenomenon.

---

\(^\text{10}\) The Traffic Accident Commission (TAC) in Australia is considered to be a nonprofit organization for the purposes of this analysis.
Further, it is interesting to look at the distribution of sponsorship types between the various types of targeted behaviors. Table 3.16 shows this distribution, and indicates that DUI and alcohol moderation ads are much more likely to have corporate sponsors than ads targeted at other types of behaviors (chi-square = 27.619, d.f. = 4, p > 0.001).

To turn now to testing the hypotheses, H4a suggested that corporate sponsors would be less likely than nonprofit sponsors to use messages which incorporate threats or fear appeals. Table 3.17 examines whether any specific threats were mentioned or shown,
according to whether or not the sponsor was a for-profit corporation. Only 53.57% of for-profit corporations had any specific threats mentioned or shown in their commercials, compared to 75.80% of nonprofit or government organizations (chi-square = 11.214, d.f. = 1, p = 0.001). It appears that for-profit corporations are less likely to mention or show threatening or fear-arousing elements in their TV commercials, which provides partial support for H4a.

<table>
<thead>
<tr>
<th>Non-Corporate</th>
<th>Corporate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>128</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>24.02%</td>
<td>44.64%</td>
</tr>
<tr>
<td>Yes</td>
<td>405</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>75.98%</td>
<td>55.36%</td>
</tr>
<tr>
<td>N</td>
<td>533</td>
<td>56</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

However, when examining the overall tone of the commercial there was no significant difference between for-profit corporations and other organizations in terms of whether positive, neutral, or fear-arousing appeals were used (chi-square = 0.176, d.f. = 2, p = 0.916). These results are shown in Table 3.18.
Table 3.18
Overall Tone of the Commercial?
By Sponsorship Category

<table>
<thead>
<tr>
<th></th>
<th>Non-Corporate</th>
<th>Corporate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>44</td>
<td>5</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>8.26%</td>
<td>8.93%</td>
<td>8.32%</td>
</tr>
<tr>
<td>Neutral</td>
<td>376</td>
<td>38</td>
<td>414</td>
</tr>
<tr>
<td></td>
<td>70.54%</td>
<td>67.86%</td>
<td>70.29%</td>
</tr>
<tr>
<td>Fear</td>
<td>113</td>
<td>13</td>
<td>126</td>
</tr>
<tr>
<td></td>
<td>21.20%</td>
<td>23.21%</td>
<td>21.39%</td>
</tr>
</tbody>
</table>

|       | Non-corp 100.00% | Corp 100.00% | Total 100.00% |

This result was confirmed with a one-way ANOVA which examined the "overall tone" variable, and determined that there were no significant differences in the means for the corporate versus non-corporate categories ($\bar{x}_{\text{Non-corp}} = 1.87$, $\bar{x}_{\text{Corp}} = 1.86$; $F=0.032$, $p = .857$; see Table 3.19).

Table 3.19
One-way Analysis of Variance Table
Overall Tone of the Commercial
By Sponsorship Category

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsorship Category</td>
<td>0.009</td>
<td>1</td>
<td>0.009</td>
<td>0.032</td>
<td>0.857</td>
</tr>
<tr>
<td>Error</td>
<td>164.925</td>
<td>587</td>
<td>0.281</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Similarly, when examining the level of fear arousal (none, low, medium, high), there were no significant differences between for-profit corporations and other organizations (chi-square=2.421, d.f. =2, $p=0.298$). However, corporations did seem less likely to use medium/high levels of fear arousal (5.36%) as compared to non-corporate organizations.
These results, while not statistically significant, are directionally supportive of H4a. These results are shown in Table 3.20.

<table>
<thead>
<tr>
<th></th>
<th>Non-Corporate</th>
<th>Corporate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>241</td>
<td>30</td>
<td>271</td>
</tr>
<tr>
<td></td>
<td>45.22%</td>
<td>53.57%</td>
<td>46.01%</td>
</tr>
<tr>
<td>Low</td>
<td>233</td>
<td>23</td>
<td>256</td>
</tr>
<tr>
<td></td>
<td>43.71%</td>
<td>41.07%</td>
<td>43.46%</td>
</tr>
<tr>
<td>Medium/High</td>
<td>59</td>
<td>3</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>11.07%</td>
<td>5.36%</td>
<td>10.53%</td>
</tr>
<tr>
<td>N</td>
<td>533</td>
<td>56</td>
<td>589</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

However, a one-way ANOVA was used to examine the "amount of fear arousal" variable, and determined that there were no significant differences in the means for the corporate versus non-corporate categories ($\bar{x}_{\text{Non-corp}} = 0.66$, $\bar{x}_{\text{Corp}} = 0.52$; $F = 2.368$, $P = .124$; see Table 3.21).
Table 3.21
One-way Analysis of Variance Table
Amount of Fear Arousal in the Commercial
By Sponsorship Category

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsorship Catgory</td>
<td>1.085</td>
<td>1</td>
<td>1.085</td>
<td>2.368</td>
<td>0.124</td>
</tr>
<tr>
<td>Error</td>
<td>268.868</td>
<td>587</td>
<td>0.458</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It should be noted that slightly less than 10% of the commercials in the sample included a corporate sponsor. This small sample size means that the chi-square statistics do not have a great deal of power. While there was a significantly greater likelihood of having specific threats mentioned or shown in the corporate television commercials, there was not a significantly greater incidence of having an overall tone of fear arousal, nor was there a significantly greater incidence of having elevated levels of fear arousal. Therefore, there is only partial support for H4a.

H4b suggested that corporate sponsors would be more likely to use messages which are positive. As mentioned above, there was no significant difference in the degree of use of positive appeals, as was shown in Table 3.18. Therefore, there is no support for H4b.

H4c suggested that corporate sponsors would be more likely to use messages which contain humor. However, there was no significant difference in the use of humorous appeals (chi-square=2.468, d.f. =1, p=0.116). These results are shown in Table 3.22. Therefore, there is no support for H4c.
Table 3.22  
Is There an Attempt to be Humorous?  
By Sponsorship Category

<table>
<thead>
<tr>
<th></th>
<th>Non-Corporate</th>
<th>Corporate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>454</td>
<td>52</td>
<td>506</td>
</tr>
<tr>
<td></td>
<td>85.18%</td>
<td>92.86%</td>
<td>85.91%</td>
</tr>
<tr>
<td>Yes</td>
<td>79</td>
<td>4</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>14.82%</td>
<td>7.14%</td>
<td>14.09%</td>
</tr>
<tr>
<td>N</td>
<td>533</td>
<td>56</td>
<td>589</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Behavioral Category and Fear Appeals (Hypotheses H5a, H5b and H5c)

H5a states that the more serious the potential consequences of a targeted behavior, the more likely it is that fear appeals will be used in social marketing ads against that behavior. A cursory examination of the categories would suggest that smoking would likely be perceived as having the least serious consequences, particularly since many people smoke without any apparent negative consequences, and in any case, if negative consequences do occur it is almost always after many years of smoking. Unsafe sex, on the other hand, might be perceived as being the most serious category, since the likelihood of getting AIDS is perceived to be high, the consequences of getting AIDS are almost always deadly, and AIDS as a disease has been highly publicized. To confirm this ranking, two pretests were conducted.

The purpose of the pretests was to examine how the behaviors were ranked in terms of the seriousness of their consequences. Pretest A uses a rating scale, while Pretest B uses a ranking method. The objective of using two separate pretests is to look for some convergence of results, so it is expected that the two pretests will lead to the same relative ranking of the five behaviors.
Chapter Three  Content Analysis Research Results

Pretest A

The questionnaire for Pretest A listed the five behaviors (smoking, driving while impaired, engaging in unprotected\footnote{The pretest questionnaires used the wording, "Engaging in unprotected sex." In debriefing the subjects after the pretest, it was clear that this was generally understood to mean \textit{engaging in sex without a condom}. The implication that was generally understood was that the protection, a condom, was needed as a barrier against AIDS rather than against pregnancy.} sex, heavy alcohol consumption, and use of illegal drugs), and asked subjects to rate how serious they considered the consequences of each behavior to be, using a scale from 1 to 7 (where 1 = not very serious, and 7 = extremely serious). The questionnaire for Pretest A is given in Appendix 4. The pretest was administered to a sample of 28 students enrolled in a business diploma program. The mean values for the five behaviors are shown in Table 3.23:

<table>
<thead>
<tr>
<th>Behaviors</th>
<th>Rank</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Most Serious Behaviors:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Driving while impaired</td>
<td>1</td>
<td>6.571</td>
<td>0.879</td>
</tr>
<tr>
<td>Engaging in unprotected sex</td>
<td>2</td>
<td>6.556</td>
<td>0.698</td>
</tr>
<tr>
<td><strong>Least Serious Behaviors:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy alcohol consumption</td>
<td>3</td>
<td>6.107</td>
<td>0.994</td>
</tr>
<tr>
<td>Smoking</td>
<td>4</td>
<td>5.821</td>
<td>1.307</td>
</tr>
<tr>
<td>Use of illegal drugs</td>
<td>5</td>
<td>5.667</td>
<td>1.271</td>
</tr>
</tbody>
</table>

Using the Tukey method of multiple comparisons, it was found that the five behaviors could be divided into two groups, as shown in Table 3.23. There was no statistically significant difference between the two highest means, which can be thought of as being the two most serious behaviors (driving while impaired and engaging in unprotected sex). There were
also no statistically significant differences between any of the three lowest means, which can be thought of as being the three least serious behaviors (heavy alcohol consumption, smoking, and use of illegal drugs). However, each of the three least serious behaviors have means which are significantly different ($p < .05$) from the means of each of the two most serious behaviors.

**Pretest B**

The questionnaire for Pretest B listed the five behaviors (smoking, driving while impaired, engaging in unprotected sex, heavy alcohol consumption, and use of illegal drugs), and asked subjects to rank the five behaviors from 1 to 5 in terms of how serious they considered the consequences of each behavior to be (where a ranking of 1 = most serious consequences, 5 = least serious consequences). The questionnaire for Pretest B is also given in Appendix 4. The pretest was administered to a sample of 19 students enrolled in an undergraduate marketing class. The mean values for the five behaviors are shown in Table 3.24.
Using Tukey multiple comparisons, the ranking of the five behaviors in Pretest B (Table 3.24) was found to be similar to that found in Pretest A. "Driving while impaired" and "Engaging in unprotected sex" were considered to be the two behaviors with the most serious consequences in both Pretest A and Pretest B. However, in Pretest B "use of illegal drugs" switched to 3rd ranking position, whereas it had been in the 5th ranking position in Pretest A. Smoking continued to be viewed as having less serious consequences than heavy alcohol consumption in both Pretest A and Pretest B.

From these two pretests we can readily conclude that "Driving while impaired" and "Engaging in unprotected sex" are the two most serious behaviors, being ranked #1 and #2 respectively in both studies. In averaging the ranking of the other 3 behaviors, we would have "Heavy alcohol consumption" ranked 3rd, "Use of illegal drugs" ranked 4th, and "Smoking" ranked 5th (i.e., smoking is the behavior with the least serious consequences). The information from Pretests A and B is useful in testing Hypotheses H5a, H5b, and H5c.

In examining the overall tone of the commercials by behavioral type in the content analysis study for the purposes of testing H5a and H5b, it can be seen that smoking commercials are the least likely type of commercial to use fear/threat appeals, and are the most
likely to use positive appeals (chi-square = 47.987, d.f. = 8, p < 0.001). These results are shown in Table 3.25.

<table>
<thead>
<tr>
<th>Table 3.25 Overall Tone of the Commercial By Behavioral Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Positive</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Neutral</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Fear</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>N Total</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Examining these data in a somewhat different manner by grouping them into the more serious versus less serious behaviors is shown in Table 3.26. This grouping still shows that the more serious behaviors have an overall tone that is significantly more fear-provoking than the less serious behaviors (chi-square = 11.012, d.f. = 2, p < .005), which supports H5a.
Table 3.26
Overall Tone of the Commercial
By Seriousness of the Behavior

<table>
<thead>
<tr>
<th></th>
<th>More Serious Behaviors (AIDS/DUI)</th>
<th>Less Serious Behaviors (Drugs/Alc.Mod./Smoking)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>13</td>
<td>36</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>4.56%</td>
<td>11.84%</td>
<td>8.32%</td>
</tr>
<tr>
<td>Neutral</td>
<td>204</td>
<td>210</td>
<td>414</td>
</tr>
<tr>
<td></td>
<td>71.58%</td>
<td>69.08%</td>
<td>70.29%</td>
</tr>
<tr>
<td>Fear</td>
<td>68</td>
<td>58</td>
<td>126</td>
</tr>
<tr>
<td></td>
<td>23.86%</td>
<td>19.08%</td>
<td>21.39%</td>
</tr>
<tr>
<td>N</td>
<td>285</td>
<td>304</td>
<td>589</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

A one-way ANOVA was conducted on the "overall tone" variable, and there were significant differences found in the means for the different behaviors, with smoking having the most positive overall tone and DUI having the most negative (fear-provoking) overall tone ($\bar{x}_{Smoking}=2.07$, $\bar{x}_{AIDS}=1.92$, $\bar{x}_{AlcMod}=1.86$, $\bar{x}_{Drugs}=1.76$, $\bar{x}_{DUI}=1.75$; $F=9.386$, $p<0.001$; see Table 3.27). A Newman-Keuls post hoc test indicated that Smoking was significantly different from DUI ($t=6.693$, $p>0.001$).

Table 3.27
One-way Analysis of Variance Table
Overall Tone of the Commercial
By Behavioral Category

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral Category</td>
<td>9.963</td>
<td>4</td>
<td>2.491</td>
<td>9.386</td>
<td>0.000</td>
</tr>
<tr>
<td>Error</td>
<td>154.971</td>
<td>584</td>
<td>0.265</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When examining whether any specific threats were mentioned or shown, AIDS
commercials showed the highest incidence (81.44%). Threats were most notably absent from DUI, alcohol moderation, and smoking ads; however, this result was not statistically significant (chi-square=5.803, d.f.=4, p=0.214). These results are shown in Table 3.28.

Collapsing this data again into the two categories of *more serious behaviors* and *less serious behaviors* does not change the results, since we see in Table 3.29 that this does not result in a significant difference between these two groups (p > .05). Therefore, this particular result does not support H5a.
Table 3.29

<table>
<thead>
<tr>
<th></th>
<th>More Serious Behaviors (AIDS/DUI)</th>
<th>Less Serious Behaviors (Drugs/Alc.Mod./Smoking)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>76 (26.57%)</td>
<td>77 (25.32%)</td>
<td>153</td>
</tr>
<tr>
<td>Yes</td>
<td>209 (73.33%)</td>
<td>227 (74.67%)</td>
<td>436</td>
</tr>
<tr>
<td>N Total</td>
<td>285 (100.00%)</td>
<td>304 (100.00%)</td>
<td>589</td>
</tr>
</tbody>
</table>

Finally, fear arousal is most likely to be absent in smoking commercials. Medium/high levels of fear arousal are most likely to be found in DUI commercials (chi-square = 18.170, d.f. = 8, p = 0.020). These results are shown in Table 3.30.

Table 3.30

<table>
<thead>
<tr>
<th></th>
<th>AIDS</th>
<th>Alcohol</th>
<th>DUI</th>
<th>Drugs</th>
<th>Smoking</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>50</td>
<td>24</td>
<td>79</td>
<td>34</td>
<td>84</td>
<td>271</td>
</tr>
<tr>
<td></td>
<td>51.55%</td>
<td>48.98%</td>
<td>42.02%</td>
<td>32.38%</td>
<td>56.00%</td>
<td>46.01%</td>
</tr>
<tr>
<td>Low</td>
<td>40</td>
<td>21</td>
<td>84</td>
<td>58</td>
<td>53</td>
<td>256</td>
</tr>
<tr>
<td></td>
<td>41.24%</td>
<td>42.86%</td>
<td>44.68%</td>
<td>55.24%</td>
<td>35.33%</td>
<td>43.46%</td>
</tr>
<tr>
<td>Medium/High</td>
<td>7</td>
<td>4</td>
<td>25</td>
<td>13</td>
<td>13</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>7.22%</td>
<td>8.16%</td>
<td>13.29%</td>
<td>12.38%</td>
<td>8.67%</td>
<td>10.53%</td>
</tr>
<tr>
<td>N Total</td>
<td>97</td>
<td>49</td>
<td>188</td>
<td>105</td>
<td>150</td>
<td>589</td>
</tr>
<tr>
<td></td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

However, when these results were analyzed by *more serious behaviors* versus *less serious behaviors*, there was again no significant difference between the two groups of
behaviors (p > .05; see Table 3.31).

| Table 3.31 
| Amount of Fear Arousal in the Commercial 
| By Seriousness of the Behavior |
|-------------------------------------|-----------------|---------------------|
| More Serious Behaviors (AIDS/DUI)   | Less Serious Behaviors (Drugs/Alc.Mod./Smoking) | Total |
| None                                | 129             | 142                 | 271    |
|                                     | 45.26%          | 46.71%              | 46.01% |
| Low                                 | 124             | 132                 | 256    |
|                                     | 43.51%          | 43.42%              | 43.46% |
| Medium/High                         | 32              | 30                  | 62     |
|                                     | 11.22%          | 9.87%               | 10.53% |
| N                                   | 285             | 304                 | 589    |
| Total                               | 100.00%         | 100.00%             | 100.00%|

A one-way ANOVA was conducted on the "amount of fear arousal" variable, and there were significant differences found in the means for the different behaviors, with smoking commercials having the least amount of fear arousal, while drug commercials had the greatest amount of fear arousal ($\bar{x}_{\text{Smoking}} = 0.53$, $\bar{x}_{\text{AIDS}} = 0.57$, $\bar{x}_{\text{AlcMod}} = 0.59$, $\bar{x}_{\text{DUI}} = 0.72$, $\bar{x}_{\text{Drugs}} = 0.80$; $F = 3.597$, $p < .007$; see Table 3.32). A Newman-Keuls post hoc test of the means indicates that there is a significant difference between the two highest means (for DUI and Drugs) versus the three lowest means (Smoking, AIDS, Alcohol Moderation; $t = 4.4685$, $p < .05$); however, the ranking of these means does not support H5a.
Overall, there is only partial support for H5a, which suggests a positive correlation between the seriousness of the targeted behavior and the use of fear appeals. The overall tone of the commercials is significantly more fear arousing for the more serious behaviors; however, there is not a significant relationship between the seriousness of the targeted behavior and either the level of fear arousal or the mention of threats/negative consequences.

H5b states that the less serious the potential consequences of a targeted behavior, the more likely it is that positive appeals will be used in social marketing ads against that behavior. As shown above in Table 3.25, smoking commercials were the most likely type of commercial to use positive appeals (16.67% compared to 8.32% of the sample; chi-square=47.987, d.f. =8, p < .001). As well, Table 3.26 showed that the less serious behaviors were more likely to have a positive overall tone (chi-square=11.012, d.f. =2, p < .005). This provides support for H5b.

H5c states that the less serious the potential consequences of a targeted behavior, the more likely it is that humorous appeals will be used in social marketing ads against that behavior. There is support for H5c, since 30.00% of the smoking commercials made use of humorous appeals, a much greater percentage than for any other behavioral category (chi-square=42.825, d.f. =4, p < 0.001). These results are shown in Table 3.33:
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Table 3.33
Is There an Attempt to be Humorous?
By Behavioral Category

<table>
<thead>
<tr>
<th>No</th>
<th>AIDS</th>
<th>Alcohol Moderation</th>
<th>DUI</th>
<th>Drugs</th>
<th>Smoking</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90</td>
<td>46</td>
<td>169</td>
<td>96</td>
<td>105</td>
<td>506</td>
</tr>
<tr>
<td></td>
<td>92.78%</td>
<td>93.88%</td>
<td>91.43%</td>
<td>91.43%</td>
<td>70.00%</td>
<td>85.91%</td>
</tr>
<tr>
<td>Yes</td>
<td>7</td>
<td>3</td>
<td>19</td>
<td>9</td>
<td>45</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>7.22%</td>
<td>6.12%</td>
<td>10.11%</td>
<td>8.57%</td>
<td>30.00%</td>
<td>14.09%</td>
</tr>
<tr>
<td>N</td>
<td>97</td>
<td>49</td>
<td>188</td>
<td>105</td>
<td>150</td>
<td>589</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

This result is now broken out by the seriousness of the behavior in Table 3.34.

Table 3.34
Is There An Attempt to Be Humorous?
By Seriousness of the Behavior

<table>
<thead>
<tr>
<th>More Serious Behaviors (AIDS/DUI)</th>
<th>Less Serious Behaviors (Drugs/Alc.Mod./Smoking)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td></td>
<td>506</td>
</tr>
<tr>
<td></td>
<td>259</td>
<td>247</td>
</tr>
<tr>
<td></td>
<td>90.88%</td>
<td>81.25%</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>9.12%</td>
<td>18.75%</td>
</tr>
<tr>
<td>N Total</td>
<td>285</td>
<td>304</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Table 3.34 clearly shows that there is a greater tendency to use humor in commercials for the less serious behaviors (18.75%) as compared to commercials for the more serious behaviors (9.12%) (chi-square = 11.2617, d.f. = 1, p < .001). Therefore, H5c is supported.

Intended Target Group and Fear Appeals (Hypotheses H6a, H6b, and H6c)

H6a stated that social marketing ads targeted at youth would be less likely to make use
of fear appeals. This seems to be supported, since ads directed at youth were less likely to make use of fear appeals as shown in Table 3.35.

Table 3.35
Overall Tone of the Commercial
By Intended Target Group Age Category

<table>
<thead>
<tr>
<th></th>
<th>Non-Youth</th>
<th>Youth</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear</td>
<td>120</td>
<td>6</td>
<td>126</td>
</tr>
<tr>
<td></td>
<td>23.53%</td>
<td>7.59%</td>
<td>21.39%</td>
</tr>
<tr>
<td>Neutral</td>
<td>369</td>
<td>45</td>
<td>414</td>
</tr>
<tr>
<td></td>
<td>72.35%</td>
<td>56.96%</td>
<td>70.29%</td>
</tr>
<tr>
<td>Positive</td>
<td>21</td>
<td>28</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>4.12%</td>
<td>35.44%</td>
<td>8.32%</td>
</tr>
<tr>
<td>N</td>
<td>510</td>
<td>79</td>
<td>589</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Also, ads directed at youth have fewer threats mentioned or shown (chi-square = 6.831, d.f. = 1, p = 0.009), as outlined in Table 3.36.

Table 3.36
Any Specific Threats Mentioned or Shown?
By Intended Target Group Age Category

<table>
<thead>
<tr>
<th></th>
<th>Non-Youth</th>
<th>Youth</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>123</td>
<td>30</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>24.12%</td>
<td>37.97%</td>
<td>25.98%</td>
</tr>
<tr>
<td>Yes</td>
<td>387</td>
<td>49</td>
<td>436</td>
</tr>
<tr>
<td></td>
<td>75.88%</td>
<td>62.03%</td>
<td>74.02%</td>
</tr>
<tr>
<td>N</td>
<td>510</td>
<td>79</td>
<td>589</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

The amount of fear arousal in the ads was also examined. Ads that are directed at
Chapter Three  Content Analysis Research Results

Youth had lower levels of fear arousal, when compared to ads that were not directed at youth (chi-square=25.187, d.f. =2, p<0.001), as shown in Table 3.37:

Table 3.37
Amount of Fear Arousal in the Commercial
By Intended Target Group Age Category

<table>
<thead>
<tr>
<th>Source</th>
<th>Non-Youth</th>
<th>Youth</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>214</td>
<td>57</td>
<td>271</td>
</tr>
<tr>
<td></td>
<td>41.96%</td>
<td>72.15%</td>
<td>46.01%</td>
</tr>
<tr>
<td>Low</td>
<td>239</td>
<td>17</td>
<td>256</td>
</tr>
<tr>
<td></td>
<td>46.86%</td>
<td>21.52%</td>
<td>43.46%</td>
</tr>
<tr>
<td>Medium/High</td>
<td>57</td>
<td>5</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>11.18%</td>
<td>6.33%</td>
<td>10.53%</td>
</tr>
<tr>
<td>N Total</td>
<td>510</td>
<td>79</td>
<td>589</td>
</tr>
<tr>
<td></td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

A one-way ANOVA was conducted on the "amount of fear arousal" variable, and there were significant differences found in the means for the non-youth versus youth target groups, with youth-targeted commercials having a significantly lower level of fear arousal ($\bar{x}_{\text{Non-Youth}}=0.70$, $\bar{x}_{\text{Youth}}=0.34$; $F=19.507$, p<.001; see Table 3.38).

Table 3.38
One-way Analysis of Variance Table
Amount of Fear Arousal in the Commercial
By Intended Target Group Age Category

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Category</td>
<td>8.682</td>
<td>1</td>
<td>8.682</td>
<td>19.507</td>
<td>0.000</td>
</tr>
<tr>
<td>Error</td>
<td>261.271</td>
<td>587</td>
<td>0.445</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Therefore, H6a is fully supported.

H6b stated that social marketing ads targeted at youth would be more likely to make use of positive appeals. In examining the overall tone of the commercial, commercials that were directed at youth were, indeed, more likely to make use of positive appeals, and less likely to make use of fear appeals (chi-square=91.110, d.f. =2, p< 0.001), as shown earlier in Table 3.35.

A one-way ANOVA was conducted on the "overall tone" variable, and there were significant differences found in the means for the non-youth versus youth target groups, with youth-targeted commercials having the most positive overall tone ($\bar{x}_{\text{Non-Youth}}=1.81$, $\bar{x}_{\text{Youth}}=2.28$; F=59.925, p<0.001; see Table 3.39). Therefore, H6b was supported.

<table>
<thead>
<tr>
<th>Table 3.39</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-way Analysis of Variance Table</td>
</tr>
<tr>
<td>Overall Tone of the Commercial</td>
</tr>
<tr>
<td>By Intended Target Group Age Category</td>
</tr>
<tr>
<td>Source</td>
</tr>
<tr>
<td>Age Category</td>
</tr>
<tr>
<td>Error</td>
</tr>
</tbody>
</table>

H6c stated that social marketing ads targeted at youth would be more likely to make use of humorous appeals. However, in examining whether there was an attempt to be humorous in the ad, there was no significant difference between ads directed at youth and those that were not directed at youth (chi-square=0.002, d.f. =1, p=0.963), as shown in Table 3.40:
Table 3.40
Is There an Attempt to be Humorous?
By Intended Target Group Age Category

<table>
<thead>
<tr>
<th></th>
<th>Non-Youth</th>
<th>Youth</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>438</td>
<td>68</td>
<td>506</td>
</tr>
<tr>
<td></td>
<td>85.88%</td>
<td>86.08%</td>
<td>85.91%</td>
</tr>
<tr>
<td>Yes</td>
<td>72</td>
<td>11</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>14.12%</td>
<td>13.92%</td>
<td>14.09%</td>
</tr>
<tr>
<td>N</td>
<td>510</td>
<td>79</td>
<td>589</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

As shown in Table 3.40, youth-targeted ads did not use humor more frequently than ads aimed at non-youth, so there is no support for H6c.

This completes the testing of the hypotheses which had been proposed in Chapter 1. A summary of the key findings is shown in Table 3.41.
Table 3.41
Summary of Hypotheses

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Description</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a</td>
<td>The majority of social marketing ads will contain one or more threats or negative consequences.</td>
<td>Supported</td>
</tr>
<tr>
<td>H1b</td>
<td>Of the ads which contain one or more threats or negative consequences, the majority will also contain action recommendations or advice for coping with the threat.</td>
<td>Supported</td>
</tr>
<tr>
<td>H1c</td>
<td>In social marketing ads which include both threat(s) and coping information, the threat(s) will tend to temporally precede the coping information.</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>Approximately 24% of the social marketing ads will contain fear appeals.</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>It is expected that a higher percentage of social marketing ads in Australia will use fear appeals, as compared to the United States.</td>
<td>Supported</td>
</tr>
<tr>
<td>H4a</td>
<td>Corporate sponsors will be less likely than other organizations to use messages which incorporate threats or fear appeals.</td>
<td>Partially Supported</td>
</tr>
<tr>
<td>H4b</td>
<td>Corporate sponsors will be more likely to use messages which are positive.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H4c</td>
<td>Corporate sponsors will be more likely to use messages which are humorous.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H5a</td>
<td>The more serious the potential consequences of a targeted behavior, the more likely it is that fear appeals will be used in social marketing ads against that behavior.</td>
<td>Partially Supported</td>
</tr>
<tr>
<td>H5b</td>
<td>The less serious the potential consequences of a targeted behavior, the more likely it is that positive appeals will be used in social marketing ads against that behavior.</td>
<td>Supported</td>
</tr>
<tr>
<td>H5c</td>
<td>The less serious the potential consequences of a targeted behavior, the more likely it is that humorous appeals will be used in social marketing ads against that behavior.</td>
<td>Supported</td>
</tr>
<tr>
<td>H6a</td>
<td>Social marketing ads targeted at youth will be less likely to make use of fear appeals.</td>
<td>Supported</td>
</tr>
<tr>
<td>H6b</td>
<td>Social marketing ads targeted at youth will be more likely to make use of positive appeals.</td>
<td>Supported</td>
</tr>
<tr>
<td>H6c</td>
<td>Social marketing ads targeted at youth will be more likely to make use of humorous appeals.</td>
<td>Not supported</td>
</tr>
</tbody>
</table>
Exploratory findings

Logistic Regression

The diagram in Figure 1.6 in Chapter One indicated that the use of fear appeals in social marketing television commercials would vary according to the four independent variables shown. These four independent variables were sponsorship, intended target group age, type of behavior being targeted, and country-of-origin.

To examine the relative impact of these four independent variables on the dependent variables which measure the use of fear appeals, a regression analysis was used. Given the dichotomous and categorical nature of most of the content analysis variables, a logistic regression was deemed to be the most appropriate method of analysis. Logistic regression demands that the dependent variable being predicted must be a dichotomous variable.

Two of the dependent variables were already dichotomous variables (the variable measuring HUMOR, and the variable measuring the presence or absence of a THREAT or negative consequence). For the purposes of this logistic regression analysis, two other dependent variables were modified to become dichotomous variables, as described here. The overall TONE2 of the commercial was recoded into two categories: (1) negative, and (2) positive/neutral. The level of fear arousal (FEARLEV2) intended in the commercial was also recoded into two categories: (1) none, and (2) low/medium/high.

Two of the four independent (predictor) variables were also dichotomous variables: sponsorship (SPONSOR) was indicated as being corporate or non-corporate, and intended target group age category (TARGET AGE) was indicated as being youth or non-youth. The other two independent variables each contained five categories, which could optionally be reduced to two categories. Country-of-origin consisted of Canada, United States, Britain,
Australia, New Zealand (i.e., COUNTRY(5)), but could potentially be reduced to two categories of North-American versus non-North-American (i.e., COUNTRY(2)). Targeted behavior consisted of AIDS prevention, DUI, alcohol moderation, smoking, and drug abuse (i.e., BEHAVIOR(5)), but could be reduced to two categories according to the seriousness of the behavior (i.e., BEHAVIOR(2)) as discussed earlier in this Chapter.

The full regression model which describes the model in Figure 1.6 uses a full set of predictor variables: five countries, five targeted behaviors, two sponsorship categories, and two targeted age categories. It is expected that this full model would perform the best in the logistic regression in terms of classifying commercials to the correct categories for each of the four independent variables. However, it is interesting to compare this full model with various reduced versions of the model, in order to see whether a more parsimonious model can make predictions of equal accuracy.

Table 3.42 indicates the results of running a logistic regression using several different combinations of these predictor variables.
Table 3.42
Summary of Results of Logistic Regression
Indicating Percent of Commercials Correctly Classified

<table>
<thead>
<tr>
<th></th>
<th>THREAT</th>
<th>TONE2</th>
<th>FEARLEV2</th>
<th>HUMOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPONSOR(2) TARGET AGE(2) BEHAVIOR(5) COUNTRY(5)</td>
<td>75.04%</td>
<td>79.29%</td>
<td>63.33%</td>
<td>86.93%</td>
</tr>
<tr>
<td>SPONSOR(2) TARGET AGE(2) BEHAVIOR(2) COUNTRY(5)</td>
<td>73.85%</td>
<td>78.61%</td>
<td>61.12%</td>
<td>85.91%</td>
</tr>
<tr>
<td>SPONSOR(2) TARGET AGE(2) BEHAVIOR(2) COUNTRY(2)</td>
<td>73.85%</td>
<td>78.61%</td>
<td>61.12%</td>
<td>85.91%</td>
</tr>
<tr>
<td>SPONSOR(2) TARGET AGE(2) BEHAVIOR(5)</td>
<td>73.85%</td>
<td>78.61%</td>
<td>61.46%</td>
<td>85.91%</td>
</tr>
<tr>
<td>SPONSOR(2) TARGET AGE(2) BEHAVIOR(2)</td>
<td>73.85%</td>
<td>78.61%</td>
<td>60.78%</td>
<td>85.91%</td>
</tr>
<tr>
<td>SPONSOR(2) TARGET AGE(2)</td>
<td>73.85%</td>
<td>78.61%</td>
<td>60.78%</td>
<td>85.91%</td>
</tr>
<tr>
<td>SPONSOR(2)</td>
<td>74.02%</td>
<td>78.61%</td>
<td>54.67%</td>
<td>85.91%</td>
</tr>
<tr>
<td>TARGET AGE(2)</td>
<td>74.02%</td>
<td>78.61%</td>
<td>59.95%</td>
<td>85.91%</td>
</tr>
<tr>
<td>BASE RATE:</td>
<td>74.02%</td>
<td>78.61%</td>
<td>53.99%</td>
<td>85.91%</td>
</tr>
</tbody>
</table>

The "base rate" in Table 3.42 refers to the percentage of correct classifications that would be obtained by the logistic regression model if it had no real predictive ability, but simply assigned the same value to all commercials in the sample. In predicting the correct classification of the dependent variables THREAT, TONE2, and HUMOR, the use of the full model containing all four independent variables [SPONSOR(2), TARGET AGE(2), BEHAVIOR(5), and COUNTRY(5)] provides only a little improvement over the base rates (i.e., an improvement of approximately 1% or less). The full model is more useful in making predictions about the FEARLEV2 dependent variable, since its rate of correct classifications is 63.33%, nearly 10 percentage points higher than the base rate of 53.99%.
Types of Fear Appeals

One area of interest was whether the type of threats which suggest harm to oneself will be more common than those which suggest harm to close others and/or to society in general. Table 3.43 lists the frequency of occurrence of the various types of threats. Because some ads list more than one type of threat, the percentages total to more than 100%.

<table>
<thead>
<tr>
<th>Type of Threat</th>
<th>All Ads</th>
<th></th>
<th>Threat Ads</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>No Threat</td>
<td>153</td>
<td>26.0%</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Threat toward oneself</td>
<td>365</td>
<td>62.0%</td>
<td>365</td>
<td>84.1%</td>
</tr>
<tr>
<td>Threat toward close others</td>
<td>107</td>
<td>18.2%</td>
<td>107</td>
<td>24.7%</td>
</tr>
<tr>
<td>Threat toward unspecified others or strangers</td>
<td>64</td>
<td>10.9%</td>
<td>64</td>
<td>14.7%</td>
</tr>
<tr>
<td>Threat toward society in general</td>
<td>28</td>
<td>4.8%</td>
<td>28</td>
<td>6.5%</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>589</td>
<td>100.0%</td>
<td>434</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

It is clear that the majority of threat ads (84.1%) contain one or more threats toward oneself. Also, the majority of all ads (62.0%) contain one or more threats toward oneself.

Date of Origin and Fear Appeals

It is interesting to explore whether there is any difference in the use of fear appeals in the earlier years of the sample (1980-1986) versus the later years (1987-1994). Data regarding the year in which the commercial was produced was available for only 350 out of the 589 commercials in the sample. In analyzing these 350 commercials, the data indicate that there was, indeed, a significant difference between the earlier and later time periods in terms of
whether any specific threats were mentioned or shown (chi-square = 4.118, d.f. = 1, p = 0.042).

As shown in Table 3.44, there was a larger proportion of commercials with specific threats mentioned or shown in the earlier part of the sample (76.47%) when compared with the latter part of the sample (66.67%).

<table>
<thead>
<tr>
<th></th>
<th>1980-86</th>
<th>1987-94</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No</strong></td>
<td>40</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>23.53%</td>
<td>33.33%</td>
<td>28.57%</td>
</tr>
<tr>
<td><strong>Yes</strong></td>
<td>130</td>
<td>120</td>
<td>250</td>
</tr>
<tr>
<td></td>
<td>76.47%</td>
<td>66.67%</td>
<td>71.43%</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>170</td>
<td>180</td>
<td>350</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

However, in terms of the overall tone of the commercial, there was no significant difference in the use of fear-arousing commercials during the two time periods (chi-square = 0.642, d.f. = 1, p = 0.423; see Table 3.45).
**Table 3.45**

<table>
<thead>
<tr>
<th>Overall Tone of the Commercial?</th>
<th>1980-86</th>
<th>1987-94</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive/Neutral</td>
<td>126</td>
<td>140</td>
<td>266</td>
</tr>
<tr>
<td>Neutral</td>
<td>74.12%</td>
<td>77.78%</td>
<td>76.00%</td>
</tr>
<tr>
<td>Fear</td>
<td>44</td>
<td>40</td>
<td>84</td>
</tr>
<tr>
<td>25.88%</td>
<td>22.22%</td>
<td>24.00%</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>170</td>
<td>180</td>
<td>350</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

A one-way ANOVA was conducted on the "overall tone" variable, examining whether the group means varied by time period, but the differences in mean values were not significant ($\bar{x}_{1980-86} = 1.83$ vs. $\bar{x}_{1987-94} = 1.89$, $F = 1.138$, $p = 0.287$; see Table 3.46).

**Table 3.46**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Period</td>
<td>0.370</td>
<td>1</td>
<td>0.370</td>
<td>1.138</td>
<td>0.287</td>
</tr>
<tr>
<td>Error</td>
<td>113.047</td>
<td>348</td>
<td>0.325</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There was also no statistically significant difference in the perceived level of fear arousal when comparing the earlier years versus the later years (chi-square = 1.721, d.f. = 2, $p = 0.423$), as shown in Table 3.47.
Similarly, in a one-way ANOVA conducted on the "amount of fear arousal" variable, the group means were examined by time period, but the differences in mean values were not significant ($x_{1980-86} = 0.69$ vs. $x_{1987-94} = 0.61$, $F = 1.213$, $p = 0.272$; see Table 3.48).

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Period</td>
<td>0.598</td>
<td>1</td>
<td>0.598</td>
<td>1.213</td>
<td>0.272</td>
</tr>
<tr>
<td>Error</td>
<td>171.471</td>
<td>348</td>
<td>0.493</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

While there do appear to be more threats or negative consequences present in ads from the earlier years of the sample (as shown above in Table 3.44), there does not appear to be a significantly greater degree of fear arousal in the earlier years of the sample. Therefore, it cannot be conclusively stated that there are any differences between the earlier and later years of the sample with regard to the use of fear appeals.
In examining the relationship of humor to time period in the sample, Table 3.49 shows that humor was more prevalent in the latter years of the sample (chi-square=8.633, d.f.=1, p=0.003).

<table>
<thead>
<tr>
<th></th>
<th>1980-86</th>
<th>1987-94</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>162</td>
<td>155</td>
<td>317</td>
</tr>
<tr>
<td></td>
<td>95.29%</td>
<td>86.11%</td>
<td>90.57%</td>
</tr>
<tr>
<td>Yes</td>
<td>8</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>4.71%</td>
<td>13.89%</td>
<td>9.43%</td>
</tr>
<tr>
<td>N</td>
<td>170</td>
<td>180</td>
<td>350</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Also, looking back at Table 3.45, we see that positive/neutral approaches were somewhat more prevalent in the latter part of the sample, although that result was not statistically significant (chi-square=0.642, d.f.=1, p=.423).

Comparing this Study to other Content Analyses

It is interesting to compare the results of the present content analysis to the results obtained in other content analysis studies. As mentioned earlier in Chapter 1 in Table 1.1, there are three general content analysis studies which examine either fear appeals or social marketing ads (Hanneman, McEwen, & Coyne 1973, Unger & Stearns 1983, Wallack & Dorfman 1992). Additionally, there are two content analysis studies which specifically examine anti-drug commercials (Hanneman & McEwen 1973; Walker 1990), and two which specifically examine AIDS prevention commercials (Calvert, Cocking, and Smrcek 1991;
Freimuth, Hammond, Edgar, and Monahan 1990). This section will be devoted to comparing the results of the present content analysis study to these other content analysis studies (Hanneman, McEwen, & Coyne 1973, Unger & Stearns 1983, Wallack & Dorfman 1992).

Comparing Three General Content Analyses

Table 3.50 compares the present content analysis to three other general content analysis studies which dealt with either fear and/or social marketing TV commercials. It can be seen that the present study differs from the previous studies in a number of ways. First, the present study used snowball sampling, a non-probability method of sampling. This meant that commercials could be collected over a longer period of time in the present study (1980-1994), rather than being limited to a single short period as in the other three studies. Like the Hanneman, McEwen, and Coyne (1973) study, the present study was limited to PSAs and social marketing ads; however, the present study was limited to ads for only 5 particular types of behaviors (anti-smoking, DUI, alcohol moderation, AIDS prevention, and anti-drug abuse). In terms of incidence of fear appeals, in the present study 21.39% of the TV commercials had an overall tone which was considered to be fear-arousing; this compared to 24% of the PSA commercials in Hanneman, McEwen, and Coyne (1973) which used fear appeals, and only 16.6% of the general sample of product/service TV commercials in Unger and Stearns (1983) which used fear appeals. The present used four coders to evaluate every TV commercial in the content analysis, while Unger and Stearns (1983) and Wallack and Dorfman (1992) used two coders to evaluate every TV commercial. The Hanneman, McEwen, and Coyne (1973) study used a total of 18 coders, but that was spread out over their entire sample, and each TV commercial was actually viewed by only one coder.
Table 3.50
Comparison of Content Analysis Studies

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sampling Frame</strong></td>
<td>- sampled dayparts over a 4-week period across 3 U.S. TV networks</td>
<td>- sampled 20 hours of U.S. TV airtime randomly over a 3-week period</td>
<td>- sampled 500 hours of TV airtime during a 1-week period across 9 U.S. TV stations</td>
<td>- used snowball sampling method, contacting relevant organizations in 5 countries</td>
</tr>
<tr>
<td><strong>Type of Commercials</strong></td>
<td>all types</td>
<td>all types</td>
<td>all types but analysis limited to PSAs</td>
<td>only 5 types of PSAs: AIDS, smoking, DUI, alcohol moderation, drugs</td>
</tr>
<tr>
<td><strong>Total Number of Commercials</strong></td>
<td>675 commercials</td>
<td>654 commercials</td>
<td>10,399 commercials</td>
<td>589 PSA commercials</td>
</tr>
<tr>
<td><strong>Number of PSAs/ Social Marketing Commercials</strong></td>
<td>n/a</td>
<td>34 PSA commercials</td>
<td>1,159 PSA commercials</td>
<td>589 PSA commercials</td>
</tr>
<tr>
<td><strong>Incidence of PSAs/ Social Marketing Commercials</strong></td>
<td>n/a</td>
<td>5.8%</td>
<td>11.1%</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Incidence of Fear Appeals</strong></td>
<td>16.6% of all commercials</td>
<td>n/a</td>
<td>24.0% of PSA commercials</td>
<td>21.39% of PSA commercials</td>
</tr>
</tbody>
</table>
### Table 3.50
Comparison of Content Analysis Studies

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- coded as fear appeal if the threat of a negative consequence was used</td>
<td>n/a</td>
<td>- coded as fear appeal if it showed or discussed the harmful or painful social or physical consequences of not doing what the message directed</td>
<td>- coded as fear appeal if it had overall tone which was fear-arousing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- also coded whether there were any threats or negative consequences, and level of fear as none/low/med/hi</td>
</tr>
<tr>
<td>Number of Coders</td>
<td>2</td>
<td>2</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>Other Variables Measured</td>
<td>- guilt messages - degree of emotion - degree of vividness - # &quot;you&quot; references - # references to negative consequences - social/physical/financial/types of fear</td>
<td>- product/service types - types of health behaviors (topic)</td>
<td>- celebrities - intended target group - topic of PSA - program/time at which PSA was shown</td>
<td>- celebrities - intended target group - topic of PSA (type of behavior) - sponsorship - country-of-origin - humor - positive appeals</td>
</tr>
</tbody>
</table>

In terms of examining the other variables which were measured, since the Hanneman, McEwen, and Coyne (1973) study bears the closest resemblance to the present study in terms of scope and purpose (i.e., limited to social marketing commercials), some of the results from the present study will be compared to that study. In particular, that study examined the use of celebrities, and the intended target group.
Hanneman, McEwen, and Coyne (1973) found that 15% of their PSA commercials used celebrities, while the present study found that 13.41% (79 out of 589 PSAs) were directed toward youth. Using a z-test of proportions, it was calculated that these two proportions are not significantly different ($z=1.0809, p > .05$).

Hanneman, McEwen, and Coyne (1973) also found that 17% of their PSA commercials were explicitly directed toward youth. The present study found that 15.96% (94 out of 589 PSAs) were directed at youth. Using a z-test of proportions, it was again calculated that these two proportions are not significantly different ($z=0.6720, p > .05$).

It is interesting that there is no significant difference between the Hanneman, McEwen, and Coyne (1973) study and the present study in terms of the presence of celebrities and the percentage of PSA commercials targeted at youth. These two studies took place at very different points of time using very different sampling methods, yet the results on two variables are very similar. This suggests that the results in the present study are fairly robust.

Comparing Studies on Anti-Drug Abuse Commercials

The two content analyses which deal with anti-drug commercials (Hanneman and McEwen 1973; Walker 1990) are summarized in Table 3.51.
### Table 3.51
Comparison of Anti-Drug Content Analysis Studies

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sampling Frame</strong></td>
<td>- U.S. networks and independent TV stations over a 2-week period</td>
<td>- collected ads through 3 nonprofit organizations</td>
<td>- used snowball sampling method, contacting relevant organizations in 5 countries</td>
</tr>
<tr>
<td><strong>Type of Commercials</strong></td>
<td>Anti-drug abuse</td>
<td>Anti-drug abuse</td>
<td>Anti-drug abuse</td>
</tr>
<tr>
<td><strong>Total # Anti-drug Abuse Commercials</strong></td>
<td>32 PSAs</td>
<td>46 PSAs</td>
<td>105 PSAs</td>
</tr>
<tr>
<td><strong>How Fear was Measured</strong></td>
<td>n/a</td>
<td>- whether fear was the primary appeal</td>
<td>- coded as fear appeal if it had overall tone which was fear-arousing</td>
</tr>
<tr>
<td><strong>Number of Coders</strong></td>
<td>22 coders in total (1-2 coders per ad)</td>
<td>1 coder</td>
<td>4 coders</td>
</tr>
<tr>
<td><strong>Other Variables Measured</strong></td>
<td>- intended target group</td>
<td>- intended target group</td>
<td>- intended target group</td>
</tr>
<tr>
<td></td>
<td>- sponsor</td>
<td>- celebrities</td>
<td>- celebrities</td>
</tr>
<tr>
<td></td>
<td>- race of characters</td>
<td>- race of characters</td>
<td>- race of characters</td>
</tr>
<tr>
<td></td>
<td>- program/time of airing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- physical and social effects of drug abuse</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- drug paraphernalia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As noted in Table 3.51, Hanneman and McEwen (1973) did examine sponsorship (i.e., they mentioned that 63.5% of the ads were sponsored by the National Clearinghouse for Drug Abuse Information, 7% were sponsored by the Advertising Council, and 6% were sponsored by State Governments), but they did not mention specifically whether the other 24% were sponsored by nonprofit or for-profit organizations or corporations. Therefore, this sponsorship variable cannot be compared with the present content analysis.
Table 3.52
Comparison of Results for Key Variables of Anti-Drug Content Analysis Studies

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of Celebrities</td>
<td>43.75% had celebrities</td>
<td>21.3% had celebrities</td>
<td>8.0% had celebrities</td>
</tr>
<tr>
<td>Intended Target</td>
<td>18% targeted youth</td>
<td>21.2% targeted youth</td>
<td>18.1% targeted youth</td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear Appeals</td>
<td>42% used fear appeals</td>
<td>84% had one or more fear-inducing elements; 52.3% used primarily a fear appeal</td>
<td>72.0% had one or more threats mentioned or shown; 61.3% had a low/medium/high level of fear arousal; 18.7% had fear-arousing overall tone</td>
</tr>
</tbody>
</table>

As well, Hanneman and McEwen (1973) measured the intended target audience, and noted that 18% of the anti-drug ads were considered to be targeted at youth. This compares with 18.10% of anti-drug ads (i.e., 19 out of 105 anti-drug ads) in the present study which were targeted at youth. These two proportions are not significantly different from each other, using a z-test of proportions (p > .05) (see Table 3.52 for comparisons). Walker (1990) also examined intended target group, and found that 21.2% of the commercials had a youthful intended target group; this is not significantly different than the present study, in which 18.1% of the anti-drug U.S. PSAs targeted youth (z = 0.6187, p > .05).

Celebrities were used in 14 out of the 32 ads in the Hanneman and McEwen (1973) study (43.75%); in the present study celebrities were used in only 6 out of the 75 U.S. anti-drug ads (8.00%), which is significantly different (z = 6.2411, p < .001). Walker (1990) also measured the incidence of celebrities, and found that celebrities were present in 21.3% of his sample (see Table 3.52). This is still a significantly greater incidence than that found in the
present study \((z=2.6499, \ p<.05)\).

Finally, Hanneman and McEwen (1973) measured the incidence of black characters in their PSAs. Of the main characters in their ads, 12\% of the PSAs had only black characters, while 15\% of the PSAs had both black and white main characters. Walker (1990) also measured the race of the main characters in the ads; the comparable figures are shown in Table 3.53.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White only</td>
<td>not reported</td>
<td>51.4%</td>
<td>45.3%</td>
</tr>
<tr>
<td>Black only</td>
<td>12%</td>
<td>7.5%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Hispanic only</td>
<td>not reported</td>
<td>1.9%</td>
<td>12.0%</td>
</tr>
<tr>
<td>White and Black</td>
<td>15%</td>
<td>7.5%</td>
<td>1.3%</td>
</tr>
<tr>
<td>White and Hispanic</td>
<td>not reported</td>
<td>7.5%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Unknown (e.g., voice-over)</td>
<td>not reported</td>
<td>31.7%</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

Table 3.53 indicates that, like the Hanneman and McEwen (1973) study which reported 12\% of the commercials having only black characters, the present study also found that 16.0\% of the U.S. commercials had only black characters; using a \(z\)-test of proportions, these two figures are not significantly different \((z=1.0660, \ p>.05)\). However, unlike the Hanneman and McEwen (1973) study which reported that 15\% of commercials had white and black characters, the present study showed a significant difference in that only 1.3\% of the U.S. PSAs had both white and black characters \((z=3.3227, \ p<.01)\). What is of interest to note is that 17.3\% of the U.S. commercials in the present study had Hispanic main characters, either alone or in combination with white characters. The incidence of Hispanic characters
was not measured in the Hanneman and McEwen (1973) study, and the strong level of Hispanic characters in the present study probably reflects the increase in the Hispanic population in the United States during the past 20 years.

Comparing Studies on AIDS Prevention Commercials

There are two content analysis studies which examined AIDS prevention commercials (Calvert, Cocking, and Smrcek 1991; Freimuth, Hammond, Edgar, and Monahan 1990). These two studies are summarized in Table 3.54.
### Table 3.54
Comparison of AIDS Prevention Content Analysis Studies

<table>
<thead>
<tr>
<th></th>
<th>Calvert et al. (1991)</th>
<th>Freimuth et al. (1990)</th>
<th>Present Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of AIDS PSAs</td>
<td>31 AIDS PSAs</td>
<td>127 AIDS PSAs</td>
<td>97 AIDS PSAs</td>
</tr>
<tr>
<td>Sampling Method</td>
<td>Collection by contacting specific nonprofit organizations</td>
<td>Collection by contacting state and city health departments</td>
<td>Snowball sample collected by contacting many organizations, govs., etc.</td>
</tr>
<tr>
<td>Countries in Sample</td>
<td>U.S., Germany, Austria</td>
<td>U.S. only</td>
<td>U.S., Canada, Britain, Australia, New Zealand</td>
</tr>
<tr>
<td>How Fear was Measured</td>
<td>n/a</td>
<td>- whether fear was used as a primary appeal</td>
<td>- coded as fear appeal if it had overall tone which was fear-arousing - also coded whether there were any threats or negative consequences, and level of fear as none/low/med/hi</td>
</tr>
<tr>
<td>Number of Coders</td>
<td>4 coders</td>
<td>2 teams of 2 coders per team</td>
<td>4 coders</td>
</tr>
<tr>
<td>Other Variables Measured</td>
<td>- amount of medical information - information about transmission of the disease - prevention information - emotional tone</td>
<td>- intended target group (by race) - humor - guilt - execution format - testimonials - preventive behaviors</td>
<td>- celebrities - intended target group - topic of PSA (type of behavior) - sponsorship - country-of-origin - humor - positive appeals</td>
</tr>
</tbody>
</table>

As seen in Table 3.54, the Calvert et al. (1991) study used a relatively small sample (31), which was divided between three countries. The Freimuth et al. (1990) study had a large sample of 127 AIDS PSAs which were all from the United States. None of the three studies
used probability sampling methods, but relied instead on collecting commercials from government or health department sources.

Table 3.55 compares the two studies on the results of variables which are comparable to the present study.

Table 3.55
Comparison of Specific Variables in AIDS Prevention Content Analysis Studies

<table>
<thead>
<tr>
<th></th>
<th>Calvert et al. (1991)</th>
<th>Freimuth et al. (1990)</th>
<th>Present Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race: Blacks</td>
<td>n/a</td>
<td>14%</td>
<td>13%</td>
</tr>
<tr>
<td>Hispanics</td>
<td>n/a</td>
<td>10%</td>
<td>1%</td>
</tr>
<tr>
<td>Race: Hispanics</td>
<td>n/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incidence of Humor</td>
<td>n/a</td>
<td>2% used humor</td>
<td>7% used humor</td>
</tr>
<tr>
<td>Incidence of Fear Appeals</td>
<td>n/a</td>
<td>26% had fear appeals</td>
<td>81% mentioned a threat or negative consequence; 48% had low/medium/high levels of fear; 11% had fear-arousing overall tone</td>
</tr>
<tr>
<td>Preventive Behaviors:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- use a condom</td>
<td>26%</td>
<td>18%</td>
<td>45%</td>
</tr>
<tr>
<td>- abstain</td>
<td>6%</td>
<td>6%</td>
<td>9%</td>
</tr>
<tr>
<td>- avoid multiple partners</td>
<td>16%</td>
<td>4%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Table 3.55 indicates that the Calvert et al. (1991) study did not examine the incidence of fear appeals, humor, or race of main characters, but rather focused on preventive behaviors which were mentioned in the ads. It is difficult to compare the fear variable between the Freimuth et al. (1990) study and the present study because of the different methods used to code the fear variable.
Discussion and Conclusion

This content analysis study examined the use of fear appeals in a sample of 589 social marketing ads which were collected from Canada, the United States, Britain, Australia, and New Zealand. The social marketing ads dealt with five specific behavioral categories: smoking, illegal drug use, DUI, excessive alcohol consumption, and unsafe sex.

Over one-quarter of the ads contained no threats of any kind, and as hypothesized (H2), only about one-quarter of the ads gave an overall impression of being fear arousing. Only a very small proportion of the ads actually used very strong fear appeals. The use of fear appeals did seem to be tied to the seriousness of the behavior that was being portrayed. Behaviors which were deemed to be more serious (or to have more immediate negative consequences) seemed to be more likely to be linked with fear appeals in social marketing advertising (H5a). Behaviors which were deemed to have less serious consequences seemed to be more likely to be linked with positive or humorous appeals in social marketing advertising (H5b).

The use of fear appeals appears to vary according to the age group of the target market, since social marketing ads with youthful target groups were less likely to make use of fear appeals (H6a). The flip-side of this was that ads with youthful target groups were more likely to make use of humor or positive appeals (H6b). The resistance of youth to threats or media pressure tactics may lie behind this phenomenon.

There appeared to be consistency with some of the tenets of the Ordered Protection Motivation (OPM) model. Perhaps not surprisingly, given the limitations of the 30-second or 60-second television medium, the results found that the social marketing ads tended to have consistency with only to the less restrictive tenets of the OPM model. The majority of the ads contained one or more threats or negative consequences (support for H1a). Of those ads which
Chapter Three  Content Analysis Research Results

contained one or more threats or negative consequences, the majority also contained some coping advice, as recommended by the OPM model (H1b). The majority of the ads also followed the temporal order prescribed by the OPM model, wherein the threat precedes the coping advice (H1c). However, few of the ads included elements of coping response efficacy and self efficacy. These elements of coping response efficacy and self efficacy are recommended by the OPM model as being important elements for effective communication, but the time restrictions of the TV medium appear to preclude their widespread inclusion (Hunt, Tanner, and Eppright 1995).

It is clear that there are definite differences between countries in the use of fear appeals. As suggested by the amount of media publicity which shocking Australian campaigns have garnered, the Australian ads were more likely to make use of fear appeals (H3). One might conjecture that this can be attributed to the macho nature of the Australian psyche, whereby a great deal of fear or threat must be used to extract behavioral change from the general public.

Given that there was a relatively small sample of corporate sponsors of social marketing ads, the analyses involving corporate sponsors had a small degree of statistical power. Based on these analyses, there seemed to be only very limited evidence that corporate sponsors made less use of fear appeals than did other types of sponsors (H4a). Also, corporate sponsors were not more likely to make use of humor or positive approaches in their social marketing ads, contrary to what had been hypothesized (H4b). This perhaps suggests that corporate sponsors do not "water down" their social marketing messages. Given the self-interested nature of corporate sponsors, one might have expected that they would try to avoid making viewers uncomfortable by avoiding fear appeals, or might try to portray their product category more favorably by avoiding fear appeals. However, this does not seem to have necessarily been the
In terms of exploratory findings, more recent years of the sample have seen a trend toward a more light-hearted approach in social marketing ads, as evidenced by the increased use of humour and positive approaches. However, there was only limited evidence of a parallel trend in the reduction of the use of fear appeals in the latter part of the sample.

One factor which should be kept in mind is that at least some proportion of the TV commercials or PSAs which were examined in this study may have been part of an integrated marketing communication (IMC) program (Schultz, Tannenbaum, and Lauterborn, 1993). This means that the television commercials that were examined may be conveying only part of the intended message from their respective campaigns. A 30- or 60-second television commercial cannot convey the entire spectrum of information or messages that a social marketing campaign would be trying to convey; therefore, examining the television commercials in isolation is necessarily only part of the whole picture.

**Limitations of the Research**

This content analysis research had several limitations. A key concern was that the use of the snowball sampling methodology yielded a relatively small sample of commercials in Australia, New Zealand, and Great Britain. As discussed earlier, this leads to the question of whether the commercials that were obtained are really a full set of the commercials that are actually available. If they are not a full set of the commercials that should actually be available, then there is an additional concern that this set may be biased in some way, or unrepresentative of the full sample of commercials that should be available. Future research which uses this type of methodology should undertake special additional efforts to gather all possible commercials from the countries being studied, in order to ensure that the sample is
as complete as possible. One possibility would be to share this sample information with key individuals from each specific country, who might be in a better position to determine whether or not the sample of commercials from their particular country seems complete.

Having a small sample of commercials from Australia, New Zealand, and Great Britain made it difficult to obtain sufficient power for more detailed statistical analyses. The low number of ads which had corporate sponsors also resulted in the same type of statistical analysis problem. Therefore, redoubling efforts to gather commercials would enhance the power of the statistical tests, and ensure that the study results had greater reliability and validity.

A further limitation of this study relates to the coding of the commercials in the sample. While the coding scheme developed for this study was intended to be comprehensive, it is possible that some important variables may have been inadvertently left out. Developing a coding scheme requires that an initial subset of commercials be analyzed, in order to provide coding categories. It is possible that the choice of this initial subset of commercials could influence the choice of coding categories, by framing the category choices in a biased fashion. The commercials which formed the initial subset were randomly selected, but this does not rule out the possibility that a different initial subset of commercials might have resulted in a slightly different coding scheme.

When coding the commercials using the established coding scheme, it was necessary for the four coders to rely on their own judgment regarding the measurement of the fear variable. These four coders generally agreed (>95%) about whether a commercial should be coded as high, medium, low, or no fear. The four coders learn from each other as they practice the coding task, and over time their judgments become more alike. This provides greater reliability within the group of coders. However, it is entirely possible that another set
of four coders might have rendered different judgments about the particular placement of some of the commercials into these categories, given that there might be different interpersonal and group dynamics within a different set of coders. However, it is unlikely that such an effect would be substantial.

Contributions of the Research

This content analysis study has made a number of useful contributions to knowledge about the use of fear appeals in social marketing advertising. Being the only study of its kind that has encompassed several behavioral categories across several countries, looking specifically at the phenomenon of fear appeals, this study is unique and rich in data.

The study provided the first and only attempt to examine the extent to which fear appeals are used in several types of social marketing ads across several countries. This knowledge is expected to be of interest to academics as well as policymakers.

The study also provided the only known attempt to examine the extent to which the message elements in social marketing ads are consistent with the tenets of the OPM model. This is expected to be of significant interest to researchers who study fear appeals, as well as to practitioners who may try to incorporate elements of this communication theory into their social marketing television commercials.

The study has provided some insight into cross-national differences in the use of fear appeals, and validated a belief that Australia has tended to make greater use than the U.S. does of fear appeals in social marketing ads.

Finally, the study provided an examination of the issue of corporate sponsorship of social marketing ads. Somewhat surprisingly, there is only limited evidence to suggest that corporate sponsors make less use of fear appeals, and corporate sponsors do not seem to use
humor or positive approaches more often. This type of information is expected to be of interest to academics as well as policymakers.

Future Research

There are many opportunities for future research which stem from this content analysis study. Future research opportunities are expected to be of two types: (1) content analysis studies which could provide an interesting comparison to the present study; and (2) laboratory studies or experiments which examine consumer reaction to some of the areas examined within the present content analysis.

Future content analysis studies could extend the comprehensive snowball sampling technique to collect social marketing ads from non-English speaking countries, either in Europe or the Pacific Rim. The newly gathered social marketing ads from the non-English speaking countries could be compared with the results for the present study, in order to examine similarities and differences between countries and cultures. Other types of potential content analysis studies could examine different behavioral categories of social marketing ads, from the same or different countries, in order to make comparisons.

The cross-sectional probabilistic variety of content analysis study could also be conducted, in order to investigate the incidence and types of social marketing ads within the television, radio, magazine, or newspaper media. While typically the incidence of social marketing ads is very low, necessitating a very large sample of TV/radio programming, this type of study would provide an interesting comparison to the present study.

Because of the relatively small size of the sample of corporate-sponsorship ads, the null results should not be thought of as definitive. Further study of this issue is needed in future research.
A wide variety of experimental work could extend out of the present study. One potential study would examine consumer response to varying the sponsorship of social marketing ads (i.e., corporate sponsor versus government or nonprofit organization). Different groups of consumers would be exposed to the same social marketing ads, either sponsored by corporations or nonprofit organizations, and their responses to the ads (behavioral intentions, $A_{Ad}$, etc.) would provide interesting indications about the effectiveness of corporate social marketing advertising.

Other studies could expose subjects to ads which either adhere to, or depart from, the tenets of the OPM model. One purpose of such studies would be to demonstrate which of the elements of the OPM model have the greatest impact on subjects, and whether the exclusion of some of the elements seriously impedes communication or persuasion attempts. Another purpose of such studies could be to examine whether adherence to, or departure from, the OPM model has a potentially different impact on various target groups. Relatively little experimental work has been conducted on the OPM model, and this would be a fruitful area for future research.

The use of fear appeals, while apparently somewhat in decline in recent years as measured in this study, still comprise a substantial enough segment of social marketing ads to warrant being an important area of research, particularly due to the public policy implications. There are still many interesting avenues to explore in this field.
CHAPTER FOUR

USING SOCIAL MARKETING ADS TO ATTACK MALADAPTIVE COPING RESPONSES: PROBLEM DEFINITION AND OVERVIEW
CHAPTER FOUR

USING SOCIAL MARKETING ADS TO ATTACK MALADAPTIVE COPING
RESPONSES: PROBLEM DEFINITION AND OVERVIEW

Problem Definition

As we saw in Chapter One, fear arousal is a technique that is commonly used by social marketers in their advertising messages. The content analysis described in Chapters Two and Three examined the incidence of fear arousal in five types of social marketing TV commercials (i.e., those for AIDS prevention, smoking, drug abuse, drinking and driving, and alcohol moderation). The content analysis results indicated that some threats or negative consequences are mentioned in a majority of social marketing ads, and actual fear arousal is used in nearly a quarter of all social marketing messages. However, in spite of an extensive history of fear appeals research in the psychology literature, relatively little is known about the effectiveness of fear-arousing communications.

Most of the studies in the fear literature have focused on manipulating the characteristics of the fear appeal message, such as high versus low fear, probability of occurrence, providing reassuring coping advice, positioning of coping advice, level of response efficacy or reassurance, comparing different communication modes, high versus low vividness of the information, source effects, message repetition, etc. The assumption in these types of studies is that fear appeals have the same effect on everyone. However, it seems possible, and even likely, that fear appeals could vary substantially among different groups, yet only a few studies have examined the impact of fear appeals on different target groups.

It is proposed in this Chapter that there can be substantial differences in target groups regarding their propensity to respond to fear appeals. Specifically, it is proposed that
individuals who have been engaging in a particular negative behavior will have built up
defensive mechanisms over time, which include maladaptive responses\textsuperscript{1}. It is proposed that
fear appeals will be unsuccessful in motivating these individuals to change their behavior, since
they will respond by becoming defensive and engaging in maladaptive responses. In order to
motivate these individuals to change their behavior, it is suggested that it would be necessary
to use social marketing ads which attack the maladaptive responses.

This Chapter will lay the groundwork for studies described in Chapters Five through
Seven which are intended to test the usefulness of including counterarguments against
maladaptive coping responses in social marketing ads targeting negative health behaviors. The
efficacy of such counterarguments in changing attitudes and behavioral intentions is examined
in the context of two behavioral groups: (1) those who are heavily committed to, or involved
with, the behavior, and (2) those who are less involved or uninvolved with the behavior). This
research is intended to test the hypothesis that social marketing ads containing
counterarguments against maladaptive coping responses will be most effective with the high-
involvement behavioral group. Therefore, this Chapter will outline the relevant literature, and
explain the basis for the formation of the hypotheses.

Variables Studied in Fear Appeals Research

Over forty years of fear appeals research in the psychology literature has still resulted
in relatively little being known about the effectiveness of fear-arousing communications. Most

\textsuperscript{1} Maladaptive coping responses are responses which reduce the level of fear, without
appreciably reducing the level of danger (Rippetoe and Rogers 1987). Maladaptive coping
responses can include simply ignoring the threat, minimizing the severity of the threat,
minimizing the probability of the threat occurring, or engaging in coping actions whose
efficacy is questionable.
of the studies in the fear literature have focused on manipulating the characteristics of the fear appeal, such as high fear versus low fear (e.g., Insko, Arkoff, and Insko 1965; Leventhal and Watts 1966; Ramirez and Lasater 1976; Rogers, Deckner, and Mewborn 1978; Smart and Fejer 1974; Steele and Southwick 1981), probability of occurrence (Chu 1966; Hass, Bagley, and Rogers 1975; Rogers and Mewborn 1976), providing reassuring coping advice (Cope and Richardson 1972; Leventhal, Watts, and Pagano 1967; Rogers and Mewborn 1976; Rogers and Thistlethwaite 1970; Tanner, Day, and Crask 1988, 1989), position of coping advice (Cecil, Weiss, and Feinberg 1978; Leventhal and Singer 1966), level of response efficacy (Natarajan 1979; Rogers and Deckner 1975) or reassurance (Mewborn and Rogers 1979; Natarajan 1978), comparing oral versus written communication modes (e.g., Krishnamurthy 1986), high versus low vividness of the information (Sherer and Rogers 1984), source effects (e.g., Dembroski, Lasater, and Ramirez 1978; Fritzen and Mazer 1975; McCroskey and Wright 1971; Ramirez and Lasater 1977; Stainback and Rogers 1983), importance/involvement of the topic (Beck and Davis 1978), attributing arousal effects to some other source (e.g., Schwarz, Servay, and Kumpf 1985), and message repetition (Horowitz 1969; Treise, Weigold, and Stankey 1995). The assumption in these types of studies is that the impact of the fear appeal is a universal one, and that it is only necessary to determine which type of fear appeal format or which level of fear-arousal is optimal (Strong and Dubas, 1993).

Yet it seems possible, and even likely, that the effectiveness of fear appeals could vary substantially among different target groups. There is little reason to believe that everyone should respond to a fear appeal in the same way. Some authors have already pointed out that some target groups may be less likely to respond well to fear appeals. For example, Lastovicka et al. (1987) has suggested that young men may not respond well to fear appeals in DUI advertising. In spite of this, only a few studies have examined the impact of fear
appeals on different types of target audiences.

There have been some studies which have examined how characteristics of the individual can act as variables which mediate the effectiveness of fear appeals. Among the characteristics examined are credulity of the subjects (Ray and Wilkie 1970), and self-esteem of the subjects (Leventhal and Perloe 1962; Leventhal and Watts 1966). These individual characteristics can shed light on why fear appeals might not work as well on some people as compared to others; however, they do not necessarily provide a practical basis for segmentation. The following section will highlight studies which have specifically examined how different target groups can vary in their response to fear appeals.

Use of Segmentation in Fear Appeals Research

While it seems possible that the effectiveness of fear appeals could vary among different target groups, only a few studies have examined the impact of fear appeals on different types of target audiences. Before reviewing these studies, it is necessary to first outline the different types of segmentation approaches that are possible.

There are three basic segmentation approaches that are commonly used in marketing: demographic/socioeconomic segmentation, personality/values/lifestyle segmentation, and product usage segmentation (Darmon and Laroche 1991). The relevance of each of these to the use of fear appeals messages will be examined in turn.

Demographic/Socioeconomic Segmentation

Two particular studies which have examined the impact of fear appeals on different demographic groups found that different target audiences reacted differently to the same fear appeal (Burnett and Oliver 1979; Burnett and Wilkes 1980). These two studies examined the
response of different demographic groups to varying levels of fear appeals, and found that fear appeals used in the context of selling the services of a health maintenance organization (HMO) tended to work better in target segments that consisted of blue collar workers, lower income groups, and those with lower educational attainment. However, these results appear to have limited generalizability. It is unlikely that one can generalize and say that blue collar workers and lower income groups are always more persuaded by fear appeals. It may in fact be the case that it is only for this particular HMO product that these specific target groups were more susceptible to fear appeals. Because these two studies were conducted in the context of selling specific HMO services, rather than social marketing, it seems clear that the results of these two studies cannot be generalized to the social marketing context.

Several other studies on the effectiveness of fear appeals have broken their results down by demographics such as age or sex (e.g., Leventhal, Jones, and Trembly 1966), although their findings in this regard tend to be ambiguous or inconclusive (Higbee 1969). For example, it has been suggested that for AIDS commercials men and women may need to be treated as distinct target groups, with separate messages (Golden and Suder 1994); however, it is well known that men and women view sex differently so it is not surprising that these two target groups might require different approaches for AIDS prevention messages. Yet knowing that men and women need to be targeted separately for AIDS prevention messages does not necessarily provide any guidance for the usefulness of this segmentation approach when using fear appeals in other types of social marketing campaigns.

For this reason, it is not expected that useful generalizations can be made regarding the reactions of specific demographic groups to fear appeals. If the effectiveness of fear appeals differs between different target groups, this will most likely be related to personality/values/lifestyle variables, or by product usage/behavioral variables.
Personality/Values/Lifestyle Segmentation

There are a number of studies in the psychology literature which have examined fear appeals which are segmented by psychological/personality variables such as self-esteem (e.g., Leventhal 1962; Rosen, Terry, and Leventhal 1982; Zemach 1966), need for approval (Rozelle et al. 1973), need for cognition (Stout and Sego 1995), internal/external locus of control (Burnett 1981), vulnerability (Dziokonski and Weber 1977; Niles 1964), personal level of anxiety (Wheatley and Oshikawa 1970). These studies provide some psychological insights into which personality variables may influence the success of fear appeals, but the findings tend to be inconclusive and of limited usefulness for social marketers.

For example, knowing that someone with internal locus of control responds differently to fear appeals than someone with external locus of control does not provide social marketers with a useful tool for segmentation. These variables may explain why some individuals respond somewhat differently to fear appeals, but they may be confounded with other variables. The likelihood of engaging in the behavior in question may vary between people with these different personality traits; if that is the case, the behavioral category will be confounded with the personality variable.

While there are several common lifestyle segmentation schemes (e.g., VALS²), there is no known research which has measured the effectiveness of fear appeals among different lifestyle segments. Therefore, it is not known whether segmentation according to lifestyles or values can provide a useful typology for predicting the effectiveness of fear appeals.

² Values and Lifestyles (VALS) is an annual study which is conducted by SRI. Its website is located at http://future.sri.com/vals/vals.description.html.
Segmentation by Product Usage or Behavioral Category

The type of segmentation approach which has not been examined much in the existing fear appeals literature is what marketers would call product experience or usage variables. An exception to this is a study by Wheatley (1971) which found distinct differences between owners and non-owners of life insurance in their reactions to fear-arousing life insurance ads. Non-owners had a positive reaction toward the fear appeal ad, while owners of life insurance had a negative reaction to the fear appeal ad. Unfortunately, there was little in the way of theory which might explain why there might be this differential response between the two product usage groups.

However, the point is underlined that product marketers recognize that it may be necessary to tailor messages differently for heavy product users as compared to light product users or non-users (Darmon and Laroche 1991). The reason for this is that the different target groups may differ significantly in their knowledge about the product and the extent to which they are committed to using the product. As well, they may differ significantly in how easily they could be persuaded to change their product usage behavior (i.e., switch brands).

The social marketing situation is analogous to this: a person who is currently engaging in a negative health behavior may be either heavily committed to the behavior (i.e., like a "heavy" user of a brand) or may only engage in the behavior occasionally (i.e., like a "light" user of a brand). Depending on their level of knowledge about the issue and their level of commitment to the negative health behavior, individuals may differ in how easily they can be persuaded to change their behavior or switch to the behavior being recommended by the social marketer. This suggests that social marketers using fear appeals may need to use a segmentation approach (Quinn 1992), in order to communicate most effectively with different "product usage" groups.
Social marketers are starting to recognize that different "product usage" groups may require different messages (Golden and Johnson 1991). For example, the youth non-smoking campaign run in California does not assume that all young smokers are alike; instead, it uses a six-part classification system to represent a continuum (Mintz 1996). Included in this continuum are the following six teen-age groups: (1) regular smokers who intend to continue, (2) regular smokers, (3) occasional smokers, (4) quitters, (5) susceptible non-smokers, and (6) emphatic non-smokers. Recognizing that not all smokers are equally committed to their habit makes it easier to develop goal-directed campaigns that are aimed at specific segments (e.g., preventing susceptible non-smokers from starting to smoke; reinforcing the efforts of quitters; encouraging occasional smokers to become quitters). Different psychological approaches may work best for each of these target groups. Other studies have used psychographic or lifestyle typologies to segment smokers (Hornik 1989). Fear appeals would likely meet with a different degree of success in different target groups, because some groups might be more responsive to fear appeals.

In a similar vein, Prochaska and DiClemente (e.g., DiClemente, Prochaska, et al. 1991; DiClemente, Prochaska, and Gibertini 1985; Prochaska and DiClemente 1986; Prochaska et al. 1992, 1991, 1985) posit a revolving door model involved in trying to quit smoking. This cyclical model suggests that there are several stages involved in quitting smoking (or other addictive behaviors): (1) pre-contemplation; (2) contemplation; (3) preparation; (4) action; and (4) maintenance. The types of messages that would be most appropriate would differ, depending on which part of the cycle one is targeting, with the general goal being to move individuals along to the next stage in the process. Those in the pre-contemplation stage would be urged to contemplate giving up smoking; those in the contemplation stage would be urged to act; and those in the action stage would be urged to
keep up the good work and avoid relapse. The presence of five stages in this model suggests that a segmentation approach to communications would be useful. Again, while fear appeals might be an appropriate psychological approach for individuals who are engaged in one or more of these stages, it seems quite unlikely that fear appeals would be universally appropriate for individuals at every stage.

Individuals at different stages of the addictive process are influenced by different motives, social groups, and other factors. A six-stage model of addiction posits the following stages: (1) usage not contemplated; (2) usage contemplated; (3) trial; (4) light use; (5) moderate use; and (6) heavy use, and suggested that the impact of PSAs would depend upon the stage of the addictive process, with higher ad recall and perceived ad effectiveness among non-users than among users (Bozinoff, Roth, and May 1989). Another model of stages of involvement in the addiction process suggests that the stages may include (1) trial; (2) light use; (3) transition to addictive use; (4) addictive use; (5) cessation of addictive use; (6) post-cessation; and possibly, although not inevitably, (7) relapse-repeat dependence (DePaulo, Rubin, and Milner 1987). Anti-drug and alcohol campaigns can differentially impact upon individuals, depending upon the stage in the addictive process that they belong to.

Different behavioral target groups are likely to react differently to fear appeals. For example, one study which examined the use of a fear appeal found that smokers who viewed a fear-arousing anti-smoking film had a greater increase in anxiety than did non-smokers (Watson, Pettingale, and Goldstein 1983). The reason for this may be that non-smokers had little to fear if they did not smoke, but smokers had much to fear.

The opposite result was found in a study which examined an AIDS prevention campaign in the UK. This campaign, which used fear messages regarding the link between IV drug use and AIDS, was found to significantly increase anxiety in low/no risk individuals, but had no
impact on those at high risk group of IV drug users (Sherr 1990). This seems surprising, since those who were not using IV drugs had no reason to fear anything; however, because AIDS is transmitted in ways other than through IV use, the thought of contracting AIDS through other means may have generated the anxiety in the non-IV drug user group. Interestingly, the willingness to change sexual behavior did not change in either group, nor did drug-using behavior change in those in the high risk group.

Research for a drinking and driving campaign in Quebec found that there were three groups of drivers: 55% who recognize the risks and won’t drive after drinking; 23% who do DUI but are oblivious to the DUI message; and 22% who are receptive to the DUI message but who still sometimes take risks (Chiasson 1994). It is the latter group that a graphic fear-provoking DUI campaign was aimed at, since this is the group that is most willing to change its behavior. This approach aims to change the behavior of those who are most willing to change, rather than trying to change the behavior of those whose behavior is most in need of change. Those who are oblivious to the DUI message account for 23% of the population, but probably account for a much greater proportion of the DUI behavior (i.e., the 80/20 rule).

Given that "product usage" segmentation is an approach that has been commonly used by marketers, and that it seems to be gaining some credence among social marketers [e.g., California non-smoking campaign (Mintz 1996), APPLAUSE program (Lavigne, Albert, and Simmons 1985)], it seems logical to state that communications and advertising messages should be tailored to the specific "product usage" group being targeted. This tailoring of advertising messages suggests that fear appeals (or any appeals) will not be universally successful with all

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3 It is often said that 20% of the customers account for 80% of the business, etc. It seems possible that the 20/80 rule of thumb may hold for DUI, with 20% of the population accounting for 80% of the DUI incidents.
target groups or all "product usage" groups. So if fear appeals are to be successful, for which target groups are they appropriate? There is virtually no research to date which answers this specific question.

**Psychological Theories Relevant to the Use of Fear Appeals**

It seems likely that fear appeals would be more successful at persuading those who are less committed to the behavior. The conceptual reasoning goes like this: If an individual is heavily committed to a negative health behavior, then fear appeals are likely to make them react defensively to shut out the message. However, if one's involvement with the negative health behavior is "light" or occasional, rather than habitual, then fear appeals may be more likely to motivate action rather than raise defensive mechanisms. This section will use a variety of psychological and behavioral theories to support this contention, and explain why fear appeal messages are less likely to be successful with high-risk individuals who are already heavily committed to a negative behavior.

According to psychological reactance theory (Brehm 1966), threatening to restrict a person's behavior, or actually eliminating a person's freedom to act, motivates the individual to reestablish the lost or threatened behavior or attitude. Thus, when heavy drinkers are told that they should abstain in certain situations (e.g., when driving), or when smokers are told that their behavior is likely to create health problems, these individuals are likely to see their freedom to indulge in these behaviors as being threatened. This threat may make the individual react negatively or defensively, so that they increase their attachment to the behavior.

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4 The Quebec DUI campaign, mentioned above, is an example of using a high-fear campaign that is directed at those who are less committed to the risk behavior (i.e., who only occasionally engage in DUI).
in question. This could help explain why individuals who frequently engage in DUI behavior may not be receptive to messages which threaten their freedom. These messages may actually have the reverse effect of increasing their attachment to the negative behavior.

If a persuasive message inadvertently arouses emotions other than fear, the effectiveness of the fear appeals may be reduced (Dillard et al. 1996). For example, some fear appeals may also arouse anger, which can inhibit rather than enhance persuasion (Dabbs and Leventhal 1966; Leventhal and Singer 1966; Leventhal, Singer, and Jones 1965). As well, these additional emotions such as anger may be aroused selectively in only some individuals, resulting in different segments reacting differently to the same fear appeal message. It is relatively difficult to design a message with only a fear-arousing component which does not arouse any other emotions in potential message recipients, so this may help explain why fear appeal messages meet with limited success among some target groups.

The theory of perceptual defense (McGinnies, 1949; Schuster and Powell, 1987) offers another explanation about why fear appeals may be ineffective with some segments of people. Consumers either ignore or do not pay attention to messages that are contrary to their own beliefs or that do not interest them (Kline, Miller, and Morrison 1976). This defensiveness, along with the subsequent increases in the individual's anxiety level, is especially present when the consumer is not provided with a method to cope with or help solve the problem (Leventhal, Watts, and Pagano, 1967). Fear about a health topic can reduce the ability to process messages about that topic, suggesting that defensive avoidance is a fear-reducing response (Jepson and Chaiken 1990). The use of moderate fear appeals can have an impact on argument processing, depending on subjects' expectations of the reassurance that would be provided by the message (Gleicher and Petty 1992). This may help to explain why it is extremely difficult to persuade high-risk groups to adopt appropriate coping responses
Chapter Four Using Social Marketing Ads to Attack Maladaptive Coping Responses

(Leventhal, Singer, and Jones, 1965). High-risk groups are already committed to a negative behavior, and may ignore high-fear messages that are contrary to their beliefs.

This then leads to the following question: if fear appeals are not successful (or less successful) among those heavily committed to a negative health behavior, then what approach would work better with this target group? One possible answer would be that in order for a message to work well with a target group that is heavily committed to a negative health behavior, the message must avoid raising defensive mechanisms. A second answer would be that such messages must promote the adoption of appropriate coping responses, and successfully discourage maladaptive coping responses.

Designing Media Campaigns

Designing and implementing effective media campaigns is a difficult task, which can incorporate many different conceptual perspectives. Table 4.1 indicates the most commonly used conceptual foundations for media campaigns (Winett, Altman, and King 1990).
There are also many models that have been developed to explain the workings of health communication messages (Albert 1981). Among these are Social Learning theory (Bandura 1977b), the Health Belief model (Beck 1974; Rosenstock 1974), the PRECEDE model (Green et al. 1980), and the Fishbein/Ajzen Theory of Reasoned Action model (Fishbein and Ajzen 1975; Ajzen and Fishbein 1980). These models have been compared with one another elsewhere (Hecker and Ajzen 1983; Mullen, Hersey, and Iverson 1987; Oliver and Berger...
1979; Prentice-Dunn and Rogers 1986), and are often used in combination with one another to improve explanatory power (e.g., Gonzalez 1989; Rosenstock, Strecher, and Becker 1988; Sutton 1987). These models will be outlined here briefly, in the context of DUI as a problem behavior.

**Social Learning Theory**

Social learning theory has been advocated to help change addicted behavior and reorient the processing of risk information in a more objective fashion (Bandura 1977b; Petty, Baker, and Gleicher, 1991). This can be accomplished through developing new skills, actions, and enhanced self-perceptions in the modeling of behavioral consequences. In the DUI context, this would suggest that individuals who engage in DUI behavior might need to develop a new repertoire of skills to handle potential DUI situations (e.g., taking a bus or taxi home, asking a friend to drive them home, asking a friend if they can stay overnight, etc.). However, in order to convince an individual to undertake these new behavioral skills, it might be necessary to first convince them that their old method of dealing with the situation is not effective. For someone who frequently engages in DUI, this would mean that it would be necessary to convince them that the maladaptive coping responses that they have used in the past, such as taking side streets home or driving more slowly, are relatively ineffective in avoiding the negative consequences of DUI.

**The Health Belief Model**

The Health Belief Model (Beck 1974; Rosenstock 1974) is often used to examine and predict responses to health-related issues. Key elements in this model include perceived susceptibility, perceived severity, perceived benefits of action, and perceived barriers to action,
all of which combine to determine the likelihood of taking the recommended preventive health action (see Figure 4.1). The Health Belief Model posits that individuals who are more likely to adopt preventive behaviors are those who believe that they are personally susceptible to the target disease, that the consequences of having the disease would be severe, and that the benefits of engaging in preventive actions outweigh the barriers. This suggests that it would be necessary to convince those that engage in DUI behavior that they are susceptible to being injured in a DUI-related accident, that this would be a serious occurrence, and that there are substantial benefits to be gained from preventing DUI from occurring. However, it would clearly be easier to convince those who only occasionally engage in DUI than it would be to convince individuals who repeatedly engage in DUI. Therefore, the Health Belief Model can predict which segments will be more likely to adopt the preventive behavior, but is not
necessarily useful in designing campaigns which will persuade the most at-risk segment.

The Health Belief Model has been applied to many health-related behaviors, including AIDS prevention (Brown, DiClemente, and Reynolds 1991; Montgomery et al. 1989; Petosa and Jackson 1991; Petosa and Wessinger 1990, 1989-90; Rosenthal, Hall, and Moore 1992; Walter et al. 1993; Wilson, Manual, and Lavelle 1991), contraceptive use (Lowe and Radius 1978), children's drug use attitudes and behaviors (Almarsdottir and Bush 1992), alcohol and drug education (Gonzalez 1988), drinking and driving prevention (Albert and Simpson 1985), smoking prevention (Ferraro 1990), and preventive dental behavior (Chen and Land 1986), among others. However, a meta-analysis of studies which used the Health Belief Model found weak effect sizes and lack of homogeneity, which indicate that it would be premature to draw conclusions about the predictive validity of the Health Belief Model (Harrison, Mullen, and Green 1992).

The PRECEDE Model

The PRECEDE model of health education (Green et al. 1980) suggests that the behavioral antecedents of health problems are predisposing factors, enabling factors, and reinforcing factors. The predisposing factors include one's beliefs, attitudes, values and perceptions, which can facilitate or hinder personal motivation for change. Enabling (or disenabling) factors are barriers created by societal forces or systems, such as limited facilities, inadequate personnel, or restrictive laws. Enabling factors include the structure of the environment or community and an individual's situation that facilitates or presents obstacles to change. Reinforcing factors are those related to the feedback which the learner receives, which will either encourage or discourage behavioral change. Reinforcing factors include the positive or negative effects of adopting the behavior (including social support) that influence
continuing the behavior.

Behavioral change will not proceed until the attitudes which underlie the motivation to perform (or not perform) health-related behaviors are changed. These three factors all require that the individual be considered in the context of their community and social structures, and not in isolation, when planning communication or health education strategies. In the DUI context, this again suggests that changing DUI behavior will be easier among individuals who only occasionally engage in DUI than among those who frequently or repeatedly engage in DUI.

**The Theory of Reasoned Action**

The Theory of Reasoned Action model (Fishbein and Ajzen 1975; Ajzen and Fishbein 1980) has been advocated for predicting health behavior, and as a means of planning public service messages (Evans 1978). This model suggests that one’s behavioral intentions and actions are determined by one’s attitudes toward the behavior. This suggests that rather than behavior being predicted by broad attitudes, behavior can be better predicted by more specific attitudes toward a specific behavior. In a health promotion context, this would suggest that one’s specific attitudes toward one’s own nutritional habits would be a better predictor of one’s eating habits than one’s more general attitude toward healthy behaviors. The specificity of the attitude must match the specific behavior, in order to provide predictive power.

In the DUI context, this model suggests that there would be a substantial correlation between an individual’s intention to DUI and their subsequent DUI behavior. To change the DUI behavior, it would be necessary to somehow change the individual’s intention to engage in DUI behavior. The model is not specific about how this attitude change is best accomplished, but it is clear that the specific attitude must change in order for the behavior
to change.

Review of Protection Motivation Theory

The Protection Motivation (PM) model (Rogers 1975, 1983) was reviewed in detail in Chapter One when various theories of fear appeals were introduced. However, because the tenets of the model are important in outlining the proposed alternative theoretical approach, the PM/OPM models will be reviewed here briefly.

![Protection Motivation Model](image)

Figure 4.2 Protection Motivation Model (Rogers 1975, 1983)

The Protection Motivation model (see Figure 4.2) suggests that fear-arousing persuasive messages are comprised of: (1) the fear-arousing information about the threat, and (2) advice about how to best cope with the threat. Whether or not the viewer acts on the coping advice, or chooses a maladaptive coping response (e.g., ignoring the threat, discounting the probability of occurrence, etc.) is mediated by four cognitive appraisal processes. These four processes are appraisals of: (1) the available information about the perceived severity of the threat; (2) the perceived probability that the threat will occur; (3) the perceived ability of the recommended coping response to remove the threat (response efficacy); and (4) the individual’s perceived ability to carry out the recommended coping response (self efficacy).
Chapter Four Using Social Marketing Ads to Attack Maladaptive Coping Responses

It is common for fear-arousing communications, such as social marketing ads, to include both threat information and coping information. The threat is used to arouse a level of fear in the message recipient, and then the coping information is presented as the recommended behavior which the message recipient should undertake in order to reduce that level of fear (Rogers 1975, 1983). However, if the message recipient perceives that the recommended coping response will be ineffective, or that he/she will personally be unable to effectively carry out the recommended coping response, then he/she may either begin or continue to engage in maladaptive coping responses instead.

In the DUI context, the protection motivation model suggests that the individual must first be presented with some fear-arousing information about DUI. It is clear from this that the type of threat will be important, since it must be considered to be fear-arousing by the message recipient. For example, in the DUI context there are two possible types of threats: (1) getting into an accident and harming oneself/others/one’s car; and (2) being caught by the police. The first threat (getting into an accident) also implies being caught by the police. The second threat, being caught by the police, has negative legal consequences which may range from losing one’s driver’s license, to a fine, to a jail sentence. While both of these may be considered to be fear-arousing, it is possible that different subjects may react differently to

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5 Different people may experience different levels of fear-arousal from the same stimuli.

6 The focus group research undertaken in Chapter Six shows that young men who engage in DUI behavior are far more concerned about being caught by the police than they are about getting into an accident. Their reason for this is that if they felt they were not capable of driving safely and avoiding an accident, they would not get into the car at all. Having gotten into their car, they have decided that they are sufficiently sober to drive, and therefore their only concern is about being caught by the police.

7 If a DUI is involved in an accident, the police will inevitably be involved and the DUI will be caught (unless it is a hit-and-run accident where the DUI flees the scene).
these two threats.

Next, the protection motivation model suggests that the message recipient should be provided with some information about how best to cope with the threat (i.e., some adaptive coping advice). Whether or not the individual acts on the coping advice, or whether they instead choose to undertake a maladaptive coping strategy, will depend on the four mediating processes described above. The individual will make an assessment of the available information about the perceived severity of the threat. The individual will also assess the perceived probability that the threat will occur. These two assessments will influence the degree of fear-arousal that is experienced.

Further, the individual will assess the perceived ability of the recommended coping response to remove the threat. For example, if the message recommends taking a taxi home, how effective a strategy is this for coping with the threatening consequences of DUI? Generally, most coping advice is considered to be fairly effective at removing the threatening consequences of DUI; however, the problem arises with the individual's perceived ability to carry out the recommended coping response. If the individual is short of money, taking a taxi home may not be a feasible alternative, and the individual may not be able to carry out the recommended coping response.

The main problem with using fear-arousing communications lies in the fact that individuals in the high-risk category are already committed to their maladaptive coping responses, having found them effective many times in the past. They do not believe that new adaptive coping responses will be more effective than their maladaptive coping responses. Therefore, it seems necessary to show these individuals that their maladaptive coping responses do not, in fact, work as well as they might think.
An Alternative Approach: Counteracting Maladaptive Behavior in High-Risk Individuals

Maladaptive coping responses reduce the level of fear, without actually reducing the level of danger (Rippetoe and Rogers 1987). Maladaptive coping responses can include simply ignoring the threat, minimizing the severity of the threat, minimizing the probability of the threat occurring, or engaging in coping actions whose efficacy is questionable. For example, Tanner, Hunt, and Eppright (1991) provide a scale of STD (sexually transmitted disease) maladaptive coping responses which includes items such as: (1) developing a belief that there is nothing one can really do to prevent it; (2) nurturing a belief that all STDs can be cured; (3) believing that the possibility of getting an STD is minimal; or (4) believing in an ability to choose STD-free partners. What these maladaptive coping responses have in common is that they either reduce the perceived size of the threat, or they inflate the perceived efficacy of a questionable coping action.

Previous studies have shown the difficulty of convincing the most at-risk group to adopt the appropriate adaptive coping response\(^8\) (e.g., Leventhal, Singer, and Jones 1965). This difficulty may be due to strong maladaptive coping responses which the high-risk behavioral group (e.g., heavy smokers, heavy drinkers) have adopted previously in similar threatening situations (Tanner, Hunt, and Eppright 1991). These previous threatening situations might include times when they have experienced some fear arousal upon being advised of the negative consequences of their behavior. In order to cope with the fear which is aroused, maladaptive coping responses may have been learned and repeated many times. Since the

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\(^8\) The greatest social benefit can, however, be gained from persuading this most at-risk group to change their behavior. For example, there is a much greater social benefit that can be won by changing the behavior of 100 people who frequently engage in DUI behavior than there would be from changing the behavior of 100 people who only occasionally engage in DUI behavior. On the other hand, is undoubtedly easier to change the behavior of those who only occasionally engage in DUI, because they are less committed to the behavior.
dangers associated with many negative health behaviors are well known to those who engage in such behaviors, it seems likely that members of the high-risk behavioral group are very adept at using maladaptive coping responses to negate the level of threat.

Figure 4.3 Adaptive and Maladaptive Coping Responses under the OPM Model

Figure 4.3 illustrates a case of a social marketing ad for DUI. The adaptive behaviors prescribed by the social marketing ad might be to "avoid drinking and driving" (or "don't drink," particularly for teenagers), "choose a designated driver", or "take a bus," or "take a taxi." However, individuals who have the highest behavioral risk (i.e., those who regularly engage in DUI) are unlikely to be persuaded to adopt these recommended adaptive coping responses, and are likely to counterargue against them by saying that the recommended adaptive coping responses are "boring/no fun," or that "it's too difficult to plan ahead," or that
"taking a taxi is too expensive." This high-risk behavioral group will have developed a number of maladaptive coping responses over time, to deal with their fears surrounding DUI. These maladaptive coping responses might include beliefs like, "There is nothing I can do about it because I need to get home," "Chances of getting caught are minimal," or "The penalties for DUI are small." Another maladaptive coping response might be a behavior which the individual believes he/she can engage in successfully as a means of avoiding being caught for DUI, such as driving more slowly, or taking the side streets home. Figure 4.3 illustrates how a person can choose from a number of adaptive coping responses and maladaptive coping responses (beliefs or behaviors) to deal with their fears related to getting caught for DUI.

Figure 4.4: Ordered Protection Motivation model (Tanner, Hunt, and Eppright 1991)

In order to effectively persuade the high-risk behavioral group, it might be useful for

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9 The individual may recognize the risk of DUI, but simply thinks that the maladaptive coping response is the most appropriate response for reducing the risk.
social marketing ads to present counterarguments against the most common types of maladaptive coping responses (i.e., a 'MALADAPT' ad). If presenting such counterarguments against maladaptive coping responses enhances the persuasiveness of social marketing ads (as measured by changes in attitudes and behavioral intentions), particularly in the case of the high-risk behavioral group, this would provide an interesting segmentation perspective for the Protection Motivation (PM) model (Rogers 1975, 1983) and the Ordered Protection Motivation (OPM) model (Tanner, Hunt, and Eppright 1991; reproduced in Figure 4.4). Understanding the impact of using counterarguments against maladaptive coping responses would also enhance the prescriptive abilities of the PM and OPM models, and be useful in providing guidelines to social marketers.

Why would giving counterarguments against maladaptive coping responses be useful in changing attitudes and behavior of the high-risk behavioral group? By counterarguing against maladaptive coping responses, it may be possible to reduce reliance on these responses in favor of adopting the recommended adaptive coping response.

The structural model outlined in Figure 4.5 highlights the relationships between some of the components of the OPM schema. Although this structural model will not be examined in the present research, a future study could be developed which would test the strength of the relationships in this model.

As shown in Figure 4.5, it is expected that Attitude toward the high-risk behavior would be the result of three other attitudinal factors: Attitude toward the negative consequences resulting from the behavior, Attitude toward the recommended coping response(s), and Attitude toward the maladaptive coping response(s). Factors correlated with
having a negative *Attitude toward the high-risk behavior*\(^{10}\) are: (1) having a negative attitude toward (i.e., being highly concerned about) the negative consequences; (2) having a positive attitude toward the recommended coping responses; and (3) having a negative attitude toward the maladaptive coping responses.

Based on this structural model, it can be seen that in order to change *Attitude toward the high-risk behavior*, it is necessary to change one of the three contributing Attitudes. Social marketers can attempt to make the *Attitude toward the negative consequences* increasingly

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\(^{10}\) Having a *negative attitude toward the risky behavior* implies that the individual is not likely to personally engage in the behavior, and does not condone the behavior in others. In the case of DUI, the individual who has a negative attitude toward DUI would be unlikely to personally engage in DUI, would not have intentions to engage in DUI, and would not condone DUI behavior in others.
negative (via the use of fear appeals). Alternatively, social marketers could improve *Attitude toward the recommended coping response*, by making the coping response seem more socially acceptable or easier to do. Finally, social marketers could attempt to reduce the favorability of *Attitude toward the maladaptive coping responses*, making these alternatives seem less viable as coping mechanisms.

Fear appeals attempt to increase the salience of the negative consequences, thereby making the *Attitude toward the negative consequences* even more negative. This strategy is likely to meet with success in individuals who already have a strong negative attitude toward the consequences (i.e., are already very concerned about the negative consequences). However, in individuals who use strong defensive mechanisms to deny the negative consequences, this fear appeal communication strategy is unlikely to be effective. For this reason, fear appeals are unlikely to work well on individuals who already repeatedly engage in high-risk behavior.

It is posited in this thesis that a more successful strategy with individuals in the high-risk behavioral group would result from using social marketing ads to attack the maladaptive coping responses. If the favorability of their *Attitude toward the maladaptive coping responses* can be reduced, then it is likely that this will reduce the favorability of their *Attitude toward the high-risk behavior*, and ultimately reduce the incidence with which they engage in the risky behavior.

Based on the preceding discussion, the following hypotheses are proposed:

H1 Among the high-risk behavioral group, MALADAPT ads will be more effective than OPM ads in changing attitudes in the desired direction.
This first hypothesis suggests that ads using what will be termed the MALADAPT format (i.e., containing arguments that counteract maladaptive coping responses) will be more effective with the high-risk behavioral group. The reason for this is that ordinary fear appeal ads are tuned out by this target group through defensive mechanisms. Since the high-risk target group has repeatedly engaged in their risky behavior and uses maladaptive coping responses to avoid the negative consequences of engaging in this behavior, one way to reduce the incidence of the behavior is to attack the maladaptive coping responses in the advertising message.

H2 Among the low-risk behavioral group, OPM ads (which follow the OPM format of threat, coping advice, self efficacy information) will be more effective in changing attitudes in the desired direction than MALADAPT ads (which contain counterarguments against maladaptive coping responses).

This second hypothesis suggests that the traditional OPM ads, which follow the OPM format of providing a threat, coping advice, and self efficacy information, will be more effective in changing attitudes\textsuperscript{11} and behavioral intentions in the low-risk behavioral group than the MALADAPT ads would be. The reason for this is that the MALADAPT ads contain counterarguments against maladaptive coping responses; the low-risk behavior group rarely or never engages in the risky behavior, and so has not developed a repertoire of maladaptive coping responses. Therefore, an ad counteracting these maladaptive coping responses will be ineffective with the low-risk behavioral group.

\textsuperscript{11} It should be noted that the low-risk group may already have very negative attitudes toward DUI. If this is the case, then there may be little room for the attitudes and behavioral intentions of this group to change, creating a potential ceiling effect.
H3a Among the high-risk group, the MALADAPT ad treatment group will show a greater degree of change in attitudes than the control group.

H3b Among the high-risk group, the OPM ad treatment group will show a greater degree of change in attitudes than the control group.

In order to show that both the OPM and MALADAPT treatments are truly effective, a control group will be used. Results of changes in attitudes and behavioral intentions for the two experimental groups will be compared with that obtained for the control group, in order to show the effectiveness of the treatments.

The above-stated hypotheses will be tested in an exploratory experiment, which makes use of DUI ads and paper-and-pencil measures. The methodology and results of this experiment are outlined in detail in Chapter Five.
CHAPTER FIVE

THE OPM MODEL AND MARKET SEGMENTS:
AN EXPLORATORY STUDY USING DUI PRINT ADS
At the conclusion of Chapter Four several hypotheses were outlined. Chapter Five will outline the objectives, methodology, and results of the exploratory study that was conducted using DUI print ads, which was intended to test these hypotheses.

Objectives

The main goal of this research is to examine the effectiveness of including counterarguments against maladaptive coping responses within a social marketing ad message, particularly in terms of its impact on a high-risk target group. The reasoning behind this is that different behavioral segments may react differently to fear appeals. It is thought that a high-risk segment might be particularly prone to react negatively or defensively when faced with a fear appeal message, so a different approach (i.e., counteracting maladaptive coping responses) may be more effective with the high-risk segment. It is expected that this research will be of academic interest, as well as being of practical significance.

Experiment Methodology

This section will outline the experimental design and procedures that will be used to test the hypotheses outlined at the conclusion of Chapter Four.
Experiment Overview

The design of this experiment was a 3 (ad types) x 2 (risk groups) between-subjects experiment. The three ad types (OPM, MALADAPT, and CONTROL) represented the three experimental conditions. The two risk groups were determined on the basis of their answers to a particular questionnaire item.¹ This experimental design resulted in a total of six cells, two of which were CONTROL group cells. Subjects were asked to view one ad, and then were asked to fill out a questionnaire. The entire procedure took approximately 15 minutes. Analysis of the data made use of ANOVAs.

Targeted behavior

The targeted behavior for this study was driving under the influence (DUI). DUI was chosen as the behavior for several reasons: (1) drinking and driving is considered to be a relatively common problem among college aged youth; (2) there was likely to be a reasonably high incidence of drinking and driving in the sample, so that it would not be too difficult to fill the high-risk behavior cells; (3) there are well-known maladaptive coping responses that are associated with drinking and driving; (4) there is a large literature on drinking and driving; and (5) there is a large body of advertising that has been developed to combat drinking and driving.

¹ Determining DUI status on the basis of a single questionnaire item proved to be somewhat problematic, as will be shown later on. The questionnaire item asked about DUI behavior during the past month, which meant that those who hadn't engaged in DUI during the last month were classified as DUI-NO (even if it was their usual practise to engage in DUI). Furthermore, anyone who had engaged in DUI during the past month was classified as DUI-YES (even if it was their first time, or an unusual occurrence for them). These are two situations where individuals may have been inappropriately classified into DUI categories. As well, the criterion of having engaged in DUI during the past month proved to be a fairly stringent one, which severely limited the sample size. This problem was addressed in the follow-up study in Chapter Seven, where a multi-item indicator of DUI behavior was used.
Social Marketing Advertising Stimuli

The social marketing advertising stimuli that were used for this experiment consisted of print ads against drinking and driving. Print ads were chosen (rather than television or radio ads) for several reasons: (1) print ads are much less costly to create than television or radio ads; (2) print ads are readily adaptable to each of the experimental conditions; (3) much of the previous work on fear appeals has dealt with printed materials, so the use of print ads makes the results more readily comparable with previous work.

Two different versions of the DUI ad were developed, corresponding with the OPM and MALADAPT conditions. As well, a CONTROL group ad version was produced which dealt with AIDS prevention. These ads were loosely based on other DUI and AIDS prevention ads which were available. The ads were developed through discussion with colleagues. They were pretested as part of the questionnaire, but were not pretested separately prior to the questionnaire pretest.

The OPM ad followed the tenets of the Ordered Protection Motivation model, and included the following four prescribed elements: (1) information about the threatening consequences of the targeted behavior (i.e., fear-arousing information); (2) advice about the recommended coping behavior (i.e., what to do to avoid the threatened consequences); (3) reassurance that the recommended coping behavior would be effective (i.e., efficacy message); and (4) reassurance that the message recipient could carry out the coping behavior effectively (i.e., self efficacy message). The OPM ad is shown in Figure 5.1.
If you drink and drive, you put yourself at risk. Risk of losing your license or getting a jail sentence. But it’s not just yourself you put at risk... there are passengers, other drivers, and pedestrians to consider. Think about how you would feel if you killed someone...

So avoid drinking and driving. Take a bus or a taxi instead. Or choose a designated driver. It's that easy.

Do your part. You can beat the drinking and driving problem.
The MALADAPT ad was designed to be similar in appearance and content to the OPM ad, in order to ensure equivalency of the two experimental conditions. However, the threat information was replaced with counterarguments against engaging in maladaptive coping responses. All other elements of the ad remained the same. The MALADAPT ad is shown in Figure 5.2.
If you drink and drive, you probably have some strategies that reduce the risk -- you hope... Like driving down side streets. Or driving more slowly. The risks are small, you think. But is the risk really so small? And is it worth the risk at all? Maybe not...

So avoid drinking and driving. Take a bus or a taxi instead. Or choose a designated driver. It's that easy.

Do your part. You can beat the drinking and driving problem.
Table 5.1 gives a brief summary of the contents of these two ads.

<table>
<thead>
<tr>
<th>Table 5.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ad Copy Design</td>
</tr>
<tr>
<td>Ad Elements</td>
</tr>
<tr>
<td>&quot;OPM&quot; Ad</td>
</tr>
<tr>
<td>&quot;MALADAPT&quot; Ad</td>
</tr>
<tr>
<td>MANIPULATION:</td>
</tr>
<tr>
<td>Fear appeal vs. counter-arguing against maladaptive behavior</td>
</tr>
<tr>
<td>COPING RESPONSE</td>
</tr>
<tr>
<td>EFFICACY OF COPING RESPONSE</td>
</tr>
<tr>
<td>SELF EFFICACY REASSURANCE</td>
</tr>
</tbody>
</table>

The CONTROL group ad was designed to appear similar to the OPM and MALADAPT ads; however, the CONTROL group ad concerns a behavior which is unrelated to DUI. For the purpose of this experiment, the CONTROL group ad was an ad for AIDS prevention. This ad had the same graphic as the DUI ads, and appeared to be quite similar. The CONTROL group ad is shown in Figure 5.3.
If you engage in unprotected sex with new partners, you probably have some strategies that reduce the risk -- you hope... Like choosing partners who seem "nice" or "clean." Or dating someone a few times before engaging in sex. The risks are small, you think. But is the risk really so small? And is it worth the risk at all? Maybe not...

So avoid unprotected sex. Always use a latex condom. It's that easy.

Do your part. You can beat the AIDS problem.

Figure 5.3  CONTROL Ad
Chapter Five  The OPM Model and Market Segments: An Exploratory Study Using DUI Print Ads

Treatment Groups

The three ads (OPM, MALADAPT, and CONTROL) represent the three experimental conditions:

1. "OPM" ad for DUI (threat, coping advice, self efficacy reassurance)
2. "MALADAPT" ad for DUI (counterarguments against maladaptive coping responses)
3. CONTROL Group - ad for AIDS prevention

The experimental design, including the number of participants in each experimental cell, is shown in Table 5.2.

<table>
<thead>
<tr>
<th>Targeted Behavior</th>
<th>OPM Ad</th>
<th>MALADAPT Ad</th>
<th>CONTROL Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-risk behavioral group (DUI-YES)</td>
<td>10</td>
<td>8</td>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td>Low-risk behavioral group (DUI-NO)</td>
<td>42</td>
<td>42</td>
<td>31</td>
<td>115</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>50</td>
<td>36</td>
<td>138</td>
</tr>
</tbody>
</table>

Whether or not an individual was deemed to be a member of the DUI group depended upon their answer to Question #4 on the data collection instrument: "Within the last month, how many times, in total, have you driven a vehicle after having more than two drinks within two hours prior to driving?" If the subject answered one or more times, then they were considered to be in the DUI-YES condition; if the subject answered zero they were considered to be in the DUI-NO condition. One problem with this definition of DUI was that less than
One concern about the use of self-report data to determine DUI category relates to a possible social desirability bias. Individuals may under-report their DUI behavior because they are embarrassed to have it known that they engage in this socially undesirable behavior. Two actions were taken in this experiment in order to counter-act this possible effect. First, subjects were repeatedly reassured about the confidentiality of the results in the introduction to the experiment, so that they would not be concerned about having their behavior become known. The consent forms which contained subjects’ names were removed from the questionnaires as each subject handed in his/her questionnaire, so that subjects would feel confident that their anonymity was being preserved. Also, the questionnaires and consent forms were placed in separate piles and shuffled thoroughly in the classroom at the conclusion of each experimental session, so that subjects would feel confident that it was not possible to match up their consent forms with the their questionnaires. Secondly, the question about DUI behavior was worded in such a way that it did not mention DUI or drinking and driving. Instead, it simply asked subjects whether they had driven during the past month immediately after having had two drinks within two hours. Answering yes to this question meant that the individual was probably over the legal limit when they drove on that particular occasion; however, the question did not attach a stigma to this behavior by calling it "DUI" or "drinking and driving." By instituting these experimental procedures it was expected that self-reporting

2 A follow-up experiment would relax this criteria somewhat by including individuals who had engaged in DUI behavior at least once in the past year.

3 A total of 23 out of 138 subjects (16.7%) admitted that they had engaged in DUI during the past month. This is very similar to the percentage obtained in the experiment described in Chapter Seven, where 17.5% of the subjects admitted to engaging in DUI during the past month. As well, in the experiment in Chapter Seven a total of 41.5% of subjects admitted to engaging in DUI within the past year, and 48.0% admitted to engaging in DUI sometime
Chapter Five  The OPM Model and Market Segments: An Exploratory Study Using DUI Print Ads

of DUI behavior would be fairly accurate.

Sample

The experiment used a convenience sample of 138 undergraduate business students from Concordia University (78 males, 60 females). The participants consisted of students in several undergraduate marketing classes. The study was conducted at the beginning of the class, but participants were not under any obligation to participate. Participants were not offered any incentive for their participation, but nonetheless participation was in excess of 95%. Individuals were randomly assigned to each of the three experimental conditions (i.e., two different ad types and CONTROL group). As described above, individuals were assigned to the basis of the two risk groups on the basis of their response to Question 4.

Developing the data collection instrument

The preliminary version of the data collection instrument for this experiment was developed based on existing instruments used in other studies (i.e., Gorn, Chattopadhyay, Yi, and Dahl forthcoming; Gorn, Lavack, Pollock, and Weinberg 1996; Tanner, Hunt, and Eppright 1991). The data collection instrument was refined through discussions with research colleagues prior to being used in this study, and pretested on a sample of 28 subjects.

The questionnaire included items on subjects’ participation in and attitude towards DUI. Questions were also asked about their use of and attitude toward various coping responses. Demographic information included gender and fluency in English, and these items were placed at the end of this questionnaire. As a final question, subjects were also asked what they within the past five years. These relatively high rates of admitting DUI behavior diminish the likelihood that there could be significant under-reporting of DUI behavior.

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perceived the purpose of the study to be. A copy of the questionnaire for each of the three experimental conditions is included in Appendix 5.

**Research Results**

**The Sample**

A total of 138 subjects (78 males, 60 females) participated in the experiment. The distribution of subjects among the experimental cells is shown in Table 5.3.

<table>
<thead>
<tr>
<th></th>
<th>OPM</th>
<th>MALADAPT</th>
<th>CONTROL</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUI-NO</td>
<td>42</td>
<td>42</td>
<td>31</td>
<td>115</td>
</tr>
<tr>
<td></td>
<td>80.8%</td>
<td>84.0%</td>
<td>86.1%</td>
<td>83.3%</td>
</tr>
<tr>
<td>DUI-YES</td>
<td>10</td>
<td>8</td>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>19.2%</td>
<td>16.0%</td>
<td>13.9%</td>
<td>16.7%</td>
</tr>
<tr>
<td>N</td>
<td>52</td>
<td>50</td>
<td>36</td>
<td>138</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

There was no significant difference between the three conditions (OPM, MALADAPT, and CONTROL) as to the percentage of DUI individuals in each group (chi-square=0.462, d.f. =2, p=0.794).

**Scales**

Based on an initial pretest sample of 28 subjects, several factor analyses were run on the 18 items measuring various aspects of attitude toward the ad ($A_{Ad}$). When the 18 items did not neatly break down into a factor pattern, the exercise was repeated with 15 items and then with 12 items (discarding the items which seemed to least fit into the factor pattern).
Based on this exercise on a small sample, it was determined that a 3-factor pattern using 12 items provided the best fit. This 3-factor pattern thereby provided 3 scales as follows: FEAR_AVG was comprised of six scale items: "unhappy," "afraid," "worried," "anxious," "threatened," and "fearful." AAD (attitude toward the ad) was comprised of the following three scale items: "good," "pleasant," and "likeable." CALM_AVG was comprised of the following three scale items: "calm," "relaxed," and "soothed." The other six items, "stimulated," "bored," "irritated," "excited," "annoyed," and "concerned," did not fit neatly into a factor pattern, and thus were excluded from the analysis.

When the factor analyses were replicated with the full sample of 138 subjects, this same 3-factor pattern incorporating the 12 items again provided the best fit. There were three eigenvalues greater than one, indicating that a 3-factor pattern was appropriate, and the rotated factor pattern loaded each variable on its appropriate factor. Table 5.4 shows the rotated 3-factor solution that was obtained.
Table 5.4
Rotated Factor Pattern

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNHAPPY</td>
<td>0.636</td>
<td>-0.094</td>
<td>-0.019</td>
</tr>
<tr>
<td>AFRAID</td>
<td>0.791</td>
<td>0.191</td>
<td>0.004</td>
</tr>
<tr>
<td>WORRIED</td>
<td>0.846</td>
<td>0.165</td>
<td>0.062</td>
</tr>
<tr>
<td>ANXIOUS</td>
<td>0.689</td>
<td>0.040</td>
<td>0.112</td>
</tr>
<tr>
<td>THREATEN</td>
<td>0.766</td>
<td>-0.084</td>
<td>-0.005</td>
</tr>
<tr>
<td>FEARFUL</td>
<td>0.895</td>
<td>0.027</td>
<td>-0.055</td>
</tr>
<tr>
<td>GOOD</td>
<td>0.174</td>
<td>0.827</td>
<td>0.023</td>
</tr>
<tr>
<td>PLEASANT</td>
<td>-0.058</td>
<td>0.831</td>
<td>0.150</td>
</tr>
<tr>
<td>LIKEABLE</td>
<td>-0.000</td>
<td>0.878</td>
<td>0.068</td>
</tr>
<tr>
<td>CALM</td>
<td>-0.051</td>
<td>0.121</td>
<td>0.877</td>
</tr>
<tr>
<td>RELAXED</td>
<td>-0.051</td>
<td>-0.018</td>
<td>0.853</td>
</tr>
<tr>
<td>SOOTHEED</td>
<td>0.119</td>
<td>0.095</td>
<td>0.521</td>
</tr>
</tbody>
</table>

% of Total Variance Explained: 30.506% 18.773% 15.136%

Total Variance Explained: 64.415%

Another factor analysis was conducted on the seven items measuring attitudes toward DUI (Questions 8 through 14 on the questionnaire). This factor analysis indicated a two-factor solution with four of the items loading neatly on one factor with high factor loadings (Questions 9, 10, 11, and 12); however, the other three items did not fit neatly into the second factor.

Reliability Analysis

To confirm the validity of the scales derived from the factor analyses, the Cronbach alpha statistic was calculated for each of the four scales discussed above. Table 5.5 shows that all of the scale reliabilities were above 0.70, indicating that the scales are quite reliable.
Table 5.5
Cronbach Alpha Scale Reliability Measures

<table>
<thead>
<tr>
<th>SCALE</th>
<th>SCALE ITEMS</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear scale (FEAR)</td>
<td>Fearful, Worried, Anxious, Threatened, Afraid, Unhappy</td>
<td>.8948</td>
</tr>
<tr>
<td>Calm scale (CALM)</td>
<td>Calm, Relaxed, Soothed</td>
<td>.7901</td>
</tr>
<tr>
<td>Attitude toward the ad scale (AAD)</td>
<td>Bad - Good, Unpleasant - Pleasant, Not Likeable - Likeable</td>
<td>.8842</td>
</tr>
</tbody>
</table>
| Attitude toward DUI offenders (ATT_DUI2) | - There should be more educational programs to teach people about the dangers of drinking and driving.  
|                      | - The police should set up more roadblocks                       |                |
|                      | - Drinking drivers should be reported to the police.             |                |
|                      | - Drinking drivers deserve the fine(s)/punishments they get.    | .7416          |

Given that these scales have proven to be fairly reliable (Cronbach alpha > 0.70), they will be used in the analysis of the data.

Manipulation Check

It was expected that the OPM ad should elicit a higher level of fear than the MALADAPT ad. However, when the 6-item FEAR_AVG scale was analyzed with an ANOVA, it did not yield any discernable difference between the three groups, nor was there any significant difference in the reaction of DUI versus non-DUI subjects. The cell means are shown in Table 5.6a and the results of this ANOVA analysis are shown in a 3 x 2 ANOVA in Table 5.6b.
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Table 5.6a
Cell Means: FEAR_AVG ANOVA

<table>
<thead>
<tr>
<th></th>
<th>OPM</th>
<th>MALADAPT</th>
<th>CONTROL</th>
<th>GRAND MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUI-NO</td>
<td>3.54</td>
<td>3.22</td>
<td>3.59</td>
<td>3.43</td>
</tr>
<tr>
<td></td>
<td>n=42</td>
<td>n=42</td>
<td>n=31</td>
<td>n=115</td>
</tr>
<tr>
<td>DUI-YES</td>
<td>3.95</td>
<td>3.35</td>
<td>3.13</td>
<td>3.57</td>
</tr>
<tr>
<td></td>
<td>n=10</td>
<td>n=8</td>
<td>n=5</td>
<td>n=23</td>
</tr>
<tr>
<td>GRAND MEAN:</td>
<td>3.62</td>
<td>3.24</td>
<td>3.53</td>
<td>3.46</td>
</tr>
<tr>
<td></td>
<td>n=52</td>
<td>n=50</td>
<td>n=36</td>
<td>n=138</td>
</tr>
</tbody>
</table>

Table 5.6b
2 x 3 Analysis of Variance OF FEAR_AVG Variable
By DUI Category (2) and Experimental Group (3)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>3.787</td>
<td>2</td>
<td>1.893</td>
<td>0.497</td>
<td>0.609</td>
</tr>
<tr>
<td>DUI Category</td>
<td>0.274</td>
<td>1</td>
<td>0.274</td>
<td>0.072</td>
<td>0.789</td>
</tr>
<tr>
<td>Group x DUI Category</td>
<td>2.140</td>
<td>2</td>
<td>1.070</td>
<td>0.281</td>
<td>0.756</td>
</tr>
<tr>
<td>Error</td>
<td>502.764</td>
<td>132</td>
<td>3.809</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An examination of the cell means in Table 5.6a shows that there is very little difference between the means for the DUI-NO and DUI-YES conditions. Furthermore, the ANOVA failed to result in any statistically significant main effects or interaction effects (Table 5.6b).

As a next step, the six separate items comprising FEAR_AVG were examined (i.e., UNHAPPY, AFRAID, WORRIED, ANXIOUS, THREATENED, FEARFUL). It was found that none of the six items had a main effect for GROUP or for DUI Category. When the data from the pretest group of 28 subjects had been examined earlier, it had appeared that the FEAR_AVG scale was approaching statistical significance in terms of a main effect for GROUP and DUI Category. However, this was not borne out with the larger sample size. This is a serious problem for this study, because it means that the three conditions are not significantly different in terms of fear-arousal. This suggests that this manipulation of the ad stimuli may not have been conducted appropriately.
The CALM_AVG scale was also examined, to see whether there were differences between groups. It would be expected that the MALADAPT ad would be more calming than the OPM ad. An ANOVA indicated that there was no main effect for experimental condition (see Tables 5.7a and 5.7b).

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>8.482</td>
<td>2</td>
<td>4.241</td>
<td>1.235</td>
<td>0.294</td>
</tr>
<tr>
<td>DUI Category</td>
<td>0.234</td>
<td>1</td>
<td>0.234</td>
<td>0.068</td>
<td>0.794</td>
</tr>
<tr>
<td>Group x DUI Category</td>
<td>16.193</td>
<td>2</td>
<td>8.097</td>
<td>2.359</td>
<td>0.099</td>
</tr>
<tr>
<td>Error</td>
<td>453.138</td>
<td>132</td>
<td>3.433</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Because the OPM and MALADAPT ads are not significantly different in terms of the FEAR_AVG or CALM_AVG scales, this suggests that the ad manipulation may not have been successful. The OPM ad should elicit a higher-fear response than the MALADAPT ad. If this is not the case, then the ads may not be fulfilling their intended roles successfully. This issue must be kept in mind when interpreting the results of this experiment.
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Attitude toward the Ad

An ANOVA was conducted on the Attitude toward the Ad (AAD) scale, to determine whether there were differences between the experimental groups. Tables 5.8a and 5.8b show that there was a main effect for the experimental group (F=2.672, d.f. =2, p=0.073), although the differences between the OPM and MALADAPT conditions are not significant.

<table>
<thead>
<tr>
<th>Table 5.8a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell Means: AAD ANOVA</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>DUI-NO</td>
</tr>
<tr>
<td>n=42</td>
</tr>
<tr>
<td>DUI-YES</td>
</tr>
<tr>
<td>n=10</td>
</tr>
<tr>
<td>GRAND MEAN</td>
</tr>
<tr>
<td>n=52</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 5.8b</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 x 3 Analysis of Variance of AAD Variable By DUI Category (2) and Experimental Group (3)</td>
</tr>
<tr>
<td>Source</td>
</tr>
<tr>
<td>Group</td>
</tr>
<tr>
<td>DUI Category</td>
</tr>
<tr>
<td>Group x DUI Category</td>
</tr>
<tr>
<td>Error</td>
</tr>
</tbody>
</table>

Testing the Hypotheses

The Attitude toward DUI scale (ATT_DUI2) is the measure that is intended to be used to test the hypotheses. An ANOVA on the ATT_DUI2 scale (see Tables 5.9a and 5.9b) indicates that there is a main effect for DUI category, as well as an interaction effect between DUI category and experimental group.

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Table 5.9a

Cell Means: ATT_DUI2 ANOVA

<table>
<thead>
<tr>
<th></th>
<th>OPM</th>
<th>MALADAPT</th>
<th>CONTROL</th>
<th>GRAND MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUI-NO</td>
<td>1.85</td>
<td>1.83</td>
<td>1.67</td>
<td>1.79</td>
</tr>
<tr>
<td></td>
<td>n=42</td>
<td>n=40</td>
<td>n=31</td>
<td>n=113</td>
</tr>
<tr>
<td>DUI-YES</td>
<td>2.07</td>
<td>2.13</td>
<td>3.10</td>
<td>2.31</td>
</tr>
<tr>
<td></td>
<td>n=10</td>
<td>n=8</td>
<td>n=5</td>
<td>n=23</td>
</tr>
<tr>
<td>GRAND MEAN:</td>
<td>1.89</td>
<td>1.88</td>
<td>1.87</td>
<td>1.88</td>
</tr>
<tr>
<td></td>
<td>n=52</td>
<td>n=48</td>
<td>n=36</td>
<td>n=136</td>
</tr>
</tbody>
</table>

Table 5.9b

2 x 3 Analysis of Variance OF ATT_DUI2 Scale
By DUI Category (2) and Experimental Group (3)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>0.002</td>
<td>2</td>
<td>0.001</td>
<td>0.002</td>
<td>0.998</td>
</tr>
<tr>
<td>DUI Category</td>
<td>5.133</td>
<td>1</td>
<td>5.133</td>
<td>9.696</td>
<td>0.002</td>
</tr>
<tr>
<td>Group x DUI Category</td>
<td>4.621</td>
<td>2</td>
<td>2.311</td>
<td>4.364</td>
<td>0.015</td>
</tr>
<tr>
<td>Error</td>
<td>68.826</td>
<td>130</td>
<td>0.529</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The hypotheses are tested via a series of planned t-tests. A summary of the results of these t-tests are shown in Table 5.10, and are further explained below.

Table 5.10

Summary of Hypotheses Tests on ATT_DUI2 Scale

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>$x_1$</th>
<th>$x_2$</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>$\bar{x}_{OPM/YES} = 2.07$</td>
<td>$\bar{x}_{MALADAPT/YES} = 2.13$</td>
<td>0.18</td>
<td>0.862</td>
</tr>
<tr>
<td>H2</td>
<td>$\bar{x}_{OPM/NO} = 1.85$</td>
<td>$\bar{x}_{MALADAPT/NO} = 1.93$</td>
<td>0.16</td>
<td>0.871</td>
</tr>
<tr>
<td>H3a</td>
<td>$\bar{x}_{MALADAPT/YES} = 2.13$</td>
<td>$\bar{x}_{CONTROL/YES} = 3.10$</td>
<td>1.83</td>
<td>0.094*</td>
</tr>
<tr>
<td>H3b</td>
<td>$\bar{x}_{OPM/YES} = 2.07$</td>
<td>$\bar{x}_{CONTROL/YES} = 3.10$</td>
<td>2.13</td>
<td>0.053*</td>
</tr>
</tbody>
</table>

*Hypothesis 1*

Hypothesis 1 states that in the DUI-YES group the MALADAPT ad should be more
effective than the OPM ad in changing attitudes toward DUI. A t-test on the attitude toward DUI (ATT_DUI) scale indicates that among those in the DUI-YES category, there are no significant differences between those who were exposed to the MALADAPT ad versus those exposed to the OPM ad (t=0.18, p=0.862). Given these results, H1 cannot be accepted. However, it must be kept in mind that the sample size is relatively small (10 DUI-YES subjects in the OPM group, 8 in the MALADAPT group, and 5 in the CONTROL group).

Hypothesis 2

Hypothesis 2 states that in the DUI-NO group the OPM condition should be more effective than the MALADAPT condition in changing attitudes. However, this hypothesis was not supported, because there were no significant differences on the Attitude toward DUI (ATT_DUI) scale (t=0.16, p=0.871), as shown above in Table 5.10. A possible reason for this is due to a ceiling effect. Those in the DUI-NO condition already hold fairly negative attitudes toward DUI ($\bar{x}_{OPM/DUI-NO} = 1.85$, $\bar{x}_{MALADAPT/DUI-NO} = 1.83$ on a scale from 1 to 5), so there may be a ceiling effect on how low their attitudinal ratings can go.

Hypothesis 3a

Hypothesis 3a states that for the DUI-YES group, the MALADAPT ad should be more effective in changing attitudes in the desired direction than the CONTROL ad. This hypothesis seems to be supported by the data (t=1.83, p=0.094; see Table 5.10). Seeing the MALADAPT ad seems to make DUI-YES subjects give attitudinal responses which closely match those of DUI-NO subjects.
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Hypothesis 3b

Hypothesis 3b states that for the DUI-YES group, the OPM ad should also be more effective in changing attitudes in the desired direction than the CONTROL ad. This hypothesis also seems to be supported by the data ($t = 2.13$, $p = 0.053$; see Table 5.10).

Summary of Hypotheses

Table 5.11 summarizes the main findings with regard to the hypotheses examined in this study.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Description</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Among the high-risk behavioral group, the MALADAPT ad will be more effective in changing DUI attitudes and behavioral intentions in the desired direction than the OPM ad.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H2</td>
<td>Among the low-risk behavioral group, the OPM ad will be more effective in changing DUI attitudes and behavioral intentions in the desired direction than the MALADAPT ad.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H3a</td>
<td>Among the high-risk behavioral group, the MALADAPT ad will be more effective in changing DUI attitudes and behavioral intentions in the desired direction than the CONTROL ad.</td>
<td>Supported</td>
</tr>
<tr>
<td>H3b</td>
<td>Among the high-risk behavioral group, the OPM ad will also be more effective in changing DUI attitudes and behavioral intentions in the desired direction than the CONTROL ad.</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Discussion

This 3 x 2 exploratory experiment was intended to show that the MALADAPT ad format would be more successful in changing attitudes in the high-risk behavioral group than the OPM ad format. However, this hypothesis (H1) was not supported. A small sample size
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may have been the reason why this result was not obtained; as well, the MALADAPT ad
treatment may not have been successfully manipulated, since the level of fear did not differ
significantly between the OPM and MALADAPT ads.

However, H3a was supported, which showed that the MALADAPT ads were superior
to the CONTROL group ads in changing attitudes in the high-risk behavioral group. Although
this result was admittedly based on a small sample of DUI-YES individuals, it lays the
groundwork for running another study which can expand on this exploratory base.

Unfortunately, this study failed to show that the OPM ad was more successful with the
DUI-NO (low-risk) group than the MALADAPT ad. The DUI-NO (low risk) group did not
show any significant differences in terms of attitudes in the OPM versus the MALADAPT
conditions.

On the plus side, however, both the MALADAPT and OPM ads succeeded in eliciting
attitudes among the DUI-YES group which differed significantly (in the desired direction) from
those obtained in the CONTROL condition. This experiment requires a replication with a new
set of ads and a larger sample in order to verify the results.

Experiments which rely on self-reports of DUI behavior run the risk that subjects may
under-report engaging in this socially unacceptable behavior. As explained earlier, this study
showed relatively high levels of self-reporting of DUI behavior, which suggests that under-
reporting did not occur. The experiment ensured subject anonymity to encourage full
reporting. Also, the wording of the question avoided mentioning "DUI" or "drinking and
driving," in order to reduce the stigma of self-reporting DUI behavior.

There is still the possibility that, in spite of these efforts, DUI behavior may have been
under-reported. If this occurred, this would mean that the DUI-NO group would actually
contain some DUI-YES individuals. This adulterated DUI-NO group would therefore show
greater similarity to the DUI-YES group, since it would contain some DUI-YES individuals. The result would be greater similarity between the DUI-YES and DUI-NO groups in terms of attitudes and behavioral intentions, and could potentially account for a lack of difference between the two groups on some of the dependent variables measured in the experiment.

Limitations of the Study

There were several limitations apparent in this study. One key issue was that the OPM and MALADAPT ads did not differ significantly from one another in terms of their level of perceived fear. This is a problem, because it was expected that the OPM ad would be significantly more fear provoking than the MALADAPT ad. The reason for this is that the OPM ad mentions the threat information, while the MALADAPT ad avoids threats and instead focuses on counter-acting information about maladaptive responses. A replication of this study would need to ensure that the ads were developed and pretested to ensure that they engender different levels of fear-arousal. (To partially remedy this problem, Chapter Six will describe a focus group that was undertaken with the intention of gaining a better understanding of target group reactions to DUI ads.)

One problem that became apparent at the analysis stage was that only attitudinal data about DUI had been elicited. No data had been collected regarding behavioral intentions. It would be useful in future to collect data on behavioral intentions, in order to fill this gap.

Another type of question that was not included on the questionnaire were items regarding the usefulness or attractiveness or efficacy of various maladaptive coping responses. It was assumed that the maladaptive coping responses were known, but in future research should be done to identify or verify which maladaptive coping responses are most appropriate for inclusion in the MALADAPT ad stimulus.
One concern about the validity of the results was that the results obtained might have occurred as a result of "demand," or as a result of the reactivity of the questionnaire. A demand artifact is a validity problem which occurs when subjects in an experiment guess the purpose of the experiment, and either consciously or unconsciously give answers which they feel will help the researcher fulfill his/her hypotheses. In other words, the subjects feel that a particular response is "demanded" of them, and they give the response which they believe is the desired one.

In the experiment presented in this Chapter, demand can be assessed by comparing the attitudes and beliefs toward DUI that are held by subjects in the OPM and MALADAPT conditions with those held by subjects in the CONTROL condition. If a demand artifact is present, it should affect all subjects within a given condition relatively equally. This would suggest that all subjects who see the ad against DUI in the OPM and MALADAPT conditions would report that they have more negative attitudes and beliefs toward DUI than subjects in the CONTROL condition. The argument is that seeing an ad against DUI would remind all subjects in the OPM and MALADAPT conditions that DUI is socially unacceptable, and would cause them to report more negative attitudes and beliefs regarding DUI than CONTROL condition subjects.

It should be noted, however, that the DUI-NO subjects did not hold significantly different attitudes in the OPM or MALADAPT conditions, as compared to the CONTROL condition. If a demand artifact were present, it seems certain that the DUI-NO subjects would espouse more negative attitudes toward DUI after seeing an ad against DUI in the OPM and
Chapter Five  The OPM Model and Market Segments: An Exploratory Study Using DUI Print Ads

MALADAPT conditions.4

On the other hand, the DUI-YES subjects did hold significantly different attitudes in the OPM and MALADAPT conditions, as compared to the CONTROL condition. If a demand artifact were present, why would it only affect the DUI-YES individuals? It seems unlikely that only certain individuals (i.e., DUI-YES subjects) would experience a demand effect. Demand effects are a result of the treatment being administered, not a result of the individual characteristics of the subjects.5 Therefore, it is not reasonable to attribute this successful experimental effect to a demand artifact.

Future Research

An immediate goal in this dissertation is to replicate this study, using DUI ads which have been pretested more thoroughly to ensure that they differ significantly in terms of level of evoked fear. As well, a replication study will use a larger sample, and use a data collection instrument which includes items about behavioral intentions and attitudes toward maladaptive coping responses. The replication study will be explained and reported in Chapter Seven. Additional future research will be described more fully in Chapter Eight.

Prior to the replication study, however, a focus group was carried out. The purpose of the focus group was to obtain more information about the DUI-YES (high-risk) group, to

4 It is true that DUI-no subjects already held relatively negative attitudes toward DUI in the CONTROL condition; however, there was still room for some downward movement on this variable. Therefore, it cannot be argued that there was a floor effect which prevented demand effects from appearing.

5 DUI-yes and DUI-no status is determined via one of the questions on the questionnaire itself. Since treatments are administered to DUI-yes and DUI-no individuals within the same classrooms, and an individual's DUI status is unknown until the data is examined after the questionnaires have been completed, it is clear that these two types of subjects are treated identically in the experiment.
learn about their perceptions of maladaptive coping responses, and to obtain their reactions to different types of DUI ads. Chapter Six will describe this focus group research in detail.
CHAPTER SIX

USING FOCUS GROUP RESEARCH

TO BETTER UNDERSTAND THE DUI SEGMENT
CHAPTER SIX

USING FOCUS GROUP RESEARCH
TO BETTER UNDERSTAND THE DUI SEGMENT

Introduction

This Chapter will outline the purpose of the focus group, the procedures that were undertaken to recruit focus group participants, the procedure for moderating the focus group session, as well as the main findings of the focus group discussion.

Purpose of the Focus Group Research

The experiment described in Chapter Five, while yielding some positive results, also had some limitations. A possible explanation for the lack of expected results regarding Hypotheses 1 and 2 may have been that the ad versions developed as a stimulus for the experiment were not appropriate, since these ads had not been pretested separately prior to their inclusion in the questionnaire. For this reason, it was thought that a focus group should be conducted to find out what individuals who drink and drive thought about the subject of drinking and driving in general, what kinds of maladaptive strategies they might be using to support their practice of drinking and driving, and what they thought about some existing DUI ads. A focus group was planned to address these questions, in order to provide insights into developing a new DUI ad which could be used as a stimulus in the follow-up replication experiment.
Recruiting Focus Group Participants

Participants for the focus group were recruited via two methods: (1) visits to classrooms during the summer session; and (2) via the use of a booth in the lobby of the main student/classroom building on campus at Concordia University. Potential focus group participants recruited from classrooms were asked to fill out a short questionnaire which asked questions about their drinking and driving behavior, smoking behavior, concern about AIDS, and illegal drug use, along with a few demographic questions. Potential focus group participants who were recruited from a booth in the lobby of the main student/classroom building on campus were given a shorter questionnaire which asked questions only about their drinking and driving behavior, along with a few demographic questions. (Copies of these two questionnaires are in Appendix 6.)

Subjects were given an envelope in which to place their questionnaire so that their answers would be confidential. In order to ensure that responses were honest, subjects were advised that their answers would be held confidential. It was also indicated that there could be several focus groups which would be held, and participants for the various focus groups would be chosen on the basis of their profiles as indicated by the questionnaire. Subjects were advised that both those who do and do not engage in a particular behavior might be chosen, so that it was advisable to simply answer the questionnaire honestly. Only first names were requested to protect confidentiality, along with a phone number where the individual could be reached. Participation in the questionnaire recruitment phase was strictly voluntary, and approximately half of those approached in the classroom and at the booth declined to participate.

Participants for the focus group were selected on the basis of having engaged in DUI one or more times during the past 12 months, as judged through the following questionnaire.
item:

Q. Within the last year, how many times have you driven a vehicle after having more than two drinks within two hours prior to driving?

Out of approximately 120 questionnaires, a total of 18 individuals (17 males and 1 female) were located who had engaged in DUI (as defined by the above question) during the past 12 months. Because these individuals were predominantly male, it was decided to limit participation in the focus group to males. The 17 males were subsequently telephoned and asked to participate in a focus group session. A total of 11 males were reached and agreed to attend the focus group. These 11 individuals were sent confirmation letters (see Appendix 6), and were also telephoned the day before the focus group session as a reminder. As a result of this procedure, all 11 individuals showed up for the focus group at the appointed date and time.

Focus Group Procedure

The focus group session was held on Tuesday, September 3rd, 1996 from 6:00 p.m. to 7:30 p.m. The 11 individuals who participated in the focus group session were served cookies and non-alcoholic refreshments upon their arrival. Most of the focus group members did not know each other, although a few knew each other in passing. Focus group participants were paid an honorarium of $30 each for their participation at the conclusion of the session.

A question outline for the focus group was prepared to pre-define the important topics of conversation (see Appendix 6). The focus group question outline was prepared and refined prior to the focus group session.
Chapter Six Using Focus Group Research to Better Understand the DUI Segment

The focus group was moderated by the researcher¹. The focus group generally followed the set outline of questions, to ensure that all pertinent areas were covered; however, conversation during the focus group was allowed to flow naturally so that topics were not necessarily strictly covered in the order in which they appeared on the outline. The focus group was lively and spirited, and the focus group participants freely debated issues without needing much intervention.

The focus group discussed general questions about drinking and driving at first, such as, "What does it mean to drink and drive?", and "Why do people drink and drive?". Approximately half the session was spent discussing general issues regarding drinking and driving. In particular, defensive or maladaptive strategies to cope with drinking and driving were discussed in detail.

The second half of the session was devoted to discussing drinking and driving ads. The focus group participants saw a total of 2 television ads and 4 print ads, and were asked to give their impression of each one. This part of the focus group was intended to guide in the development of an appropriate ad for use as a stimulus in a follow-up experiment.

- The first television ad showed four teenagers leaving a party/bar and getting into a car. There was loud youth-oriented music, and a party atmosphere. When the key turned in the ignition, the four teenagers turned into skeletons. This ad was chosen to gauge the participants’ reactions to a high fear type of message.

¹ Ideally, focus groups should be moderated by an impartial third party. However, the researcher is experienced in focus group moderation, and worked hard at remaining neutral in the discussion.
The second television ad was a realistic testimonial, in which a young man faces suspension of his license and a possible prison sentence because he has hit a child while drinking and driving. His self-narrated story is illustrated by pictures of the crash and the police station afterwards. The mood is somber but not fear-provoking, and his testimonial is very realistic. This ad was chosen to gauge participants' reactions to a testimonial message which stressed personal consequences of DUI, as well as consequences that DUI may have for others.

Three of the four print ads that were shown were adapted from ads developed by college students for the 1995/96 Student Newspaper Advertising Competition, sponsored by AAA/NAA.

1. The first print ad featured a testimonial approach where a young man talks about how his dreams of a hockey career were shattered when he got into an accident while DUI, which has now confined him to a wheelchair (see Figure 6.1). This ad was chosen to gauge respondents' views about a testimonial approach which focused on personal injury.

2. The second print ad that was shown was an impactful high-fear type of message which made extensive use of the word "you," putting the reader into the position of someone who has been involved in a hit-and-run accident while DUI (see Figure 6.2). This ad was chosen to gauge participants' views about using a high-fear approach in a print ad.
One life to live... One life to give.

"I had a dream to become a great hockey player, a powerful player who would draw cheers from my audience. Hockey was my life, my dream, but not my destiny."

"I thought I was responsible enough. I thought I would be cool. I shouldn't have driven, but I did. Now, I've traded in my hockey skates, and I have a new set of wheels."

Being a young adult today is difficult. Between school, friends, and your search for identity, you're dealt many challenges and decisions.

Drinking and driving is the greatest cause of fatal crashes. Every time you get behind the wheel intoxicated, you endanger not only your life, but the lives of others. If you think this can't happen to you, guess again.

Remember, you only get one life. So, don't let alcohol determine your destiny and alter your dreams. Choose to live your life your way.

Stop Drinking & Driving before it stops you

Figure 6.1 Testimonial ad

Someone is injured in an ALCOHOL related crash every minute. Not remembering could cause you a lifetime of regret. Stop before you start. For help or information, call: 1-800-STOP NOW.
Chapter Six  Using Focus Group Research to Better Understand the DUI Segment

- The third print ad featured a take-off on the "Three Blind Mice" nursery rhyme, using a black humor to get across a very serious message about DUI (see Figure 6.3). This ad was chosen to gauge respondents’ views about using a somewhat humorous approach to get across a serious message.

- The fourth and final print ad was the ad which had been used in the pilot experiment which was conducted earlier (see Figure 6.4). The MALADAPT version of this ad was used, in order to gauge participants’ reactions to the ad. It was hoped that comments of the participants could be used to change and improve the ad for use in a follow-up experiment.

The focus group proceedings were tape-recorded. Unfortunately, technical difficulties resulted in only a portion of the proceedings actually being recorded on audio-tape. The focus group moderator took extensive notes during the portion of the session not captured on audio-tape. It is unfortunate that the entire proceedings were not captured on tape. However, it appears that the initial preliminary report of the focus group findings prepared in the hours immediately following the focus group did manage to capture the key points. The transcript for questions 3, 4, and 7 was compared with the preliminary report, and it was found that the preliminary report prepared from notes and memory was very similar to the actual transcript. The transcript for questions 3, 4, and 7 is included in Appendix 6 for comparison purposes.
THREE DRUNK MICE

Three drunk mice.
Three drunk mice.

See how they stagger.
See how they stagger.

They all got into
A car that night.

They went down the road
And veered to the right,

They smashed into a tree
That knocked out their lights.

Three dead mice.
Three dead mice.

Drinking isn't child's play.

Figure 6.3 Black Humor Ad
If you drink and drive, you probably have some strategies that reduce the risk -- you hope... Like driving down side streets. Or driving more slowly. The risks are small, you think. But is the risk really so small? And is it worth the risk at all? Maybe not...

So avoid drinking and driving. Take a bus or a taxi instead. Or choose a designated driver. It's that easy.

Do your part. You can beat the drinking and driving problem.
Focus Group Findings

Profile of Focus Group Participants

Focus group participants had the following profile in terms of their answer to the question about how many times during the previous 12 months had they driven after having had more than 2 drinks within 2 hours (shown in Table 6.1).

<table>
<thead>
<tr>
<th># of DUI occasions in past year:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 times</td>
<td>6 persons</td>
</tr>
<tr>
<td>3-5 times</td>
<td>4 persons</td>
</tr>
<tr>
<td>6-10 times</td>
<td>1 person</td>
</tr>
</tbody>
</table>

Those who had been involved in drinking and driving only 1-2 times during the past 12 months still gave verbal evidence of having substantial experience in drinking & driving, even if it had been prior to the past 12 months.

Focus group participants had a wide variety of backgrounds. They included nine undergraduates and two graduate students; some who lived downtown, close to downtown (e.g., NDG), and very far from downtown (e.g., Laval); half anglophones, a couple of francophones, and some whose first language was something else (typical of Concordia University's student mix); some Commerce students, but also some from Engineering, Computer Science, Faculty of Arts, and Communication Studies.

Results

Based on the questions from the Discussion Outline (provided in Appendix 6), here are the types of responses that were given in the focus group.
3. **What does it mean to drink and drive?**

- drinking and driving means:
  - breaking the law
  - taking a chance
  - endangering your own life and others at the same time

- they defined DUI as being influenced by personal traits (body weight, metabolism, experience with drinking, experience with driving, time of day, amount eaten, etc.)

- they discussed phenomenon of how some people can only drink a small amount and be drunk, yet others can drink large amounts and seem sober enough to drive

- only the individual can decide if they can drive; can't really define it in terms of number of drinks, because people are so different

- they suggested that some people who are over the legal limit might still be able to drive okay

4. **Why do people drink and drive?**

- people usually don't plan to drive after they've been drinking; circumstances just seem to arise where drinking is involved and there is a need to get home afterwards

- when drinking is unexpected, DUI seems unavoidable (eg, dropping by a friend's house and unexpectedly staying there all evening and drinking; going for one beer after work and staying out drinking all evening). No one wants to stop when they're in the middle of having fun; and no one wants to turn down free beer.
- when long driving distances are involved, DUI seems unavoidable due to high costs of cab fare (up to $50 to go home to Laval) and the problem of getting one's car back the next day

- some people talked about how they used to DUI more, but now take a cab usually; their friends sometimes make fun of them for wasting their money on a cab; but sometimes their friends also make fun of them for being so foolish as to DUI...

- they complained about how many Montreal nightclubs charge $4.75 for a soft drink, which is sometimes more than the price for draft beer; if soft drinks cost this much, there is no incentive for there to be a designated driver. Few bars seem to offer cheaper or free soft drinks for designated drivers; someone who worked in a bar said this was because they were losing too much money because so many people would claim to be designated drivers.

4a. Are there different types of DUI?

- DUI at different times of day seems to imply different levels and types of risk; drinking and driving during the day is safer in terms of getting caught but more risky in terms of accidents because there is more traffic; DUI late at night is safer in terms of getting into accidents because there is less traffic, but it seems more likely that you would get caught by police.

- we talked about how many people are drinking and driving late at night (say, Friday night between midnight and 3 a.m.); their estimates varied from 30% to 75% (but actual statistics usually say anywhere from 1 in 10 to 1 in 6 drivers are DUI during this time; it seemed as if this group of DUI individuals overestimated the incidence, perhaps because they couldn't imagine why else
you would be driving around at this time of night unless you had been out
drinking somewhere).

- in talking about incidence of DUI, they discussed who these DUI individuals were;
ads would have you believe that it was mostly young people, but they feel that
many DUI individuals are those who have been doing DUI for a long time,
from before DUI laws became stricter. [again, this may just be their
perception; older individuals usually don’t go out and drink as much as younger
people -- they drink at home instead -- so that may be a reason why older
individuals DUI less]

4b. *Do people regret having DUI?*

- Some people might wake up the next morning and say to themselves, "Boy, that was
really stupid of me to have driven home last night."

- Other people might feel that they’ve gotten away with it once again, which re-affirms
that they were smart to have taken the chance in driving since they saved quite
a bit of money on cabfare and didn’t get caught. It reinforces the idea that
there is little risk in DUI.

4c. *To what extent are people who DUI accompanied or not in the vehicle?*

- They talked about how they had to make sure their girlfriends got home safely; they
couldn’t just put their girlfriend on the bus because it wasn’t safe late at night.

- Some said they would never let their girlfriend drive, even if they were drunk and
their girlfriend was sober

- One person said that whoever was soberest was the one who would drive everyone
else home (but that the soberest person was possibly over the legal limit)

4d. To what extent is DUI just a legal problem (that is, I see no danger in it, I just don't want to get caught), or is it dangerous (but I have to drive for various reasons.)

- someone said that they would never DUI if they thought it was actually too dangerous (i.e., when they had had way too much to drink); therefore, their only concern when they are driving is the legal concern about getting caught

5. What are the risks involved in DUI?

- people seemed more concerned about the risk of getting caught and losing their license or being fined; getting into an accident seemed like a more remote risk, and actually hurting someone else seemed like the remotest risk. While the accident/hurting someone are more "serious" risks, the probability of these occurring seemed the smallest, so were the least salient.

- one person talked about being caught in a spot-check "funnel" situation where there was no way to escape; he had been sober at the time, but it had reinforced the possibility of getting caught, and made him more careful about DUI for a while afterwards

- several individuals talked about people they knew who had been involved in DUI incidents:

  - one story was about someone being involved in a DUI accident where his passenger was killed; this person became very religious afterwards and stopped drinking completely

  - one story involved someone flipping their truck and having it fall on top of
them, severing their legs; this individual still drinks just as much today, although doesn’t drive any more (respondent was a little teary at the end of telling about this one...)

- one story involved someone outside of town who ran over their dog as they approached their home when DUI; this person became much more careful afterwards about DUI

6. How much do you worry about these risks?

- Highest concern seemed to be about the risk of getting caught for DUI. Least concern was for accidents or hurting someone. Reasoning seemed to be that they wouldn’t engage in DUI if they didn’t feel that they could drive safely; and if they feel they can still drive safely, then they don’t have to worry about accidents or hurting someone, they only have to worry about getting caught.

7. Are there strategies that you use to reduce these risks?

- About half the respondents said that they drove slower when DUI, while the other half said that they drove the same speed as usual.

- One person said that as he got close to his home in the country, he usually speeded up faster than usual (since it was a flat road with clear visibility)

- Several people said that they knew where the police usually set up spot-checks (around blind corners, etc.), so they would plan their route home to avoid these areas. There are lots of side streets and alternate routes that can be taken to most places.

- A couple of people said it wasn’t a good idea to take back alleys or short cuts
through empty parking lots because that might make you more conspicuous to the police

8. *TV AD #1 -- 4 kids partying in a car, turn into skeletons (high fear)*

- party scene with beer in car seemed unrealistic to most; such behavior would draw attention to the DUI person, which is not what is wanted
- one person said he could completely identify with the scene, since he had done this before, but most others disagreed with him
- didn’t like the skeletons; felt that they would tune out the high-fear approach

*TV AD #2 - testimonial where young male hits a kid with his car and gets up to a 10-year jail sentence*

- seemed more realistic to most
- not a clear enough connection that it was completely due to alcohol that the kid had been hit; perhaps could have just been a poor driver
- liked the testimonial approach
- felt that the 10-year jail sentence was a significant threat, more so than having to live with the fact that a kid had been killed

9. *Print Ad #1 - Hockey player*

- liked the first part of the ad where it is like a testimonial
- didn’t like the second part of the ad where it seems like a parent or someone in authority preaching to them
- thought that just including the first part would be enough to get the message across

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- thought that there was too much type in the ad

**Print Ad #2 - "You Can’t Remember"**

- debated about whether you wouldn’t be able to remember right away, or whether this referred to trying to remember the next day
- decided that this must mean that it was a hit and run accident, and the cops were asking questions the next day
- agreed that you could never tell if you were going to have a black-out or loss of memory later on; at the time when you were drinking, you weren’t suffering an immediate loss of memory or feeling like you wouldn’t remember later [they seemed to have lots of experience with blackouts]

**Print Ad #3 - "Three Blind Mice"**

- thought maybe this might be directed at children
- but then thought that it was too sophisticated for children
- one person who was an immigrant was confused -- hadn’t ever heard the nursery rhyme
- thought humor approach might be inappropriate
- but also thought that this might be the catchiest of the print ads, since it stood out the most on a page

**Print Ad #4 - "Drinking & Driving" (ad used in study described in Chapter Five)**

- liked the part of the text where it ended with "the drinking and driving problem" --- other ads hadn’t necessarily defined DUI as a problem
didn’t like the graphics; weren’t sure how they fit in

- thought it was interesting that the ad suggested that taking side streets or driving more slowly were not necessarily such safe strategies; attacked some of their beliefs

- liked the fact that the ad suggested strategies for avoiding DUI

Implications/Discussion

The focus group provided a considerable amount of information which was extremely useful in developing ad stimuli for use in the follow-up experiment (which will be described in Chapter Seven). The following are the key points which came out of the focus group discussion, with regard to developing ads:

• Participants did not like ads which "preached" at them. They resented being told what to do, since they already knew that DUI was wrong. This is a significant finding, since it will mean that a "preaching" approach should be avoided in any ad stimuli which are developed.

• Participants preferred a testimonial approach, since it appeared to have more relevance for them. Attempts can now be made to incorporate a testimonial approach into a DUI ad stimulus.

• Relevance in general was a key concern, with participants indicating that different ads were relevant for different people. Ads which some felt were personally relevant to themselves were not personally relevant to others in the group. This issue of personal
relevance may be related to the involvement concept. Personal relevance and/or involvement should definitely be measured in any questionnaire used in a follow-up study, so that it can be used as a covariate in the statistical analysis.

- The use of a high fear approach featuring bloody accident scenes or death seems ineffective for this target group. Focus group participants knew that there were potentially serious consequences from drinking and driving; however, getting into an accident seemed like a fairly remote possibility, since most people felt that they would not drive if they did not feel they were capable of getting home safely. The prospect of getting caught by police seemed like a much more immediate and salient concern, especially if there was a possibility of loss of driver's license, large fines, or jail sentences that might be imposed. This is perhaps not surprising, given the self-involved orientation of youth. As well, youth often feel quite invulnerable, especially to health risks, so the relative lack of concern about getting into an accident is not entirely unexpected. This suggests that ad stimuli must focus on personal consequences which seem more immediate, rather than focusing on consequences for others or consequences which seem rather remote.

- Given that participants found "getting caught" to be a more personally relevant issue, the importance of maladaptive strategies becomes particularly important. The focus group discussion highlighted the fact that some maladaptive DUI strategies which are commonly used are taking back streets and driving more slowly. These should be featured in any DUI ad which is developed for the follow-up experiment.
Conclusion

The focus group provided valuable insight into the psyche of university males who engage in DUI. It was useful in finding out about some of the maladaptive strategies that this target group engages in when they DUI. It was also very instructive in terms of advice about what DUI ad elements appeal to this target group. The results of this focus group provide excellent insight and advice, which will be incorporated into the ad to be used in the replication experiment in Chapter Seven.
CHAPTER SEVEN

THE OPM MODEL AND MARKET SEGMENTS:

AN IMPROVED REPLICATION USING DUI PRINT ADS
CHAPTER SEVEN
THE OPM MODEL AND MARKET SEGMENTS:
AN IMPROVED REPLICATION USING DUI PRINT ADS

This Chapter will outline the experimental design and procedures that will be used to test the hypotheses that were outlined earlier at the end of Chapter Four. As well, the results of the replication experiment will be presented in this Chapter.

Targeted Behavior

In order to be readily comparable to the experiment described in Chapter Five, driving under the influence (DUI) was again chosen as the targeted behavior. The CONTROL group, however, made use of an ad for anti-drug abuse, rather than for AIDS prevention. Both DUI and anti-drug abuse ads are appropriate for a college-aged sample.

Ad Stimuli

One of the disappointing aspects of the study described earlier in Chapter Five was that the ad stimuli may not have effectively manipulated the OPM and MALADAPT conditions. The ads did not have significantly different levels of fear-arousal, and for that reason some of the results were suspect. For this reason, it was important in the current replication to design ads which would be different in terms of fear appeal level.

Another problem with the experiment described in Chapter Five was that the ads used were described by participants as being dull and boring. This was discovered through examining open-ended comments and thought listings from the questionnaires. In order to remedy this problem, an attempt was made to make the ads more interesting and more
realistic. Therefore, three ads were designed to correspond with the three experimental conditions: OPM, MALADAPT, and CONTROL. The ads that were developed were loosely based on other DUI and anti-drug abuse ads which were available. The ads were developed in an iterative process through extensive discussion with colleagues. They were pretested as part of the questionnaire. The ads are described as follows:

**OPM Ad**

The OPM ad followed the tenets of the Ordered Protection Motivation model, and included the following four prescribed elements: (1) information about the threatening consequences of the targeted behavior (i.e., fear-arousing information); (2) advice about the recommended coping behavior (i.e., what to do to avoid the threatened consequences); (3) reassurance that the recommended coping behavior would be effective (i.e., efficacy message); and (4) reassurance that the message recipient could carry out the coping behavior effectively (i.e., self efficacy message). The OPM ad also made use of a mug-shot pictorial (OPM ad shown in Figure 7.1).

**MALADAPT Ad**

The MALADAPT ad was designed to be similar in appearance and content to the OPM ad, in order to ensure equivalency of the two experimental conditions. However, the threat information was replaced with counterarguments against engaging in maladaptive coping responses. All other elements of the ad, including the mug shot pictorial, remained the same. The MALADAPT ad is shown in Figure 7.2. A brief summary and comparison of the contents of these two ads is given in Table 7.1.
"I'm facing 5 years in jail and a $5,000 fine for drinking and driving..."

**Figure 7.1 OPM Ad**

"I only had a few beers -- I felt okay to drive. I was so sure I wouldn't get caught. But those few beers were enough to put me over the legal limit. I took a dangerous risk -- that didn't pay off. When the cops stopped me, I knew my luck had run out; it was time to pay the price. I should have known better than to take such a big risk -- the consequences are horrible.

"I lost my car, I lost my license, and I'm facing a $5,000 fine. Worst of all, I'm facing the terrifying prospect of a 5-year jail sentence. All because I thought I could get away with it.

"So take my advice... Avoid driving after drinking. Even if you think you're okay, take a bus or a taxi instead. Or choose a designated driver. It's that easy."

Don't let your luck run out. Drinking and driving isn't worth it.
"I thought they'd never spot me driving slowly down the side streets..."

Figure 7.2 MALADAPT Ad

"I only had a few beers -- I felt okay to drive. I even took the side streets home, driving a little slower than usual, trying to be extra-careful. But those few beers were enough to put me over the legal limit. When the cops stopped me, I knew my luck had run out.

"I should have known -- the police are stopping 5 times as many drivers as before, and over 60% of all drinking drivers are getting caught.

"So take my advice... Avoid driving after drinking. Even if you think you're okay, take a bus or a taxi instead. Or choose a designated driver. It's that easy."

Now, more than ever, they're watching you. Think ahead. Don't drink and drive.
### Table 7.1

<table>
<thead>
<tr>
<th>Ad Elements</th>
<th>&quot;OPM&quot; Ad</th>
<th>&quot;MALADAPT&quot; Ad</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MANIPULATION:</strong></td>
<td>Information about the threatening consequences of the targeted behavior</td>
<td>Counter-arguments against maladaptive coping responses</td>
</tr>
<tr>
<td>Fear appeal vs. counter-arguing against maladaptive behavior</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>COPING RESPONSE</strong></td>
<td>Advice about the recommended coping behavior (i.e., what to do to avoid the threatened consequences)</td>
<td></td>
</tr>
<tr>
<td><strong>EFFICACY OF COPING RESPONSE</strong></td>
<td>Reassurance that the recommended coping behavior will be effective</td>
<td></td>
</tr>
<tr>
<td><strong>SELF EFFICACY REASSURANCE</strong></td>
<td>Reassurance that the message recipient can carry out the coping behavior effectively</td>
<td></td>
</tr>
</tbody>
</table>

**CONTROL Ad**

The CONTROL group ad was concerned with anti-drug abuse, but was designed to appear similar to the OPM and MALADAPT DUI ads. The CONTROL ad made use of the same mug shot pictorial, and followed the pattern of the OPM model. The CONTROL group ad is shown in Figure 7.3.
"I'm facing 5 years in jail and a $5,000 fine for using cocaine..."

"I only used cocaine once in a while -- I didn't think it was a big deal. I was so sure I wouldn't get caught. I was always careful about where and when I used it, so that my family and my boss wouldn't find out. But when the cops raided that party, I knew my luck had run out; it was time to pay the price.

"Now I'm facing a $5,000 fine and up to 5 years in jail for possession of cocaine. All because I thought I could get away with it.

"So take my advice... Don't use drugs -- not even once in a while. Get high on life instead. It's that easy."

Don't let your luck run out.
Drugs aren't worth it.

Figure 7.3  CONTROL Ad
The CONTROL ad used previously in Chapter Five had consisted of an AIDS prevention ad, which was appropriate because of the type of pictorial used in that set of ad stimuli. However, for the current experiment, it was deemed more relevant to use a graphic which would be more compelling. A mug-shot pictorial was selected, since it seemed more interesting and more emotionally charged. Given that this mug-shot pictorial was selected, it was deemed more appropriate to use an anti-drug abuse ad as the CONTROL condition (since an anti-drug abuse ad is one of the few types of negative health behaviors for which there are legal consequences). The key requirement for the CONTROL ad is that it superficially appear to be similar to the experimental condition ads, but that it be unrelated to DUI behavior.

Pretest

A pretest involving the administration of 38 questionnaires representing all three experimental conditions was conducted. This pretest was intended to serve several purposes. A primary purpose was to indicate whether there were any problems in comprehension of the questionnaire. A second important purpose was to determine whether the scales used in the questionnaire were relatively reliable, as measured by their Cronbach alpha coefficients. Finally, some preliminary analysis of the 38 questionnaires was conducted in order to determine whether the manipulation checks were proving successful, and whether the variables being measured were behaving as hypothesized. In particular, a key concern was whether the ads in the three experimental conditions were significantly different in terms of fear-arousal.

---

1 The experiment described in Chapter Five used a pictorial which looked like cookie-cutter shapes of a boy and a girl side by side. This male-female pictorial was suitable for a DUI ad, where its connotation was that the DUI message was relevant to everyone. As well, the male-female pictorial was suitable for an AIDS prevention ad (for the CONTROL condition), with its connotations of sexuality.
Based on the pretest, no major problems in the questionnaire were discovered. Subjects had suggested that scales should all have positive attributes on one side and negative attributes on the other; however, this was not deemed to be appropriate because it could lead to a halo effect or indiscriminate circling of alternatives. It was deemed more appropriate to have positive and negative attributes mixed together, so that subjects would have to read the instructions more carefully and give more thought to their responses. Subjects also suggested doing away with the open-ended responses; however, the open-ended responses provide a valuable source of clarification when problems arise in interpreting data, so the elimination of the open-ended responses was not deemed to be appropriate. Otherwise, subjects found the questionnaire to be easy to answer, and had no difficulties in answering the questionnaire successfully.

When the scale reliabilities were calculated based on the initial 38 pretest questionnaires, the majority seemed to be in an acceptable range (Cronbach alpha > 0.70). Therefore, the scales appeared to be performing acceptably.

The initial data from the pretest seemed to indicate that there was a problem with the fear manipulation. Given that the OPM model is a model about the use of fear appeals, the OPM ad had been intended to arouse the greatest level of fear. However, early analysis based on data from the pretest and initial questionnaires collected during the data-collection stage indicated that the OPM ad was not significantly more fear-provoking than the MALADAPT ad. In fact, it appeared that the MALADAPT ad was marginally more fear-provoking than the OPM ad for all participants, and much more fear-provoking than the OPM ad for DUI-YES participants. As a result of this finding, a fourth condition was added to the experiment to correct this problem. The fourth condition consisted of a low-fear MALADAPT ad which
did not make use of the mug shot pictorial. The text of the ad was identical to that of the original MALADAPT ad, however. This allows for the new low-fear MALADAPT-REVISED ad condition to be readily compared to the original MALADAPT condition. This low-fear MALADAPT-REVISED ad is contained in Figure 7.4. This additional experimental condition was added to the experiment at an early enough stage that it was possible to administer most of it in the course of the regular data collection.
"I thought they'd never spot me driving slowly down the side streets..."

"I only had a few beers -- I felt okay to drive. I even took the side streets home, driving a little slower than usual, trying to be extra-careful. But those few beers were enough to put me over the legal limit. When the cops stopped me, I knew my luck had run out.

"I should have known -- the police are stopping 5 times as many drivers as before, and over 60% of all drinking drivers are getting caught.

"So take my advice... Avoid driving after drinking. Even if you think you're okay, take a bus or a taxi instead. Or choose a designated driver. It's that easy."

Now, more than ever, they're watching you. Think ahead. Don't drink and drive.

Figure 7.4 REVISED MALADAPT Ad
Experiment Overview

Based on the addition of a fourth experimental condition, the design of this experiment was a 4 (ad types) x 2 (risk groups) between-subjects experiment. The four ad types (OPM, MALADAPT-ORIGINAL, MALADAPT-REVISED, and CONTROL) represented the four experimental conditions. The two DUI risk groups were determined on the basis of their composite answers to two questionnaire items. This experimental design resulted in a total of eight cells, two of which were control group cells. Subjects were asked to view one ad, and then were asked to fill out a questionnaire. The entire procedure took approximately 15 minutes. Analysis of the data made use of unbalanced ANOVAs and planned contrasts.

Treatment Groups

The four ads (OPM, MALADAPT-regular, MALADAPT-low fear, and CONTROL) represented the four experimental conditions:

1. OPM ad for DUI (threat, coping advice, self efficacy reassurance)
2. MALADAPT-ORIGINAL ad for DUI (counterarguments against maladaptive coping responses)
3. MALADAPT-REVISED low fear ad for DUI (counterarguments against maladaptive coping responses, but using non-fear-arousing pictorial)
4. CONTROL Group ad for anti-drug abuse

The experimental design, including the number of participants in each experimental cell, is shown in Table 7.2.
Whether or not an individual was deemed to be a member of the DUI group depended upon their composite answer to Questions #5 and #6 on the data collection instrument. This measurement is described in more detail below. This definition of a DUI-YES subject was much more liberal than that used in the experiment in Chapter Five. In that previous experiment, a DUI-YES subject was defined as one who had engaged in DUI during the past month. In the present experiment, this condition has been relaxed to include all those who engaged in DUI behavior during the past year. A key reason for this was that the inclusion of those who had engaged in DUI during the last year (but not the last month) would result in adulteration of the DUI-NO cells. As well, the overly strict definition of DUI (i.e., being confined to the past month) was limiting the number of individuals who qualified for inclusion in this experimental cell. For these reasons, it was deemed appropriate to change the way in which DUI subjects were defined, and use behavior during the past year and past 5 years as the guideline.

**Developing the data collection instrument**

The data collection instrument used in this experiment was developed based on existing
instruments used in other studies (i.e., Gorn, Chattopadhyay, Yi, and Dahl forthcoming; Gorn, Lavack, Pollock, and Weinberg 1996; King and Reid 1990; MacDonald, Zanna, and Fong 1995). The data collection instrument was refined through discussions with research colleagues prior to being used in this study, and was pretested on a sample of 38 subjects, as described earlier.

The initial section of the questionnaire included items on how long subjects had had drivers' licenses, their alcohol consumption, their participation in DUI behavior, and whether they had acted as a designated driver. After viewing the ad, various scales measuring attitude toward the ad, involvement with the ad, fear-arousal, attitude toward the PSA, counterarguing, and support arguments, were provided. Scales measuring attitude towards DUI, attitudes toward DUI offenders, behavioral beliefs about DUI, DUI intentions, and perceived effectiveness of maladaptive coping responses were assessed. Finally, demographic information including age, gender, mother tongue, and fluency in English were assessed. As a final open-ended question, subjects were also asked what they perceived the purpose of the study to be. A copy of the questionnaire for each of the four experimental conditions is included in Appendix 7.

**Questionnaire Administration**

A total of 278 undergraduate business students participated in the study. Students came from 9 sections of undergraduate marketing courses. Course sections were randomly chosen from those marketing courses available in the course calendar. The study was conducted during the first 20 minutes of class in the latter part of the fall semester. Participation in the study was on a voluntary basis, and students were not remunerated for their participation; however, participation rates were in excess of 95%.
Within each classroom, questionnaires from the four experimental conditions (i.e., OPM, MALADAPT-ORIGINAL, MALADAPT-REVISED, and CONTROL) were shuffled into one pile, so that they were randomly distributed to participants. Participants were given verbal instructions prior to beginning the questionnaire. Subjects signed consent forms stating that they agreed to participate in the study, and these consent forms were witnessed by one of their fellow students. Consent forms containing signatures were separated from the questionnaires after the questionnaires were completed, in order to preserve the anonymity of the subjects. The questionnaires were administered by the principal investigator for six of the eight sections, and by an assistant for the remaining two sections because of section time conflicts. The assistant was fully trained in the appropriate procedures for administering the questionnaires. After the questionnaires were completed, students were thanked for their participation. The following week, after all the questionnaires had been completed, students were debriefed regarding the true purpose and hypotheses in the experiment.

Data Input

The data from the questionnaires was input into SPSS for Windows. The questionnaires were coded for which experimental condition they belonged to (OPM, MALADAPT-regular, MALADAPT-low fear, or CONTROL), as well as being coded for which course section they came from. In this way, an analysis could be conducted to ensure that the entire sample was homogeneous, and that there were not any anomalies associated with the data from any particular course section.
Sample Size

A total of 278 students (141 males and 137 females) participated in the study. Of these, 36 students (9 males and 27 females) were deleted from the data analysis because they did not have a driver's license. Lack of a driver's license was deemed to remove any opportunity to be involved in DUI situations, and indeed, none of these 36 had reported any DUI activity. Therefore, their removal from the sample seemed appropriate since they would not have any experience with DUI, nor any temptation to DUI. This resulted in a reduced sample size of 242 students.

An additional 13 students (7 males and 6 females) were removed from the sample because they were not deemed to have a sufficient level of English fluency to understand the questionnaire fully. Students who self-scored themselves as less than or equal to 6 on the 9-point English fluency scale were removed from the sample. It is believed that the majority of these 13 students would have been foreign exchange students, which would account for their lack of fluency in English. The exclusion of these students resulted in a further reduced sample size of 229 students (125 males and 104 females).

As described below, DUI status was an important consideration in the data analysis. If subjects could not be clearly assigned to either a DUI-yes or DUI-no category (as described below), they were deleted from the analysis. This resulted in an additional 35 subjects being deleted from the analysis, leaving a total sample size of 194 subjects (107 males and 87 females).

Assessing DUI Status

With regard to engaging in DUI behavior, subjects were asked three separate questions:

4. Within the last month, how many times in total have you driven a vehicle after having
more than two drinks within two hours prior to driving?

5. Within the last year, how many times in total have you driven a vehicle after having more than two drinks within two hours prior to driving?

6. Within the last five years, how many times in total would you estimate that you have driven when you have had too much to drink?

Questions 4 and 5 assessed DUI status during the past year according to the generally accepted medical/legal guidelines for DUI, while Question 6 assessed DUI status during the past five years using a self-assessment measure.

The previous study, described in Chapter Five, had used the answers to Question 4 as the basis upon which to categorize subjects as being DUI-YES or DUI-NO. However, this resulted in restricting the size of the DUI-YES group to an unnecessarily and unrealistically small size. Further, it risked categorizing some people as DUI-NO who may have regularly engaged in DUI behavior, but who had simply not done so during the previous month.

To remedy this problem, the current study used an alternative method of assigning subjects to DUI-categories. In attempting to determine the DUI status of the 229 students in the sample, a composite measure was used to categorize students as being DUI-YES or DUI-NO. This composite measure required that the subject provide consistent answers to Questions 5 and 6. If a subject answered that they had engaged in DUI "zero times" to both questions, then these consistent answers would clearly mean that the subject should be classified as DUI-NO. If a subject answered that they had engaged in DUI one or more times in the context of both questions, the consistency of these answers would clearly mean that the subject should be classified as DUI-YES.

However, subjects whose answers to the two questions were inconsistent were difficult to classify as either DUI-YES or DUI-NO. For example, if a subject had engaged in DUI
during the past year according to the definition provided in Question 5, but then self-assessed
themselves in Question 6 as having never engaged in DUI, it became difficult to definitively
say that they were a DUI-YES subject; therefore, these individuals were deleted from the
analyses which required a positive assessment of DUI status. Additionally, subjects who did
not DUI during the past year but who self-assessed themselves as engaging in DUI during the
past 5 years were also problematic; it was difficult to know why these subjects had stopped
their DUI activity during the last year, and whether they should be classified as DUI-YES or
DUI-NO, so these subjects were also removed from the analysis. Classifying subjects as DUI-
YES or DUI-NO based on their consistent answers to Questions 5 and 6 resulted in the
exclusion of 33 subjects, resulting in a total sample size of 194.

As discussed earlier in Chapter Five, a possible concern about the use of self-report
data to determine DUI category relates to social desirability bias. While it is possible that
individuals may under-report their DUI behavior because they are embarrassed to have it known
that they engage in this socially undesirable behavior, the actions undertaken to prevent this
occurrence should minimize the possibility. Reassuring subjects about the anonymity of their
responses reduces their anxiety regarding providing accurate self-report data. Similarly,
wording two out of the three DUI questions in such a way that they do not mention "DUI" or
"drinking and driving" also serves to reduce the stigma attached to DUI behavior. Since there
was a relatively high rate of reporting DUI behavior (17.5% of the subjects admitted to
engaging in DUI during the past month, 41.5% during the past year, and 48.0% during the
past five years), it seems unlikely that DUI behavior was significantly under-reported.

Scale Reliability

The reliability of the scales used in the study was measured using the Cronbach alpha
The Cronbach alpha statistics for the various scales are shown in Table 7.3.

<table>
<thead>
<tr>
<th>SCALE</th>
<th>SCALE ITEMS</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude toward the ad scale</td>
<td>Bad - Good, Unpleasant - Pleasant, Not Likeable - Likeable</td>
<td>.7337</td>
</tr>
<tr>
<td>Involvement scale</td>
<td>Detached - Interested, Bored - Fascinated, Indifferent - Excited</td>
<td>.7485</td>
</tr>
<tr>
<td>Fear scale</td>
<td>Fearful, Worried, Anxious, Threatened, Afraid</td>
<td>.8926</td>
</tr>
<tr>
<td>Calm scale</td>
<td>Calm, Relaxed, Soothed</td>
<td>.8099</td>
</tr>
<tr>
<td>Support Arguments scale</td>
<td>- I learned something from the ad that I didn't know before. - As I read the ad, I thought of reasons I would not drink and drive. - The ad strengthened my unfavorable views about drinking and driving. - The ad would make someone think twice about drinking and driving. - The ad was very realistic and true to life.</td>
<td>.7039</td>
</tr>
<tr>
<td>Counter-arguments scale</td>
<td>- I don't see how the issue of drinking and driving has much to do with what was being discussed in the ad. - The ad didn't have anything to do with my needs. - What the ad showed didn't demonstrate claims they were making about drinking and driving. - I found myself arguing against some of the things in the ad.</td>
<td>.6030</td>
</tr>
<tr>
<td>SCALE</td>
<td>SCALE ITEMS</td>
<td>Cronbach Alpha</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Attitude toward the PSA</td>
<td>- The ad irritated me.</td>
<td>.8132</td>
</tr>
<tr>
<td></td>
<td>- The ad was dull and boring.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- The ad was unrealistic.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- The ad was insulting to my intelligence.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- I felt the ad talked down to me.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- I felt the ad was pushy.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- This kind of ad has been done so many times - it's the same old thing.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- It required a lot of effort to follow the ad.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- The ad was in poor taste.</td>
<td></td>
</tr>
<tr>
<td>Ad effectiveness</td>
<td>- The ad would make me pause before drinking and driving in the future.</td>
<td></td>
</tr>
<tr>
<td>Attitude toward DUI</td>
<td>- Sometimes circumstances make it necessary to drive after you've been drinking.</td>
<td>.3220</td>
</tr>
<tr>
<td></td>
<td>- I think it is acceptable to drink and drive occasionally.</td>
<td></td>
</tr>
<tr>
<td>Attitude toward DUI offenders</td>
<td>- There should be more educational programs to teach people about the dangers of drinking and driving.</td>
<td>.7512</td>
</tr>
<tr>
<td></td>
<td>- The police should set up more roadblocks.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Drinking drivers should be reported to the police.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Drinking drivers deserve the fine(s)/punishment(s) they get.</td>
<td></td>
</tr>
<tr>
<td>Behavioral Beliefs</td>
<td>- People who drink and drive are likely to end up killing themselves and others.</td>
<td>.7147</td>
</tr>
<tr>
<td></td>
<td>- People who drink and drive are likely to be caught by the police.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- People who drink and drive are likely to get into car accidents.</td>
<td></td>
</tr>
<tr>
<td>Effectiveness of Maladaptive Behaviors</td>
<td>- Effectiveness of driving more slowly.</td>
<td>.8172</td>
</tr>
<tr>
<td></td>
<td>- Effectiveness of driving only on the side streets.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Effectiveness of avoiding major intersections.</td>
<td></td>
</tr>
<tr>
<td>DUI Intention</td>
<td>- I will probably drive after drinking sometime in the near future.</td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 7.3, the majority of the scales have acceptable levels of reliability (Cronbach alpha > 0.70). Only the *Attitude toward DUI* scale has an unacceptably low level of reliability (Cronbach alpha=0.3220); therefore, the two items which formed this scale will
be used individually as two single-item measurements, rather than combining them into a scale.\(^2\) It should be noted that the *Counter-argument scale* also has a somewhat low level of reliability (Cronbach alpha=0.6030), so results of this scale will be used with caution.

**Manipulation Checks**

There were two scales which were used to measure the effectiveness of manipulation checks. One of these was the FEAR_AVG scale, and the other was the MALADAPT scale.

**FEAR_AVG Scale**

For the 5-item FEAR_AVG scale\(^3\) subjects indicated whether the ad made them feel \"fearful,\" \"worried,\" \"anxious,\" \"threatened,\" and \"afraid\" (based on a scale from one to nine, where 1=agree completely and 9=disagree completely). It was expected that the OPM ad would be rated as the most fear-arousing, while the MALADAPT ad (and especially the revised MALADAPT ad) would be rated as the least fear-arousing.

Tables 7.4a and 7.4b indicate the ANOVA results and mean values obtained for each experimental cell for this FEAR_AVG scale. The ANOVA results indicated a main effect for the experimental condition (F=4.461, p=0.005), which shows that there are significant differences in fear-arousal when comparing the experimental conditions. Subjects were

\(^2\) Earlier analysis of this *Attitude toward DUI* scale during the initial pretest had indicated that the scale reliability was much more acceptable (Cronbach alpha=0.6870). As well, this scale was used in King & Reid (1990) where the Cronbach alpha exceeded 0.70.

\(^3\) In Chapter Five the FEAR_AVG scale consisted of six items. The questionnaire used for the experiment in Chapter Seven left out *unhappy* from the list of items comprising the FEAR_AVG scale, reducing it to a five-item scale. The reason for this is that *unhappy* seems to be unrelated to the fear emotion, unlike the other five items. Therefore, to ensure the integrity of the FEAR_AVG scale, this item was excluded.
significantly more likely to disagree that the REVISED MALADAPT low-fear ad was fear-arousing, as compared to those in the OPM ad condition ($\bar{x}_{\text{REV-MALADAPT}}=6.41$, $\bar{x}_{\text{OPM}}=5.82$, $\bar{x}_{\text{CONTROL}}=6.33$, $p<.05$).

As noted earlier, the original MALADAPT condition had the unintended effect of arousing fear in the DUI-YES group because of the inclusion of a mug-shot photo in the ad. The exclusion of the mug-shot photo (while leaving all other ad elements the same) in the REVISED MALADAPT ad resulted in a much lower level of fear-arousal. This is the intended effect, and suggests that the level of fear has been manipulated appropriately in the OPM and REVISED MALADAPT ads.
MALADAPT Scale

The 3-item MALADAPT scale subjects indicated how effective the indicated behaviors were perceived to be in helping DUIs evade the police. The maladaptive behaviors mentioned were "driving more slowly," "driving only on the side streets," and "avoiding major intersections" (ratings were based on a scale from one to nine where 1 = completely ineffective and 9 = completely effective). It was expected that a successful manipulation would show that those individuals who had seen the MALADAPT ads (either original or revised) would be more likely to rate these three behaviors as being ineffective.

Tables 7.5a and 7.5b indicate the ANOVA results and mean values obtained in each experimental cell for the 3-item MALADAPT scale. There is a main effect for the experimental group (F = 2.660, p = 0.05), since those in the original MALADAPT group and REVISED MALADAPT group rated these behaviors as being relatively ineffective in helping DUIs to evade the police, as compared to the control group (*ORIG-MALADAPT = 4.54, *REV-MALADAPT = 4.46, *CONTROL = 5.52, p < .05). These results indicate that the manipulation for the MALADAPT ads was successful.
### Table 7.5a
Mean Values for *Effectiveness of Maladaptive Behaviors* Scale (MALADAPT)

<table>
<thead>
<tr>
<th>Source</th>
<th>MALADAPT</th>
<th>CONTROL</th>
<th>REVISED MALADAPT</th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPM</td>
<td>4.54</td>
<td>5.54</td>
<td>3.94</td>
<td>4.69</td>
</tr>
<tr>
<td>n=31</td>
<td>n=27</td>
<td>n=21</td>
<td></td>
<td>n=108</td>
</tr>
<tr>
<td>DUI-NO</td>
<td>4.61</td>
<td>5.49</td>
<td>5.15</td>
<td>5.16</td>
</tr>
<tr>
<td>n=29</td>
<td>n=28</td>
<td>n=16</td>
<td></td>
<td>n=85</td>
</tr>
<tr>
<td>DUI-YES</td>
<td>4.46</td>
<td>4.59</td>
<td>4.46</td>
<td>4.90</td>
</tr>
<tr>
<td>n=24</td>
<td>n=28</td>
<td>n=37</td>
<td></td>
<td>n=183</td>
</tr>
<tr>
<td>Grand Mean</td>
<td>4.54</td>
<td>5.52</td>
<td>4.46</td>
<td>4.92</td>
</tr>
<tr>
<td>n=53</td>
<td>n=55</td>
<td>n=37</td>
<td></td>
<td>n=183</td>
</tr>
</tbody>
</table>

### Table 7.5b
2 x 4 Analysis of Variance of MALADAPT Variable
By DUI Category (2) and Experimental Group (4)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUI Category</td>
<td>8.701</td>
<td>1</td>
<td>8.701</td>
<td>2.099</td>
<td>0.149</td>
</tr>
<tr>
<td>Group</td>
<td>33.074</td>
<td>3</td>
<td>11.025</td>
<td>2.660</td>
<td>0.050</td>
</tr>
<tr>
<td>DUI Category x Group</td>
<td>17.961</td>
<td>3</td>
<td>5.987</td>
<td>1.444</td>
<td>0.231</td>
</tr>
<tr>
<td>Error</td>
<td>766.813</td>
<td>185</td>
<td>4.145</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**English FLUENCY Variable**

As described earlier, subjects whose self-assessed English fluency was less than or equal to 6 on a 9-point scale were removed from the sample. The English fluency for the remaining subjects was assessed to ensure that English fluency was comparable between groups, and an ANOVA found no significant differences between groups (F=0.215, p=0.886). However, there appeared to be a possible difference in English fluency between DUI categories, with those in the DUI-YES category reporting greater fluency ($\overline{x}_{DUI-YES}=8.73$, $\overline{x}_{DUI-NO}=8.56$, F=3.178, p=0.076; see Tables 7.6a and 7.6b).^4

---

^4 The implication here is that those who speak English as their first language engage in DUI to a greater degree than do those who do not speak English as their first language. This may be partly due to the relatively large number of Muslim students (whose first language is...
Table 7.6a
Mean Values for *English Fluency* Variable (FLUENCY)

<table>
<thead>
<tr>
<th>Variable</th>
<th>OPM</th>
<th>MALADAPT</th>
<th>CONTROL</th>
<th>REVISED MALADAPT</th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUI-NO</td>
<td>8.69</td>
<td>8.34</td>
<td>8.52</td>
<td>8.71</td>
<td>8.56</td>
</tr>
<tr>
<td>n=32</td>
<td></td>
<td>n=29</td>
<td>n=27</td>
<td>n=21</td>
<td>n=109</td>
</tr>
<tr>
<td>DUI-YES</td>
<td>8.53</td>
<td>8.92</td>
<td>8.71</td>
<td>8.69</td>
<td>8.73</td>
</tr>
<tr>
<td>n=17</td>
<td></td>
<td>n=24</td>
<td>n=28</td>
<td>n=16</td>
<td>n=85</td>
</tr>
<tr>
<td>Grand Mean</td>
<td>8.63</td>
<td>8.60</td>
<td>8.62</td>
<td>8.70</td>
<td>8.63</td>
</tr>
<tr>
<td>n=49</td>
<td></td>
<td>n=53</td>
<td>n=55</td>
<td>n=37</td>
<td>n=194</td>
</tr>
</tbody>
</table>

Table 7.6b
2 x 4 Analysis of Variance of FLUENCY Variable
By DUI Category (2) and Experimental Group (4)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUI Category</td>
<td>1.429</td>
<td>1</td>
<td>1.429</td>
<td>3.178</td>
<td>0.076</td>
</tr>
<tr>
<td>Group</td>
<td>.290</td>
<td>3</td>
<td>0.097</td>
<td>0.215</td>
<td>0.886</td>
</tr>
<tr>
<td>DUI Category x Group</td>
<td>3.675</td>
<td>3</td>
<td>2.723</td>
<td>2.723</td>
<td>0.046</td>
</tr>
<tr>
<td>Error</td>
<td>83.674</td>
<td>186</td>
<td>0.450</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Descriptive Statistics

*Age and Driver’s License*

Subjects in the sample had a mean age of 22.68 years, and a median age of 22.00 years. All 194 subjects in the analysis had a driver’s license. The median length of time for which they had held a driver’s license was 3-5 years (3.1% had held a license for less than one year, 13.9% for 1-2 years, 49.0% for 3-5 years, and 34.0% for 6 or more years). As not English, and whose religion forbids alcohol consumption) who are studying at the university where the study was carried out. As well, Greek, Italian, and French-Canadian students (who also comprise large proportions of the student body) appear to have more moderate alcohol consumption patterns than English-Canadian students.
mentioned earlier, 36 students who did not hold a driver’s license were deleted from the analysis.

**Alcohol Consumption, Designated Drivers, and DUI Status**

Subjects were asked how many alcoholic drinks they had consumed in the past month. The median number reported was 1-5 drinks during the past month. Males consumed significantly more alcohol than females (chi-square=9.51, d.f.=4, p<.05), and not surprisingly, DUI-YES individuals consumed significantly more alcohol than DUI-NO individuals (chi-square=52.97, d.f.=4, p<.0001). These results are detailed in Tables 7.7 and 7.8.

![Table 7.7](image)

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th></th>
<th>Females</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>None</td>
<td>15</td>
<td>14.0%</td>
<td>15</td>
<td>17.2%</td>
<td>30</td>
</tr>
<tr>
<td>1-5 drinks</td>
<td>34</td>
<td>31.8%</td>
<td>33</td>
<td>37.9%</td>
<td>67</td>
</tr>
<tr>
<td>6-9 drinks</td>
<td>11</td>
<td>10.3%</td>
<td>16</td>
<td>18.4%</td>
<td>27</td>
</tr>
<tr>
<td>10-20 drinks</td>
<td>21</td>
<td>19.6%</td>
<td>15</td>
<td>17.2%</td>
<td>36</td>
</tr>
<tr>
<td>More than 20 drinks</td>
<td>26</td>
<td>24.3%</td>
<td>8</td>
<td>9.2%</td>
<td>34</td>
</tr>
<tr>
<td>Total:</td>
<td>107</td>
<td>100.0%</td>
<td>87</td>
<td>100.0%</td>
<td>194</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chi-Square</th>
<th>Value</th>
<th>DF</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson</td>
<td>9.50948</td>
<td>4</td>
<td>.04955</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>9.91895</td>
<td>4</td>
<td>.04182</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>5.30902</td>
<td>1</td>
<td>.02122</td>
</tr>
</tbody>
</table>
### Table 7.8
Number of Drinks Consumed in the Past Month (by DUI Category)

<table>
<thead>
<tr>
<th></th>
<th>DUI-NO</th>
<th></th>
<th>DUI-YES</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>None</td>
<td>30</td>
<td>27.5%</td>
<td>0</td>
<td>0.0%</td>
<td>30</td>
<td>15.5%</td>
</tr>
<tr>
<td>1-5 drinks</td>
<td>46</td>
<td>42.2%</td>
<td>21</td>
<td>24.7%</td>
<td>67</td>
<td>34.5%</td>
</tr>
<tr>
<td>6-9 drinks</td>
<td>14</td>
<td>12.8%</td>
<td>13</td>
<td>15.3%</td>
<td>27</td>
<td>13.9%</td>
</tr>
<tr>
<td>10-20 drinks</td>
<td>12</td>
<td>11.0%</td>
<td>24</td>
<td>28.2%</td>
<td>36</td>
<td>18.6%</td>
</tr>
<tr>
<td>More than 20 drinks</td>
<td>7</td>
<td>6.4%</td>
<td>27</td>
<td>31.8%</td>
<td>34</td>
<td>17.5%</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>109</td>
<td>100.0%</td>
<td>85</td>
<td>100.0%</td>
<td>194</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Chi-Square</th>
<th>Value</th>
<th>DF</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson</td>
<td></td>
<td>52.97173</td>
<td>4</td>
<td>.00000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td></td>
<td>64.84405</td>
<td>4</td>
<td>.00000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td></td>
<td>51.03662</td>
<td>1</td>
<td>.00000</td>
</tr>
</tbody>
</table>

Holding the position of a designated driver was a relatively common experience, since 71.5% of students reported that they had been a designated driver during the last year. Being a designated driver did not vary significantly by sex (chi-square=2.09157, d.f. = 1, p=0.15) or by DUI status (chi-square=0.97003, d.f. = 1, p=0.32).

Questions 4, 5, and 6 asked about DUI status. As expected, Question 4 with its narrow definition of DUI (during the past month) yielded the largest number of DUI-NO individuals, while Question 6 with its broad self-definition of DUI (during the past 5 years) yielded the smallest number of DUI-NO individuals. The results for this question are detailed in Table 7.9. Table 7.9 also details DUI status by sex, indicating that males are significantly more likely to engage in DUI behavior than females (p < .05).
Table 7.9  
DUI within the past month/year/5 years? (by sex)  

<table>
<thead>
<tr>
<th></th>
<th>Past month*</th>
<th>Past year</th>
<th>Past 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Males</td>
</tr>
<tr>
<td>Zero</td>
<td>95</td>
<td>94</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>76.0%</td>
<td>90.4%</td>
<td>52.0%</td>
</tr>
<tr>
<td>1-2 times</td>
<td>22</td>
<td>9</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>17.6%</td>
<td>8.7%</td>
<td>21.6%</td>
</tr>
<tr>
<td>3-5 times</td>
<td>8</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>6.4%</td>
<td>1.0%</td>
<td>12.0%</td>
</tr>
<tr>
<td>6-10 times</td>
<td>n/a</td>
<td>n/a</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>8.8%</td>
</tr>
<tr>
<td>11 or more times</td>
<td>n/a</td>
<td>n/a</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5.6%</td>
</tr>
<tr>
<td>Total:</td>
<td>125</td>
<td>104</td>
<td>125</td>
</tr>
<tr>
<td></td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

* Categories for past month were different than those for past year or past five years, but they have been translated in this chart to the equivalent levels.

<table>
<thead>
<tr>
<th></th>
<th>Chi-Square</th>
<th>Value</th>
<th>DF</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past month:</td>
<td>Pearson</td>
<td>10.21328</td>
<td>4</td>
<td>.06941</td>
</tr>
<tr>
<td>Past year:</td>
<td>Pearson</td>
<td>10.43841</td>
<td>4</td>
<td>.03366</td>
</tr>
<tr>
<td>Past 5 years:</td>
<td>Pearson</td>
<td>9.16386</td>
<td>4</td>
<td>.05713</td>
</tr>
</tbody>
</table>

Number of Drinks to Exceed Legal Limit/Affect Reflexes

DUI-YES subjects gave a higher estimate than DUI-NO subjects in terms of how many drinks they thought it would take before they exceeded the legal limit ($\bar{x}_{\text{DUI-YES}}=2.89$, $\bar{x}_{\text{DUI-NO}}=2.25$, $F=15.569$, $p<.001$; see Tables 7.10a and 7.10b). As well, DUI-YES subjects gave a higher estimate than DUI-NO subjects in terms of how many drinks they thought it would take before their reflexes were affected ($\bar{x}_{\text{DUI-YES}}=3.48$, $\bar{x}_{\text{DUI-NO}}=2.96$, $F=3.846$, $p=0.051$; see Table 7.11a and 7.11b). In general, it appears that DUI-YES subjects may have
overestimated the amount of alcohol that they could consume before their driving would be impaired, as compared to DUI-NO subjects.

Table 7.10a
Mean Values for Number of Drinks to Exceed Legal Limit Variable (LEGALLIM)

<table>
<thead>
<tr>
<th>Variable (LEGALLIM)</th>
<th>OPM</th>
<th>MALADAPT</th>
<th>CONTROL</th>
<th>REVISED MALADAPT</th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUI-NO</td>
<td>2.19</td>
<td>2.23</td>
<td>2.15</td>
<td>2.48</td>
<td>2.25</td>
</tr>
<tr>
<td></td>
<td>n=27</td>
<td>n=28</td>
<td>n=27</td>
<td>n=21</td>
<td>n=103</td>
</tr>
<tr>
<td>DUI-YES</td>
<td>2.88</td>
<td>2.91</td>
<td>3.05</td>
<td>2.59</td>
<td>2.89</td>
</tr>
<tr>
<td></td>
<td>n=17</td>
<td>n=23</td>
<td>n=28</td>
<td>n=16</td>
<td>n=84</td>
</tr>
<tr>
<td>Grand Mean</td>
<td>2.45</td>
<td>2.54</td>
<td>2.61</td>
<td>2.53</td>
<td>2.54</td>
</tr>
<tr>
<td></td>
<td>n=44</td>
<td>n=51</td>
<td>n=55</td>
<td>n=37</td>
<td>n=187</td>
</tr>
</tbody>
</table>

Table 7.10b
2 x 4 Analysis of Variance of LEGALLIM Variable
By DUI Category (2) and Experimental Group (4)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUI Category</td>
<td>18.816</td>
<td>1</td>
<td>18.816</td>
<td>15.569</td>
<td>0.000</td>
</tr>
<tr>
<td>Group</td>
<td>0.140</td>
<td>3</td>
<td>0.047</td>
<td>0.039</td>
<td>0.990</td>
</tr>
<tr>
<td>DUI Category x Group</td>
<td>3.502</td>
<td>3</td>
<td>1.167</td>
<td>0.966</td>
<td>0.410</td>
</tr>
<tr>
<td>Error</td>
<td>216.330</td>
<td>179</td>
<td>1.209</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Evaluation of the Ads

Several scales were used to evaluate the ads, and 2 x 4 ANOVAs were performed on each of these scales. These scales will be discussed in the following paragraphs, with particular regard to whether there were differences between experimental groups, or between DUI categories.

**Attitude toward the Ad (AAD) Scale**

The AAD scale showed only a main effect for the experimental group (F=3.610, p=0.014). Subjects who saw the MALADAPT-REVISED ad had a significantly better attitude
toward the ad ($\bar{x}_{\text{MALADAPT-REV.}} = 1.44$) than subjects who saw ads in the other three experimental conditions ($\bar{x}_{\text{OPM}} = 0.64$, $\bar{x}_{\text{MALADAPT-ORIG.}} = 0.42$, $\bar{x}_{\text{CONTROL}} = 0.47$, $F=3.610$, $p=0.014$; see Tables 7.12a and 7.12b). This difference in Attitude toward the ad can be attributed to the fact that the MALADAPT-REVISED ad does not make use of a fear appeal in either the text or the visual, and therefore subjects are more positively disposed toward the ad.

| Table 7.12a |
| Mean Values for Attitude toward the Ad Scale (AAD) |

<table>
<thead>
<tr>
<th></th>
<th>OPM</th>
<th>MALADAPT</th>
<th>CONTROL</th>
<th>REVISED MALADAPT</th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUI-NO</td>
<td>0.57</td>
<td>0.63</td>
<td>0.51</td>
<td>1.54</td>
<td>0.76</td>
</tr>
<tr>
<td>n=30</td>
<td></td>
<td>n=29</td>
<td>n=26</td>
<td>n=21</td>
<td>n=106</td>
</tr>
<tr>
<td>DUI-YES</td>
<td>0.76</td>
<td>0.16</td>
<td>0.42</td>
<td>1.29</td>
<td>0.57</td>
</tr>
<tr>
<td>n=17</td>
<td></td>
<td>n=23</td>
<td>n=27</td>
<td>n=14</td>
<td>n=81</td>
</tr>
<tr>
<td>Grand Mean</td>
<td>0.64</td>
<td>0.42</td>
<td>0.47</td>
<td>1.44</td>
<td>0.68</td>
</tr>
<tr>
<td>n=47</td>
<td></td>
<td>n=52</td>
<td>n=53</td>
<td>n=35</td>
<td>n=187</td>
</tr>
</tbody>
</table>

| Table 7.12b |
| 2 x 4 Analysis of Variance of AAD Variable |
| By DUI Category (2) and Experimental Group (4) |

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUI Category</td>
<td>1.170</td>
<td>1</td>
<td>1.170</td>
<td>0.497</td>
<td>0.482</td>
</tr>
<tr>
<td>Group</td>
<td>25.471</td>
<td>3</td>
<td>8.490</td>
<td>3.610</td>
<td>0.014</td>
</tr>
<tr>
<td>DUI Category x Group</td>
<td>2.779</td>
<td>3</td>
<td>0.926</td>
<td>0.394</td>
<td>0.758</td>
</tr>
<tr>
<td>Error</td>
<td>420.952</td>
<td>179</td>
<td>2.352</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Attitude toward the PSA (ATT_PSA) Scale

The ANOVA for the ATT_PSA scale showed no main effects for DUI category or experimental condition, nor were there any interaction effects. There were no differences across cells in terms of the attitude toward the PSA (see Tables 7.13a and 7.13b). This
suggests that the four ad treatments were viewed relatively equally in terms of their effectiveness as public service announcements.

Table 7.13a
Mean Values for Attitude toward the PSA Scale (ATT_PSA)

<table>
<thead>
<tr>
<th></th>
<th>OPM</th>
<th>MALADAPT</th>
<th>CONTROL</th>
<th>REVISED MALADAPT</th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUI-NO</td>
<td>5.95</td>
<td>6.26</td>
<td>6.25</td>
<td>5.93</td>
<td>6.10</td>
</tr>
<tr>
<td>n=32</td>
<td></td>
<td>n=29</td>
<td>n=27</td>
<td>n=21</td>
<td>n=109</td>
</tr>
<tr>
<td>DUI-YES</td>
<td>6.20</td>
<td>6.63</td>
<td>6.30</td>
<td>6.69</td>
<td>6.45</td>
</tr>
<tr>
<td>n=17</td>
<td></td>
<td>n=24</td>
<td>n=28</td>
<td>n=16</td>
<td>n=85</td>
</tr>
<tr>
<td>Grand Mean</td>
<td>6.04</td>
<td>6.43</td>
<td>6.28</td>
<td>6.26</td>
<td>6.25</td>
</tr>
<tr>
<td>n=49</td>
<td></td>
<td>n=53</td>
<td>n=55</td>
<td>n=37</td>
<td>n=194</td>
</tr>
</tbody>
</table>

Table 7.13b
2 x 4 Analysis of Variance of ATT_PSA Variable
By DUI Category (2) and Experimental Group (4)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUI Category</td>
<td>4.934</td>
<td>1</td>
<td>4.934</td>
<td>2.183</td>
<td>0.141</td>
</tr>
<tr>
<td>Group</td>
<td>3.153</td>
<td>3</td>
<td>1.051</td>
<td>0.465</td>
<td>0.707</td>
</tr>
<tr>
<td>DUI Category x Group</td>
<td>2.813</td>
<td>3</td>
<td>0.938</td>
<td>0.415</td>
<td>0.743</td>
</tr>
<tr>
<td>Error</td>
<td>420.461</td>
<td>186</td>
<td>2.261</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fear (FEAR_AVG) Scale

The ANOVA for the FEAR_AVG scale showed a main effect for the experimental condition (F=4.461, p=0.005), as well as a main effect for the DUI category (F=9.431, p=0.002). Subjects who saw the MALADAPT-REVISED ad were significantly more likely to disagree that it was fear-arousing ($\bar{x}_{MALADAPT-REV.}=6.41$) than subjects in the other experimental conditions ($\bar{x}_{OPM}=5.82$, $\bar{x}_{MALADAPT-ORIG.}=5.11$, F=4.461, p=0.005; see earlier Tables 7.4a and 7.4b). This suggests that the manipulation of the MALADAPT-REVISED
ad was successful, as discussed above in the manipulation check section. It also shows the
degree of difference in fear level that was created in the MALADAPT ad simply by changing
the pictorial used (from a mug-shot photo in the MALADAPT-ORIGINAL condition to an
ordinary photograph of a person in the MALADAPT-REVISED condition.

As well, DUI-NO subjects were significantly more likely than DUI-YES subjects to
disagree that the DUI ads were fear-arousing, although there was no significant difference
between DUI categories with regard to fear ratings for the CONTROL ad (see earlier Tables
7.4a and 7.4b). This suggests that fear-arousal upon seeing the DUI ads was definitely related
to one's DUI status, with DUI-YES individuals experiencing a greater level of fear- arousal.

*Calm (CALM_AVG) Scale*

The ANOVA for the CALM_AVG scale showed no main effects for DUI category, nor
were there any interaction effects, but there was a main effect for the experimental condition
\(F = 3.418, p = 0.018;\) see Tables 7.14a and 7.14b). This suggests that the four ad treatments
were viewed somewhat differently in terms of their calmness ratings, with the MALADAPT-
REVISED ad showing a significantly greater calmness rating \(\bar{x}_{MALADAPT-REV.} = 5.48,\)
\(\bar{x}_{OPM} = 6.66, \bar{x}_{MALADAPT-ORIG.} = 6.44, \bar{x}_{CONTROL} = 6.05, F = 3.418, p = 0.018).\) Since the
MALADAPT-REVISED ad was viewed as being the least fear-arousing as shown above, it
makes sense to see that it was also viewed as being the most calming.
Table 7.14a
Mean Values for *Calm* Scale (CALM_AVG)

<table>
<thead>
<tr>
<th></th>
<th>OPM</th>
<th>MALADAPT</th>
<th>CONTROL</th>
<th>REVISED MALADAPT</th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DUI-NO</strong></td>
<td>6.86</td>
<td>6.10</td>
<td>6.07</td>
<td>5.75</td>
<td>6.25</td>
</tr>
<tr>
<td>n=32</td>
<td></td>
<td>n=29</td>
<td>n=27</td>
<td>n=21</td>
<td>n=109</td>
</tr>
<tr>
<td><strong>DUI-YES</strong></td>
<td>6.29</td>
<td>6.86</td>
<td>6.02</td>
<td>5.13</td>
<td>6.15</td>
</tr>
<tr>
<td>n=17</td>
<td></td>
<td>n=24</td>
<td>n=28</td>
<td>n=16</td>
<td>n=85</td>
</tr>
<tr>
<td><strong>Grand</strong></td>
<td>6.66</td>
<td>6.44</td>
<td>6.05</td>
<td>5.48</td>
<td>6.20</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>n=49</td>
<td>n=53</td>
<td>n=55</td>
<td>n=37</td>
<td>n=194</td>
</tr>
</tbody>
</table>

Table 7.14b
2 x 4 Analysis of Variance of CALM_AVG Variable
By DUI Category (2) and Experimental Group (4)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUI Category</td>
<td>0.142</td>
<td>1</td>
<td>0.142</td>
<td>0.043</td>
<td>0.836</td>
</tr>
<tr>
<td>Group</td>
<td>33.871</td>
<td>3</td>
<td>11.290</td>
<td>3.418</td>
<td>0.018</td>
</tr>
<tr>
<td>DUI Category x Group</td>
<td>14.596</td>
<td>3</td>
<td>4.856</td>
<td>1.473</td>
<td>0.223</td>
</tr>
<tr>
<td>Error</td>
<td>614.333</td>
<td>186</td>
<td>3.303</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Involvement (INVOLVE) Scale

The ANOVA for the involvement (INVOLVE) scale showed no main effects for DUI category or experimental condition, nor were there any interaction effects (see Tables 7.15a and 7.15b). This suggests that there were no significant differences between the experimental cells in terms of involvement with the ad, so differences in involvement level cannot be a mediating variable which affects any of the other variables in the study.
Support Arguments Scale and Counter-arguments Scale

The ANOVA for the support arguments (SUPPORT) scale showed no main effects for DUI category or experimental condition, nor were there any interaction effects (see Tables 7.16a and 7.16b). However, the ANOVA for the counter-arguments (COUNTER) scale showed a main effect for the experimental condition ($F=3.604, p=0.015$; see Tables 7.17a and 7.17b). The CONTROL group had the lowest level of disagreement with counterargument statements ($\bar{x}_{\text{COUNTER}}=5.58$) as compared to subjects in the other three ad conditions ($\bar{x}_{\text{OPM}}=6.14$, $\bar{x}_{\text{MALADAPT-ORIG.}}=6.54$, $\bar{x}_{\text{MALADAPT-REV.}}=6.07$; see Tables 7.17a and 7.17b). This suggests that there was more counter-arguing in the CONTROL condition, which showed an
anti-drug ad, and less counter-arguing in the DUI conditions.

<table>
<thead>
<tr>
<th>Table 7.16a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Values for <strong>Support Arguments</strong> Scale (SUPPORT)</td>
</tr>
<tr>
<td>Source</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>DUI-NO</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>DUI-YES</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Grand Mean</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 7.16b</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 x 4 Analysis of Variance of SUPPORT Variable By DUI Category (2) and Experimental Group (4)</td>
</tr>
<tr>
<td>Source</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>DUI Category</td>
</tr>
<tr>
<td>Group</td>
</tr>
<tr>
<td>DUI Category x Group</td>
</tr>
<tr>
<td>Error</td>
</tr>
</tbody>
</table>
Table 7.17a
Mean Values for Counter-Arguments Scale (COUNTER)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum-of-Squares</th>
<th>DF</th>
<th>Mean-Square</th>
<th>F-Ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DUI-NO</td>
<td>4.444</td>
<td>1</td>
<td>4.444</td>
<td>1.828</td>
<td>0.178</td>
</tr>
<tr>
<td>DUI-YES</td>
<td>26.282</td>
<td>3</td>
<td>8.761</td>
<td>3.604</td>
<td>0.015</td>
</tr>
<tr>
<td>Control</td>
<td>6.776</td>
<td>3</td>
<td>2.259</td>
<td>0.929</td>
<td>0.428</td>
</tr>
<tr>
<td>Revised MALADAPT</td>
<td>452.150</td>
<td>186</td>
<td>2.431</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary of Ad Evaluation Scales

Table 7.18 presents a summary of the ANOVA results presented in this section which were used to evaluate the ads. The experimental groups were significantly different on the Attitude toward the ad (AAD) scale, the FEAR scale, the CALM scale, and the counter-argument (COUNTER) scale. In each of these cases, the MALADAPT-REVISED ad condition showed the most positive attitude toward the ad, the least fear-arousal, the highest calmness rating, and the least counter-arguing. This suggests that this ad version was low fear, and that it did not arouse defensive mechanisms or defensive reactions in its message recipients.
Among the scales summarized in Table 7.18, DUI status was a significant factor only on the FEAR scale. Those who were in the DUI-YES group reported higher levels of fear-arousal than those in the DUI-NO group. Additionally, there were no significant interaction effects on any of the variables reported in Table 7.18.

<p>| Table 7.18 |
| Summary of 2 x 4 ANOVA Results on Ad Evaluation Scales and Variables |</p>
<table>
<thead>
<tr>
<th>Experiment Condition (GROUP)</th>
<th>DUI Category (DUICATSP)</th>
<th>GROUP x DUICATSP (interaction effect)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude toward the ad (AAD)</td>
<td>F=3.610 p=0.014**</td>
<td>F=0.497 p=0.482 F=0.394 p=0.758</td>
</tr>
<tr>
<td>Attitude toward the PSA (ATT_PSA)</td>
<td>F=0.465 p=0.707</td>
<td>F=2.183 p=0.141 F=0.415 p=0.743</td>
</tr>
<tr>
<td>Fear Scale (FEAR_AVG)</td>
<td>F=4.461 p=0.005***</td>
<td>F=9.431 p=0.002*** F=1.060 p=0.368</td>
</tr>
<tr>
<td>Calm Scale (CALM_AVG)</td>
<td>F=3.418 p=0.018**</td>
<td>F=0.043 p=0.836 F=1.473 p=0.223</td>
</tr>
<tr>
<td>Involvement Scale (INVOLVE)</td>
<td>F=0.143 p=0.934</td>
<td>F=0.511 p=0.476 F=.250 p=0.861</td>
</tr>
<tr>
<td>Support Arguments Scale (SUPPORT)</td>
<td>F=0.720 p=0.541</td>
<td>F=0.377 p=0.540 F=0.306 p=0.821</td>
</tr>
<tr>
<td>Counter-arguments Scale (COUNTER)</td>
<td>F=3.604 p=0.015**</td>
<td>F=1.828 p=0.178 F=0.929 p=0.428</td>
</tr>
</tbody>
</table>

* approaching statistical significance at p < .10
** statistical significance at p < .05
*** statistical significance at p < .01
**** statistical significance at p < .001

DUI Attitudes, Beliefs, and Behavioral Intentions

The hypotheses were tested by examining several variables, including the pause variable (PAUSE), attitude toward DUI scale (DUI_ATT, and its two components scales
ACCEPTAB and CIRCUMST), the attitude toward DUI offenders scale (DUI_ATT2), the DUI behavioral beliefs scale (BEHAVBEL), and the DUI behavioral intentions variable (PROBDRIV). For each of these variables or scales, planned contrasts were performed.

**Hypothesis 1**

H1 states the following:

**H1** Among the high-risk behavioral group, the MALADAPT ad will be more effective in changing DUI attitudes and behavioral intentions in the desired direction than the OPM ad.

In order to test this hypothesis, a series of planned t-tests were used (see Table 7.19 for a summary of results).
### Table 7.19
Summary of planned t-tests to Test Hypothesis 1
Comparing OPM/DUI-YES cell with MALADAPT-REVISED/DUI-YES cell

<table>
<thead>
<tr>
<th></th>
<th>$\bar{x}_{\text{OPM/DUI-YES}}$</th>
<th>$\bar{x}_{\text{MALADAPT-REVISED/DUI-YES}}$</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ad would make me pause (PAUSE)</td>
<td>5.1176</td>
<td>3.4375</td>
<td>2.12</td>
<td>0.046**</td>
</tr>
<tr>
<td>Attitude toward DUI (ATT_DUI) ACCEPTAB CIRCUMST</td>
<td>6.0882</td>
<td>7.4063</td>
<td>2.15</td>
<td>0.040**</td>
</tr>
<tr>
<td>Attitude toward DUI offenders (ATT_DUI2)</td>
<td>7.0000</td>
<td>8.0625</td>
<td>1.85</td>
<td>0.076*</td>
</tr>
<tr>
<td>Behavioral Beliefs about DUI (BEHAVBEL)</td>
<td>5.1765</td>
<td>6.7500</td>
<td>1.80</td>
<td>0.082*</td>
</tr>
<tr>
<td>DUI Intentions (PROBDRV)</td>
<td>3.5735</td>
<td>2.6865</td>
<td>1.55</td>
<td>0.132</td>
</tr>
</tbody>
</table>

* approaching statistical significance at $p < .10$
** statistical significance at $p < .05$
*** statistical significance at $p < .01$
**** statistical significance at $p < .001$

In examining the planned t-tests which compared the OPM/DUI-YES cell with the MALADAPT-REVISED/DUI-YES cell (see Table 7.19), there were statistically significant differences between these two cells for three out of the five DUI attitude/behavior measures (all except DUI behavioral beliefs and attitude toward DUI offenders). In terms of differences between the OPM and MALADAPT-REVISED experimental conditions, the PAUSE variable, the attitude toward DUI variable (ATT_DUI), and the behavioral intention variable (PROBDRV) showed a statistically significant difference, with those in the MALADAPT-REVISED condition saying the ad would be more likely to make them pause, that they had a more negative attitude toward DUI, and that they were less likely to engage in DUI behavior.
in the future.

This means that among DUI-yes subjects, the MALADAPT-REVISED ad had a greater impact than did the OPM ad in terms of moving DUI attitudes and DUI behavioral intentions in the appropriate direction. Therefore, H1 was supported.

**Hypothesis 2**

H2 states the following:

**H2** Among the low-risk behavioral group, the OPM ad will be more effective in changing DUI attitudes and behavioral intentions in the desired direction than the MALADAPT ad.

Table 7.20 presents a summary of the planned t-tests that were performed to compare the effect of the OPM ad and the MALADAPT-revised ad among the DUI-no group on the key measures of DUI attitudes, behavioral beliefs, and intentions. In reviewing this summary, it is apparent that there are no statistically significant differences between the performance of the OPM and MALADAPT-REVISED ads on the DUI-no target segment, with the exception of the behavioral beliefs variable (BEHAVBEL). Those DUI-NO subjects who viewed the MALADAPT-REVISED ad were more likely to believe that maladaptive coping responses (driving more slowly, driving on the side streets) would be ineffective, showing that the MALADAPT-REVISED ad did have an informational impact on these subjects.

The reason why there are no significant differences on any of the other indicators for DUI attitudes, beliefs, or behavioral intentions likely lies in the fact that the DUI-no group already holds extreme views about the unacceptability of DUI behavior. This group already is likely to believe that DUI behavior is likely to result in negative consequences, and do not intend to personally engage in DUI behavior. Therefore, the impact of one or the other of the two ads is unlikely to make much difference in the views of this target group. Indeed, if this
group has never engaged in DUI behavior, the ads are really not aimed at this target group at all, and in hindsight, there is probably no reason to believe that the ads would have an impact on this target group. Therefore, H2 is not supported.

Table 7.20
Summary of planned t-tests to Test Hypothesis 2 Comparing OPM/DUI-NO cell with MALADAPT-REVISED/DUI-NO cell

<table>
<thead>
<tr>
<th></th>
<th>( \bar{x}_{OPM/DUI-NO} )</th>
<th>( \bar{x}_{MALADAPT-REV./DUI-NO} )</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ad would make me pause (PAUSE)</td>
<td>5.0000</td>
<td>5.5714</td>
<td>0.72</td>
<td>0.475</td>
</tr>
<tr>
<td>Attitude toward DUI (ATT DUI) ACCEPTAB CIRCUMST</td>
<td>7.9375</td>
<td>7.7619</td>
<td>0.33</td>
<td>0.740</td>
</tr>
<tr>
<td>Attitude toward DUI offenders (ATT_DUI2)</td>
<td>8.6875</td>
<td>8.0952</td>
<td>1.21</td>
<td>0.238</td>
</tr>
<tr>
<td></td>
<td>7.1875</td>
<td>7.4286</td>
<td>0.32</td>
<td>0.751</td>
</tr>
<tr>
<td>Attitude toward DUI offenders (ATT_DUI2)</td>
<td>2.4688</td>
<td>2.1190</td>
<td>0.82</td>
<td>0.414</td>
</tr>
<tr>
<td>Behavioral Beliefs about DUI (BEHAVBEL)</td>
<td>3.5938</td>
<td>2.7619</td>
<td>1.86</td>
<td>0.070</td>
</tr>
<tr>
<td>DUI Intentions (PROBDRIV)</td>
<td>8.1875</td>
<td>7.7619</td>
<td>0.69</td>
<td>0.495</td>
</tr>
</tbody>
</table>

* approaching statistical significance at \( p < .10 \)
** statistical significance at \( p < .05 \)
*** statistical significance at \( p < .01 \)
**** statistical significance at \( p < .001 \)

Hypothesis 3a

H3a states the following:

H3a Among the high-risk behavioral group, the MALADAPT ad will be more effective in changing DUI attitudes and behavioral intentions in the desired direction than the CONTROL ad.

Table 7.21 presents a summary of the planned t-tests that were undertaken to test H3a.

There were significant differences between the MALADAPT ad and the CONTROL ad in
terms of their ability to make the DUI-YES subjects pause before DUI \( (p=0.006) \), and those
DUI-YES subjects who saw the MALADAPT ad had a more negative attitude toward DUI
\( (p=0.071) \), and had a lower intention to engage in DUI behavior in the future \( (p=0.054) \).
However, there was no statistically significant difference between DUI-YES subjects in these
two groups in terms of their attitudes toward DUI offenders or in their behavioral beliefs
regarding DUI, although the results were directionally supportive of H3a.

Overall, the results from Table 7.21 are supportive of H3a, since the MALADAPT-
REVISED ad was successful in making subjects PAUSE, as well as in creating a more
negative attitude toward DUI and reducing intentions to engage in DUI behavior in the future.

<table>
<thead>
<tr>
<th>Table 7.21</th>
<th>Summary of planned t-tests to Test Hypothesis 3a</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Comparing MALADAPT-REVISED/DUI-YES cell with CONTROL/DUI-YES cell</td>
</tr>
<tr>
<td></td>
<td>( \bar{x}_{MALADAPT-REV./DUI-YES} )</td>
</tr>
<tr>
<td>Ad would make me pause (PAUSE)</td>
<td>3.4375</td>
</tr>
<tr>
<td>Attitude toward DUI (ATT_DUI) ACCEPTAB CIRCUMST</td>
<td>7.4063</td>
</tr>
<tr>
<td>Attitude toward DUI offenders (ATT_DUI2)</td>
<td>8.0625</td>
</tr>
<tr>
<td>Behavioral Beliefs about DUI (BEHAVBEL)</td>
<td>6.7500</td>
</tr>
<tr>
<td>DUI Intentions (PROBDRIV)</td>
<td>2.6875</td>
</tr>
<tr>
<td></td>
<td>3.5208</td>
</tr>
<tr>
<td></td>
<td>7.3125</td>
</tr>
</tbody>
</table>

* approaching statistical significance at \( p < .10 \)
** statistical significance at \( p < .05 \)
*** statistical significance at \( p < .01 \)
**** statistical significance at \( p < .001 \)
Chapter Seven  The OPM Model and Market Segments: An Improved Replication Using DUI Print Ads

\textit{Hypothesis 3b}

H3b states the following:

H3b Among the high-risk behavioral group, the OPM ad will also be more effective in changing DUI attitudes and behavioral intentions in the desired direction than the CONTROL ad.

Table 7.22 presents a summary of the planned t-tests that were undertaken to test H3b. It appears that there is no support for H3b. Among the DUI-YES group, there was no statistically significant difference between the OPM ad and the CONTROL ad in terms of whether the ad would make the subject pause, attitude toward DUI, attitude toward DUI offenders, DUI behavioral beliefs, or DUI intentions. Therefore, H3b was not supported.

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|c|}
\hline
 & $\bar{x}_{\text{OPM/DUI-YES}}$ & $\bar{x}_{\text{CONTROL/DUI-YES}}$ & t & p \\
\hline
Ad would make me pause (PAUSE) & 5.1176 & 5.2143 & 0.11 & 0.914 \\
Attitude toward DUI (ATT.DUI) & 6.0882 & 6.3036 & 0.33 & 0.746 \\
ACCEPTAB & 7.0000 & 7.1071 & 0.16 & 0.873 \\
CIRCUMST & 5.1765 & 5.5000 & 0.37 & 0.710 \\
Attitude toward DUI offenders (ATT.DUI2) & 3.5735 & 3.0714 & 0.96 & 0.343 \\
Behavioral Beliefs about DUI (BEHAVBEL) & 3.8824 & 4.2857 & 0.82 & 0.419 \\
DUI Intentions (PROBDRIV) & 5.1765 & 6.0357 & 1.06 & 0.296 \\
\hline
\end{tabular}
\caption{Summary of planned t-tests to Test Hypothesis 3b Comparing OPM/DUI-YES cell with CONTROL/DUI-YES cell}
\end{table}

* approaching statistical significance at $p < .10$
** statistical significance at $p < .05$
*** statistical significance at $p < .01$
**** statistical significance at $p < .001$
Summary

The results of this experiment were generally supportive of Hypotheses H1 and H3a; however, Hypotheses H2 and H3b were not supported. These results are summarized in Table 7.23.

<table>
<thead>
<tr>
<th>Table 7.23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary of Hypotheses</td>
</tr>
<tr>
<td>H1</td>
</tr>
<tr>
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Discussion

This experiment examined the use of two different types of ads, and compared their effectiveness in changing DUI attitudes and behavioral intentions. The results discussed above indicated that the MALADAPT style of ad (i.e., the MALADAPT-REVISED ad condition) was most effective in changing the DUI attitudes and behavioral intentions of the DUI-YES group in the appropriate direction. As was expected, compared to the CONTROL condition, the DUI-YES subjects who were exposed to the MALADAPT style of ad were more likely to espouse less favorable DUI attitudes and reduced DUI behavioral intentions. This result would
be expected of any effective DUI ad, since exposure to a DUI ad (versus a non-relevant CONTROL condition ad) should result in a shift in DUI attitudes and behavioral intentions. However, the real strength of the MALADAPT style of ad was demonstrated when its impact on DUI-yes subjects was shown to be significantly superior to that of the OPM ad in terms of changing DUI attitudes and behavioral intentions in the appropriate direction.

The strength of the MALADAPT ad style lies in its efforts to counteract maladaptive coping responses. DUI-YES subjects have a history of engaging in DUI behavior, and have undoubtedly developed a repertoire of maladaptive coping responses. The types of maladaptive coping responses used by DUI-YES subjects were elicited and examined in the focus group results in Chapter Six. The MALADAPT ad tries to counteract these common maladaptive coping responses (e.g., driving down side streets, driving more slowly), and in doing so, is effective in changing the DUI attitudes and behavioral intentions of DUI-YES subjects. Interestingly, the MALADAPT-ORIGINAL ad which contained the mug-shot pictorial resulted in a fear response which seemed to negate the effectiveness of the ad. Only when the pictorial was changed to a low-fear neutral pictorial in the MALADAPT-REVISED ad did it become effective with the DUI-YES group. This suggests that the fear-arousing element in the MALADAPT-ORIGINAL ad aroused a defensive mechanism, which negated the potentially positive effects of the ad copy. Using a neutral pictorial allowed DUI-YES subjects to focus on the ad message and cognitively process its message, which resulted in greater effectiveness of the MALADAPT-REVISED ad. This cognitive processing style seemed to be more effective with DUI-YES subjects than the high-fear ad which relied on an

5 These results underline the extreme importance in choosing graphic elements to accompany ad copy. The photo and the ad copy work together, and discordant elements in either pictorial or ad copy can result in unexpected or unintended negative results.
emotional reaction to elicit attitude change.

Although it had been hypothesized that the OPM ads would be more effective with the DUI-NO group, this was not supported. In fact, there were no significant differences in DUI attitudes or behavioral intentions, regardless of which ad was presented to members of the DUI-NO group. One could speculate that the reason for this would be that there was already a ceiling effect, since DUI-NO subjects already held a relatively negative attitude toward DUI, and there was little room for them to move on the scale after being presented with an OPM ad. This could account for the lack of significant differences in mean scores for the DUI-NO subjects found in the OPM group as compared to the MALADAPT or CONTROL groups.

This leads to an interesting question regarding the role of fear appeals. It appears that the use of fear-arousal leads to a defensive response in DUI-YES individuals, resulting in the ad being rendered ineffective (as shown in the OPM ad condition as well as in the MALADAPT-ORIGINAL ad condition which had a fear-arousing pictorial). If this is the case, then fear-arousal is not a useful tool for persuading those who are already strongly committed to a negative behavior. For individuals who are already committed to a negative behavior, it appears to be more worthwhile to try to counteract their maladaptive beliefs and behaviors, as shown through the use of the MALADAPT ad condition.

However, given the above-mentioned result where the fear-arousing OPM ad had no discernible effect on DUI-NO subjects when compared to either the CONTROL condition or the MALADAPT ad condition, one might wonder about the effectiveness of fear appeals. Do these results suggest that fear appeals are not effective for either DUI-YES or DUI-NO individuals? And if this is the case, why is the use of fear appeals so widespread, being used
in approximately one-quarter of all social marketing ads. It seems reasonable to believe that fear-arousal can play a role in persuasive communications in social marketing. It seems unlikely, based on the above results, that fear appeals are effective with those who are already strongly committed to negative behaviors like DUI. However, fear-arousal may be more useful as a preventive device for the DUI-NO subjects, since fear-arousal may potentially prevent individuals from ever beginning to engage in the negative behavior. Fear-arousal may also act as a reinforcing device which reinforces the behavior of DUI-NO individuals. Seeing fear-arousing ads may serve to remind DUI-NO subjects of the reasons why they have chosen not to engage in DUI behavior.

As in the experiment described in Chapter Five, there is a potential concern about the presence of a demand artifact. A demand artifact occurs as a result of the reactivity of the questionnaire, whereby subjects in the experiment guess the purpose of the experiment, and consciously or unconsciously give answers which they feel will help the researcher fulfill his/her hypotheses. If a demand artifact is present, it should affect all subjects within a given condition relatively equally. Demand can be assessed in the present experiment by comparing the attitudes and beliefs toward DUI that are held by subjects in the OPM and MALADAPT conditions against those held by subjects in the CONTROL condition. This would suggest that all subjects who see the ad against DUI in the OPM and MALADAPT conditions would report that they have more negative attitudes and beliefs toward DUI than subjects in the CONTROL condition. However, the DUI-NO subjects did not hold significantly different attitudes in the OPM or MALADAPT conditions, as compared to the CONTROL condition. On the other hand, the DUI-YES subjects did hold significantly different attitudes in the MALADAPT conditions, as shown in the content analysis study in Chapter Three.

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6 As shown in the content analysis study in Chapter Three.
condition, as compared to the CONTROL condition. It seems unlikely that only certain individuals (i.e., DUI-YES subjects) would experience a demand effect, since demand effects are a result of the treatment being administered, not a result of the individual characteristics of the subjects. Therefore, it is not reasonable to attribute these results to a demand artifact.

Limitations of the Study

The experiment presented in this Chapter had a number of limitations. One key problem was the inadvertent introduction of a fear element in the original MALADAPT ads, through the use of a mug-shot photo. This problem was corrected in mid-experiment by revising the MALADAPT pictorial to include a neutral photo instead. This essentially resulted in two types of fear level conditions (high fear and low fear) nested within the MALADAPT condition. A future replication of this experiment should make use of the high-fear/low-fear factor across all conditions. This would mean running the experiment as a 2 (fear levels: high, low) x 2 (DUI categories: DUI-YES and DUI-NO) x 3 (ad types: OPM, MALADAPT, and CONTROL) between subjects experiment. This experimental design would allow the high fear and low fear conditions to be compared for the OPM and MALADAPT conditions, thereby ensuring that the effects found in the low-fear MALADAPT condition are not simply attributable to it being a low-fear type of ad. Care must be taken to ensure that the ad treatments are equivalent across experimental conditions.

A future experiment could also include some additional measures that would be useful in analyzing the results or understanding the attitude change process. One suggestion for an additional measure would be a social desirability scale, in order to factor out a possible social desirability bias in self-reporting of DUI behavior. Another scale that would be useful to include in this type of study would be a measurement of perceived riskiness of engaging in
DUI behavior. Finally, it would be useful to measure the perceived seriousness and perceived probability of various outcomes (e.g., what are subjects' perceptions about the seriousness of getting caught by police, and how likely do they perceive it to be that they could get caught by police?).

The nature of this experiment resulted in uneven cell sizes. The sample size in the MALADAPT-REVISED condition ended up being somewhat smaller than that in the other three conditions. It would be preferable to attempt to maintain a more balanced set of cell sizes across the experimental conditions. Equivalence of cell sizes would result in somewhat greater statistical reliability, and larger cell sizes might result in stronger or more stable effect sizes.

This experiment made use of only a one-time ad exposure. This limited ad exposure is undoubtedly not enough to further influence subjects who already hold strong DUI-NO views, especially when those views are already the ones that are most socially acceptable and supported by society as a whole. To determine whether fear appeals were successful in creating a long-term or cumulative impact on DUI-NO individuals, it would be necessary to use a complex longitudinal design. Even a longitudinal experimental design, however, would result in many difficulties in controlling the environment and holding constant other factors which might have an impact on DUI attitudes and behavior. However, the fact that the one-time ad exposure of a MALADAPT ad was influential in impacting the DUI attitudes and behavioral intentions of the DUI-YES group means that multiple repeated exposures may not always be necessary, if the message is important and relevant enough to the target group.

Future Research

There are many possibilities for future research which could be derived from the
present study. Replications of this experiment using different negative behaviors (e.g., smoking, unsafe sex, drug abuse) could be a fruitful area of research which would extend the generalizability of the study. Additionally, replicating the experiment using different media (e.g., creating radio ads or television ads) would also extend the generalizability of the research to include different communication modes.

Beyond these suggestions for replications, there are also new research questions which require attention. Are there certain types of fear appeals that are more effective than others? The present experiment used fear of getting caught by police, as opposed to fear of getting into an accident and killing oneself or others.\textsuperscript{7} Does the relevance or salience of the fear appeal have an impact on its effectiveness? Further, does the type of maladaptive belief or behavior that is targeted have an impact on the effectiveness of the MALADAPT style of ad? Does targeting more salient or relevant maladaptive behaviors result in a more effective ad among the DUI-YES group?

Finally, if fear appeals are relatively ineffective in changing the behavior of those most committed to negative behaviors, then what is the appropriate role of the fear appeal? Is it appropriate to use fear appeals to scare a large majority of responsible citizens who seldom or never engage in the targeted behavior? Is it reasonable to use fear appeals, knowing that they are unlikely to have any effect on the worst offenders whose behavior is most in need of change? These are moral and ethical questions which require research and thought to

\textsuperscript{7} The reason for this choice of a fear-arousing element was due to some of the insights gained at the focus group (described in Chapter Six). It appears that DUI-YES individuals are unconcerned about getting into an accident or killing others, but are extremely concerned about being caught by police. Their rationale for this lack of concern about getting into an accident is that they would not have gotten into the car to drive if they thought they were incapable of driving safely. Therefore, once they are in the car, their only concern is to avoid being caught by police.
determine the appropriate role and use of fear appeals.

Conclusion

This study provided an effective means of testing the effectiveness of a MALADAPT style of ad against a DUI-YES target group. Future research should examine the generalizability of this finding using other types of targeted behaviors, different choices of maladaptive beliefs in MALADAPT style ads, and different types of fear appeals in OPM ads.
CHAPTER EIGHT
SUMMARY AND CONCLUSION
CHAPTER EIGHT

SUMMARY AND CONCLUSION

Summary

This thesis has examined the use of fear appeals in social marketing ads. It began in Chapter One with a review of the literature on fear appeal models, which indicated that although there were many apparently conflicting models, much of the evidence lends support to the Protection Motivation (PM) model (Rogers 1975, 1983) and by extension, to the Ordered Protection Motivation (OPM) model (Tanner, Hunt, and Eppright 1991). The literature review also revealed that there were no studies which had empirically examined whether social marketing ads which incorporate fear appeals actually adhere to these models. Furthermore, the review also indicated that there were few studies which had examined the incidence of fear appeals in advertising in general, or in social marketing advertising in particular. As well, it appeared that little work had been done in examining potential linkages between the use of fear appeals and such factors as country-of-origin, type of behavior being targeted, type of sponsor, and intended target group. This, therefore, laid the groundwork for a content analysis study.

The methodology for the content analysis study was laid out in Chapter Two, which outlined the procedures for gathering, coding, and analyzing 589 social marketing television commercials gathered from five countries (Canada, United States, Britain, Australia, New Zealand) covering five behavioral categories (smoking, DUI, alcohol moderation, drug abuse, and AIDS prevention).

Chapter Three presented the major findings of the content analysis. The study revealed that there was substantial adherence to one of the major tenets of the Protection Motivation model (Rogers 1975, 1983) and the Ordered Protection Motivation (OPM) model (Tanner,
Chapter Eight Summary and Conclusion

Hunt, and Eppright 1991), since ads which contained a threat usually also included a recommended coping response. There was also substantial adherence to the ordering concept contained in the OPM model, as the content analysis confirmed that threats usually preceded the coping response information. Although the PM and OPM models recommend the inclusion of information about self efficacy and response efficacy in persuasive messages, the content analysis revealed that there was only very limited adherence to this prescription. A possible reason for exclusion of self efficacy and response efficacy information in the majority of television commercials may be due to the space and time limitations which the television commercial format imposes.

As well, Chapter Three examined how country-of-origin, type of behavior being targeted, type of sponsor, and intended target group can have an impact on the incidence of fear appeals in social marketing TV commercials. Both bivariate and multivariate analysis revealed a statistically significant relationship between all four of these variables and the use of fear appeals. Commercials less likely to make use of fear appeals were those that were intended for youthful target groups, sponsored by corporate sponsors, and aimed at less serious types of behaviors such as smoking. Australia was the only country that seemed more likely to make use of fear appeals, as compared to the United States and Canada. Chapter Three also highlighted similarities and differences in findings between this content analysis and the few other comparable content analysis studies which had been conducted previously.

The content analysis study provided a descriptive picture of the characteristics of existing social marketing ads. However, it could not provide insight into how effective any of these ads were, whether fear appeal ads were more effective than other types, or whether fear appeal ads were more effective with particular target groups. Therefore, a further review of the literature in Chapter Four focused on the impact of fear appeals on different target
segments. Theory developing out of this review hypothesized that fear appeals would be less effective with the target group who was already frequently engaging in the negative behavior. However, successfully influencing the behavior of this high-risk target group could potentially result in the most sizeable societal benefit. Therefore, a special type of ad for use with the high-risk target group was proposed. This new MALADAPT ad would attack the maladaptive coping responses of the high-risk target group, rather than using the traditional OPM ad approach of trying to arouse fear about the negative consequences of the behavior.

Chapter Five presented an exploratory experiment to compare the effectiveness of the new MALADAPT ad against the traditional OPM ad, as well as against a control ad. DUI was the targeted behavior, and the two target groups consisted of those who engage in DUI, and those who do not engage in DUI. However, because of problems with the ad manipulation and the small sample size, the results of this study were inconclusive.

To help prepare better ad manipulations and to gain greater insight into the DUI target group, a focus group was conducted. A key finding from this focus group, described in Chapter Six, is that those who engage in DUI are relatively unconcerned about getting into an accident, but are much more concerned about getting caught by the police. Their rationale for this is that if they were concerned about getting into an accident, they would not get into the car in the first place; therefore, having gotten into the car, their only concern is about getting caught. This fascinating insight explains why this DUI target group may be relatively unaffected by fear-arousing DUI ads containing bloody crash scenes.\(^1\) As well, the focus

\(^1\) Although some of the fear-arousing DUI ads have proven to be effective in reducing the number of DUI incidents, it is not known whether this decrease in DUI is due to a cessation of DUI among those who only occasionally engage in this behavior, or whether it is due to a decrease in DUI behavior among those who frequently engage in DUI (or both). This is an important issue which has not been explored in existing research.
group established some of the key maladaptive coping responses that are associated with DUI behavior (driving more slowly, and taking side streets home), which provided useful material for designing a more effective MALADAPT ad against DUI.

Chapter Seven described a successful extension of the exploratory experiment, which showed conclusively that the MALADAPT ad was, indeed, more effective in changing attitudes of the DUI target group than either the OPM ad or the control ad. The OPM ad was not found to be more effective in changing the attitudes of the non-DUI target group as had been hypothesized, but this can perhaps be explained by a ceiling effect which would prevent the non-DUI group from changing its attitudes significantly.

In summary, this dissertation used a variety of research methods to explore the use of fear appeals in social marketing ads. The content analysis analyzed the characteristics of the existing pool of social marketing ads. The two experiments showed that fear appeals may be less effective on a high-risk target group, and demonstrated that a different kind of ad which does not use fear appeals (i.e., the MALADAPT ad) can be more effective in changing the attitudes of this high-risk group.

One of the concerns in studying social marketing is that it should include basic behavioral research to expand our understanding of disturbed consumer behavior, as well as applied behavioral research to develop effective treatment interventions and new ways to implement more effectively what is already known (Petty and Cacioppo 1996). This thesis has focused primarily on the intervention/implementation side of the equation, with its emphasis on quantifying existing social marketing ads through content analysis and developing more effective types of social marketing ads through experimentation. One goal of the focus group research was to gain a deeper understanding of the disturbed behavior (DUI), and this basic research provided many useful insights into the thoughts and attitudes of those who engage in
Contributions of the Research

This research in this dissertation has made a number of contributions to our knowledge about the use of fear appeals in social marketing advertising. First, the content analysis represents the first and only attempt to examine the extent to which fear appeals are used in several types of social marketing ads across several countries. As well, it examines whether the incidence of fear appeals is influenced by factors such as intended target group and type of sponsor. The study has provided some insight into cross-national differences in the use of fear appeals, and validated a belief that Australia has tended to make greater use of fear appeals in social marketing ads. This information derived from the content analysis study will be of significant interest to social marketers who may wish to compare their own campaigns with norms identified in the study.

The content analysis also provides the only known attempt to examine the extent to which the tenets of the OPM model are adhered to in social marketing advertising. This aspect of the content analysis is expected to be of significant interest to social marketers as well as to researchers who study fear appeal models, since it quantifies the extent to which social marketing ads adhere to the prescriptive advice of the OPM model.

The experiments also made a significant contribution to knowledge. The experimental studies found that a social marketing ad which counterargues against maladaptive coping responses is more effective in changing the attitudes of the high-risk behavioral group, when compared against a similar ad which uses a traditional OPM fear appeal approach. This provides an argument against the use of fear appeals for the high-risk target group, and suggests that other approaches may be more suitable for persuading this important target.
Finally, the focus group also provided at least one important contribution to knowledge. Many DUI campaigns have focused on fear-provoking bloody accident scenes, mangled car wrecks, hysterical survivors, and dead bodies to drive home their message. Participants in the focus group, however, indicated that getting into an accident is not one of their concerns when they engage in DUI. They expressed the belief that they would not get into the car if they did not think they were fit to drive; therefore, having gotten into the car, their only concern is to avoid getting caught by the police. This unique perspective may explain the relative ineffectiveness of the high-fear approach with the hard-core DUI segment, and argues in favor of an approach which instead focuses on counteracting maladaptive coping responses. The prescriptive advice for social marketers is that when a high-risk behavioral group is the key target segment in a campaign, it is better to develop a persuasive campaign that focuses on counteracting maladaptive coping responses, rather than trying to use a fear-arousing OPM approach.

Limitations of the Research

Each of the studies reported in this dissertation had a number of limitations. These limitations may affect the generalizability of the results, but are also important in terms of pointing out research extensions or areas for future research.

The content analysis used a snowball sampling method. While every attempt was made to obtain as complete a set of ads as possible, the resulting pool of ads may not fully represent the total population of social marketing ads in the categories that were being sought, which would limit the generalizability of the results. As well, the sample was limited to five behaviors and five countries. Extending the sample further into other types of behaviors or
other countries might yield somewhat different findings.

Other limitations relate to coding of the commercials. The coding scheme that was developed for this content analysis was intended to be as comprehensive as possible, but some important variables may have inadvertently been left out. A coding scheme is developed based on a sub-sample of commercials, and a different initial sub-sample could result in a somewhat different coding scheme. Another issue is that the measurement of the fear variables relied on the joint judgment of the four coders. The assessments of these four coders had a relatively high degree of agreement, but another set of four coders may have assessed fear levels differently in some of the commercials. The four coders learn from each other as they practise their task, and their responses become more alike as they practise. This provides greater reliability within the group, but it is possible that other groups of coders would code some items differently.

It is encouraging to note that on those few variables where it was possible to compare the results of this content analysis with other previous studies, the results seemed to be comparable. Therefore, the limitations of the content analysis may not have adversely affected its findings.

The experiment described in Chapter Five had a number of limitations as well. The biggest concern was that the OPM and MALADAPT ads did not differ significantly from one another in terms of their level of perceived fear, suggesting that the ad manipulation was not successful. As well, not enough data was collected on the dependent variables, since there was no information about DUI intentions or attitudes toward maladaptive behaviors.

The study in Chapter Seven attempted to rectify these shortcomings by preparing improved ad versions and presenting a more comprehensive questionnaire. However, a new problem that arose was the inadvertent introduction of a fear element in the original
MALADAPT ads, through the use of a mug-shot photo. This problem was corrected in mid-experiment by revising the MALADAPT pictorial to include a neutral photo instead.

As well, both experiments made use of only a one-time ad exposure. This limited ad exposure is probably not enough to further influence subjects who already hold strong DUI-NO views.

The focus group described in Chapter Six also had a number of limitations which are associated with qualitative research. The failure of the audio equipment meant that it was not possible to conduct a thorough content analysis of the text resulting from the focus group discussion. As well, the views of the eleven people in the focus group are not necessarily representative of the larger population, so the generalizability of results may be limited.

**Future Research**

There are many opportunities for future research which stem from this dissertation. Future research opportunities are expected to be of two types: (1) content analysis studies which could provide an extension or interesting comparison to the present study; and (2) laboratory studies or experiments which examine the use of fear appeals and alternative message formats with various target groups.

Future content analysis studies could extend the comprehensive snowball sampling technique to collect social marketing ads from non-English speaking countries, either in Europe or the Pacific Rim. There are many cultural differences between Asian and Western cultures which may result in interesting differences in social marketing ads. The newly gathered social marketing ads from the non-English speaking countries could be compared with the results for the present study, in order to examine similarities and differences between countries and cultures. Other types of potential content analysis studies could examine different behavioral
categories of social marketing ads, from the same or different countries, in order to make comparisons.

The cross-sectional probabilistic variety of content analysis study could also be conducted, in order to investigate the incidence and types of social marketing ads within the television or radio environment. While typically the incidence of social marketing ads is very low, necessitating a very large sample of TV/radio programming, this type of study would provide an interesting comparison to the present study.

A wide variety of experimental work could extend out of the experiments conducted in this dissertation. The focus of future experimental research could extend the results of this experiment to other types of health-related behaviors (e.g., smoking, illicit drug use), to ensure that the results obtained using DUI ads are generalizable. As well, it is possible to extend this research to examine whether the results can be replicated in other communication media (e.g., radio, television).

Other potential research could examine consumer response to corporate sponsorship of social marketing ads. Different groups of consumers would be exposed to the same social marketing ads, either sponsored by corporations or nonprofit organizations, and their responses to the ads (behavioral intentions, \( A_{Ad} \), etc.) would provide interesting indications about the effectiveness of corporate social marketing advertising.

Further research could also examine the effectiveness of the OPM model, by exposing subjects to ads which either adhere to, or depart from, the tenets of the OPM model. One purpose of such studies would be to demonstrate which of the elements of the OPM model have the greatest impact on subjects, and whether the exclusion of some of the elements seriously impedes communication or persuasion attempts. Another purpose of such studies could be to examine whether adherence to, or departure from, the OPM model has a
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potentially different impact on various target groups. Relatively little experimental work has been conducted on the OPM model, and this would be a fruitful area for future research. As well, it would be interesting to further investigate the possible ceiling effect for DUI-NO subjects who already hold negative beliefs, in order to rule out alternative explanations of this phenomenon.

Conclusion

This dissertation has examined fear appeals from several points of view. Combining different research methods, including content analysis, experiments, and qualitative research, has provided richer insights than could be gained from using a single method. This multi-method type of research is well-suited to the area of social marketing, with its rich mix of disciplines and perspectives. It is hoped that the insights gained through this research will prove to be of use to both academics and practising social marketers.
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APPENDIX 1

List of Organizations Contacted
List of Organizations Contacted
Canada

CKWS-TV
A Division of Power Broadcasting Inc.
170 Queen Street
Kingston, Ontario K7K 1B2
Phone: (613) 544-2340
Fax: (613) 544-5508

Alliance for a Drug-Free Canada
Drug-Free Workplace Initiative
800 - 180 Elgin St.
Ottawa, Ontario K2P 2K3
Phone (613) 563-0422
Fax (613) 563-4711
Phone 1-800-563-5000
Director: Jacques Perras

Council on Drug Abuse (C.O.D.A.)
17 - 698 Weston Road
Toronto, Ontario M6N 3R3
Phone (416) 763-1491
Chairman: Frank C. Buckley
Secretary: Wendy Gidge

Canadian Public Health Association
400 - 1565 Carling Avenue
Ottawa, Ontario K1Z 8R1
Phone (613) 725-3769
Fax (613) 725-9826
Telex 21-053-3841
Executive Director: Gerald Defoe
President: Fran Perkins
Asst. Executive Director, National Programs: Janet MacLachlan

Canadian Cancer Society
200 - 10 Alcorn Avenue
Toronto, Ontario M4V 3B1
Phone (416) 961-7223
Fax (416) 961-4189
Director of Public Relations, National: Michael McFarland

Parents Against Drugs (P.A.D.) 1983
70 Maxome Avenue
Willowdale, Ontario M2M 3K1
Phone (416) 225-6604
(Affiliate: Council on Drug Abuse)
Insurance Bureau of Canada (Vancouver Office)
550 - 409 Granville St.
Vancouver, B.C. V6C 1W9
Phone (604) 684-3635
Fax (604) 684-6235
Regional Vice President: Brian E. Stanhope

Insurance Bureau of Canada (Toronto Office)
700 - 240 Duncan Mills Road
Don Mills, Ontario M3B 1Z4
Phone (416) 445-5912
Fax (416) 449-9357
Administrative/Information Systems: Gunther Wagner

Insurance Bureau of Canada (Head Office)
13th Floor - 181 University Avenue
Toronto, Ontario M5H 3M7
Phone (416) 362-2031
Fax (416) 361-5952
President/CEO: J.L. Lyndon

Brewers' Association of Canada
1200 - 155 Queen Street
Ottawa, Ontario K1P 6L1
Phone (613) 232-9601
Fax (613) 232-2283
Telex 057-4370
President: R.A. Morrison

Institut d’Assurance du Quebec
2230 - 1200 av McGill College
Montreal, P.Q. H3B 4G7
Phone (514) 393-8288
Fax (514) 393-9222

Insurance Institute of Canada
nearest local office is:
Insurance Institute of B.C.
410 - 800 West Pender St.
Vancouver, B.C. V5C 2V6
Phone (604) 681-5491
Fax (604) 681-5479
Manager: Gordon Tunnicliffe
Health Canada
Health Services & Promotion Branch
4th Floor, Jeanne Mance Building
Tunney's Pasture
Ottawa, Ontario K1A 1B4
Phone (613) 957-8337
Fax (613) 941-2399

Labour Canada Communications Directorate
Ottawa, Ontario K1A 0J2
Phone (819) 997-2617
Fax (819) 953-0176

Consumer and Corporate Affairs Canada,
Communications Branch
Place du Portage, Tower 1
50 Victoria Street
Ottawa/Hull, Ontario K1A 0C9
Phone (819) 953-1072
Fax (819) 953-8061

Canadian Centre on Substance Abuse
480 - 112 Kent St.
Ottawa, Ontario K1P 5P2
Phone (613) 235-4048
Fax (613) 235-8101
Director of Communications: Richard Garlick

Alberta Alcohol and Drug Abuse Commission
6th Floor - 10909 Jasper Avenue
Edmonton, Alberta T5J 3M9
Phone (403) 427-7303
Fax (403) 423-1419

Alberta Health
Director, Communications
18th Floor - 10025 Jasper Avenue
Edmonton, Alberta T5J 2N3
Phone (403) 427-7164
Fax (403) 427-1577
Alberta Health
Communications Branch
7th Floor, Hys Centre
11010 - 101 Street
Edmonton, Alberta T5J 2P4
Phone (403) 427-6090
Fax (403) 427-1577
Director: Garth Norris

Alberta Cancer Board
6th Floor - 9707 110 Street
Edmonton, Alberta T5K 2L9
Phone (403) 482-9300
Fax (403) 488-7809
President: Dr. J.M. Turc

British Columbia Cancer Foundation
601 West 10th Avenue
Vancouver, B.C. V5Z 1L3
Phone (604) 877-6010
Fax (604) 872-4596
President: F.B. Moore

B.C. Ministry of Health
1515 Blanshard Street, Stn 5-2
Victoria, B.C. V8W 3C8
Phone (604) 387-2323
Fax (604) 356-8071
Executive Director, Communications & Education: Andrew Hume

Manitoba Health
602 - 333 Graham Avenue
Winnipeg, Manitoba R3C 4A5
Phone (204) 945-2818
Fax (204) 945-1999

Manitoba Health - Health Public Policy Programs
800 Portage Avenue
Winnipeg, Manitoba R3G 0N4
Phone (204) 945-6715
Assistant Deputy Minister: B. Havens
Alcoholism Foundation of Manitoba
1031 Portage Avenue
Winnipeg, Manitoba R3G 0R8
Phone (204) 944-6200
Fax (204) 786-7768
Executive Director: Tim W. Duprey
Chairman: James Toal

Manitoba Attorney General
5th Floor - 405 Broadway
Winnipeg, Manitoba R3C 3L6

Manitoba Citizens Inquiry Service
511 - 401 York Avenue
Winnipeg, Manitoba R3C 0P8
Phone (204) 945-3744
Fax (204) 945-4261
Manager: L. Romanowski

New Brunswick Dept. of Health & Community Services
P.O. Box 5100
Fredericton, N.B. E3B 5G8
Information Officer:
Phone (506) 453-2536
Fax (506) 453-3983

Alcoholism and Drug Dependency Commission of N.B.
65 Brunswick St.
P.O. Box 6000
Fredericton, N.B. E3B 5H1
Phone (506) 453-2136
Fax (506) 453-2149

New Brunswick Premier's Council on Health Strategy
P.O. Box 6000
Fredericton, N.B. E3B 5H1
Phone (506) 453-4819
Fax (506) 453-4899
Executive Director: Randy Dickinson

New Brunswick Department of Justice
Room 416, Centennial Building
P.O. Box 6000
Fredericton, N.B. E3B 5H1
Executive Director of Administration,
Phone (506) 453-2719
Fax (506) 453-7483
General fax: (506) 453-7408

308
Newfoundland Alcohol and Drug Dependency Commission
105 - 120 Torbay Road
St. John's, Newfoundland A1B 2G8
Phone (709) 737-3600
Fax (709) 737-3601

Newfoundland Department of Health
Confederation Bldg. (West Block)
P.O. Box 8700
St. John's, Newfoundland A1B 4J6
Executive Director of Admin.: C. Templeman,
Phone (709) 729-3141
Fax (709) 729-5824

Newfoundland Information Service
P.O. Box 8700
St. John's, Newfoundland A1B 4J6
Phone (709) 729-3610
Fax (709) 729-0584
Director: R. Callahan

Nova Scotia Department of Health and Fitness
12th Floor - Joseph Howe Building, Hollis Street
P.O. Box 488
Halifax, Nova Scotia B3J 2R8
Health Education Officer:
Phone (902) 424-4391
Fax (902) 424-0506

Ontario Ministry of Health
Communications and Information Branch
9th Floor - Hepburn Block
Queen's Park
Toronto, Ontario M7A 1S2
Phone (416) 327-4327
Fax (416) 327-8791
Director: M. Cohen

Ontario Ministry of the Attorney General
Communications Branch
11th Floor - 720 Bay Street
Toronto, Ontario M5G 2K1
Phone (416) 326-2220
Fax (416) 326-4007

309
Ontario Office for the Provincial Anti-Drug Strategy Secretariat
3rd floor - 56 Wellesley Street
Toronto, Ontario M7A 2B7
Phone (416) 324-7279
Fax (416) 324-7344
Senior Communications Officer: Liz Guccione

Addiction Research Foundation (Ontario)
33 Russell Street
Toronto, Ontario M5S 2S1
Phone (416) 595-6000
Fax (416) 595-5017
Phone 1-800-387-2916
Chairman: W.P. Moher
President & CEO: Mark Taylor
Media Inquiries: (416) 595-6054

Ontario Ministry of the Attorney General
Drinking/Driving Countermeasures
3rd Floor - 720 Bay Street
Toronto, Ontario M5G 2K1
Manager: John LeFebvre
Phone (416) 326-4406

Saskatchewan Health
3475 Albert Street
Regina, Saskatchewan S4S 6X6
Phone (306) 787-3091
Fax (306) 787-0218

Saskatchewan Alcohol & Drug Abuse Commission
1942 Hamilton Street
Regina, Saskatchewan S4P 3V7
Phone (306) 787-4085
Fax (306) 787-4300
Chair: Dr. Paul Good
Executive Director: Danni Boyd

P.E.I. Dept. of Health & Social Services
P.O. Box 2000
Charlottetown, P.E.I. C1A 7N8
Info from Deputy Minister’s Office
Phone (902) 368-4935
Fax (902) 368-4969
Addiction Services of P.E.I.
P.O. Box 37
Charlottetown, P.E.I. C1A 7K2
Phone (902) 368-4379
Fax (902) 368-5544
Executive Director: Leo H. Killorn, M.D.

Quebec Health & Social Services
1075, ch. Sainte-Foy, 15e etage
Quebec City, P.Q. G1S 2M1
Phone (418) 646-8066
Fax (418) 368-4969

Quebec Health & Social Services
Directeur des Communications: Benoit Roy
Edifice Cambrai, 1er etage
1088, rue Raymond-Casgrain
Quebec, P.Q. G1S 2E4
Phone (418) 643-7167

Quebec Health & Social Services
Service des Programmes aux Personnes toxicomanes
1005 ch. Sainte-Foy, 3e etage
Quebec, P.Q. G1S 4N4
Phone (418) 643-9887
Fax (418) 643-3177

Alberta Health
Health Promotion Branch
10030 107 Street
Edmonton, Alberta T5J 3E4
Phone (403) 427-5367
Fax (403) 427-0964

B.C. Minister of Labour and Consumer Services
Alcohol and Drug Programmes
Parliament Buildings
Victoria, B.C. V8V 1X4
Phone (604) 387-4783
Fax (604) 387-8488

Nova Scotia Commission on Drug Dependency
6th Floor - 5675 Spring Garden Road
Halifax, N.S. B3J 1H1
Phone (902) 424-4270
Fax (902) 424-0550
N.W.T. Alcohol/Drugs and Community Mental Health
Department of Social Services
P.O. Box 1320
Yellowknife, NWT X1A 2L9
Phone (403) 920-6255
Fax (403) 873-0299

Yukon Alcohol & Drug Services
P.O. Box 2703
Whitehorse, YT Y1A 2C6
Phone (403) 667-5777
Fax (403) 667-3518

Federal Centre for AIDS
Health Protection Branch
Department of National Health & Welfare
Ottawa, Ontario K1A 0L2
Phone (613) 957-1772
Fax (613) 954-5414

Provincial AIDS Program
Alberta Health
10030 107 Street
Edmonton, AB T5J 3E4
Phone (403) 427-0836
Fax (403) 422-0914

B.C. Ministry of Health
1515 Blanshard Street
Main Station 5-2
Victoria, B.C. V8W 3C8
AIDS Hotline: 1-800-972-0237

Manitoba Health
Communicable Disease Control
3rd Floor, 800 Portage Ave.
Winnipeg, Manitoba R3G 0N5
AIDS Info. line:
Phone (204) 945-2437
Fax (204) 948-2040

Director of Health Promotion & Disease Prevention
New Brunswick Department of Health and Community Services
P.O. Box 5100
Fredericton, NB E3B 5G8
Phone (506) 453-3092
Fax (506) 453-2726
Reproductive Health Consultant
Newfoundland Dept. of Health
Main Floor, Confederation Bldg., West Block
P.O. Box 8700
St. John’s, NF A1B 4J6
Phone (709) 729-3313

Provincial Epidemiologist, Community Health Services
Nova Scotia Dept. of Health
P.O. Box 488
Halifax, NS B3J 2R8
Phone (902) 424-8698
Fax (902) 424-0506

Nova Scotia Advisory Committee on AIDS
6th Floor, 1740 Granville Street
Halifax, NS B3J 1X5
Phone (902) 424-5730
Fax (902) 424-0558

Ontario Ministry of Health
AIDS Bureau
5th Floor, 15 Overlea Blvd.
Toronto, Ontario M4H 1A9
Phone (416) 327-7433
Phone 1-800-668-AIDS

Deputy Minister’s Office
P.E.I. Department of Health and Social Services
P.O. Box 2000
Charlottetown, PEI C1A 7N8
Phone (902) 368-4930
Fax (902) 368-4969

Centre Quebecois de Coordination sur le SIDA
3655, rue St.-Urbain, 4e etage
Montreal, PQ H2X 2P4
Phone (514) 873-9890
Fax (514) 873-9997

Lab and Disease Control Services Branch
Saskatchewan Health
3211 Albert St.
Regina, SK S4S 6X6
Phone (306) 787-3148
Fax (306) 787-0218
AIDS Program
N.W.T. Department of Health
P.O. Box 1320
Yellowknife, NWT X1A 2L9
Phone (403) 873-7017
Fax (403) 920-4969

Family Life Education Program
Yukon Dept. of Health and Social Services
P.O. Box 2073
Whitehorse, YT Y1A 2C6
Phone (403) 668-7830
Fax (403) 667-3518

The AIDS Foundation
225 Smithe Street
Vancouver, B.C. V6G 4X7
Phone (604) 669-9000
Fax (604) 684-9277
President: Nathan S. Ganapathi

Canadian AIDS Society/Societe Canadienne du SIDA
6th Floor, 30 Metcalfe Avenue
Ottawa, Ontario K1P 5L4
Phone (613) 230-3580
Fax (613) 563-4998
Manager, Prevention & Education Programs: Kevin Orr
Communications Officer: Sylvie Roche

Vancouver AIDS Society
1272 Richards St.
P.O. Box 4991, Main P.O.
Vancouver, BC V6B 4A6
Executive Director: Mark Mees
President: Judy Capes

Mothers Against Drunk Driving (M.A.D.D.)
704A 6th Street
New Westminster, BC V3L 3C5
Phone (604) 524-0722
Fax (604) 524-8939

Canadians Against Drunk Driving (C.A.D.D.)
4400 - 1 First Canadian Place
Toronto, Ontario M5X 1B1
Phone (416) 793-4233
PRIDE Canada Inc.
(Parent Resources Institute for Drug Education)
College of Pharmacy,
University of Saskatchewan
Saskatoon, SK S7N 0W0
Phone (306) 975-3755
Toll free 1-800-667-3747

P.R.I.D.E. (People to Reduce Drunk Driving Everywhere)
5160 Explorer Drive, Unit 36
Mississauga, ON L4W 4T7
Phone (905) 624-5364
Fax (905) 624-8920

Physicians for a Smoke-Free Canada
P.O. Box 4849, Station E
Ottawa, ON K1S 5J1

Alberta Solicitor General’s Dept.
Law Enforcement Division
10th Floor, 10365 - 97 Street
Edmonton, AB T5J 3W7
Phone (403) 427-3457
Fax (403) 427-5916

Drinking Driving Counterattack
B.C. Ministry of Solicitor General
212 - 815 Hornby St.
Vancouver, BC V6Z 2E6
Phone (604) 660-2525
Fax (604) 660-7488

Manitoba Provincial Coordinating Committee
on Impaired Driving Countermeasures
c/o Bruce H. Miller, Q.C.
Director of Winnipeg Prosecutions
Public Prosecutions Division
5th Floor - 405 Broadway
Winnipeg, Manitoba R3C 3L6
Phone (204) 945-2860
Fax (204) 945-1260

Alcohol & Driving Countermeasure Office
Nova Scotia Dept. of Attorney General
P.O. Box 1617
Halifax, NS B3J 2Y3
Phone (902) 424-4673
Fax (902) 424-0510
Société de l'assurance automobile du Québec
Direction des Communications
333, boul. Jean-Lesage
C.P. 19.600
Québec, PQ G1K 8J6
Phone (418) 643-7620
Fax (418) 643-2009

Driving Without Impairment (DWI) Program
Saskatchewan Government Insurance
2260 - 11th Avenue
Regina, SK S4P 0J9
Phone (306) 565-1200
Fax (306) 569-9727

Association of Canadian Distillers
1100 - 90 Sparks Street
Ottawa, Ontario K1P 5T8
Phone (613) 238-8444
Fax (613) 238-3411
Telex 0533-783
President: K.M. Campbell

Canadian Wine Institute
215 - 89 The Queensway West
Mississauga, ON L5B 2V2
Phone (905) 949-8463
Project Manager: Ramona Marlin

The Molson Companies Ltd.
3060 - 40 King Street, West
Toronto, ON M5H 3Z5
Phone (416) 360-1786
Fax (416) 360-4545

Labatt Brewing Company Ltd.
150 Simcoe St.
London, ON N6A 4M3
Phone (519) 663-5050
Secretary: Ms. Joanne Rusnell, LLB
Exec. V.P. (Public Affairs - Labatt Breweries of Canada): Sharon Paul
Labatt Brewing Company Ltd.
(Labatt Breweries of Canada)
50 Resources Road
Weston, ON M9N 3N7
Phone (416) 248-0751
Branch Manager: Mr. Hugo Powell
or listing on Bay St., Ph. (416) 361-5050
Labatt Breweries of British Columbia Division
(Labatt Brewing Company Limited)
976 Richards St.
Vancouver, BC V6B 3C1
Phone (604) 521-1844
General Manager: John Lumsden

Moosehead Brewery Ltd.
89 Main Street, West
Saint John, NB E2M 3H2
Phone (506) 635-7000

Hiram Walker & Sons Limited
2072 Riverside Drive, East
Windsor, ON N8Y 1A3
Phone (519) 254-5171

The Seagram Company Ltd.
1430 rue Peel
Montreal, PQ H3A 1S9
Phone (514) 849-5271

Metro Toronto Police
40 College Street
Toronto, Ontario M5G 2J3
Phone (416) 324-2222
Fax (416) 324-6026
Chief: William McCormack

Julius Schmid (Ramses products)
Scarborough, Ontario M1R 2T8

Carter-Wallace NS Inc. (Trojans)
Mississauga, Ontario L5N 1L9

Ansell Canada (Lifestyles condoms)
30 de l'Aeroport
Bromont, PQ J0E 1L0

Canadian Council on Smoking and Health
400 - 1565 Carling Avenue
Ottawa, Ontario K1Z 8R1
Phone (613) 722-3419
Fax (613) 725-9826
Telex 053-3841
Executive Director: Victor Lachance
President: Elinor Wilson
Societe de l’assurance automobile du Quebec
337, boul. Jean-Lesage
C.P. 19600
Quebec, PQ G1K 8G2
Phone (418) 528-3100
President & Directeur general: Jean P. Vezina

Saskatchewan Association of Broadcasters
c/o CJSL
P.O. Box 1280
Estevan, SK S4K 2H8
Phone (306) 634-1280
Fax (306) 634-6364
Contact: J. Empey

Canadian Association of Broadcasters
P.O. Box 627, Station B
Ottawa, ON K1P 5S2
Phone (613) 233-4035
Fax (613) 233-6961
CEO: Michael McCabe

B.C. Association of Broadcasters
c/o CKWX/CKKS-FM
1275 Burrard St.
Vancouver, BC V6Z 1Z8
Phone (604) 873-2599
Contact: T. Peacock

Broadcasters Association of Alberta
c/o MG 1200 Radio
Box 1120
St. Albert, Alberta T8N 1B4
Phone (403) 458-1200
Fax (403) 460-9671
Contact: Doug Shillington

Manitoba Association of Broadcasters
c/o CJOB
930 Portage Avenue
Winnipeg, Manitoba R3G 9P8
Phone (204) 786-2471
Fax (204) 783-4512
Contact: Del Sexsmith
Ontario/Quebec Association of Broadcasters
c/o CJSS
237 Water St. E.
Cornwall, ON K6M 1A2
Phone (613) 932-5180
Contact: K. Clingen

Western Association of Broadcasters
c/o CHAB
116 Main Street, N.
Moose Jaw, SK S6H 3J7
Phone (306) 694-0800
Fax (306) 693-3058
General Manager: V. Traill

CFPL Broadcasting Ltd.
P.O. Box 2880
London, Ontario N6A 4H9
Phone (519) 686-8810
Fax (519) 668-3288
President: R.B. (Bob) Elsden
Sales Manager: Keith Roberts
AM Programming Manager: Barry Rutledge
FM Programming Manager: Barry Smith

CKSL
Telemedia Communications Ontario Inc.
P.O. Box 1410
London, ON N6A 5J2
Phone (519) 667-1410
Fax (519) 673-4260
President & General Manager: Gordon Hume
General Sales Manager: Tom Harkness
Program Director: Braden Doerr

Canadian Association of Emergency Physicians
102 - 1785 Alta Vista Drive
Ottawa, ON K1G 3YB
Phone (613) 523-3343
Fax (613) 521-4314
Executive Secretary: Monique Tardif
President: James Ducharme

BC Alcohol and Drug Programs
1-800-663-1441
Canadian Association of Chiefs of Police
1908 - 112 Kent St.
Ottawa, Ontario K1P 5P2
Phone (613) 233-1106
Fax (613) 233-6960
Executive Director: S.H. Schultz

Canadians Against Drunk Driving
4400 - 1 First Canadian Place
Toronto, ON M5X 1B1

Carling O'Keefe Breweries of Canada Limited
175 Bloor Street E., North Tower
Toronto, ON M4W 3R8
Phone (416) 921-0055
Secretary: Lori A. Ball

Shoppers Drug Mart Limited
(Division of Imasco Limited)
225 Yorkland Blvd.
Willowdale, Ontario M2J 4Y7
Phone (416) 493-1220
Executive V.P. (Infoserv): Bruce Burgetz
Shoppers Drug Mart West
100 Park Royal S.
West Vancouver, BC V7T 1A2
Phone (604) 926-7821
V.P. Marketing: Greg Harmeson

General Motors of Canada
1901 Eglington Avenue, East
Scarborough, Ontario M1L 2L8
Phone (416) 750-2586
Manager: Mr. David Drew

Research and Education on Impaired Driving
10015 - 103 Avenue, Suite #1912
Edmonton, AB T5S 0H1
President: Fern Palyluk
Phone (403) 424-2321

Renascent Treatment Centres for Alcoholism and Drug Abuse
55 Bloor Street, West
Toronto, ON M4W 1A5
Phone (416) 968-9074
Fax (416) 964-1138
Director, Development & PR: Lucille Toth
Marion Merrell Dow Canada  
Thornhill, Ontario L3T 7S1  
1-800-561-4000 (for more information about Nicorette)  

Marketing Director  
Carter-Wallace NS Inc.  
6600 Kitimat Road  
Mississauga, Ontario L5N 1L9  

Executive Director  
Access TV  
16930 114 Avenue  
Edmonton, Alberta T5M 3S2  

Mr. Mike Fedyk  
S.A.D.D. Co-ordinator  
Saskatchewan Safety Council  
445 Hoffer Drive  
Regina, Saskatchewan S4N 6E2  

Traffic Injury Research Foundation (TIRF) of Canada)  
171 Nepean  
Ottawa, Ontario K2P 0B4  

Mr. Perry Linttell  
CBC Northern Service TV  
5002 - Forrest Drive  
Box 160  
Yellowknife, NWT  

Dr. Oscar Casiro  
c/o Manitoba Medical Association  
125 Sherbrook Street  
Winnipeg, Manitoba  

Zenon Lisakowsky  
Addictions Foundation of Manitoba  
1031 Portage Avenue  
Winnipeg, Manitoba R3G 0R8  

Dr. Bill Ratcliff  
Millward Brown Canada  
4687 Yong Street  
North York, Ontario M2N 5M3
Mailing List for Requesting Television Commercials
United States

Queen's Medical Center
1301 Punchbowl St.
Honolulu, Hawaii 96813-2499
Phone (808) 547-4352
Contact: Gary J. Malinoski, sup.

Hawaii Dept. of Health
Alcohol & Drug Abuse Branch
1250 Punchbowl St.
Honolulu, Hawaii 96801
Phone (808) 548-4280
Contact: Joyce Ingram-Chinn

Texas DWI Education Program
Jefferson County Probation Services
390 Elizabeth
Beaumont, Texas 77704
Phone (713) 835-8512

North Carolina Dept. of Social Services
Alcohol Abuse Program
35 Woodfin St., Health/Welfare Building
Asheville, NC 28801
Phone (704) 255-5586

U.S. Department of Health and Human Services
200 Independence Ave. S.W.
Washington, DC 20201
Phone (202) 619-0257
Contact: Donna E. Shalala
Secretary of Health and Social Services
Public Health Service
Office of the Assistant Secretary for Health
Assistant Secretary for Health: Philip R. Lee
Deputy Assistant Secretary for Health (Disease Prevention and Health Promotion):
J. Michael McGinnis
Director, National AIDS Program Office: Valerie P. Setlow (Acting)

National Institute on Drug Abuse (NIDA)
U.S.A.
Phone (301) 443-3480

U.S. Public Health Service
5600 Fishers Lane
Rockville, MD 20857
Phone: (301) 443-2403
Also:
Health Resources and Services Administration
Phone (301) 443-2086
Associate Administrator for AIDS: G. Stephen Bowen (Acting)
Substance Abuse and Mental Health Services Administration
Phone (301) 443-4797
Associate Administrator for Communications: James A. Miller
Director, Office on AIDS: Myron L. Belfer (Acting)
Director, Center for Substance Abuse Prevention: Vivian L. Smith (Acting)

National Institutes of Health
9000 Rockville Pike
Bethesda, MD 20892
Phone (301) 496-4000
Acting Director: Ruth L. Kirschstein
Associate Director for AIDS Research: Anthony S. Fauci
Associate Director for Disease Prevention: William R. Harlan

Centres for Disease Control and Prevention
1600 Clifton Road NE
Atlanta, GA 30333
Phone (404) 639-3311
Deputy Director and Acting Director: Walter R. Dowdle
Associate Director HIV/AIDS: James W. Curran

Media-Advertising Partnership for a Drug Free America (MAPDFA)
c/o American Association of Advertising Agencies
666 Third Avenue
New York, NY 10017
Phone (212) 661-1511
President & Director: Thomas A. Hedrick

Planned Parenthood Federation of America (PPFA)
810 Seventh Avenue
New York, NY 10019
Phone (212) 541-7800
President: Faye Wattleton

American Foundation for AIDS Research (AmFAR)
5900 Wilshire Blvd., 2nd Floor
E. Satellite
Los Angeles, CA 90036
Phone (213) 857-5900 or 1-800-992-CARE
President: Mervyn F. Silverman, M.D.

Lifesign
P.O. Box 1806
Herndon, VT 22070
Advertising Council (AC)
825 Third Avenue
New York, NY 10022
Phone (212) 758-0400
President: Ruth A. Wooden

Entertainment Industries Council
1760 Reston Avenue, Suite 101
Reston, VA 22090
Phone (703) 481-1414
President: Brian L. Dyak

Adolph Coors Co.
NH320
Golden, Colorado 80401
Phone (303) 279-6565
Executive VP (Brewing Co. Sales & Marketing): Robert A. Rechholtz
V.P. (National Affairs): W. Grover Coors

Miller Brewing Company
(Subsidiary of Philip Morris Incorporated)
3939 W. Highland Blvd.
Milwaukee, Wisconsin 53201
Phone (414) 931-2000

General Motors Corp.
3044 W. Grand Blvd.
Detroit, Michigan 48202
Phone (313) 556-5000

Schmid Laboratories Inc. (Ramses)
Rte 46W
Little Falls, NH 07424
Chief Executive: D.W. Falk

Ortho Pharmaceutical Corporation
Rte 202
Raritan, NJ 08869
Phone (908) 218-6000
VP Marketing: Eric Milledge
Director of Trade Relations: James Kitchen

Alcohol
Box 2345
Rockville, MD 20852
SADD (Students Against Driving Drunk)
Corbin Plaza,
Marlboro, MA  01752

MADD (Mothers Against Drunk Driving)
511 E. John Carpenter Fwy., No. 700
Irving, TX  75062
Ph. (214) 744-6233

Will Rogers Institute
Committee of the:
Women of the Motion Picture Industry International
c/o Lili Beaudin, President
P.O. Box 900
Beverly Hill, CA  90213
Phone (310) 203-4083
Or:  Will Rogers Institute
     White Plains, NY

American Cancer Society
1599 Clifton Road NE
Atlanta, GA  30329
Phone (404) 320-3333

National Association of State Alcohol and Drug Abuse Directors (NASADAD)
444 N. Capitol St. NW, Suite 643
Washington, DC  20001
Executive Director: Walter Butynski, Ph.D.
Phone (202) 783-6868

National Association of State Boards of Education
1012 Cameron Street
Alexandria, VA  22314
Phone: (703) 684-4000

Distilled Spirits Council of the U.S. (DISCUS)
1250 Eye Street NW, Suite 900
Washington, DC  20005
Phone (202) 628-3544
President: F.A. Meister

National Council on Alcoholism and Drug Dependence (NCADD)
12 West 21st Street
New York, NY  10010
Phone (212) 206-6770
President: Paul Wood, Ph.D.
National Association of Broadcasters (NAB)
1771 N. Street NW
Washington, DC 20036
Phone (202) 429-5300
CEO/President: Edward O. Fritts

National Institutes of Health
9000 Rockville Pike
Bethesda, MD 20892 USA
Phone (301) 496-4000
Director NIAAA: Enoch Gordis

O’Neill Pollingue, Director
Division of Substance Abuse Srvs
AL Dept of Mental Health & Mental Retardation
200 Interstate Park Drive
P.O. Box 3710
Montgomery, AL 36193

Loren A. Jones, Director
Div. of Alcoholism & Drug Abuse
AK Dept of Health & Social Services
P.O. Box 110607
Juneau, AK 99811-0607

Terri Goens, Program Manager
Office of Substance Abuse
Division of Behavioral Health Srvs
AZ Dept. of Health Services
2122 East Highland
Phoenix, AZ 85016

Joe M. Hill, Director
AR Bureau of Alcohol & Drug Abuse Prevention
108 E. 7th Street
400 Waldon Building
Little Rock, AR 72201

Andrew M. Mecca, Director
Governor’s Policy Council on Drug & Alcohol Abuse
1700 K Street, 5th Floor
Executive Office
Sacramento, CA 95814-4037
Robert Aukerman, Director
Alcohol & Drug Abuse Division
CO Dept. of Health
4300 Cherry Creek Drive, South
Denver, CO 80222-1530

Sher Horosko, Asst. to the
   Commissioner for Substance Abuse
Dept. of Public Health & Addiction Svcs
150 Washington Street
Hartford, CT 06106

Thomas M. Fritz, Director
Div of Alcoholism, Drug Abuse, & Mental Health
1901 N. DuPont Highway
Newcastle, DE 19720

Julian Tapian, Director
Division of Child Mental Health
Murphy Cottage
1825 Faulkland Road
Wilmington, DE 19805

Maude R. Holt, Administrator
Alcohol & Drug Abuse Svcs Administration
300-1300 First Street, N.E.
Washington, DC 20002

Pamela Petersen
Deputy Assistant Secretary
Alcohol & Drug Abuse
FL Dept of Health & Rehab Svcs
183 - 1317 Winewood Blvd, Bldg. 6
Tallahassee, FL 32301

Thomas W. Hester, Director
GA Alcohol & Drug Svcs Section
4th FIr - 2 Peachtree St., NE
Atlanta, GA 30303

Elaine Wilson, Division Chief
Alcohol & Drug Abuse Division
HI Dept. of Health
P.O. Box 3378
Honolulu, HI96801
Tina Klamt, Chief
Bureau of Substance Abuse
Div. of Family & Community Svcs
AD Dept. of Health & Welfare
450 West State St.
Boise, ID 83702

James E. Long, Director
Dept. of Alcoholism & Substance Abuse
100 West Randolph, Ste. 5-600
James R. Thompson Center
Chicago, IL 60601

Johnie Underwood, Deputy Director
Division of Mental Health
Bureau of Addiction Services
W353 - 402 W. Washington St.
Indianapolis, IN 46204-2739

Janet Zwick, Director
Div of Substance Abuse & Health Promotion
IA Dept. of Public Health
3rd Flr - Lucas State Office Bldg.
Des Moines, IA 50319

Andrew O'Donovan, Commissioner
KS Alcohol & Drug Abuse Svcs.
300 SW Oakley, Biddle Bldg.
Topeka, KS 66606 - 1861

Michael Townsend, Director
Div. of Substance Abuse
KY Dept. of Mental Health &
Mental Retardation Services
275 East Main St.
Frankfort, KY 40621

Joseph Williams, Asst. Secretary
Office of Alcohol & Drug Abuse
Dept. of Health & Hospitals
1201 Capitol Access Road
P.O. Box 2790 - BIN #18
Baton Rouge, LA 70821-2790
Marlene McMullen-Pelsor, Director
Office of Substance Abuse
State House Station #159
24 Stone Street
Augusta, ME  04333-0159

Rick Sampson, Director
State Alcohol & Drug Abuse Administration
201 West Preston St.
Baltimore, MD  21201

Dennis McCarty, Director
Division of Substance Abuse Services
150 Tremont St.
Boston, MA  02111

Karen Schrock, Chief
Michigan Dept. of Public Health
Center for Substance Abuse Services
3423 N. Logan/Martin L. King Blvd.
P.O. Box 30195
Lansing, MI  48909

Cynthia Turnure, Director
Chemical Dependency Program Div.
MN Dept. of Human Services
444 Lafayette Road
St. Paul, MN  55155-3823

Herbert Loving, Acting Director
Division of Alcohol & Drug Abuse
MS Dept. of Mental Health
11th Flr - Robert E. Lee State Office Bldg.
Jackson, MS  39201

Michael Couty, Acting Director
Division of Alcohol & Drug Abuse
MO Dept. of Health
1706 E. Elm Street
Jefferson City, MO  65109

Darryl Bruno, Administrator
Alcohol & Drug Abuse Division
Dept. of Corrections & Human Svcs
1539 11th Avenue
Helena, MT  59601-1301
Malcolm Heard, Director
Division of Alcoholism & Drug Abuse
NE Dept. of Public Institutions
P.O. Box 94728
Lincoln, NE 68509-4728

Elizabeth Breshears, Chief
Bureau of Alcohol & Drug Abuse
NV Dept. of Human Resources
505 East King Street, Room 500
Carson City, NV 89710

Geraldine Sylvester, Director
Office of Alcohol & Drug Abuse Prevention
105 Pleasant St.
Concord, NH 03301

John W. Farrell, Deputy Director
Div. of Alcoholism, Drug Abuse, &
Addiction Services
NJ Dept of Health, CN 362
Trenton, NJ 08625-0362

Geraldine Salazar, Director
Dept. of Health
Behavioral Health Services Div/SA
Rm. 3200 North, Harold Runnells Bldg.
1190 St. Francis Drive
Santa Fe, NM 87501

Marguerite T. Saunders
Commissioner
NY State Office of Alcoholism &
Substance Abuse Services
1450 Western Avenue
Albany, NY 12203-3526

Julian F. Keith, Director
Alcohol & Drug Services
Div. of Mental Health, Developmental
Disabilities & Substance Abuse Svcs
325 North Salisbury St.
Raleigh, NC 27611
John Allen, Director
Division of Alcoholism & Drug Abuse
ND Dept. of Human Services
Professional Building
1839 East Capitol Avenue
Bismarck, ND  58501

Luceille Fleming, Director
Dept. of Alcohol & Drug Addiction Svcs
12th Flr - Two Nationwide Plaza
280 N. High Street
Columbus, OH  43215-2537

Ann Rowrance, Acting Director
Substance Abuse Services
Dept. of Mental Health & Substance Abuse
P.O. Box 53277, Capitol Station
Oklahoma City, OK  73152-3277

Jeannine Peterson, Deputy Secretary
Office of Drug & Alcohol Programs
Dept. of Health
P.O. Box 90
Harrisburg, PA  17108

William Pimentel, Asst. Director
Dept. of Substance Abuse
P.O. Box 20363
Cranston, RI  02920

Jerry McCord, Director
Dept. of Alcohol & Other Drug Abuse Svcs
3700 Forest Drive, Ste. 300
Columbia, SC  29204

Gilbert Sudbeck, Director
Div. of Alcohol & Drug Abuse
Dept. of Human Services
Hillsview Plaza, East Hwy. 34
c/o 500 E. Capitol
Pierre, SD   57501-5090

Robbie Jackman, Asst. Commissioner
Bureau of Alcohol & Drug Abuse Svcs
Dept. of Health
Tennessee Tower
312 8th Avenue North
Nashville, TN  37247-4401
David Tatum, Interim Exec. Director
Commission on Alcohol & Drug Abuse
710 Brazos Street
Austin, TX  78701-2576

Leon PoVey, Director
State Division of Substance Abuse
Dept. of Human Services
Room 413 - 120 North 200 West, 4th Flr.
Salt Lake City, UT  84103

Tom Perras, Interim Director
Office of Alcohol & Drug Abuse Programs
103 South Main Street
Waterbury, VT  05676

John F. Draude, Director
Office of Substance Abuse Svcs
Dept. of Mental Health, Mental Retardation,
& Substance Abuse Services
109 Governor St., P.O. Box 1797
Richmond, VA  23214

Kenneth D. Stark, Director
Div. of Alcohol & Substance Abuse
Dept. of Social & Health Services
P.O. Box 45330
Olympia, WA  98504-5330

Jack C. Clohan, Director
Div. of Alcoholism & Drug Abuse
State Capitol Complex
1900 Kanawha Blvd.
Bldg. 6, Room B-738
Charleston, WV  35305

Philip S. McCullough, Director
Bureau of Substance Abuse Svcs.
1 West Wilson St.
P.O. Box 7851
Madison, WI  53707

Harvey Hillin, Administrator
Div. of Behavioral Health
State of Wyoming
447 Hathaway Bldg.
Cheyenne, WY  82002
Mr. Samuel Chilcote
President
Tobacco Institute
1875 Eye St. N.W., Suite 800
Washington, D.C. 20006

Mr. Vince Collons
V.P. Sales
Carter Wallace Products Inc.
1345 Avenue of the Americas
New York, NY 10105

Executive Director
Center for Disease Control
Atlanta, Georgia

Professor Vicki S. Freimuth
Department of Communication Arts & Theatre
University of Maryland
College Park, Maryland 20742

Professor Nora Ganim Barnes
Professor of Marketing
University of Massachusetts, Dartmouth
North Dartmouth, MA 02747

Communications Director
California Department of Health
714 P Street, Suite 1253
Sacramento, CA 95814

Ms. Dot Newsome
PRC Coordinator
Crewley's Ridge
P.O. Box 1497
Jonesboro, AR 72403

Communications Director
Highway Dept./Transportation Safety
P.O. Box 2261
Little Rock, AR 72203
Mailing List for Requesting Television Commercials
Great Britain

Health Education Authority
Hamilton House
Mabledon Place
London, England WC1H 9TX
Phone (71) 731-0930
Fax (71) 387-0550
Chair: Sir Donald Maitland, GCMG, OBE
Chief Executive: Dr. Spencer Hagard

Department of Health
Richmond House
79 Whitehall
London, England SW1A 2NS
Secretary of State for Health: The Right Hon. Virginia Bottomley, MP
Minister of State for Health: Brian Mawhinney, MP
3 Undersecretaries:
  The Baroness Cumberlege, CBE
  The Hon. Thomas Sackville, MP
  John Bowis, OBE, MP

British Broadcasting Corporation (BBC)
Broadcasting House
London, England W1A 1AA
Phone 071-580-4468
Television Centre:
Wood Lane
London, England W12 7JR
Phone 081-743-8000
Director of Policy & Planning: Ms. P. Hodgson
Controller BBC-1: A. Yentob
Controller BBC-2: M. Jackson
The Secretary: M. Stevenson

RELEASE (National Drugs & Legal Helpline)
169 Commercial Street
London, England E1 6BW
Phone 071-377-5905
Helpline: 071-603-8654

Terrence Higgins Trust Ltd.
52-54 Grays Inn Rd.
London, England WC1X 8JU
Phone 071-242-1010 (help)
Phone 071-831-0330 (Headquarters)
Chief Executive: Martin Eede
ASH (Action on Smoking & Health)
5 - 11 Mortimer St.
London, England  W1N 7RH
Phone 071-637-9843
Fax 071-436-4750 (Headquarters)
Director:  David Simpson

Standing Conference on Drug Abuse (SCODA)
1 - 4 Hatton Place
Hatton Garden
London, England  EC1N 8ND
Ph. 01-430-2341/2
Chairman:  Lord Rodney
Secretary:  David Turner, B.D.

Advisory Council on the Misuse of Drugs (ACMD)
c/o Home Office, Drugs Branch
Queen Anne’s Gate
London, England  SW1H 9AT
Phone 01-273-3000
Chairman:  Dr. P.H. Connell, CBE MD FRCP
Secretary:  R.G.W. Cook

TACADE (Teachers Advisory Council on Alcohol & Drug Education)
3rd Floor, Furness House
Trafford Road
Salford, England  M5 2XJ
Phone 061-848-0351
Fax 061-873-8287
Chairman:  Mrs. Heather Hyde, B.Sc., M.Ed.
Chief Executive:  Jeff Lee, B.A., M.Ed.

J.W.S. Dempster
Director-General, Highways
Department of Transport
2 Marsham Street
London, England  SW1P 3EB

Marketing Director
London International Group PLC
35 New Bridge Street
London, England  WC4 V6BJ
Mailing List for Requesting Television Commercials
New Zealand

New Zealand Dept. of Health
P.O.B. 5013
Wellington, New Zealand
Phone (4) 727-627
Telex 3571
Minister: Helen Clark
Associate Ministers: Dr. Michael Cullen; Ken Shirley

Alcoholic Liquor Advisory Council
National Insurance House
119 - 123 Featherston St.
POB 5023
Wellington, New Zealand
Phone (4) 720-997
Fax (4) 730-890
Chair: A.C. Shailes
Chief Executive: K.R. Evans

Radio New Zealand Ltd.
Aurora House
The Terrace
POB 2092
Wellington, New Zealand
Phone (4) 741-500
Telex 31031
Fax (4) 741-440
Chief Executive: Beverley A. Wakem

Television New Zealand Ltd.
Television Centre
Corner Hobson & Victoria Streets
POB 3819
Auckland, New Zealand
Director-General & Chief Executive: Julian Mounter
Mailing List for Requesting Television Commercials
Australia
Australia Department of Community Services and Health
Alexander and Albermarle Buildings
Furzer St., Phillip, ACT
POB 9849
Canberra, ACT 2601
Australia
Phone (62) 89-1555
Telex 62149
Fax (62) 81-6946
Minister: Dr. Neal Blewett

National Health and Medical Research Council
POB 9848
Canberra, ACT 2601
Australia
Phone (62) 89-1555
Telex 62490
Fax (62) 89-8198
Chair: Prof. John Chalmers
Secretary: Dr. John Loy

Australian Broadcasting Corp. (ABC)
ABC House
150 William Street
POB 9994
Sydney, NSW 2001
Australia
Phone (2) 339-0211
Telex 26506 (corporate)
Telex 176464 (radio)
Telex 120432 (TV)
Fax (2) 356-5305
Chair: Robert D. Somervaille
Managing Director: David Hill

NAC AIDS (National Australian Council on AIDS)
AIDS line for info: (008) 042161

Self Help
Box 529
South Melbourne, Australia

Australia Dept. of Transport and Communication
Central office: 61-6-274-7111
G.P.O., Box 594
Canberra, ACT 2601
Federal Office of Road Safety Division
15 Mort Street
Braddon ACT 2601
Ph. 61-6-274-7447

Dept. of Health, Housing, Local Government, & Community Services
GPO Box 9848
Canberra ACT 2601
Ph. 61-6-289-1555

Executive Director
Cancer Council
P.O. Box 572
KINGS CROSS, NSW 2011
Australia

Executive Director
AIDS Council of NSW
P.O. Box 350
DARLINGHURST, NSW 2010
Australia

Executive Director
Alcohol and Drug Foundation of NSW
Royal South Sydney Hospital
ZETLAND, NSW 2017
Australia

Executive Director
NSW Health Department
Locked Mail Bag 961
NORTH SYDNEY, NSW 2059
Australia

Executive Director
Anti-Cancer Council of Victoria
1 Rathdowne Street
Carlton South
Melbourne, Victoria 3053
Australia

Mr. Tom Carroll
Commonwealth Department of Health
Level 12, 333 Kent St.
Sydney 2000
Australia
APPENDIX 2

Letter Used for Contacting Organizations
Using TV Commercials for Social Marketing

About the Study:
This research is being conducted by Anne Lavack, a Ph.D. Candidate at the University of British Columbia. The research concerns the characteristics of social marketing TV commercials (produced between 1980 and 1994), particularly those that concern the following five topics:

- Drinking and driving
- Alcohol moderation
- Smoking
- Drugs
- AIDS/other sexually transmitted diseases

Characteristics being examined in this content analysis of TV commercials include the types of appeals used, the incidence of fear appeals, the use of humor, as well as a number of other variables. If you agree to provide your commercials on the above topics, we will send you a copy of the final report for this research when it is completed in September 1994.

Please fill out this form and return it to the address shown on the other side, using the return envelope provided.

______ No, my organization does not have any relevant TV commercials for this study.

______ Yes, my organization has the following commercial(s) that we would like to have included in this study (continue list on a separate sheet, if necessary):

<table>
<thead>
<tr>
<th>Name of Commercial</th>
<th>Topic</th>
<th>Year Produced</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

______ We have enclosed a VHS videotape with these commercials on it.

______ Please return the videotape to us.

______ We do not need our videotape back.

______ Please send us a blank VHS videotape and we will copy the above-mentioned commercials onto it for you.

/ 2...
If there is anyone else that you know at another organization who might have access to these types of television commercials, please write their name and address here, so we can add them to our mailing list (write additional names and addresses on a separate sheet, if necessary):

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

If you have agreed to provide commercial(s) for this study, would you like a copy of the final report when it is completed in September 1994?

____ No

____ Yes, please send me a copy.

____ Please send a copy of the report to the address on the mailing label shown below.

____ Please correct the mailing address as follows:

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

Thank you for completing and returning this form!

Please use the enclosed return envelope to send this form to:

Anne M. Lavack, Ph.D. Candidate
University of British Columbia
Faculty of Commerce
2053 Main Mall, 4th floor mailbox
Vancouver, B.C. V6T 1Z2 Canada
Phone (604) 822-0577; Fax (604) 822-8489

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APPENDIX 3

Content Analysis Data Collection Forms

(5 versions)
Content Analysis Coding Form

Coder: ________________________________

Videotape ID Code: ____________________ Commercial #: ________________________

TV Commercial Name: ____________________

Sponsor Company/Organization: ________________________________

Year Produced: 19____

Commercial length: __________________ seconds

Country of origin:
1. Canada
2. United States
3. Great Britain
4. Australia
5. New Zealand

Specific problem(s) being targeted (circle all that apply):

1. smoking
2. drugs
3. drunk driving/DWI
4. excessive alcohol consumption/alcoholism/underage drinking
5. unsafe sex/AIDS/STDs

Sponsorship (if multiple sponsors, circle all that apply):

1. unknown/doesn't say
2. government
3. nonprofit non-government organization
4. for-profit health organization
5. for-profit corporation
6. industry association

Specific intended target group:
0. no, commercial is aimed at a mass audience
1. yes, commercial is aimed at a very specific group

Is a specific age group being targeted? (Circle more than one, if necessary)
0. no; n/a
1. children
2. teens
3. young adults (18-29)
4. mature adults (30-64)
5. elderly (65+)

Is a specific gender being targeted? (choose one)
0. no; n/a
1. males specifically
2. females specifically

Are there any other identifying characteristics of the group being targeted?
0. n/a; no other identifying characteristics
1. yes (Please specify: ________________________________)

Is there any attempt to be humorous?
0. no
1. yes

Slogan/Tag ending: ________________________________
**Spokesperson (Source) characteristics:**

(Code up to four main spokespersons.)

<table>
<thead>
<tr>
<th>Spokesperson</th>
<th>Spokesperson #2</th>
<th>Spokesperson #3</th>
<th>Spokesperson #4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(if more than 1 source)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Seen/heard: | | | |
| Audio VO/sing only | 1 | 1 | 1 |
| Video/on-screen only | 2 | 2 | 2 |
| VO & on-camera (in sync) | 3 | 3 | 3 |
| VO/sing & on-camera (not in sync) | 4 | 4 | 4 |

| Position of spokesperson: | | | |
| Throughout | 1 | 1 | 1 |
| Beginning only | 2 | 2 | 2 |
| End only | 3 | 3 | 3 |

| Role: | | | |
| Announcer | 1 | 1 | 1 |
| Singer | 2 | 2 | 2 |
| Average/neutral person | 3 | 3 | 3 |
| 1st band experience | 4 | 4 | 4 |
| Victim/survivor/friend of victim | 5 | 5 | 5 |
| Expert | 6 | 6 | 6 |
| Authority figure | 7 | 7 | 7 |
| Celebrity | 8 | 8 | 8 |
| Cartoon figure | 9 | 9 | 9 |
| Other | 10 | 10 | 10 |

| If celebrity, what kind? | | | |
| n/a | 0 | 0 | 0 |
| Sports | 1 | 1 | 1 |
| Movie/TV/radio | 2 | 2 | 2 |
| Music | 3 | 3 | 3 |
| Political | 4 | 4 | 4 |
| Other | 5 | 5 | 5 |

| If authority figure or expert, what occupation? | | | |
| n/a | 0 | 0 | 0 |
| Policeman | 1 | 1 | 1 |
| Fireman | 2 | 2 | 2 |
| Judge | 3 | 3 | 3 |
| Teacher/professor | 4 | 4 | 4 |
| Minister/priest | 5 | 5 | 5 |
| Doctor | 6 | 6 | 6 |
| Nurse | 7 | 7 | 7 |
| Other | 8 | 8 | 8 |

| Sex: | | | |
| n/a or not sure | 0 | 0 | 0 |
| Male | 1 | 1 | 1 |
| Female | 2 | 2 | 2 |

Sex: n/a or not sure | Male | Female |
### Spokesperson (Source) characteristics: (cont'd)

<table>
<thead>
<tr>
<th>Age:</th>
<th>[V53]</th>
<th>[V54]</th>
<th>[V55]</th>
<th>[V56]</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a or not sure</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Child</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Teenager</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Young adult (18-30)</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Mature adult (30-64)</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Elderly (65 +)</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race:</th>
<th>[V57]</th>
<th>[V58]</th>
<th>[V59]</th>
<th>[V60]</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a or not sure</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>White</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Black</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Asian</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>
AIDS COMMERCIALS - Use of fear/threats:

Specific diseases mentioned or shown: (circle as many as were mentioned)

- [ ] none; n/a
- [Y] AIDS [V62]
- [Y] HIV infection [V63]
- [Y] herpes [V64]
- [Y] gonorrhea [V65]
- [Y] syphilis [V66]
- [Y] chlamydia [V67]
- [Y] other STDs (Specify: ) [V68]

Overall tone of the commercial: (choose the one that describes it best) [V93]

- [1] threat/fear appeal/sad
- [2] neutral
- [3] positive/up-beat

Any specific threats mentioned or shown, or any attempts to arouse fear or strong emotion/anxiety? (even if the overall tone was not threatening or fearful) [V94]

- [ ] no
- [Y] yes

If yes, what level of fear would you say they are intending to arouse? [V95]

- [0] none; n/a
- [1] low
- [2] medium
- [3] high

Briefly describe the threat(s):

Types of threats or negative consequences mentioned: (circle all that apply) [V96]

- [ ] none; n/a
- [Y] catch disease/virus [V97]
- [Y] catch AIDS/HIV [V98]
- [Y] illness [V99]
- [Y] death/deadly [V100]
- [Y] no known cure [V101]
- [Y] can't tell if someone is infected [V102]
- [Y] lose friends [V103]
- [Y] unable to work [V104]
- [Y] other (specify) [V105]

Direction of threat: (circle all that apply) [V145]

- [ ] n/a; none
- [Y] oneself [V146]
- [Y] close others [V147]
- [Y] unspecified others or strangers [V148]
- [Y] society in general [V149]

How is threat communicated? (choose one) [V150]

- [ ] n/a; none
- [1] message/audio/music mainly
- [2] pictures/video mainly
- [3] message/audio/music and video
AIDS COMMERCIALS - Coping Advice or Recommendations:

Briefly describe recommendations: __________________________________________________________

Nature of recommendations (circle all that apply)
- ☐ none
- ☑ “safe sex” [V151]
- ☑ protect yourself/take care of yourself [V152]
- ☑ use condom [V153]
- ☑ fewer partners/avoid multiple partners [V154]
- ☑ monogamy/one partner [V155]
- ☑ abstinence [V156]
- ☑ get tested [V157]
- ☑ don’t share needles [V158]
- ☑ don’t be afraid of getting AIDS through casual contact situations [V159]
- ☑ take responsibility [V160]
- ☑ learn the facts/know the facts [V161]
- ☑ write for info [V162]
- ☑ phone for info [V163]
- ☑ pick up information/brochure/pamphlet [V164]
- ☑ get help/counseling/treatment [V165]
- ☑ see your doctor [V166]
- ☑ talk to your parents [V167]
- ☑ talk to your kids [V168]
- ☑ give money/donation [V169]
- ☑ other (specify): ____________________________ [V170]

Does the commercial contain information about response efficacy?
(i.e., does the commercial tell you how effective the recommended behavior will be in reducing your fears and risk/danger?) [V197]
- ☐ no
- ☑ yes [V198]

If so, describe the response efficacy information ____________________________

Does the commercial contain encouragement for self-efficacy?
(i.e., does the commercial give you some encouragement that you can successfully carry out the behavior on your own?) [V199]
- ☐ no
- ☑ yes

If so, describe the encouragement ____________________________

Threat/Advice Order: (choose one)
- ☐ n/a [V199]
- ☑ threat(s) only, no advice
- ☑ advice only, no threat(s)
- ☑ threat(s) first, then advice
- ☑ advice first, then threat(s)
- ☑ threat(s) first, then advice, then threat(s) again
- ☑ advice first, then threat(s), then advice again
- ☑ other (describe: ____________________________)

349
Coder: ____________________________ [V1]

Videotape ID Code: ________________ Commercial #: ______________________ [V2]

TV Commercial Name: ____________________________________________ [V3]

Sponsor Company/Organization: __________________________________ [V4]

Year Produced: 19____ [V5]

Commercial length: __________________ seconds [V6]

Country of origin:
1. Canada
2. United States
3. Great Britain
4. Australia
5. New Zealand

Specific problem(s) being targeted (circle all that apply):
Y smoking [V8]
Y drugs [V9]
Y drunk driving/DWI [V10]
Y excessive alcohol consumption/alcoholism/underage drinking [V11]
Y unsafe sex/AIDS/STDs [V12]

Sponsorship (if multiple sponsors, circle all that apply):
Y unknown/doesn't say [V13]
Y government [V14]
Y nonprofit non-government organization [V15]
Y for-profit health organization [V16]
Y for-profit corporation [V17]
Y industry association [V18]

Specific intended target group:
0 no, commercial is aimed at a mass audience
1 yes, commercial is aimed at a very specific group [V19]

Is a specific age group being targeted? (Circle more than one, if necessary)
0 no; n/a [V20]
Y children [V21]
Y teens [V22]
Y young adults (18-29) [V23]
Y mature adults (30-64) [V24]
Y elderly (65+) [V25]

Is a specific gender being targeted? (choose one)
0 no; n/a [V26]
1 males specifically
2 females specifically

Are there any other identifying characteristics of the group being targeted?
0 n/a; no other identifying characteristics [V27]
1 yes (Please specify: ________________________________)

Is there any attempt to be humorous?
0 no [V28]
1 yes

Slogan/Tag ending: ________________________________
Spokesperson (Source) characteristics:
(Code up to four main spokespersons.)

<table>
<thead>
<tr>
<th>Description</th>
<th>Spokesperson #1</th>
<th>Spokesperson #2</th>
<th>Spokesperson #3</th>
<th>Spokesperson #4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seen/heard:</td>
<td>[V29] [V30] [V31] [V32]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audio VO/sing only</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Video/on-screen only</td>
<td>2</td>
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<td>2</td>
<td>2</td>
</tr>
<tr>
<td>VO &amp; on-camera (in sync)</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>VO/sing &amp; on-camera (not in sync)</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Position of spokesperson:</td>
<td>[V33] [V34] [V35] [V36]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Throughout</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Beginning only</td>
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<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>End only</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Role:</td>
<td>[V37] [V38] [V39] [V40]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Announcer</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Singer</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Average/neutral person</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>1st hand experience</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Victim/survivor/friend of victim</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Expert</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Authority figure</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Celebrity</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Cartoon figure</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>If celebrity, what kind?</td>
<td>[V41] [V42] [V43] [V44]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n/a</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sports</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Movie/TV/radio</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Music</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Political</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>If authority figure or expert, what occupation?</td>
<td>[V45] [V46] [V47] [V48]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n/a</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Policeman</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Fireman</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Judge</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Teacher/professor</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Minister/priest</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Doctor</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Nurse</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Sex:</td>
<td>[V49] [V50] [V51] [V52]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n/a or not sure</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Male</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Female</td>
<td>2</td>
<td>2</td>
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</tbody>
</table>
### Spokesperson (Source) characteristics: (cont'd)

<table>
<thead>
<tr>
<th>Age:</th>
<th>[V53]</th>
<th>[V54]</th>
<th>[V55]</th>
<th>[V56]</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a or not sure</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Child</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Teenager</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Young adult (18-30)</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Mature adult (30-64)</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Elderly (65+)</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race:</th>
<th>[V57]</th>
<th>[V58]</th>
<th>[V59]</th>
<th>[V60]</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a or not sure</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>White</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Black</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Asian</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>
**ALCOHOL MODERATION COMMERCIALS - Use of fear/threats:**

Specific drinks mentioned or shown: (circle all that apply)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>none; n/a</td>
</tr>
<tr>
<td>Y</td>
<td>beer</td>
</tr>
<tr>
<td>Y</td>
<td>wine</td>
</tr>
<tr>
<td>Y</td>
<td>wine coolers</td>
</tr>
<tr>
<td>Y</td>
<td>hard liquor/cocktails</td>
</tr>
<tr>
<td>Y</td>
<td>cider</td>
</tr>
<tr>
<td>Y</td>
<td>other alcoholic beverages</td>
</tr>
</tbody>
</table>

Overall tone of the commercial: (choose the one that describes it best)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>threat/fear appeal/sad</td>
</tr>
<tr>
<td>2</td>
<td>neutral</td>
</tr>
<tr>
<td>3</td>
<td>positive/up-beat</td>
</tr>
</tbody>
</table>

Any specific threats mentioned or shown, or any attempts to arouse fear or strong emotion/anxiety? (even if the overall tone was not threatening or fearful)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>no</td>
</tr>
<tr>
<td>Y</td>
<td>yes</td>
</tr>
</tbody>
</table>

If yes, what level of fear would you say they are intending to arouse?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>none; n/a</td>
</tr>
<tr>
<td>1</td>
<td>low</td>
</tr>
<tr>
<td>2</td>
<td>medium</td>
</tr>
<tr>
<td>3</td>
<td>high</td>
</tr>
</tbody>
</table>

Briefly describe the threat(s):

Types of threats or negative consequences mentioned: (circle all that apply)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td>Y</td>
<td>lose looks</td>
</tr>
<tr>
<td>Y</td>
<td>harm your health</td>
</tr>
<tr>
<td>Y</td>
<td>disease (or specific disease like cirrhosis of the liver)</td>
</tr>
<tr>
<td>Y</td>
<td>act foolish/do embarrassing things when drunk</td>
</tr>
<tr>
<td>Y</td>
<td>do dangerous things when drunk</td>
</tr>
<tr>
<td>Y</td>
<td>get in car accident</td>
</tr>
<tr>
<td>Y</td>
<td>get in accident (other than car)</td>
</tr>
<tr>
<td>Y</td>
<td>death/deadly</td>
</tr>
<tr>
<td>Y</td>
<td>fine</td>
</tr>
<tr>
<td>Y</td>
<td>jail/prison</td>
</tr>
<tr>
<td>Y</td>
<td>criminal record</td>
</tr>
<tr>
<td>Y</td>
<td>high financial cost</td>
</tr>
<tr>
<td>Y</td>
<td>lose everything</td>
</tr>
<tr>
<td>Y</td>
<td>lose your motivation</td>
</tr>
<tr>
<td>Y</td>
<td>neglect work</td>
</tr>
<tr>
<td>Y</td>
<td>lose job</td>
</tr>
<tr>
<td>Y</td>
<td>neglect family</td>
</tr>
<tr>
<td>Y</td>
<td>lose family/wife leaves/divorce</td>
</tr>
<tr>
<td>Y</td>
<td>cause others to suffer emotional distress</td>
</tr>
<tr>
<td>Y</td>
<td>suffer own emotional distress</td>
</tr>
<tr>
<td>Y</td>
<td>alcoholism runs in families</td>
</tr>
<tr>
<td>Y</td>
<td>your children might follow your example and start to drink too much</td>
</tr>
<tr>
<td>Y</td>
<td>other (specify)</td>
</tr>
</tbody>
</table>

Direction of threat: (circle all that apply)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>Y</td>
<td>oneself</td>
</tr>
<tr>
<td>Y</td>
<td>close others</td>
</tr>
<tr>
<td>Y</td>
<td>unspecified others or strangers</td>
</tr>
<tr>
<td>Y</td>
<td>society in general</td>
</tr>
</tbody>
</table>

How is threat communicated? (choose one)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>n/a; none</td>
</tr>
<tr>
<td>1</td>
<td>message/audio/music mainly</td>
</tr>
<tr>
<td>2</td>
<td>pictures/video mainly</td>
</tr>
<tr>
<td>3</td>
<td>message/audio/music and video</td>
</tr>
</tbody>
</table>
ALCOHOL MODERATION COMMERCIALS - Coping Advice or Recommendations:

Briefly describe recommendations:

Nature of recommendation (circle all that apply; E = Explicit, I = Implied/Modelled/Shown)

0. none

E. I don't drink/stay away from alcohol [V241]
E. I don't drink too much/stay within your limit [V242]
E. I stop/discourage friends from drinking [V243]
E. I don't drink while pregnant [V244]
E. I don't mix alcohol and medication [V245]
E. I don't overserve guests/patrons/customers [V246]
E. I set a good example for your children [V247]
E. I take responsibility [V248]
E. I learn the facts/know the facts [V249]
E. I write for info [V250]
E. I phone for info/advice/help [V251]
E. I pick up information/brochure/pamphlet [V252]
E. I get help/counselling/treatment [V253]
E. I see your doctor [V254]
E. I talk to your parents [V255]
E. I talk to your kids [V256]
E. I give money/donation [V257]
E. I other (specify) [V258]

Does the commercial contain information about response efficacy? (i.e., does the commercial tell you how effective the recommended behavior will be in reducing your fears and risk/danger?)

0. no
1. yes

If so, describe the response efficacy information:

Does the commercial contain encouragement for self-efficacy? (i.e., does the commercial give you some encouragement that you can successfully carry out the behavior on your own?)

0. no
1. yes

If so, describe the encouragement:

Threat/Advice Order: (choose one)

0. n/a
1. threat(s) only, no advice
2. advice only, no threat(s)
3. threat(s) first, then advice
4. advice first, then threat(s)
5. threat(s) first, then advice, then threat(s) again
6. advice first, then threat(s), then advice again
7. other (describe: )
ALCOHOL MODERATION COMMERCIALS - Additional Coding Categories:

Type of Commercial: (circle the one that describes it best) [V200]
1. dramatization
2. slice of life
3. positive lifestyle
4. testimonial
5. collage of static images
6. animation
7. other (describe: ____________________________)

Setting(s) in commercial: (circle all that apply) [V201]
• at bar
• at party
• at home
• in car
• in taxi
• outside on a street
• at accident scene
• at hospital
• at police station
• in courtroom
• in jail
• neutral background
• other (describe: ____________________________)

Music: (choose the one that describes it best) [V214]
0. none
1. instrumental only
2. lyrics

If lyrics, which kind of singer: (choose the one that describes it best) [V216]
0. none; n/a
1. female vocalist
2. male vocalist
3. ensemble/choir/group
4. other (describe: ____________________________)

If music, which genre: (choose the one that describes it best) [V216]
0. none; n/a
1. middle-of-the-road; mellow/sentimental
2. scary/frightening/spooky
3. pop
4. rock and roll
5. folk
6. blues
7. jazz
8. country & western
9. classical
10. Christmas
11. musical sound effects only
12. other (describe: ____________________________)
| Coder: | [V1] |
| Video tape ID Code: | Commercial #: | [V2] |
| TV Commercial Name: | [V3] |
| Sponsor Company/Organization: | [V4] |
| Year Produced: 19 | [V5] |
| Commercial length: | [V6] |
| Country of origin: | [V7] |
| Canada | [1] |
| United States | [2] |
| Great Britain | [3] |
| Australia | [4] |
| New Zealand | [5] |
| Specific problem(s) being targeted (circle all that apply): | [V8] |
| Smoking | [Y] |
| Drugs | [V9] |
| Drunk driving/DWI | [V10] |
| Excessive alcohol consumption/alcoholism/underage drinking | [V11] |
| Unsafe sex/AIDS/STDs | [V12] |
| Sponsorship (if multiple sponsors, circle all that apply): | [V13] |
| Unknown/doesn’t say | [Y] |
| Government | [V14] |
| Nonprofit non-government organization | [V15] |
| For-profit health organization | [V16] |
| For-profit corporation | [V17] |
| Industry association | [V18] |
| Specific intended target group: | [V19] |
| No, commercial is aimed at a mass audience | [0] |
| Yes, commercial is aimed at a very specific group | [Y] |
| Is a specific age group being targeted? (Circle more than one, if necessary) | [V20] |
| No; n/a | [0] |
| Children | [Y] |
| Teens | [V21] |
| Young adults (18-29) | [Y] |
| Mature adults (30-64) | [V22] |
| Elderly (65+) | [V23] |
| Is a specific gender being targeted? (Choose one) | [V24] |
| No; n/a | [0] |
| Males specifically | [Y] |
| Females specifically | [V25] |
| Are there any other identifying characteristics of the group being targeted? | [V26] |
| No; n/a; no other identifying characteristics | [0] |
| Yes (Please specify: | [Y] |
| Is there any attempt to be humorous? | [V27] |
| No | [0] |
| Yes | [Y] |
| Slogan/Tag ending: | [V28] |

356
Spokesperson (Source) characteristics: (Code up to four main spokespersons.)

<table>
<thead>
<tr>
<th>Description: (if more than 1 source)</th>
<th>Spokesperson #1</th>
<th>Spokesperson #2</th>
<th>Spokesperson #3</th>
<th>Spokesperson #4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seen/heard:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audio VO/sing only</td>
<td>[V29]</td>
<td>[V30]</td>
<td>[V31]</td>
<td>[V32]</td>
</tr>
<tr>
<td>Video/on-screen only</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>VO &amp; on-camera (in sync)</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>VO/sing &amp; on-camera (not in sync)</td>
<td>3</td>
<td>3</td>
<td>3</td>
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Spokesperson (Source) characteristics: (cont'd)

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<td>Elderly (65+)</td>
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<td>Asian</td>
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<td>Other (specify)</td>
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</tbody>
</table>

358
### DRUG COMMERCIALS - Use of fear/threats:

#### Specific drugs mentioned or shown: (circle all that apply)

- [ ] none; n/a
- [ ] cocaine
- [ ] crack
- [ ] marijuana
- [ ] LSD
- [ ] heroin
- [ ] glue/solvent
- [ ] injection drugs/injection equipment
- [ ] other drugs (please specify: ____________________________)
- [ ] drugs shown, but type unknown

#### Overall tone of the commercial: (choose the one that describes it best)

- [ ] threat/fear appeal/sad
- [ ] neutral
- [ ] positive/up-beat

#### Any specific threats mentioned or shown, or any attempts to arouse fear or strong emotion/anxiety?

(even if the overall tone was not threatening or fearful)

- [ ] no
- [ ] yes

*If yes, what level of fear would you say they are intending to arouse? (choose one)*

- [ ] none; n/a
- [ ] low
- [ ] medium
- [ ] high

#### Briefly describe the threat(s): ________________________________

#### Types of threats or negative consequences mentioned: (circle all that apply)

- [ ] none; n/a
- [ ] overdose
- [ ] have a bad "trip"
- [ ] harm your health
- [ ] get in an accident
- [ ] lose your motivation
- [ ] death/deadly
- [ ] lose job
- [ ] fine
- [ ] jail/prison
- [ ] criminal record
- [ ] high financial cost
- [ ] lose everything
- [ ] other (specify) ____________________________

#### Direction of threat: (circle all that apply)

- [ ] n/a
- [ ] oneself
- [ ] close others
- [ ] unspecified others or strangers
- [ ] society in general

#### How is threat communicated? (choose one)

- [ ] n/a; none
- [ ] message/audio/music mainly
- [ ] pictures/video mainly
- [ ] message/audio/music and video

---

359
DRUG COMMERCIALS - Coping Advice or Recommendations:

Briefly describe recommendations:

Nature of recommendation (circle all that apply)

- [ ] none
- [ ] don't use drugs
- [ ] quit using drugs
- [ ] don't start using drugs
- [ ] just say "no"/say "no" to drugs
- [ ] take responsibility
- [ ] learn the facts/know the facts
- [ ] write for info
- [ ] phone for info
- [ ] pick up information/brochure/pamphlet
- [ ] get help/counselling/treatment
- [ ] see your doctor
- [ ] talk to your parents
- [ ] talk to your kids
- [ ] give money/donation
- [ ] other (specify)

Does the commercial contain information about response efficacy?
(i.e., does the commercial tell you how effective the recommended behavior will be in reducing your fears and risk/danger?)

- [ ] no
- [ ] yes

If so, describe the response efficacy information

Does the commercial contain encouragement for self-efficacy?
(i.e., does the commercial give you some encouragement that you can successfully carry out the behavior on your own?)

- [ ] no
- [ ] yes

If so, describe the encouragement

Threat/Advice Order: (choose one)

- [ ] n/a
- [ ] threat(s) only, no advice
- [ ] advice only, no threat(s)
- [ ] threat(s) first, then advice
- [ ] advice first, then threat(s)
- [ ] threat(s) first, then advice, then threat(s) again
- [ ] advice first, then threat(s), then advice again
- [ ] other (describe:)

360
**Content Analysis Coding Form**

**Coder:**

**Videotape ID Code:**

**Commercial #:**

**TV Commercial Name:**

**Sponsor Company/Organization:**

**Year Produced:**

**Commercial length:**

**Country of origin:**

1. Canada
2. United States
3. Great Britain
4. Australia
5. New Zealand

**Specific problem(s) being targeted (circle all that apply):**

- [ ] smoking
- [ ] drugs
- [ ] drunk driving/DWI
- [ ] excessive alcohol consumption/alcoholism/underage drinking
- [ ] unsafe sex/AIDS/STDs

**Sponsorship (if multiple sponsors, circle all that apply):**

- [ ] unknown/doesn't say
- [ ] government
- [ ] nonprofit non-government organization
- [ ] for-profit health organization
- [ ] for-profit corporation
- [ ] industry association

**Specific intended target group:**

- [ ] no, commercial is aimed at a mass audience
- [ ] yes, commercial is aimed at a very specific group

**Is a specific age group being targeted? (Circle more than one, if necessary)**

- [ ] no; n/a
- [ ] children
- [ ] teens
- [ ] young adults (18-29)
- [ ] mature adults (30-64)
- [ ] elderly (65+)

**Is a specific gender being targeted? (choose one)**

- [ ] no; n/a
- [ ] males specifically
- [ ] females specifically

**Are there any other identifying characteristics of the group being targeted?**

- [ ] n/a; no other identifying characteristics
- [ ] yes (Please specify: ____________________________)

**Is there any attempt to be humorous?**

- [ ] no
- [ ] yes

**Slogan/Tag ending:**
<table>
<thead>
<tr>
<th>Spokesperson (Source) characteristics:</th>
<th>DWI/ALC</th>
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<td>(Code up to four main spokespersons.)</td>
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<td><strong>Spokesperson #1</strong></td>
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<tr>
<td>Video/on-screen only</td>
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<tr>
<td>VO &amp; on-camera (in sync)</td>
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<tr>
<td>VO/sing &amp; on-camera (not in sync)</td>
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<tr>
<td><strong>Position of spokesperson:</strong></td>
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<tr>
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<tr>
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<td>1st hand experience</td>
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<td>Victim/survivor/friend of victim</td>
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<td>Expert</td>
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<td>Movie/TV/radio</td>
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<td>Music</td>
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<td>Political</td>
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<td><strong>If authority figure or expert, what occupation?</strong></td>
<td>[V45]</td>
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<td>Policeman</td>
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<td>Fireman</td>
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### Spokesperson (Source) characteristics: (cont'd)

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</table>
**DWI COMMERCIALS - Use of fear/threats:**

Specific drinks mentioned or shown: (circle all that apply)
- none; n/a
- beer
- wine
- wine coolers
- hard liquor/cocktails
- cider
- other alcoholic beverages

Overall tone of the commercial: (choose the one that describes it best)
- threat/fear appeal/sad
- neutral
- positive/up-beat

Any specific threats mentioned or shown, or any attempts to arouse fear or strong emotion/anxiety? (even if the overall tone was not threatening or fearful)
- no
- yes
  - If yes, what level of fear would you say they are intending to arouse?
    - none; n/a
    - low
    - medium
    - high

Briefly describe the threat(s):

Types of threats or negative consequences mentioned: (circle all that apply)
- none
- car accident
- death or serious injury for drunk driver
- death or seriously injure friend/family
- death or seriously injure a child
- death or seriously injure unspecified other(s)/stranger(s)
- pay fine
- lose license
- jail sentence
- lose insurance/insurance void
- experience high financial cost
- lose job
- drunk driver experiences emotional distress/guilt/remorse
- victims/survivors suffer emotional distress
- other (specify)

Direction of threat: (circle all that apply)
- n/a
- oneself
- close others
- unspecified others or strangers
- society in general

How is threat communicated? (choose one)
- n/a; none
- message/audio/musci mainly
- pictures/video mainly
- message/audio/musci and video
DWI COMMERCIALS - Coping Advice or Recommendations:

Briefly describe recommendations:

Nature of recommendation (circle all that apply)

0 none
1 don’t drink and drive; if you drink, don’t drive
2 don’t drink too much/stay within your limit
3 stop friends from drinking and driving
4 take away the keys from drunk
5 leave the keys at home
6 don’t overserve guests/patrons/customers
7 appoint/be a designated driver
8 call home/friend for a ride
9 take a taxi
10 take the bus
11 stay overnight
12 take responsibility
13 learn the facts/know the facts
14 write for info
15 phone for info
16 pick up information/brochure/pamphlet
17 get help/counselling/treatment
18 see your doctor
19 talk to your parents
20 talk to your kids
21 give money/donation
22 other (specify)

Does the commercial contain information about response efficacy?
(i.e., does the commercial tell you how effective the recommended behavior will be in reducing your fears and risk/danger?)

0 no
1 yes

If so, describe the response efficacy information

Does the commercial contain encouragement for self-efficacy?
(i.e., does the commercial give you some encouragement that you can successfully carry out the behavior on your own?)

0 no
1 yes

If so, describe the encouragement

Threat/Advice Order: (choose one)

0 n/a
1 threat(s) only, no advice
2 advice only, no threat(s)
3 threat(s) first, then advice
4 advice first, then threat(s)
5 threat(s) first, then advice, then threat(s) again
6 advice first, then threat(s), then advice again
7 other (describe: )
DWI COMMERCIALS - Additional Coding Categories:

Type of Commercial: (circle the one that describes it best)

1. dramatization
2. slice of life
3. positive lifestyle
4. testimonial
5. collage of static images
6. animation
7. other (describe:

Setting(s) in commercial: (circle all that apply)

Y at bar
Y at party
Y at home
Y in car
Y in taxi
Y outside on a street
Y at accident scene
Y at hospital
Y at police station
Y in courtroom
Y in jail
Y neutral background
Y other (describe:

Music: (chose the one that describes it best)

0. none
1. instrumental only
2. lyrics

If lyrics, which kind of singer: (choose the one that describes it best)

0. none; n/a
1. female vocalist
2. male vocalist
3. ensemble/choir/group
4. other (describe:

If music, which genre: (choose the one that describes it best)

0. none; n/a
1. middle-of-the-road; mellow/sentimental
2. scary/frightening/spooky
3. pop
4. rock and roll
5. folk
6. blues
7. jazz
8. country & western
9. classical
10. Christmas
11. musical sound effects only
12. other (describe:

366
### Content Analysis Coding Form

<table>
<thead>
<tr>
<th>Field</th>
<th>Code(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coder:</td>
<td></td>
</tr>
<tr>
<td>Videotape ID Code:</td>
<td></td>
</tr>
<tr>
<td>Commercial #:</td>
<td></td>
</tr>
<tr>
<td>TV Commercial Name:</td>
<td></td>
</tr>
<tr>
<td>Sponsor Company/Organization:</td>
<td></td>
</tr>
<tr>
<td>Year Produced:</td>
<td>19</td>
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<tr>
<td>Commercial length:</td>
<td></td>
</tr>
<tr>
<td>Country of origin:</td>
<td></td>
</tr>
<tr>
<td>1 Canada</td>
<td></td>
</tr>
<tr>
<td>2 United States</td>
<td></td>
</tr>
<tr>
<td>3 Great Britain</td>
<td></td>
</tr>
<tr>
<td>4 Australia</td>
<td></td>
</tr>
<tr>
<td>5 New Zealand</td>
<td></td>
</tr>
<tr>
<td>Specific problem(s) being targeted (circle all that apply):</td>
<td></td>
</tr>
<tr>
<td>Y smoking</td>
<td></td>
</tr>
<tr>
<td>Y drugs</td>
<td></td>
</tr>
<tr>
<td>Y drunk driving/DWI</td>
<td></td>
</tr>
<tr>
<td>Y excessive alcohol consumption/alcoholism/underage drinking</td>
<td></td>
</tr>
<tr>
<td>Y unsafe sex/AIDS/STDs</td>
<td></td>
</tr>
<tr>
<td>Sponsorship (if multiple sponsors, circle all that apply):</td>
<td></td>
</tr>
<tr>
<td>Y unknown/doesn't say</td>
<td></td>
</tr>
<tr>
<td>Y government</td>
<td></td>
</tr>
<tr>
<td>Y nonprofit non-government organization</td>
<td></td>
</tr>
<tr>
<td>Y for-profit health organization</td>
<td></td>
</tr>
<tr>
<td>Y for-profit corporation</td>
<td></td>
</tr>
<tr>
<td>Y industry association</td>
<td></td>
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<tr>
<td>Specific intended target group:</td>
<td></td>
</tr>
<tr>
<td>0 no, commercial is aimed at a mass audience</td>
<td></td>
</tr>
<tr>
<td>1 yes, commercial is aimed at a very specific group</td>
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</tr>
<tr>
<td>Is a specific age group being targeted? (Circle more than one, if necessary)</td>
<td></td>
</tr>
<tr>
<td>0 no; n/a</td>
<td></td>
</tr>
<tr>
<td>Y children</td>
<td></td>
</tr>
<tr>
<td>Y teens</td>
<td></td>
</tr>
<tr>
<td>Y young adults (18-29)</td>
<td></td>
</tr>
<tr>
<td>Y mature adults (30-64)</td>
<td></td>
</tr>
<tr>
<td>Y elderly (65+)</td>
<td></td>
</tr>
<tr>
<td>Is a specific gender being targeted? (choose one)</td>
<td></td>
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<tr>
<td>0 no; n/a</td>
<td></td>
</tr>
<tr>
<td>1 males specifically</td>
<td></td>
</tr>
<tr>
<td>2 females specifically</td>
<td></td>
</tr>
<tr>
<td>Are there any other identifying characteristics of the group being targeted?</td>
<td></td>
</tr>
<tr>
<td>0 n/a; no other identifying characteristics</td>
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</tr>
<tr>
<td>1 yes (Please specify:)</td>
<td></td>
</tr>
<tr>
<td>Is there any attempt to be humorous?</td>
<td></td>
</tr>
<tr>
<td>0 no</td>
<td></td>
</tr>
<tr>
<td>1 yes</td>
<td></td>
</tr>
<tr>
<td>Slogan/Tag ending:</td>
<td></td>
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367
<table>
<thead>
<tr>
<th>Description:</th>
<th>Spokesperson #1</th>
<th>Spokesperson #2</th>
<th>Spokesperson #3</th>
<th>Spokesperson #4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spokesperson characteristics:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>(Code up to four main spokespersons.)</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Seen/heard:</strong></td>
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<tr>
<td>Audio VO/sing only</td>
<td>[V29]</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Video/on-screen only</td>
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<tr>
<td>VO &amp; on-camera (in sync)</td>
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<tr>
<td>VO/sing &amp; on-camera (not in sync)</td>
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<td>4</td>
<td>4</td>
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<tr>
<td><strong>Position of spokesperson:</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Throughout</td>
<td>[V33]</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Beginning only</td>
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<td>2</td>
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<tr>
<td>End only</td>
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<tr>
<td><strong>Role:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Announcer</td>
<td>[V37]</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Singer</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Average/neutral person</td>
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<td>3</td>
<td>3</td>
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<tr>
<td>1st hand experience</td>
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<tr>
<td>Victim/survivor/friend of victim</td>
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<tr>
<td>Expert</td>
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<tr>
<td>Authority figure</td>
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<td>Celebrity</td>
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<td>Cartoon figure</td>
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<td>Other</td>
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<tr>
<td><strong>If celebrity, what kind?</strong></td>
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<tr>
<td>n/a</td>
<td>[V41]</td>
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<td>Sports</td>
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<tr>
<td>Movie/TV/radio</td>
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<td>Music</td>
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<td>Political</td>
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<td>Other</td>
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<td>5</td>
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<td>5</td>
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<tr>
<td><strong>If authority figure or expert, what occupation?</strong></td>
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<tr>
<td>n/a</td>
<td>[V45]</td>
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<td>Policeman</td>
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<td>Fireman</td>
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<tr>
<td>Judge</td>
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<tr>
<td>Teacher/professor</td>
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<td>Minister/priest</td>
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<td>Doctor</td>
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<td>Nurse</td>
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<td>Other</td>
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<tr>
<td><strong>Sex:</strong></td>
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<tr>
<td>n/a or not sure</td>
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<tr>
<td>Male</td>
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<tr>
<td>Female</td>
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**SMOKING**
Spokesperson (Source) characteristics: (cont'd)

<table>
<thead>
<tr>
<th>Age</th>
<th>[V53]</th>
<th>[V54]</th>
<th>[V55]</th>
<th>[V56]</th>
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<tbody>
<tr>
<td>n/a or not sure</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>Child</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Teenager</td>
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<tr>
<td>Young adult (18-30)</td>
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<td>Mature adult (30-64)</td>
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<tr>
<td>Elderly (65+)</td>
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<table>
<thead>
<tr>
<th>Race</th>
<th>[V57]</th>
<th>[V58]</th>
<th>[V59]</th>
<th>[V60]</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a or not sure</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>White</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Black</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Asian</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

(specify)
SMOKING COMMERCIALS - Use of fear/threats:

Specific diseases mentioned or shown: (circle all that apply)
- [ ] none; n/a
- [X] lung disease/cancer
- [X] heart disease
- [X] asthma
- [X] emphysema
- [X] other cancers (specify: )
- [X] other diseases (specify: )

Overall tone of the commercial: (choose the one that describes it best)
- [ ] threat/fear appeal/sad
- [ ] neutral
- [ ] positive/up-beat

Any specific threats mentioned or shown, or any attempts to arouse fear or strong emotion/anxiety?
(even if the overall tone was not threatening or fearful)
- [ ] no
- [X] yes

If yes, what level of fear would you say they are intending to arouse? (choose one)
- [ ] none; n/a
- [ ] low
- [ ] medium
- [X] high

Briefly describe the threat(s):

Types of threats or negative consequences mentioned: (circle all that apply)
- [ ] none; n/a
- [X] stinks/smelly
- [X] social ostracism/lose friends
- [X] short of breath
- [X] illness/disease
- [X] shorter life/die early
- [X] death/deadly/kills
- [X] children/others exposed to second hand smoke
- [X] children/teens will follow adult example & start to smoke
- [X] other (specify: )

Direction of threats: (circle all that apply)
- [ ] n/a
- [X] oneself
- [X] close others
- [X] unspecified others or strangers
- [ ] society in general

How is threat communicated? (choose one)
- [ ] n/a; none
- [ ] message/audio/music mainly
- [ ] pictures/video mainly
- [X] message/audio/music and video

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SMOKING COMMERCIALS - Coping Advice or Recommendations:

Briefly describe recommendations: ________________________________

Nature of recommendations (circle all that apply)
- Y don't smoke [V191]
- Y quit smoking [V192]
- Y don’t start smoking [V193]
- Y don’t expose others to second hand smoke [V194]
- Y be a good role model for children [V195]
- Y take responsibility [V161]
- Y learn the facts/know the facts [V162]
- Y write for info [V163]
- Y phone for info [V164]
- Y pick up information/brochure/pamphlet [V165]
- Y get help/counselling/treatment [V166]
- Y see your doctor [V167]
- Y talk to your parents [V168]
- Y talk to your kids [V169]
- Y give money/donation [V170]
- Y other (specify) [V196]

Does the commercial contain information about response efficacy?
(i.e., does the commercial tell you how effective the recommended behavior will be in reducing your fears and risk/danger?) [V197]
- 0 no
- 1 yes

If so, describe the response efficacy information: ________________________________

Does the commercial contain encouragement for self-efficacy?
(i.e., does the commercial give you some encouragement that you can successfully carry out the behavior on your own?) [V198]
- 0 no
- 1 yes

If so, describe the encouragement: ________________________________

Threat/Advice Order: (choose one) [V199]
- 0 n/a
- 1 threat(s) only, no advice
- 2 advice only, no threat(s)
- 3 threat(s) first, then advice
- 4 advice first, then threat(s)
- 5 threat(s) first, then advice, then threat(s) again
- 6 advice first, then threat(s), then advice again
- 7 other (describe: ________________________________

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APPENDIX 4

Pretest A and Pretest B Questionnaires
### Pretest A

**Behavior Consequences**

For each of the following behaviors, please rate how serious you consider its consequences to be, using a scale from 1 to 7 (where 1 = not very serious, 7 = extremely serious). Assume that the behavior is being carried out on a regular or frequent basis.

<table>
<thead>
<tr>
<th>Not very serious</th>
<th>Extremely serious</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking</td>
<td>1  2  3  4  5  6  7</td>
</tr>
<tr>
<td>Driving while impaired</td>
<td>1  2  3  4  5  6  7</td>
</tr>
<tr>
<td>Engaging in unprotected sex</td>
<td>1  2  3  4  5  6  7</td>
</tr>
<tr>
<td>Heavy alcohol consumption</td>
<td>1  2  3  4  5  6  7</td>
</tr>
<tr>
<td>Use of illegal drugs</td>
<td>1  2  3  4  5  6  7</td>
</tr>
</tbody>
</table>
Pretest B
Behavior Consequences

Please rank each of the following behaviors from 1 to 5, in terms of how serious you believe its consequences to be. (Rank the most serious behavior as #1, and the least serious behavior as #5.) Assume that the behavior is being carried out on a regular or frequent basis.

RANK:

____ Smoking
____ Driving while impaired
____ Engaging in unprotected sex
____ Heavy alcohol consumption
____ Use of illegal drugs
APPENDIX 5

Experiment #1 Survey Instruments
CONSENT FORM TO PARTICIPATE IN RESEARCH

This is to state that I agree to participate in a programme of research being conducted by Prof. Anne Lavack of the Department of Marketing at Concordia University (ph. 848-2970).

A. PURPOSE
   I have been informed that the purpose of the research is as follows:
   To gain insight into the attitudes and opinions of consumers with regard to specific social marketing ads.

B. PROCEDURES
   Participants will be presented with a social marketing ad, and will be asked to read it carefully. After reviewing the ad, participants will be asked to fill out a questionnaire, which includes questions about their reactions to the ad, as well as their attitudes toward the behavior which the ad is addressing.

C. CONDITIONS OF PARTICIPATION
   • I understand that my participation is voluntary. I am free to withdraw my consent and discontinue my participation at any time without negative consequences.

   • I understand that my participation in this study is confidential (i.e., the researcher will know, but will not disclose my identity).

   • I understand that the data from this study may be published.

   • I understand the purpose of this study and know that there is no hidden motive of which I have not been informed.

I HAVE CAREFULLY STUDIED THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY CONSENT AND AGREE TO PARTICIPATE IN THIS STUDY.

NAME (please print) ____________________________________________

SIGNATURE __________________________________________________

WITNESS SIGNATURE __________________________________________

DATE ________________________________________________________
SOCIAL MARKETING STUDY

In some of the questions, when the word 'DRINK' is used it means one shot of beer/cider/cooler or one glass of draft beer, one small glass of wine, or one shot or mixed drink with hard liquor.

1. Do you have a valid driver's license?
   ( ) Yes
   ( ) No

2. Have you had alcoholic drinks on four or more occasions during the past 12 months?
   ( ) Yes
   ( ) No

3. How many alcoholic drinks did you have in the past month?
   ( ) None
   ( ) One to five
   ( ) Six to nine
   ( ) Ten to twenty
   ( ) More than twenty

4. Within the last month, how many times, in total, have you driven a vehicle after having more than two drinks within two hours prior to driving?
   ( ) Zero
   ( ) One
   ( ) Twice
   ( ) Three
   ( ) Four
   ( ) Five or more

5. Within the past month, how many times have you been a passenger in a vehicle in which the driver has had more than two drinks within two hours prior to driving?
   ( ) Zero
   ( ) One
   ( ) Twice
   ( ) Three
   ( ) Four
   ( ) Five or more

6. In the past month, have you agreed beforehand to be the non-drinking driver for an occasion involving drinking?
   ( ) Yes
   ( ) No

7. During the past month, have you done anything to prevent someone from driving after they have had too much to drink?
   ( ) Yes
   ( ) No
Following is a social marketing ad for Drinking and Driving. We want your honest opinions about the ad. Please spend a minute or two reading through the ad.

When you are finished reviewing the ad, we will ask you a series of questions about the ad. The questionnaire will take approximately 10 minutes to complete.

DRINKING & DRIVING KILLS

If you drink and drive, you put yourself at risk. Risk of losing your license or getting a jail sentence. But it's not just yourself you put at risk... there are passengers, other drivers, and pedestrians to consider. Think about how you would feel if you killed someone...

So avoid drinking and driving. Take a bus or a taxi instead. Or choose a designated driver. It's that easy.

Do your part. You can beat the drinking and driving problem.

Once you have turned this page, you may not turn back to look at the ad again!
Please think back to the advertisement you just saw. In the spaces provided below, please briefly describe the MESSAGE CONTENT of the advertisement.

MESSAGE CONTENT

Now we would like your evaluation of the ADVERTISEMENT for Drinking and Driving. Please give your evaluation of the ad for Drinking and Driving on the three scales below by circling a number between +4 and -4 for EACH question.

BAD       -4  -3  -2  -1  0  +1  +2  +3  +4       GOOD
UNPLEASANT  -4  -3  -2  -1  0  +1  +2  +3  +4       PLEASANT
NOT LIKEABLE -4  -3  -2  -1  0  +1  +2  +3  +4       LIKEABLE

Now we are interested in knowing how the ad for Drinking and Driving made you FEEL. Please tell us if you experienced any of the feelings below by circling a number between 1 and 9 for each of the feeling questions.

Did the Drinking and Driving ad make you feel STIMULATED?
NOT AT ALL  1  2  3  4  5  6  7  8  9       VERY MUCH SO

Did the Drinking and Driving ad make you feel UNHAPPY?
NOT AT ALL  1  2  3  4  5  6  7  8  9       VERY MUCH SO

Did the Drinking and Driving ad make you feel CALM?
NOT AT ALL  1  2  3  4  5  6  7  8  9       VERY MUCH SO

Did the Drinking and Driving ad make you feel RELAXED?
NOT AT ALL  1  2  3  4  5  6  7  8  9       VERY MUCH SO

Did the Drinking and Driving ad make you feel BORED?
NOT AT ALL  1  2  3  4  5  6  7  8  9       VERY MUCH SO

Did the Drinking and Driving ad make you feel IRRITATED?
NOT AT ALL  1  2  3  4  5  6  7  8  9       VERY MUCH SO
We are still interested in knowing how the ad for Drinking and Driving made you FEEL. Please tell us if you experienced any of the feelings below by circling a number between 1 and 9 for each of the feeling questions.

Did the Drinking and Driving ad make you feel EXCITED?
NOT AT ALL 1 2 3 4 5 6 7 8 9 VERY MUCH SO

Did the Drinking and Driving ad make you feel ANNOYED?
NOT AT ALL 1 2 3 4 5 6 7 8 9 VERY MUCH SO

Did the Drinking and Driving ad make you feel SOOTHEED?
NOT AT ALL 1 2 3 4 5 6 7 8 9 VERY MUCH SO

Did the Drinking and Driving ad make you feel AFRAID?
NOT AT ALL 1 2 3 4 5 6 7 8 9 VERY MUCH SO

Did the Drinking and Driving ad make you feel CONCERNED?
NOT AT ALL 1 2 3 4 5 6 7 8 9 VERY MUCH SO

Did the Drinking and Driving ad make you feel WORRIED?
NOT AT ALL 1 2 3 4 5 6 7 8 9 VERY MUCH SO

Did the Drinking and Driving ad make you feel ANXIOUS?
NOT AT ALL 1 2 3 4 5 6 7 8 9 VERY MUCH SO

Did the Drinking and Driving ad make you feel THREATENED?
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Did the Drinking and Driving ad make you feel FEARFUL?
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In the space provided below, please list ALL of the THOUGHTS and FEELINGS that crossed your mind while you were viewing the advertisement for Drinking and Driving. Write each thought/feeling on a separate line. Please DO NOT hesitate to state ALL your thoughts/feelings, even if you think some are not important. Every thought/feeling you may have is of importance to us. Remember, we are interested in your OWN THOUGHTS/FEELINGS, and not what was stated in the advertisement.

PLEASE WRITE EACH THOUGHT/FEELING ON A SEPARATE LINE.
We are interested in finding out how well you can remember what was said about Drinking and Driving in the advertisement you just saw. In the space provided below, please write down as much of the information as you can remember, that was mentioned in the advertisement for Drinking and Driving.

Please write each point you remember from the advertisement on a separate line. Try and remember the advertisement in as much detail and as accurately as possible.

USE THE SPACE BELOW TO WRITE WHAT YOU RECALL.

________________________________________

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Do you remember the headline printed at the top of the Drinking and Driving ad? Please write down what you remember about the headline in the space below.

________________________________________
Please circle the number for the following questions which most closely describes your level of agreement or disagreement with each of the statements.

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15. How often would you wear your seatbelt while driving a vehicle after you have been drinking?
   ( ) Always
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16. Would you agree beforehand to be the non-drinking driver for an occasion involving drinking?
   ( ) Yes
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17. The legal limit of alcohol consumption before driving is .08 percent blood alcohol content. Do you think the limit is:
   ( ) Much too high
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   ( ) A little low
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18. What would you do to try to stop a friend from drinking and driving? (Check one only)

( ) Probably would not do anything
( ) Ask them not to drive
( ) Offer to drive them home
( ) Ask them to take a taxi, bus, or metro
( ) Try to take away their car keys
( ) Report them to the police

19. What do you think should be the minimum penalty for a first drinking driving conviction? (Check one only).

( ) A fine
( ) Invalidation of insurance
( ) Loss of driver's license
( ) A permanent criminal record
( ) A jail sentence

Please remember when we use the word "DRINK," it means one bottle of beer/cider/cooler or one glass of draft beer, one small glass of wine, or one shot or mixed drink with hard liquor.

20. About how many drinks do you think you can have, over a 2 hour period, before you are over the legal limit of .08 percent?

   _____ (number of drinks)

21. How many drinks do you think it would take before your reflexes would be affected?

   _____ (number of drinks)

Please respond to this question by placing an 'X' in the appropriate category.
My mother tongue is:

English _____   French _____   Other _____

Please indicate your level of fluency in English by circling a number between 1 and 9 on the scale below:

NOT AT ALL 1 2 3 4 5 6 7 8 9 PERFECTLY FLUENT

SEX: Male _____   Female _____
What do you think was the purpose of this study? Please write down your answer in the space provided below.
CONSENT FORM TO PARTICIPATE IN RESEARCH

This is to state that I agree to participate in a programme of research being conducted by Prof. Anne Lavack of the Department of Marketing at Concordia University (ph. 848-2970).

A. PURPOSE
I have been informed that the purpose of the research is as follows:
To gain insight into the attitudes and opinions of consumers with regard to specific social marketing ads.

B. PROCEDURES
Participants will be presented with a social marketing ad, and will be asked to read it carefully. After reviewing the ad, participants will be asked to fill out a questionnaire, which includes questions about their reactions to the ad, as well as their attitudes toward the behavior which the ad is addressing.

C. CONDITIONS OF PARTICIPATION
• I understand that my participation is voluntary. I am free to withdraw my consent and discontinue my participation at any time without negative consequences.
• I understand that my participation in this study is confidential (i.e., the researcher will know, but will not disclose my identity).
• I understand that the data from this study may be published.
• I understand the purpose of this study and know that there is no hidden motive of which I have not been informed.

I HAVE CAREFULLY STUDIED THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY CONSENT AND AGREE TO PARTICIPATE IN THIS STUDY.

NAME (please print) ____________________________________________________________

SIGNATURE ________________________________________________________________

WITNESS SIGNATURE _______________________________________________________

DATE ________________________________________________________________
SOCIAL MARKETING STUDY

In some of the questions, when the word 'DRINK' is used it means one shot of beer/cider/cooler or one glass of draft beer, one small glass of wine, or one shot or mixed drink with hard liquor.

1. Do you have a valid driver's license?
   ( ) Yes  
   ( ) No  

2. Have you had alcoholic drinks on four or more occasions during the past 12 months?
   ( ) Yes  
   ( ) No  

3. How many alcoholic drinks did you have in the past month?
   ( ) None  
   ( ) One to five  
   ( ) Six to nine  
   ( ) Ten to twenty  
   ( ) More than twenty  

4. Within the last month, how many times, in total, have you driven a vehicle after having more than two drinks within two hours prior to driving?
   ( ) Zero  
   ( ) One  
   ( ) Twice  
   ( ) Three  
   ( ) Four  
   ( ) Five or more  

5. Within the past month, how many times have you been a passenger in a vehicle in which the driver has had more than two drinks within two hours prior to driving?
   ( ) Zero  
   ( ) One  
   ( ) Twice  
   ( ) Three  
   ( ) Four  
   ( ) Five or more  

6. In the past month, have you agreed beforehand to be the non-drinking driver for an occasion involving drinking?
   ( ) Yes  
   ( ) No  

7. During the past month, have you done anything to prevent someone from driving after they have had too much to drink?
   ( ) Yes  
   ( ) No
Following is a social marketing ad for Drinking and Driving. We want your honest opinions about the ad. Please spend a minute or two reading through the ad.

When you are finished reviewing the ad, we will ask you a series of questions about the ad. The questionnaire will take approximately 10 minutes to complete.

**DRINKING & DRIVING**

If you drink and drive, you probably have some strategies that reduce the risk -- you hope... Like driving down side streets. Or driving more slowly. The risks are small, you think. But is the risk really so small? And is it worth the risk at all? Maybe not...

So avoid drinking and driving. Take a bus or a taxi instead. Or choose a designated driver. It's that easy.

Do your part. You can beat the drinking and driving problem.
Please think back to the advertisement you just saw. In the spaces provided below, please briefly describe the MESSAGE CONTENT of the advertisement.

MESSAGE CONTENT

Now we would like your evaluation of the ADVERTISEMENT for Drinking and Driving. Please give your evaluation of the ad for Drinking and Driving on the three scales below by circling a number between +4 and -4 for EACH question.

BAD  -4  -3  -2  -1  0  +1  +2  +3  +4  GOOD
UNPLEASANT  -4  -3  -2  -1  0  +1  +2  +3  +4  PLEASANT
NOT LIKEABLE  -4  -3  -2  -1  0  +1  +2  +3  +4  LIKEABLE

Now we are interested in knowing how the ad for Drinking and Driving made you FEEL. Please tell us if you experienced any of the feelings below by circling a number between 1 and 9 for each of the feeling questions.

Did the Drinking and Driving ad make you feel STIMULATED?
NOT AT ALL  1  2  3  4  5  6  7  8  9  VERY MUCH SO

Did the Drinking and Driving ad make you feel UNHAPPY?
NOT AT ALL  1  2  3  4  5  6  7  8  9  VERY MUCH SO

Did the Drinking and Driving ad make you feel CALM?
NOT AT ALL  1  2  3  4  5  6  7  8  9  VERY MUCH SO

Did the Drinking and Driving ad make you feel RELAXED?
NOT AT ALL  1  2  3  4  5  6  7  8  9  VERY MUCH SO

Did the Drinking and Driving ad make you feel BORED?
NOT AT ALL  1  2  3  4  5  6  7  8  9  VERY MUCH SO

Did the Drinking and Driving ad make you feel IRRITATED?
NOT AT ALL  1  2  3  4  5  6  7  8  9  VERY MUCH SO
We are still interested in knowing how the ad for Drinking and Driving made you feel. Please tell us if you experienced any of the feelings below by circling a number between 1 and 9 for each of the feeling questions.

Did the Drinking and Driving ad make you feel EXCITED?
NOT AT ALL 1 2 3 4 5 6 7 8 9 VERY MUCH SO

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NOT AT ALL 1 2 3 4 5 6 7 8 9 VERY MUCH SO

Did the Drinking and Driving ad make you feel SOOTHED?
NOT AT ALL 1 2 3 4 5 6 7 8 9 VERY MUCH SO

Did the Drinking and Driving ad make you feel AFRAID?
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Please write each point you remember from the advertisement on a separate line. Try and remember the advertisement in as much detail and as accurately as possible.

USE THE SPACE BELOW TO WRITE WHAT YOU RECALL.

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Do you remember the headline printed at the top of the Drinking and Driving ad? Please write down what you remember about the headline in the space below.

_____________________________________________________________________
Please circle the number for the following questions which most closely describes your level of agreement or disagreement with each of the statements.

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15. How often would you wear your seatbelt while driving a vehicle after you have been drinking?
   ( ) Always
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16. Would you agree beforehand to be the non-drinking driver for an occasion involving drinking?
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   ( ) No
   ( ) Don't know

17. The legal limit of alcohol consumption before driving is .08 percent blood alcohol content. Do you think the limit is:
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19. What do you think should be the minimum penalty for a first drinking driving conviction? (Check one only).

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Please remember when we use the word “DRINK,” it means one bottle of beer/cider/cooler or one glass of draft beer, one small glass of wine, or one shot or mixed drink with hard liquor.

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____ (number of drinks)

21. How many drinks do you think it would take before your reflexes would be affected?

____ (number of drinks)

Please respond to this question by placing an 'X' in the appropriate category.

My mother tongue is:

English ______ French ______ Other ______

Please indicate your level of fluency in English by circling a number between 1 and 9 on the scale below:

NOT AT ALL 1 2 3 4 5 6 7 8 9 PERFECTLY FLUENT

SEX: Male _____ Female _____
What do you think was the purpose of this study? Please write down your answer in the space provided below.

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

THANK YOU FOR PARTICIPATING IN THIS STUDY.

PLEASE DO NOT MENTION ANYTHING AT ALL ABOUT THIS STUDY TO ANYONE, AS OUR RESULTS WOULD NOT BE USEFUL IF PEOPLE PARTICIPATE AFTER THEY KNOW WHAT THIS STUDY IS ALL ABOUT.
CONSENT FORM TO PARTICIPATE IN RESEARCH

This is to state that I agree to participate in a programme of research being conducted by Prof. Anne Lavack of the Department of Marketing at Concordia University (ph. 848-2970).

A. PURPOSE
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Participants will be presented with a social marketing ad, and will be asked to read it carefully. After reviewing the ad, participants will be asked to fill out a questionnaire, which includes questions about their reactions to the ad, as well as their attitudes toward the behavior which the ad is addressing.

C. CONDITIONS OF PARTICIPATION
• I understand that my participation is voluntary. I am free to withdraw my consent and discontinue my participation at any time without negative consequences.

• I understand that my participation in this study is confidential (i.e., the researcher will know, but will not disclose my identity).

• I understand that the data from this study may be published.

• I understand the purpose of this study and know that there is no hidden motive of which I have not been informed.

I HAVE CAREFULLY STUDIED THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY CONSENT AND AGREE TO PARTICIPATE IN THIS STUDY.

NAME (please print) __________________________________________

SIGNATURE _________________________________________________

WITNESS SIGNATURE _________________________________________

DATE ________________________________________________________
SOCIAL MARKETING STUDY

In some of the questions, when the word "DRINK" is used it means one shot of beer/cider/cooler or one glass of draft beer, one small glass of wine, or one shot or mixed drink with hard liquor.

1. Do you have a valid driver's license?
   ( ) Yes
   ( ) No

2. Have you had alcoholic drinks on four or more occasions during the past 12 months?
   ( ) Yes
   ( ) No

3. How many alcoholic drinks did you have in the past month?
   ( ) None
   ( ) One to five
   ( ) Six to nine
   ( ) Ten to twenty
   ( ) More than twenty

4. Within the last month, how many times, in total, have you driven a vehicle after having more than two drinks within two hours prior to driving?
   ( ) Zero
   ( ) One
   ( ) Twice
   ( ) Three
   ( ) Four
   ( ) Five or more

5. Within the past month, how many times have you been a passenger in a vehicle in which the driver has had more than two drinks within two hours prior to driving?
   ( ) Zero
   ( ) One
   ( ) Twice
   ( ) Three
   ( ) Four
   ( ) Five or more

6. In the past month, have you agreed beforehand to be the non-drinking driver for an occasion involving drinking?
   ( ) Yes
   ( ) No

7. During the past month, have you done anything to prevent someone from driving after they have had too much to drink?
   ( ) Yes
   ( ) No
Following is a social marketing ad for AIDS prevention. We want your honest opinions about the ad. Please spend a minute or two reading through the ad.

When you are finished reviewing the ad, we will ask you a series of questions about the ad. The questionnaire will take approximately 10 minutes to complete.

AIDS

If you engage in unprotected sex with new partners, you probably have some strategies that reduce the risk -- you hope... Like choosing partners who seem "nice" or "clean." Or dating someone a few times before engaging in sex. The risks are small, you think. But is the risk really so small? And is it worth the risk at all? Maybe not...

So avoid unprotected sex. Always use a latex condom. It's that easy.

Do your part. You can beat the AIDS problem.

ONCE YOU HAVE TURNED THIS PAGE, YOU MAY NOT TURN BACK TO LOOK AT THE AD AGAIN!
Please think back to the advertisement you just saw. In the spaces provided below, please briefly describe the MESSAGE CONTENT of the advertisement.

MESSAGE CONTENT

Now we would like your evaluation of the ADVERTISEMENT for AIDS Prevention. Please give your evaluation of the ad for AIDS Prevention on the three scales below by circling a number between +4 and -4 for EACH question.

BAD -4 -3 -2 -1 0 +1 +2 +3 +4 GOOD
UNPLEASANT -4 -3 -2 -1 0 +1 +2 +3 +4 PLEASANT
NOT LIKEABLE -4 -3 -2 -1 0 +1 +2 +3 +4 LIKEABLE

Now we are interested in knowing how the ad for AIDS Prevention made you FEEL. Please tell us if you experienced any of the feelings below by circling a number between 1 and 9 for each of the feeling questions.

Did the AIDS Prevention ad make you feel STIMULATED?
NOT AT ALL 1 2 3 4 5 6 7 8 9 VERY MUCH SO

Did the AIDS Prevention ad make you feel UNHAPPY?
NOT AT ALL 1 2 3 4 5 6 7 8 9 VERY MUCH SO

Did the AIDS Prevention ad make you feel CALM?
NOT AT ALL 1 2 3 4 5 6 7 8 9 VERY MUCH SO

Did the AIDS Prevention ad make you feel RELAXED?
NOT AT ALL 1 2 3 4 5 6 7 8 9 VERY MUCH SO

Did the AIDS Prevention ad make you feel BORED?
NOT AT ALL 1 2 3 4 5 6 7 8 9 VERY MUCH SO

Did the AIDS Prevention ad make you feel IRRITATED?
NOT AT ALL 1 2 3 4 5 6 7 8 9 VERY MUCH SO
We are still interested in knowing how the ad for *AIDS Prevention* made you **FEEL**. Please tell us if you experienced any of the feelings below by circling a number between 1 and 9 for each of the feeling questions.

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USE THE SPACE BELOW TO WRITE WHAT YOU RECALL.

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Do you remember the headline printed at the top of the AIDS Prevention ad? Please write down what you remember about the headline in the space below.

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   ( ) Don't know

17. The legal limit of alcohol consumption before driving is .08 percent blood alcohol content. Do you think the limit is:
   ( ) Much too high
   ( ) A little high
   ( ) Just right
   ( ) A little low
   ( ) Much too low
18. What would you do to try to stop a friend from drinking and driving? (Check one only)

(_) Probably would not do anything
(_) Ask them not to drive
(_) Offer to drive them home
(_) Ask them to take a taxi, bus, or metro
(_) Try to take away their car keys
(_) Report them to the police

19. What do you think should be the minimum penalty for a first drinking driving conviction? (Check one only).

(_) A fine
(_) Invalidation of insurance
(_) Loss of driver's license
(_) A permanent criminal record
(_) A jail sentence

Please remember when we use the word "DRINK," it means one bottle of beer/cider/cooler or one glass of draft beer, one small glass of wine, or one shot or mixed drink with hard liquor.

20. About how many drinks do you think you can have, over a 2 hour period, before you are over the legal limit of .08 percent?

   (number of drinks)

21. How many drinks do you think it would take before your reflexes would be affected?

   (number of drinks)

Please respond to this question by placing an 'X' in the appropriate category.

My mother tongue is:

   English _____   French _____   Other _____

Please indicate your level of fluency in English by circling a number between 1 and 9 on the scale below:

NOT AT ALL  1  2  3  4  5  6  7  8  9 PERFECTLY
            FLUENT

SEX:  Male _____   Female _____
What do you think was the purpose of this study? Please write down your answer in the space provided below.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

THANK YOU FOR PARTICIPATING IN THIS STUDY.

PLEASE DO NOT MENTION ANYTHING AT ALL ABOUT THIS STUDY TO ANYONE, AS OUR RESULTS WOULD NOT BE USEFUL IF PEOPLE PARTICIPATE AFTER THEY KNOW WHAT THIS STUDY IS ALL ABOUT.
APPENDIX 6

Focus Group Materials
FOCUS GROUP PARTICIPANTS FOR SOCIAL MARKETING STUDY

We are looking for focus group participants for several sessions that will be held during the next month or two. (A focus group consists of 8-10 people who get together with a research moderator to talk about their thoughts, attitudes, and beliefs about a particular topic that is being studied.)

A focus group participant would need to give approximately 90 minutes of his/her time, and would be paid $30 for participating in the session. The topic for the focus groups will be the subject of drinking and driving.

If you are interested in participating in any of these sessions, please answer the following question so that we can determine which focus group session would be appropriate for you. Make sure you give your first name and your phone number at the bottom of the questionnaire so that we can contact you. All information will be completely confidential.

1. Within the last year, how many times have you driven a vehicle after having more than two drinks within two hours prior to driving?
   ( _) Zero
   ( _) 1-2 times
   ( _) 3-5 times
   ( _) 6-10 times
   ( _) 11 or more times

Yes, I am interested in being called to participate in a focus group. (Please give your first name and phone number below.)

No, I am not interested in participating in a focus group.

Your First Name: ______________________________________

Sex:    _____ Male   _____ Female

Age:    ______

Your Phone Number: ______________________________________

Is there a best time to call you? ______________________________________
FOCUS GROUP PARTICIPANTS FOR SOCIAL MARKETING STUDY

I am looking for focus group participants for several sessions that will be held during the next 6 months. (A focus group consists of 8-10 people who get together with a research moderator to talk about their thoughts, attitudes, and beliefs about a particular topic that is being studied.)

A focus group participant would need to give approximately 90 minutes of his/her time, and would be paid $30 for participating in the session.

Topics for the focus groups include:
- Drinking and driving
- AIDS prevention/safe sex
- Smoking
- Illegal drug use

If you are interested in participating in any of these sessions, please answer the following questions so that we can determine which focus groups might be appropriate for you. Make sure you give your first name and your phone number at the bottom of the questionnaire so that we can contact you. All information will be completely confidential.

1. Within the last year, how many times have you driven a vehicle after having more than two drinks within two hours prior to driving?
   - Zero
   - 1-2 times
   - 3-5 times
   - 6-10 times
   - 11 or more times

2. How would you describe your present smoking status?
   - Non-smoker
   - Ex-smoker
   - Occasional smoker
   - Regular smoker
3. Within the last year, how many times have you used illegal drugs?
   ( ) Zero
   ( ) 1-5 times
   ( ) 6-10 times
   ( ) 11 or more times

4a. How much do you worry about getting HIV or AIDS?
   ( ) Not at all worried
   ( ) Somewhat worried
   ( ) Very worried

4b. Within the last year, how many times have you had sex with someone new without using a condom?
   ( ) Zero
   ( ) 1-2 times
   ( ) 3-5 times
   ( ) 6-10 times
   ( ) 11 or more times

Yes, I am interested in being called to participate in a focus group. (Please give your first name and phone number below.)

No, I am not interested in participating in a focus group.

Your First Name: ____________________________________________

Sex: _____ Male
   _____ Female

Your Phone Number: __________________________________________

Is there a best time to call you? __________________________________

If you are interested in participating in a focus group, please place this questionnaire in the attached envelope and seal the envelope. You can turn in the sealed envelope in one of three ways:
   - give the envelope to your instructor,
   - give the envelope to Campus Security on the main floor of the Hall Building, or
   - leave the envelope in Professor Lavack's mailbox at GM 300-27.
August 19, 1996

Dear:

Re: Confirmation of Focus Group on Tuesday, September 3rd

Recently we contacted you by telephone and you agreed to participate in an upcoming focus group. A focus group consists of 8-10 people who get together with a moderator to discuss a particular topic. At this meeting we will be discussing people’s attitudes toward drinking and driving, and we will be asking your opinion about some drinking and driving ads. Your participation in this focus group will help provide us with insight into how to make better ads for drinking and driving.

The focus group will be held at the following place and time:

DATE: Tuesday, September 3rd
TIME: 6:00 p.m. sharp
PLACE: 1550 de Maisonneuve Blvd. West (corner of Guy) Room GM-725 (7th Floor)

Please try to arrive at least 5 minutes early. The session will last 90 minutes. Light refreshments will be served. To thank you for participating, we will pay you $30.00 in cash at the end of the session.

If you have any questions about the session, please call me at 848-2970.

Sincerely,

Anne M. Lavack
Assistant Professor of Marketing
Focus Group Discussion Outline

1. Introductions

2. How a focus group works

3. Discuss: what does it mean to drink and drive? (defining via number of drinks, blood alcohol level, etc.)

4. Discuss: why do people drink and drive? (have to get home, don’t think ahead, think they can still drive okay, etc.); are there times when DUI seems unavoidable?

4a. Discuss: Are there different types of DUI (e.g., during the week after work at a bar, vs late Saturday night after a party. People might view these behaviors as different in terms of riskiness, strategies used, etc.

4b. Discuss: Do people regret having DUI?

4c. Discuss: To what extent are people who DUI accompanied or not in the vehicle?

4d. Discuss: To what extent is DUI just a legal problem (that is I see no danger in it, I just don’t want to get caught) or it is dangerous (but I have to drive for various reasons.)

5. Discuss: what are the risks involved in DUI? (getting caught by police, accident, lose license, wreck car, hurt someone else, etc.)

6. Discuss: how much do you worry about these risks?

7. Discuss: are there strategies that you use to reduce these risks? (drive back roads, drive slower, etc.)

8. Look at 2-3 TV ads and discuss pros and cons of various types of ads:
   - violent crash ad (e.g., TAC)
   - celebrity ad
   - other types??

9. Look at print ads and discuss (print ad samples from AAA/NAA; I'll work on revising these to fit this university target group, and fax them to you next week)
   - also print ads that I used in pilot study

10. Conclude.
3. What does it mean to drink and drive?

- They've broken the law.
- Taking a chance.
- Endangering their own life and others at the same time.
- When you're drinking then driving, you have to drink over a certain limit to break the law; just having a beer and then driving an hour later is not breaking the law.
- Legally, it depends on how much you drink
- Over the legal limit
- But sometimes it's different with different people. One guy will have 3 beers but be fine, be technically over the legal limit but still be fine, but another guy can have a half a beer and not be okay.
- Even in the same person, a beer in the morning is a lot different than a beer in the afternoon.
- There's no standard.
- Your food consumption, your general well-being at the time, if you've got a cold, if you're on medication -- those are factors, I think.
- What remedy I suggest is that it just needs to be a change in attitude; it's a question of attitude.
- It may mean different things to different people, but it's certainly not considered to be positive; drinking and driving is never said in a positive manner.

Do people try to hide the fact that they do it?

- It's a question of self-pride, really.
- No one wants to say, "Oh, I'm too weak to drive now, I can't do it."
- Guys will never admit they've had too much to drink.
- People don't want to admit that they're flawed in some way; that they're not able to do something they would normally be able to do.
- They don't want to say that they can't handle it; it's a bit of a macho thing.

How do people decide if they're okay to drive?

- You should be able to judge, I think, on your own. Like we were saying earlier, everybody's got their own limit, some people half a beer, some people more, it depends what you eat and so on. I think you should be able to tell on your own; you shouldn't need someone else to point out, you should pretty well know. And if you're unsure, then you probably should consider yes, then you probably have to say yes, it's too much, if you're in doubt.
- But that becomes hard to decide, too. Sometimes you have a few drinks and you say, "Oh, I'm just happy," other times you have a few drinks and you're blitzed, you can't drive, you can't stand.
- There's some leeway.
- There are people who drive very well, even if they have a very high level of alcohol.
- Some people drive better when they're drunk.
- They're more careful.
- They check their blind spots more often just to make sure, they check their mirrors, they drive
slower.
- They look around, do their stops, respect the lights.
- Cause if they get caught, they know they're in trouble. If they run a light and a police officer
  sees them and they've been drinking, that's it. So you have to take care of yourself;
  there's more at stake.
4. Why do people drink and drive?

- So see, like, I live in Laval. If I were to take a cab home, it would probably cost me fifty bucks, and then come back into the city next day. Not that I drive drunk every weekend or anything; but when I do drink, I take the chance. But I’m not saying that I drink excessively, like after twelve beers and then I’m off. But if I’ve had, like four or five, I’ll wait a bit, go down to Burger King or something, have a coffee, just eat something, and then go. That’s why I do it when I do.

- Convenience. All my friends live in Montreal. I don’t think someone would just drive out to Laval to pick me up, come back, get my car, you know.

- I was going to say, nobody gets up in the morning and says, “Oh, today I’m going to drink and then I’m going to drive.” It kind of happens that way.

- It just happens.

- I’m sure most of the time people don’t think about it; they just don’t.

- I think really that’s the biggest area. I actually do know a person who actually does it as kind of a sport, to see if he can make it home.

- I live in Lasalle and it’s the same thing. My friends live in NDG, downtown area, so that there’s a big group of them and one person right at the beginning says it’s me. But I mean, I’m alone where I live, so I don’t do it. I’m actually the one that will spend the money on the cabs, sometimes. But the thing is, if you’ve had a rough week and so on, and you’ve spent money where you haven’t planned on it, like this week, all of a sudden the extra twenty dollars for a cabfare gets a little expensive.

- One other thing, when you go to a bar and they don’t have the designated driver policy, it’s like $4.75 for a Coke, and you say, “Forget it, I’d rather buy the beer for the same price.”

- Exactly.

- At the place where I work, a draft beer is cheaper than a glass of Coke. A lot of places don’t initiate the designated driver policy or whatever because it tends to cost them a lot of money, ‘cause people who don’t normally drink come out and say, “I’m the designated driver,” and you get six designated drivers for one table, so a lot of places don’t do it any more.

- I think also that a lot of people who actually go out and drink to the level where they’re considered drunk are people that are having problems. They’re depressed or something. You go out and drink in that state, then you’re not really going to say, “Well, I’m sloshed so I’m gonna get a cab now.” It’s like you’re down already, so you just get in the car and go.

- I don’t think it’s always planned, though. I really doubt it.

- Like last Sunday, I went out to watch football at a friend’s. We ended up going to another friend’s house, the beer came out, and before I knew it I’d had four or five beers. Then you get in the car and you go home. I’m not going to say it’s not wrong. You know it’s wrong when you’re doing it, but yet you still do it. It happens, it just happens.

- You’re not going to say no to free beer.

- I live in the country. You can’t go anywhere without a car.
4a. Are there different types of DUI?

- I would say that people who are drunk and driving are more dangerous during the day than at night, because at night you kind of expect it. But during the day there's all that additional traffic.
- But personally I think the chances of getting caught are greater at night than they are during the day. Because to my mind, when do most people go out and drink? At night. So you start to think the cops have this thing in their mind that during the day they are not looking for us, but at night they're looking for the drunk drivers.
- There's more to hit during the day time.
- I'm not saying that it's not dangerous during the day, but as a driver, I'm saying that in my mind, you're safer getting away with it during the day than at night.
- But also, although it does happen during the day, I think it's a lot less likely. Look at me, I work nine to five every day. If I have to do my drinking, it's after work or at night, I go and unwind with my friends and stuff.
- Most people have jobs nine to five, so the majority of the population wouldn't have a chance to do that, just like us guys, like students, who cut class, or you have a break and go out and have a couple of beers or something like that. Even during the day time, I don't think a lot of people drink excessively as they would at night. The ratio's a lot more at night, I would think. It's just the mood at night. Friday afternoon you might have one or two beers; Friday night it's a lot more.
4b. Do people regret having DUI?

- People are sorry if they hit someone.
- Or if their friends or peers really ride them for going ahead and doing it.
- Otherwise, they take it as a compliment and say, "Look, I can do it."
- You got home safely. Fine, you get up the next day, there's no dents in the car, nobody got hurt, so you say, "See, I could have wasted $20 on a cab, but look, I got home fine," so it just reinforces it every time you get away with it.
- I'll go ahead and do the same thing again the next week.
- Or you might say, "Shit, that was pretty stupid, it was a pretty close call."
- It reinforces the negative behavior.
- It depends on your conscience.
- I've had it [been teased by my friends] both ways. I've had it for taking a cab home, and the next week I get it from the same guys for driving home. And what it is, it's because both ways you look silly for taking a cab home because they know and you know you're blowing a large amount of money; but yet I'd rather deal with that than deal with the fact of drinking and then driving. But they still bug you both ways. Either you're stupid or you're stupid.
- With us guys it's not even an issue of whether you drink and drive. It's just like a matter of getting home. Like if you take a cab, fine, take a cab; but if it doesn't cause an inconvenience or anything, fine. Or drink and drive, fine, if you can do it, you can do it. The thing is, most guys do realize that they take a certain responsibility when they volunteer to drive home; or else they consider themselves fine, "Hey, I know I am," so they drive home. Most nights it's not even an issue.
7. Are there strategies that you use to reduce these risks?

- Avoid all bridges. If you feel okay, why volunteer into the trap if you know it's going to be there.
- I avoid the autoroutes, the highways, and the bridges. If you must cross a bridge, cross the Victoria Bridge.
- Bridges and autoroutes are where you're most likely to get stopped. In Lasalle they do a lot of that, at the checkpoints.
- We got stopped in a funnel, I guess is what they call it. It was a random breathalyzer test, and I swear, they came around the corner, there was nobody there, all of a sudden we've got flares, we've got cops, just like in the commercial where they say, "Pull over, you drive, you drive." And there's nothing you can do 'cause all of a sudden you're there. But we were fine, we hadn't been drinking that time.
APPENDIX 7

Experiment #2 Survey Instruments
CONSENT FORM TO PARTICIPATE IN RESEARCH

This is to state that I agree to participate in a programme of research being conducted by Prof. Anne Lavack of the Department of Marketing at Concordia University (ph. 848-2970).

A. PURPOSE
   I have been informed that the purpose of the research is as follows:
   To gain insight into the attitudes and opinions of consumers with regard to specific social marketing ads.

B. PROCEDURES
   Participants will be presented with a social marketing ad, and will be asked to read it carefully. After reviewing the ad, participants will be asked to fill out a questionnaire, which includes questions about their reactions to the ad, as well as their attitudes toward certain behaviors.

C. CONDITIONS OF PARTICIPATION
   • I understand that my participation is voluntary. I am free to withdraw my consent and discontinue my participation at any time without negative consequences.
   • I understand that my participation in this study is confidential (i.e., the researcher will know, but will not disclose my identity).
   • I understand that the data from this study may be published.
   • I understand the purpose of this study and know that there is no hidden motive of which I have not been informed.

I HAVE CAREFULLY STUDIED THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY CONSENT AND AGREE TO PARTICIPATE IN THIS STUDY.

NAME (please print) ____________________________________________

SIGNATURE __________________________________________________

WITNESS SIGNATURE __________________________________________

DATE ______________________________________________________________________
In some of the questions, when the word "DRINK" is used it means either one bottle of beer/cider/cooler, one glass of draft beer, one small glass of wine, one shot of hard liquor, or one mixed drink with hard liquor.

1. Do you have a valid driver's license?
   ( ) Yes ( ) No

2. How long have you had a driver's license?
   ( ) Do not have a driver's license
   ( ) Less than 1 year
   ( ) 1-2 years
   ( ) 3-5 years
   ( ) 6 years or more

3. How many alcoholic drinks did you have in the past month?
   ( ) None
   ( ) 1 to 5
   ( ) 6 to 9
   ( ) 10 to 20
   ( ) More than 20

4. Within the last month, how many times in total have you driven a vehicle after having more than two drinks within two hours prior to driving?
   ( ) Zero
   ( ) 1 time
   ( ) 2 times
   ( ) 3 times
   ( ) 4 times
   ( ) 5 or more times

5. Within the last year, how many times in total have you driven a vehicle after having more than two drinks within two hours prior to driving?
   ( ) Zero
   ( ) 1-2 times
   ( ) 3-5 times
   ( ) 6-10 times
   ( ) 11 or more times

6. Within the last five years, how many times in total would you estimate that you have driven when you have had too much to drink?
   ( ) Zero
   ( ) 1-2 times
   ( ) 3-5 times
   ( ) 6-10 times
   ( ) 11 or more times

7. In the past year, have you agreed beforehand to be the non-drinking driver for an occasion involving drinking?
   ( ) Yes ( ) No
Following is a social marketing ad which we would like you to read carefully. We want your honest opinions about the ad. Please spend a minute or two reading through the ad.

When you are finished reviewing the ad, we will ask you a series of questions about the ad. The questionnaire will take approximately 10 minutes to complete.

"I'm facing 5 years in jail and a $5,000 fine for drinking and driving..."

"I only had a few beers -- I felt okay to drive. I was so sure I wouldn't get caught. But those few beers were enough to put me over the legal limit. I took a dangerous risk -- that didn't pay off. When the cops stopped me, I knew my luck had run out; it was time to pay the price. I should have known better than to take such a big risk -- the consequences are horrible.

"I lost my car, I lost my license, and I'm facing a $5,000 fine. Worst of all, I'm facing the terrifying prospect of a 5-year jail sentence. All because I thought I could get away with it.

"So take my advice... Avoid driving after drinking. Even if you think you're okay, take a bus or a taxi instead. Or choose a designated driver. It's that easy."

Don't let your luck run out. Drinking and driving isn't worth it.

ONCE YOU HAVE TURNED THIS PAGE, YOU MAY NOT TURN BACK TO LOOK AT THE AD AGAIN!
We would like your evaluation of the ADVERTISEMENT that you just saw. Please give your evaluation of the ad on the three scales below by circling a number between +4 and -4 for EACH question.

<table>
<thead>
<tr>
<th>BAD</th>
<th>-4</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>+1</th>
<th>+2</th>
<th>+3</th>
<th>+4</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNPLEASANT</td>
<td>-4</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
<td>+3</td>
<td>+4</td>
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<tr>
<td>NOT LIKEABLE</td>
<td>-4</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
<td>+3</td>
<td>+4</td>
</tr>
</tbody>
</table>

While looking at the ad, I felt ____________. (Circle one number for each of the following scales which best describes how you felt.)

<table>
<thead>
<tr>
<th>DETACHED</th>
<th>-4</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>+1</th>
<th>+2</th>
<th>+3</th>
<th>+4</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASCINATED</td>
<td>-4</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
<td>+3</td>
<td>+4</td>
</tr>
<tr>
<td>INDIFFERENT</td>
<td>-4</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
<td>+3</td>
<td>+4</td>
</tr>
</tbody>
</table>

Now we are interested in knowing how the ad made you FEEL. For each of the following, please circle the number that best describes how much you agree or disagree with the statement, where 1 means you agree completely and 9 means you disagree completely.

<table>
<thead>
<tr>
<th>AGREE COMPLETELY</th>
<th>DISAGREE COMPLETELY</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ad made me feel FEARFUL</td>
<td>1</td>
</tr>
<tr>
<td>The ad made me feel CALM</td>
<td>1</td>
</tr>
<tr>
<td>The ad made me feel WORRIED</td>
<td>1</td>
</tr>
<tr>
<td>The ad made me feel SOOTHE</td>
<td>1</td>
</tr>
<tr>
<td>The ad made me feel ANXIOUS</td>
<td>1</td>
</tr>
<tr>
<td>The ad made me feel THREATENED</td>
<td>1</td>
</tr>
<tr>
<td>The ad made me feel RELAXED</td>
<td>1</td>
</tr>
<tr>
<td>The ad made me feel AFRAID</td>
<td>1</td>
</tr>
</tbody>
</table>
In the space provided below, please list ALL of the THOUGHTS and FEELINGS that crossed your mind while you were viewing the advertisement. Write each thought/feeling on a separate line. Please DO NOT hesitate to state ALL your thoughts/feelings, even if you think some are not important. Every thought/feeling you may have is of importance to us. Remember, we are interested in your OWN THOUGHTS/FEELINGS, and not what was stated in the advertisement.

PLEASE WRITE EACH THOUGHT/FEELING ON A SEPARATE LINE.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Now we are interested in knowing about your reactions to the ad. For each of the following questions, please circle the number that best describes how much you agree or disagree with the statement, where 1 means you agree completely and 9 means you disagree completely.

<table>
<thead>
<tr>
<th>AGREE COMPLETELY</th>
<th>DISAGREE COMPLETELY</th>
</tr>
</thead>
<tbody>
<tr>
<td>I learned something from the ad that I didn't know before.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>As I read the ad, I thought of reasons I would not drink and drive.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad strengthened my unfavorable views about drinking and driving.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad would make someone think twice about drinking and driving.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad was very realistic and true to life.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>I don't see how the issue of drinking and driving has much to do with what was being discussed in the ad.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>AGREE COMPLETELY</td>
<td>DISAGREE COMPLETELY</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>The ad didn’t have anything to do with my needs.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>What the ad showed didn’t demonstrate claims they were making about drinking and driving.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>I found myself arguing against some of the things in the ad.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad irritated me.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad was dull and boring.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad was unrealistic.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad was insulting to my intelligence.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>I felt the ad talked down to me.</td>
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Now we are interested in learning about your attitudes toward drinking and driving. For each of the following questions, please circle the number that best describes how much you agree or disagree with the statement, where 1 means you agree completely and 9 means you disagree completely.

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<thead>
<tr>
<th>AGREE COMPLETELY</th>
<th>DISAGREE COMPLETELY</th>
</tr>
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<tbody>
<tr>
<td>Sometimes circumstances make it necessary to drive after you’ve been drinking.</td>
<td>1 2 3 4 5 6 7 8 9</td>
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I think it is acceptable to drink and drive occasionally.  
 Completely

There should be more educational programs to teach people about the dangers of drinking and driving.  
 Completely

The police should set up more roadblocks.  
 Completely

Drinking drivers should be reported to the police.  
 Completely

Drinking drivers deserve the fine(s)/punishment(s) they get.  
 Completely

People who drink and drive are likely to end up killing themselves and others.  
 Completely

People who drink and drive are likely to be caught by the police.  
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People who drink and drive are likely to get into car accidents.  
 Completely

Imagine a situation where a person drinks two drinks within a 2-hour period, and then drives home a distance of 5 miles. Please rate how effective you believe the following strategies would be in helping this person to avoid being stopped by the police:

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Completely Effective</th>
<th>Completely Ineffective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driving more slowly</td>
<td>1 2 3 4 5 6 7 8 9</td>
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Please remember when we use the word "DRINK," it means either one bottle of beer/cider/cooler, one glass of draft beer, one small glass of wine, one shot, or one mixed drink with hard liquor.

About how many drinks do you think you can have, over a 2 hour period, before you are over the legal limit of .08 percent?  

_______  (number of drinks)

How many drinks do you think it would take before your reflexes would be affected?  

_______  (number of drinks)
Have you ever been stopped by police for a roadside check while you were the driver?
   (_) Yes   (_) No

Have you ever been charged by police for drinking and driving?
   (_) Yes   (_) No

My mother tongue is:
   (_) English   (_) French   (_) Other

Please indicate your level of fluency in English by circling a number between 1 and 9 on the scale below:

NOT AT ALL 1 2 3 4 5 6 7 8 9 PERFECTLY FLUENT

SEX:   (_) Male   (_) Female

AGE:  

What do you think was the purpose of this study? Please write down your answer in the space provided below.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

THANK YOU FOR PARTICIPATING IN THIS STUDY.

PLEASE DO NOT MENTION ANYTHING AT ALL ABOUT THIS STUDY TO ANYONE, AS OUR RESULTS WOULD NOT BE USEFUL IF PEOPLE PARTICIPATE AFTER THEY KNOW WHAT THIS STUDY IS ALL ABOUT.
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Participants will be presented with a social marketing ad, and will be asked to read it carefully. After reviewing the ad, participants will be asked to fill out a questionnaire, which includes questions about their reactions to the ad, as well as their attitudes toward certain behaviors.

C. CONDITIONS OF PARTICIPATION

• I understand that my participation is voluntary. I am free to withdraw my consent and discontinue my participation at any time without negative consequences.

• I understand that my participation in this study is confidential (i.e., the researcher will know, but will not disclose my identity).

• I understand that the data from this study may be published.

• I understand the purpose of this study and know that there is no hidden motive of which I have not been informed.

I HAVE CAREFULLY STUDIED THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY CONSENT AND AGREE TO PARTICIPATE IN THIS STUDY.

NAME (please print) __________________________________________________________

SIGNATURE ________________________________________________________________

WITNESS SIGNATURE ________________________________________________________

DATE ________________________________________________________________
SOCIAL MARKETING STUDY

In some of the questions, when the word "DRINK" is used it means either one bottle of beer/cider/cooler, one glass of draft beer, one small glass of wine, one shot of hard liquor, or one mixed drink with hard liquor.

1. Do you have a valid driver's license?
   ( ) Yes  ( ) No

2. How long have you had a driver's license?
   ( ) Do not have a driver's license
   ( ) Less than 1 year
   ( ) 1-2 years
   ( ) 3-5 years
   ( ) 6 years or more

3. How many alcoholic drinks did you have in the past month?
   ( ) None
   ( ) 1 to 5
   ( ) 6 to 9
   ( ) 10 to 20
   ( ) More than 20

4. Within the last month, how many times in total have you driven a vehicle after having more than two drinks within two hours prior to driving?
   ( ) Zero
   ( ) 1 time
   ( ) 2 times
   ( ) 3 times
   ( ) 4 times
   ( ) 5 or more times

5. Within the last year, how many times in total have you driven a vehicle after having more than two drinks within two hours prior to driving?
   ( ) Zero
   ( ) 1-2 times
   ( ) 3-5 times
   ( ) 6-10 times
   ( ) 11 or more times

6. Within the last five years, how many times in total would you estimate that you have driven when you have had too much to drink?
   ( ) Zero
   ( ) 1-2 times
   ( ) 3-5 times
   ( ) 6-10 times
   ( ) 11 or more times

7. In the past year, have you agreed beforehand to be the non-drinking driver for an occasion involving drinking?
   ( ) Yes  ( ) No
Following is a social marketing ad which we would like you to read carefully. We want your honest opinions about the ad. Please spend a minute or two reading through the ad.

When you are finished reviewing the ad, we will ask you a series of questions about the ad. The questionnaire will take approximately 10 minutes to complete.

"I thought they'd never spot me driving slowly down the side streets..."

"I only had a few beers -- I felt okay to drive. I even took the side streets home, driving a little slower than usual, trying to be extra-careful. But those few beers were enough to put me over the legal limit. When the cops stopped me, I knew my luck had run out.

"I should have known -- the police are stopping 5 times as many drivers as before, and over 60% of all drinking drivers are getting caught.

"So take my advice... Avoid driving after drinking. Even if you think you're okay, take a bus or a taxi instead. Or choose a designated driver. It's that easy."

Now, more than ever, they're watching you. Think ahead. Don't drink and drive.
We would like your evaluation of the ADVERTISEMENT that you just saw. Please give your evaluation of the ad on the three scales below by circling a number between +4 and -4 for EACH question.

BAD  -4  -3  -2  -1  0  +1  +2  +3  +4  GOOD
UNPLEASANT  -4  -3  -2  -1  0  +1  +2  +3  +4  PLEASANT
NOT LIKEABLE  -4  -3  -2  -1  0  +1  +2  +3  +4  LIKEABLE

While looking at the ad, I felt ____________________. (Circle one number for each of the following scales which best describes how you felt.)

DETACHED  -4  -3  -2  -1  0  +1  +2  +3  +4  INTERESTED
FASCINATED  -4  -3  -2  -1  0  +1  +2  +3  +4  BORED
INDIFFERENT  -4  -3  -2  -1  0  +1  +2  +3  +4  EXCITED

Now we are interested in knowing how the ad made you FEEL. For each of the following, please circle the number that best describes how much you agree or disagree with the statement, where 1 means you agree completely and 9 means you disagree completely.

<table>
<thead>
<tr>
<th>STATEMENT</th>
<th>AGREE COMPLETELY</th>
<th>DISAGREE COMPLETELY</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ad made me feel FEARFUL</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
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<td>The ad made me feel CALM</td>
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PLEASE WRITE EACH THOUGHT/FEELING ON A SEPARATE LINE.

________________________________________________________________________

________________________________________________________________________

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Now we are interested in knowing about your reactions to the ad. For each of the following questions, please circle the number that best describes how much you agree or disagree with the statement, where 1 means you agree completely and 9 means you disagree completely.

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<th>Completely Effective</th>
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_______ (number of drinks)

How many drinks do you think it would take before your reflexes would be affected?

_______ (number of drinks)
Have you ever been stopped by police for a roadside check while you were the driver?

( ) Yes  ( ) No

Have you ever been charged by police for drinking and driving?

( ) Yes  ( ) No

My mother tongue is:

( ) English  ( ) French  ( ) Other

Please indicate your level of fluency in English by circling a number between 1 and 9 on the scale below:

NOT AT ALL 1 2 3 4 5 6 7 8 9 PERFECTLY FLUENT

SEX:  ( ) Male  ( ) Female

AGE:  

What do you think was the purpose of this study? Please write down your answer in the space provided below.

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

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NAME (please print) __________________________________________________________

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WITNESS SIGNATURE ________________________________________________________

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In some of the questions, when the word “DRINK” is used it means either one bottle of beer/cider/cooler, one glass of draft beer, one small glass of wine, one shot of hard liquor, or one mixed drink with hard liquor.

1. Do you have a valid driver’s license?
   ( ) Yes ( ) No

2. How long have you had a driver’s license?
   ( ) Do not have a driver’s license
   ( ) Less than 1 year
   ( ) 1-2 years
   ( ) 3-5 years
   ( ) 6 years or more

3. How many alcoholic drinks did you have in the past month?
   ( ) None
   ( ) 1 to 5
   ( ) 6 to 9
   ( ) 10 to 20
   ( ) More than 20

4. Within the last month, how many times in total have you driven a vehicle after having more than two drinks within two hours prior to driving?
   ( ) Zero
   ( ) 1 time
   ( ) 2 times
   ( ) 3 times
   ( ) 4 times
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5. Within the last year, how many times in total have you driven a vehicle after having more than two drinks within two hours prior to driving?
   ( ) Zero
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ONCE YOU HAVE TURNED THIS PAGE, YOU MAY NOT TURN BACK TO LOOK AT THE AD AGAIN!
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BAD
-4 -3 -2 -1 0 +1 +2 +3 +4
GOOD

UNPLEASANT
-4 -3 -2 -1 0 +1 +2 +3 +4
PLEASANT

NOT LIKEABLE
-4 -3 -2 -1 0 +1 +2 +3 +4
LIKEABLE

While looking at the ad, I felt (Circle one number for each of the following scales which best describes how you felt.)

DETACHED -4 -3 -2 -1 0 +1 +2 +3 +4 INTERESTED
FASCINATED -4 -3 -2 -1 0 +1 +2 +3 +4 BORED
INDIFFERENT -4 -3 -2 -1 0 +1 +2 +3 +4 EXCITED

Now we are interested in knowing how the ad made you FEEL. For each of the following, please circle the number that best describes how much you agree or disagree with the statement, where 1 means you agree completely and 9 means you disagree completely.

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<tr>
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</thead>
<tbody>
<tr>
<td>Sometimes circumstances make it necessary to drive after you’ve been drinking. 1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>I will probably drive after drinking sometime in the near future. 1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
</tbody>
</table>
Imagine a situation where a person drinks two drinks within a 2-hour period, and then drives home a distance of 5 miles. Please rate how effective you believe the following strategies would be in helping this person to avoid being stopped by the police:

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Completely Ineffective</th>
<th>Completely Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driving more slowly</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>Driving only on the side streets</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>Avoiding major intersections</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
</tbody>
</table>

Please remember when we use the word "DRINK," it means either one bottle of beer/cider/cooler, one glass of draft beer, one small glass of wine, one shot, or one mixed drink with hard liquor.

About how many drinks do you think you can have, over a 2 hour period, before you are over the legal limit of .08 percent?

__________ (number of drinks)

How many drinks do you think it would take before your reflexes would be affected?

__________ (number of drinks)
Have you ever been stopped by police for a roadside check while you were the driver?

( ) Yes  ( ) No

Have you ever been charged by police for drinking and driving?

( ) Yes  ( ) No

My mother tongue is:

( ) English  ( ) French  ( ) Other

Please indicate your level of fluency in English by circling a number between 1 and 9 on the scale below:

NOT AT ALL  1  2  3  4  5  6  7  8  9  PERFECTLY FLUENT

SEX:  ( ) Male  ( ) Female

AGE:  ___________

What do you think was the purpose of this study? Please write down your answer in the space provided below.

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

THANK YOU FOR PARTICIPATING IN THIS STUDY.

PLEASE DO NOT MENTION ANYTHING AT ALL ABOUT THIS STUDY TO ANYONE, AS OUR RESULTS WOULD NOT BE USEFUL IF PEOPLE PARTICIPATE AFTER THEY KNOW WHAT THIS STUDY IS ALL ABOUT.
CONSENT FORM TO PARTICIPATE IN RESEARCH

This is to state that I agree to participate in a programme of research being conducted by Prof. Anne Lavack of the Department of Marketing at Concordia University (ph. 848-2970).

A. PURPOSE
   I have been informed that the purpose of the research is as follows:
   To gain insight into the attitudes and opinions of consumers with regard to specific social marketing ads.

B. PROCEDURES
   Participants will be presented with a social marketing ad, and will be asked to read it carefully. After reviewing the ad, participants will be asked to fill out a questionnaire, which includes questions about their reactions to the ad, as well as their attitudes toward certain behaviors.

C. CONDITIONS OF PARTICIPATION
   • I understand that my participation is voluntary. I am free to withdraw my consent and discontinue my participation at any time without negative consequences.
   • I understand that my participation in this study is confidential (i.e., the researcher will know, but will not disclose my identity).
   • I understand that the data from this study may be published.
   • I understand the purpose of this study and know that there is no hidden motive of which I have not been informed.

I HAVE CAREFULLY STUDIED THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY CONSENT AND AGREE TO PARTICIPATE IN THIS STUDY.

NAME (please print) __________________________________________________________

SIGNATURE _______________________________________________________________

WITNESS SIGNATURE _______________________________________________________

DATE ________________________________________________________________

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SOCIAL MARKETING STUDY

In some of the questions, when the word "DRINK" is used it means either one bottle of beer/cider/cooler, one glass of draft beer, one small glass of wine, one shot of hard liquor, or one mixed drink with hard liquor.

1. Do you have a valid driver's license?
   ( ) Yes ( ) No

2. How long have you had a driver's license?
   ( ) Do not have a driver's license
   ( ) Less than 1 year
   ( ) 1-2 years
   ( ) 3-5 years
   ( ) 6 years or more

3. How many alcoholic drinks did you have in the past month?
   ( ) None
   ( ) 1 to 5
   ( ) 6 to 9
   ( ) 10 to 20
   ( ) More than 20

4. Within the last month, how many times in total have you driven a vehicle after having more than two drinks within two hours prior to driving?
   ( ) Zero
   ( ) 1 time
   ( ) 2 times
   ( ) 3 times
   ( ) 4 times
   ( ) 5 or more times

5. Within the last year, how many times in total have you driven a vehicle after having more than two drinks within two hours prior to driving?
   ( ) Zero
   ( ) 1-2 times
   ( ) 3-5 times
   ( ) 6-10 times
   ( ) 11 or more times

6. Within the last five years, how many times in total would you estimate that you have driven when you have had too much to drink?
   ( ) Zero
   ( ) 1-2 times
   ( ) 3-5 times
   ( ) 6-10 times
   ( ) 11 or more times

7. In the past year, have you agreed beforehand to be the non-drinking driver for an occasion involving drinking?
   ( ) Yes ( ) No
Following is a social marketing ad which we would like you to read carefully. We want your honest opinions about the ad. Please spend a minute or two reading through the ad.

When you are finished reviewing the ad, we will ask you a series of questions about the ad. The questionnaire will take approximately 10 minutes to complete.

"I'm facing 5 years in jail and a $5,000 fine for using cocaine..."

"I only used cocaine once in a while -- I didn't think it was a big deal. I was so sure I wouldn't get caught. I was always careful about where and when I used it, so that my family and my boss wouldn't find out. But when the cops raided that party, I knew my luck had run out; it was time to pay the price.

"Now I'm facing a $5,000 fine and up to 5 years in jail for possession of cocaine. All because I thought I could get away with it.

"So take my advice... Don't use drugs -- not even once in a while. Get high on life instead. It's that easy."

Don't let your luck run out. Drugs aren't worth it.

ONCE YOU HAVE TURNED THIS PAGE, YOU MAY NOT TURN BACK TO LOOK AT THE AD AGAIN!
We would like your evaluation of the ADVERTISEMENT that you just saw. Please give your evaluation of the ad on the three scales below by circling a number between +4 and -4 for EACH question.

<table>
<thead>
<tr>
<th>BAD</th>
<th>-4</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>+1</th>
<th>+2</th>
<th>+3</th>
<th>+4</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNPLEASANT</td>
<td>-4</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
<td>+3</td>
<td>+4</td>
</tr>
<tr>
<td>NOT LIKEABLE</td>
<td>-4</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
<td>+3</td>
<td>+4</td>
</tr>
<tr>
<td>GOOD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

While looking at the ad, I felt ________________. (Circle one number for each of the following scales which best describes how you felt.)

<table>
<thead>
<tr>
<th>DETACHED</th>
<th>-4</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>+1</th>
<th>+2</th>
<th>+3</th>
<th>+4</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASCINATED</td>
<td>-4</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
<td>+3</td>
<td>+4</td>
</tr>
<tr>
<td>INDIFFERENT</td>
<td>-4</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
<td>+3</td>
<td>+4</td>
</tr>
<tr>
<td>INTERESTED</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BORED</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXCITED</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Now we are interested in knowing how the ad made you FEEL. For each of the following, please circle the number that best describes how much you agree or disagree with the statement, where 1 means you agree completely and 9 means you disagree completely.

<table>
<thead>
<tr>
<th>AGREE COMPLETELY</th>
<th>DISAGREE COMPLETELY</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ad made me feel FEARFUL</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad made me feel CALM</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad made me feel WORRIED</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad made me feel SOOTHED</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad made me feel ANXIOUS</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad made me feel THREATENED</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad made me feel RELAXED</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad made me feel AFRAID</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
</tbody>
</table>

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In the space provided below, please list ALL of the THOUGHTS and FEELINGS that crossed your mind while you were viewing the advertisement. Write each thought/feeling on a separate line. Please DO NOT hesitate to state ALL your thoughts/feelings, even if you think some are not important. Every thought/feeling you may have is of importance to us. Remember, we are interested in your OWN THOUGHTS/FEELINGS, and not what was stated in the advertisement.

PLEASE WRITE EACH THOUGHT/FEELING ON A SEPARATE LINE.

---

Now we are interested in knowing about your reactions to the ad. For each of the following questions, please circle the number that best describes how much you agree or disagree with the statement, where 1 means you agree completely and 9 means you disagree completely.

<table>
<thead>
<tr>
<th>AGREE COMPLETELY</th>
<th>DISAGREE COMPLETELY</th>
</tr>
</thead>
<tbody>
<tr>
<td>I learned something from the ad that I didn’t know before.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>As I read the ad, I thought of reasons I would not drink and drive.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad strengthened my unfavorable views about drinking and driving.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad would make someone think twice about drinking and driving.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The ad was very realistic and true to life.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>I don’t see how the issue of drinking and driving has much to do with what was being discussed in the ad.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
</tbody>
</table>
The ad didn’t have anything to do with my needs. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

What the ad showed didn’t demonstrate claims they were making about drinking and driving. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

I found myself arguing against some of the things in the ad. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

The ad irritated me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

The ad was dull and boring. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

The ad was unrealistic. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

The ad was insulting to my intelligence. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

I felt the ad talked down to me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

I felt the ad was pushy. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

This kind of ad has been done so many times -- it’s the same old thing. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

It required a lot of effort to follow the ad. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

The ad was in poor taste. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

The ad would make me pause before drinking and driving in the future. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

Now we are interested in learning about your attitudes toward drinking and driving. For each of the following questions, please circle the number that best describes how much you agree or disagree with the statement, where 1 means you agree completely and 9 means you disagree completely.

Sometimes circumstances make it necessary to drive after you’ve been drinking. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

I will probably drive after drinking sometime in the near future. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9
<table>
<thead>
<tr>
<th>Agree Completely</th>
<th>Disagree Completely</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think it is acceptable to drink and drive occasionally.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>There should be more educational programs to teach people about the dangers of drinking and driving.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>The police should set up more roadblocks.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>Drinking drivers should be reported to the police.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>Drinking drivers deserve the fine(s)/punishment(s) they get.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>People who drink and drive are likely to end up killing themselves and others.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>People who drink and drive are likely to be caught by the police.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>People who drink and drive are likely to get into car accidents.</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
</tbody>
</table>

Imagine a situation where a person drinks two drinks within a 2-hour period, and then drives home a distance of 5 miles. Please rate how effective you believe the following strategies would be in helping this person to avoid being stopped by the police:

<table>
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<tr>
<th>Completely Ineffective</th>
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</thead>
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<td>Driving more slowly</td>
<td>1 2 3 4 5 6 7 8 9</td>
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<tr>
<td>Driving only on the side streets</td>
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</tr>
<tr>
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Please remember when we use the word "DRINK," it means either one bottle of beer/cider/cooler, one glass of draft beer, one small glass of wine, one shot, or one mixed drink with hard liquor.

About how many drinks do you think you can have, over a 2 hour period, before you are over the legal limit of .08 percent?

_______ (number of drinks)

How many drinks do you think it would take before your reflexes would be affected?

_______ (number of drinks)
Have you ever been stopped by police for a roadside check while you were the driver?

( ) Yes  ( ) No

Have you ever been charged by police for drinking and driving?

( ) Yes  ( ) No

My mother tongue is:

( ) English  ( ) French  ( ) Other

Please indicate your level of fluency in English by circling a number between 1 and 9 on the scale below:

NOT AT ALL  1  2  3  4  5  6  7  8  9  PERFECTLY FLUENT

SEX: ( ) Male  ( ) Female

AGE: ____________

What do you think was the purpose of this study? Please write down your answer in the space provided below.

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

THANK YOU FOR PARTICIPATING IN THIS STUDY.

PLEASE DO NOT MENTION ANYTHING AT ALL ABOUT THIS STUDY TO ANYONE, AS OUR RESULTS WOULD NOT BE USEFUL IF PEOPLE PARTICIPATE AFTER THEY KNOW WHAT THIS STUDY IS ALL ABOUT.