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The Effects of Transportation in Antismoking Advertisement Narratives

on Attitudes Towards Smoking

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## Abstract

Smoking is a serious health risk, so more effective methods of antismoking advertising are continuously being sought. It is likely that the use of narratives in antismoking advertisements, instead of traditional rhetorical messages, will help shift viewers' attitudes towards more pro-smoke-free in that they allow for transportation.

Transportation Theory states that individuals who are highly transported (immersed) in a narrative are more likely to have a change in attitudes and beliefs consistent with story themes than those who are less transported. Factors that increase transportation may increase the effectiveness of antismoking advertisements. One factor may be the tone of the message. Fear-based advertisements have been used extensively in antismoking advertising campaigns and when compared with other advertising strategies, such as those that are positive-based, they are one of the most effective forms of persuasion. There is some evidence that suggests viewing a less negative (i.e., more positive) narrative will result in a lower level of transportation into the story. Therefore, fear-based (or negative) narrative advertisements may be more effective in that they allow for greater transportation.

## The Effects of Transportation in Antismoking Advertisement Narratives on Attitudes Towards Smoking

For decades smoking has been known to be a serious health risk. Despite this, it continues to be a common practice. Across the globe almost one of three adults are smokers (Sarna, Cooley, & Danao, 2003); therefore, it is important to find more effective ways to reduce these rates. Antismoking advertisements have been successful in lowering smoking rates (Goldman & Glantz, 1998), but the problem still exists and new and more effective advertising techniques are continuously being sought.

In the search for better advertising techniques it is important to discover how to persuade the audience and to have the viewer become involved in some way with the antismoking advertisement. The advertisement should grab one's attention, be able to hold it, and to change one's attitudes. Transportation Theory (Green & Brock, 2000) attempts to explain how this can be done with the use of narratives. A narrative is a story with a beginning, middle and end (Green & Brock, 2000) that is usually based around a plot concerning the main characters. According to this theory, the effectiveness of a narrative depends on the degree to which the viewer becomes involved in the story. This involvement, which can also be described as "being swept away" by the story, is known as transportation.

An important element in antismoking advertising is the tone. Types of antismoking advertisements include fear-based, positive-based, and humour-based. They can also be distinguished by the content, such as second-hand smoke messages, or anti-industry messages, among others. Many studies have found that fear-based, or negative, messages can give rise to positive changes in smoking behaviour (e.g., Arthur

& Quester, 2004; Hafstad & Aaro, 1997). Although fear-based messages overall have received greater support, a number of studies have shown that advertisements using positive images and messages can be effective as well (e.g., Schneider et al., 2001).

Perhaps the effectiveness of an advertisement's tone could be explained in terms of transportation. If the "level of arousal" (either negative or positive) is what is important in inducing transportation, then perhaps a positively-toned advertisement and a negatively-toned advertisement could cause the same intensity of emotion, which might induce the same level of transportation. Maybe there is nothing about a negatively-toned narrative that captures the viewer more effectively than one positively-toned. However, Green and Brock (2000) found that participants who read a story called *Murder at the Mall* (depicting a young girl's brutal murder) were more likely to be highly transported than participants who read a similar but much less serious story (a young girl being approached by a clown blowing bubbles which causes her to laugh and laugh). Perhaps more negative advertisements arouse higher levels of transportation, and therefore, are more effective in creating more story-consistent beliefs.

The question of ultimate concern in this literature review is, how can antismoking advertisements be made to be more effective? It is the intent of this review to assess (1) the potential use of narratives in antismoking advertising and (2) the role of transportation in predicting shifts in attitudes consistent with those of the story (i.e., pro-smoke-free attitudes). It is also the intent to assess the effectiveness of an antismoking advertisements' tone, particularly negative versus positive tones. It appears that narratives are an effective method of engaging the viewer, and their use in antismoking advertising is a compelling area of research. The debate over what type of

tone is best for an antismoking advertisement could be explained in terms of transportation, which may explain why it appears that negative advertisements overall have appeared to be most effective.

### Narratives vs. Rhetoric

Over the past number of decades, advertising has often used a method of advertising known as advocacy, or rhetoric. These messages list and explain the main points the advertiser wants to deliver, such as a list of the serious health effects of smoking. Researchers have primarily focused on the effectiveness of this type of advertising (Green & Brock, 2000). What has been studied to a lesser extent is the use of narratives, or stories, in advertising (Green & Brock, 2000). Green and Brock (2000) point out that this imbalance is somewhat surprising, as narratives (e.g., films, stories in newspapers, soap operas, etc.) receive much more attention in everyday life than messages of rhetoric (e.g., sermons, editorials, billboards, etc.). Green, Brock and Kaufman (2004) explain that the enjoyment found in narratives comes from the experience of leaving real-world problems behind. The main difference between rhetoric and narratives is that the latter, as previously mentioned, are composed of a story with a plot concerning the main characters. Rhetoric involves no plot, rather it just delivers the main points in a straightforward, informational message.

Brock and Green (2005) argue that research on narratives is needed, as the large volume of conclusions based on rhetoric research may not be applicable to the cognitive processes involved in viewing narratives. Narratives have been shown to alter viewers' beliefs and attitudes regarding the subject material (Green & Brock, 2000), and therefore may be an effective tool in health promotion (Green, 2006). In particular, narratives

may be an effective method of relaying information about the serious health effects of smoking. Because attitudes about health often revolve around a sense of invulnerability, it is important to find a method of making the viewer see how smoking can be a serious health hazard (Green, 2006).

#### Transportation-Imagery Model compared to Other Persuasion Models

After relative quiet throughout the 1970s, persuasion research regained the spotlight. Cialdini, Petty, and Cacioppo (1981) explain that this resurgence brought focus to three main areas: (a) an emphasis on the cognitive processes involved in changing attitudes, (b) attitudes as a predictor of behaviour, and (c) the desire to appear to behave consistently. Over the past few decades, persuasion models such as the Elaboration Likelihood Model (ELM) and the Heuristic-Systematic Model (HSM) have been at the forefront of persuasion research (Brock & Green, 2000). It was not until the beginning of the 21<sup>st</sup> century that Transportation Theory emerged.

Brock and Green (2000) explain how this process of transportation differs from the processes posited by other models of persuasion that have been based on rhetoric research, such as the ELM, proposed by Petty and Cacioppo, and the HSM, proposed by Chaiken. They state that the ELM and the HSM are primarily based on the amount of thought one contributes to a message. Much thought leads to actively considering the main points of the argument in the message, while less thought leads to either a “shallower” level of processing or “a reliance on simple rules” (p. 702). Brock and Green distinguish transportation in that it is not how much thought is contributed to the message, but the degree of immersion into the message. Transportation mechanisms differ from cognitive elaboration in that the latter involves active consideration of the

main points (Green & Brock, 2000) whereas transportation does not. Transportation into a narrative can lead to effective persuasion either by (a) reducing negative responding, or disbelieving, of the main points, (b) by making the narrative feel more like a real experience, and (c) by creating strong emotional attachments to the characters of the story.

The Transportation-Imagery model (Green & Brock, 2002) identifies and describes the major factors in the transportation process. It says that (a) narrative persuasion can occur only from stories (narratives) that evoke images and involve beliefs of the viewer; (b) persuasion occurs as a result of the images brought about by the transportation into the narrative; (c) viewer characteristics (e.g., imagery skill) can affect the degree to which a viewer is transported; (d) transportation into a narrative is affected by the quality of the text (such as craftsmanship); and (e) the medium through which the narrative is delivered can affect the degree of transportation experienced, particularly if it limits one's ability to imagine freely. Gerrig (1993) describes the transportation process as follows:

Someone ("the traveler") is transported, by some means of transportation, as a result of performing certain actions. The traveler goes some distance from his or her world of origin, which makes some aspects of the world of origin inaccessible. The traveler returns to the world of origin, somewhat changed by the journey. (p. 10-11)

Green and Brock (2000) also investigated what thoughts viewers were having while reading a narrative. After asking participants to list their thoughts, they found that these thoughts differed from the types of thoughts viewers typically have while reading rhetorical messages. Specifically there is little to no counter-arguing of the story's message.

Brock and Green (2005) also explain that transportation is a convergent process; the viewer may become detached from his or her schemas and may focus only on the beliefs that are expressed by the story. It is important to note, however, that the individuals often still access story-congruent thoughts and memories, which is helpful in bringing about greater story impact (Brock & Green, 2005). Conversely, cognitive elaboration is described as a divergent process, in which the viewer still easily accesses any of his or her real-world beliefs and schemas and compares them to the information being given in the message.

### Transportation Theory

The theory of transportation attempts to explain the ways in which narratives are effective in changing viewers' attitudes. To understand the degree to which beliefs could be altered by reading a narrative, Green and Brock (2000) conducted a study in which participants were asked to read a nine-page story, briefly mentioned above, entitled *Murder at the Mall*. The story is of a college student and the tragic death of her young sister, Katie, who was stabbed to death by a psychiatric patient at a shopping mall. Green and Brock assessed the level of transportation into the narrative of each participant using the Transportation Scale (Green & Brock, 2000). This is a validated questionnaire that uses a seven-point Likert scale, ranging from "Not at all" to "Very much," for each of the 15 items. It examines the three main components of transportation: the cognitive component, the emotional component and the imagery component. It asks questions such as, "While I was reading the narrative, I could easily picture the events in it taking place"; "I found myself thinking of ways the narrative could have turned out differently"; "I wanted to learn how the narrative ended." The scale also includes story-specific



questions such as, “While reading the narrative I had a vivid image of Katie”, and “While reading the narrative I had a vivid image of the psychiatric patient.”

They found that participants who were more highly transported had more story-consistent beliefs than those who were less transported. For example, highly transported participants were more likely to agree that there should be tighter regulations on letting psychiatric patients out in public. Highly transported participants also felt more positively towards the main characters (Katie and her older sister) than those who were less transported.

In addition to transportation leading to story-congruent beliefs and less counter-arguing, narratives can also be more effective than rhetoric because by remembering one event in the narrative, one can naturally recall prior and following events. Due to the lack of chronological events and story-telling, rhetorical messages are much less likely to allow for the same type of all-encompassing recall (Brock & Green, 2005). In terms of advertising this is a crucial point, as the advertiser would like the viewer to retain as much information about the advertisement as possible.

Brock and Green (2005) explain that narratives are also more effective than rhetorical messages because they bring about images that decay much less quickly than the counterarguments experienced while viewing rhetoric. For example, it would be difficult for any later thoughts or counterarguments to override the images brought about from reading of Katie’s brutal stabbing in *Murder at the Mall* (Brock & Green, 2005).

Narratives may also be useful in advertising because, although realism is important, the story does not necessarily have to be true. Studies have shown that labeling a narrative as fact or fiction does not make any significant difference in the

degree to which viewers have story-consistent beliefs (Green & Brock, 2000). Green and Brock (2000) explain this may be because a realistic story will feel like a real event, and the sense of reality is what the viewer most remembers. Additionally, all viewers who read *Murder at the Mall* could not recall the source of the story upon being asked. If source information is so easily forgotten (or regarded as relatively unimportant as long as the story seems realistic enough) then the truth of a story may not play a large role in attitude change.

In creating a persuasive narrative, the use of suspense is important because it facilitates further engagement with the narrative (Brock & Green, 2005). Suspense arises when the viewer questions the possible outcomes of the story. Brock and Green (2005) describe the effectiveness of suspense in terms of excitation transfer theory, which posits that suspense is effective because, through arousal, the reader experiences enjoyment in not knowing what the outcome will be, and does even more so if the protagonist overcomes his or her obstacles.

Transportation is not limited to written narratives. It can occur through visual or spoken narratives as well (Green, 2006); however, the medium can have an effect on transportation. One component of the Transportation-Imagery Model states that the medium through which the narrative is received can affect transportation, especially if freedom to imagine is limited. There is limited research on the effects of medium-type on transportation, but Green et al. (2004) suggest that reading can allow for greater imaginative freedom, and therefore may help in the production of self-created images, and ultimately transportation. Media such as television or movies provide the imagery and could possibly restrict the viewers' freedom to imagine.

According to the Transportation-Imagery Model, in order for the narrative to be effective, regardless of the medium, there are conditions that need to be met.

Particularly, the narrative must have a sufficient level of craftsmanship. Lower-quality wording or description can reduce the level of transportation experienced. In a study described by Brock and Green (2005), Livingston (2003) compared two versions of the story *Murder at the Mall*. One version was the original. The other was of a lower quality, containing descriptive words that were less specific and vivid. Brock and Green give the example, “She was gazing at me and beyond me” which was changed to “She was looking at me and behind me” in the lower-quality narrative. It was found that participants who read the higher-quality narrative were more likely to have a higher level of transportation, to rate the imagery higher and to have more story-consistent beliefs.

Lastly, it is interesting to note characteristics of the audience that may or may not affect transportation. Knowing the target audience when creating an effective advertisement is important, and it can play a role in the design of the advertisement. Individuals who are more capable of developing mental images and who have a greater general tendency to become absorbed into whatever they do will likely be more greatly effected by a narrative (Green, 2006). Generally, there is no significant difference in the degree to which men and women become transported while viewing a narrative; however there may be types of stories into which men become more transported than women, and vice versa (Green, 2006).

Green (2004) found that individuals who were more personally connected to the story material were more likely to experience higher levels of transportation. In a study, participants read a story of a homosexual man and his time spent in a fraternity.

Participants who had homosexual family members or friends were more likely to report higher levels of transportation. There is also some positive correlation between transportation and empathy (Green, 2006).

### Antismoking Advertising

Since 1964, when the Surgeon General first warned of the dangers of tobacco use, public health officials have tried to promote the message that smoking is a serious health hazard. The amount of anti-cigarette propaganda increased shortly after 1964 (Stuteville, 1970), then in 1967 John Banzhaf petitioned the Federal Communications Commission (FCC) to establish a requirement for antismoking advertisements (Siegel, 1998). He was successful, and the FCC made sure one antismoking advertisement was aired for every three cigarette advertisements. By 1970 the antismoking advertisements were so effective that the tobacco industry agreed to remove all television cigarette advertisements, which in turn led to the removal of antismoking advertisements (Siegel, 1998). Within the next year, sales in cigarettes began to rise once again (Wakefield, Flay, Nichter, & Giovino, 2003).

Antismoking advertising went through an evolution over the years as more research provided evidence as to what advertising strategies were or were not effective. By the 1990s, antismoking advertisements directed towards youths focused mainly on humour, sociability appeals, and short-term consequences, whereas advertisements directed towards adults focused primarily on fear appeals and long-term consequences (Beaudoin, 2002). Beginning in 1998, tobacco companies such as Philip Morris and Lorillard had started to produce their own antismoking campaigns. Controversy ensued because the tobacco industry used only themes that were generally known to be

ineffective in antismoking advertising, such as messages that target changing individual behaviour alone, which may provide little motivation to quit (Siegel, 1998). Currently, public health officials continue to search for new and effective ways of promoting a nonsmoking lifestyle. Transportation Theory may provide some new answers in this search.

#### Fear-Based Antismoking Advertising

Antismoking advertising has adopted fear appeals for numerous marketing campaigns. Researchers have analyzed many of these campaigns to see whether or not fear-based advertising is effective. Some campaigns have used narratives, while others have not. To demonstrate the effectiveness of fear (or negative tone), regardless of the narrative or rhetorical nature, a number of studies will be examined.

Biener, Ji, Gilpin and Albers (2004) conducted a longitudinal study and interviewed youths (ages 12 to 17 years) in 1993 and again in 1997. Over the interim four year period the subjects were exposed to a number of different televised antismoking advertisements involving a range of themes, such as humour, illness, anti-industry and so on. Biener et al. chose eight of these advertisements for the study. In the 1997 follow-up interview the experimenters gave subjects a brief description of each of the eight advertisements and asked whether they were able to recall each one. They found that 68% of the advertisements that involved negative health effects as a result of smoking were recalled, and 69% of the humorous advertisements were recalled, but only 42% of the “normative” advertisements (i.e., advertisements that did not particularly involve illness or humour themes) were recalled. Although humorous advertisements were recalled as often as illness advertisements, subjects perceived the latter as

significantly more effective than humorous or normative advertisements. The researchers measured the perceived effectiveness of each recalled advertisement by asking, "How would you rate it on a scale from 0 to 10, where 0 means it is not a good anti-smoking ad and 10 means it is a very good ad?" Illness advertisements received an average rating of 8.2, followed by normative advertisements with 6.8 and humorous advertisements with 6.4. Although perceived effectiveness does necessarily equate to actual effectiveness, it is reasonable to consider the possibility that if one perceives an advertisement as effective there is a greater likelihood that he or she will believe, and be affected by, the message.

In a Canadian study, Hammond, Fong, McDonald, Brown and Cameron (2004) surveyed smokers roughly 9 months after the introduction of graphic warning labels on cigarette packages to see whether the labels had any effect on the participants' intentions to quit smoking. These graphic and sometimes grotesque labels, which are examples of rhetoric, included images of a lung tumor, a damaged heart, and a diseased mouth, among others. Hammond et al. found that the labels caused 19% of those surveyed to smoke less. Perhaps more interestingly, they discovered that subjects who found the labels more frightening were more likely to indicate the labels caused them to smoke less. Although these fear-based advertisements were not compared with other types of advertisements to see whether one was more effective than another, these findings suggest that fear appeals can be an effective advertising strategy in positively affecting smokers' intentions to quit.

The following study is particularly interesting as it uses forms of narrative-based advertising. Montazeri and McEwen (1997) found that between two antismoking

advertisements 52% of subjects preferred the fear-based ad, primarily because it was “realistic” and “had a clear message”, over a more light-hearted ad. Only 16% preferred the latter. The fear-based advertisement involved a young boy visiting his dying mother in the hospital; the light-hearted advertisement involved a young girl imitating her friends’ smoking habits and deciding not to smoke. Fifty-nine percent of smokers said the fear-based advertisement was more likely to positively affect their own smoking habits, but only 6% said this of the light-hearted advertisement (35% indicated neither would affect their smoking habits). If realism and clarity are important factors in preferring one advertisement over the other, fear-based advertisements may be more effective in general as they do not trivialize the effects of smoking. Light-hearted or humorous advertisements may run the risk of doing so. In terms of transportation, it may be that this realism is helpful in engaging with the narrative.

Fear-based advertisements can also be effective by stimulating conversation between individuals. If emotionally charged or fearful messages generate more interest than positive or humorous messages, they may be more effective in their ability to spread from person to person through discussion. According to some studies (e.g., Lee & Ferguson, 2002) fear-based advertisements have been shown to create higher levels of interest in viewers than more positive or humorous advertisements. If discussion is a result of high interest levels, then fear appeals may be more effective.

Hafstad and Aaro (1997) wanted to see whether greater levels of discussion resulting from provocative antismoking advertisements would be associated with more positive changes in smoking behaviour. Hafstad and Aaro surveyed 17-18 year old adolescents regarding antismoking campaigns that were carried out between 1992 and

1995. To measure the effectiveness of the advertisements they asked smokers the following question: "Did you have any of the following reactions to the campaign?: Considered to quit smoking; decided to quit smoking; managed to quit smoking; or had no reaction". They asked nonsmokers to indicate their reaction to the campaign as either "Decided never to start smoking" or "had no reaction". They found that subjects most often discussed the campaign with their peers, followed by discussion in class and with parents. The responses also showed that having discussed the campaign with others was one of the strongest predictors of positive self-reported changes in smoking behaviour. By generating interest through emotionally-charged or provocative messages, more conversation between individuals may occur, thus increasing the effectiveness of the message.

#### Positive Antismoking Advertising

It is unclear whether positively-toned advertisements have the same ability to arouse and engage the viewer as negatively-toned advertisements, but there is some support for the use of positive rather than negative images in antismoking advertising. Positive images could include, for example, healthy, smiling individuals; whereas negative images may involve the sick or unhappy. Shadel, Niaura and Abrams (2002) explain Petty and Cacioppo's (1986) suggestion that, if people view an antismoking advertisement that has more positive elements, they may have a more positive impression of the advertisement and its message. Humour may be effective in that, like fear, it will induce arousal, but in addition humour may foster positive feelings toward the message and in turn decrease the likelihood of rebellion (Lee & Ferguson, 2002). However, the use of humour may also be problematic. Goldman and Glantz (1998) reported that high



school students indicated that the humour used in the California “Clifford” advertisements, which depicted a high school student in a bathroom filled with smoke discussing the negative effects of smoking, was sometimes too excessive and exaggerated the effects of smoking. Goldman and Glantz point out that many of the students felt that although they had a number of friends who smoked, none of them looked any different than those who did not smoke.

Shadel et al. (2002) looked at nonsmoking adolescents’ impressions of images taken from both smoking and antismoking advertisements. Any references to product names were removed so that the subjects’ perceptions would be unbiased. The researchers found that the adolescents liked the images taken from smoking advertisements more than those taken from antismoking advertisements. The adolescents also indicated the images from the smoking advertisements made them feel more positive than the images from antismoking advertisements. Shadel et al. concluded that if antismoking advertisements contained more positive images then at least they would be better received by adolescents and perhaps would be more effective in preventing or reducing smoking. They also support this argument with findings from Rust (1999) who found that youth are more likely to be attracted to products that are positively perceived than they are to stay away from products that are negatively perceived. Therefore, adolescents may be more likely to approach antismoking advertisements rather than avoid them, if the advertisements are presented in a more positive light. However, Shadel et al. (2002) point out that their sample size was small, and that influences that encourage smoking are not limited to advertising. They also mention that there is more to an advertisement’s ability to persuade than just the imagery

used. Although these findings suggest that positive images are effective in forming favourable impressions of the advertisement itself, positive images might not have the ability to associate *negative* feelings with a particular behaviour, such as smoking.

A difference exists between attempting to help stop a particular behaviour from continuing and attempting to stop a particular behaviour from starting. It may be that different types of advertising strategies are needed for each goal. Prospect theory, as explained by Schneider et al. (2001), holds that when people are concerned with gaining for themselves, they more likely to take the sure rather than risky route to obtain that gain, and they are not as willing to take risks as those who are concerned with losing something. People concerned with losing something are more willing than those concerned with gaining something to take the risky route to make sure no loss occurs. Schneider et al. point out that in other studies gain-framed advertisements (e.g., sunscreen use, regular exercise) have been found to be more effective in promoting prevention, whereas those that are loss-framed (e.g., screening mammography, HIV testing) have been found to be more effective in promoting early-detection.

Schneider et al. (2001) examined whether gain-framed antismoking advertisements were more or less effective than loss-framed antismoking advertisements. Gain-framed messages can be considered comparable to positively-toned messages, and loss-framed comparable to negatively-toned messages. On the basis of prospect theory, they hypothesized that gain-framed messages would be more effective than loss-framed messages in positively altering subjects' attitudes towards the illness-preventing behaviour of nonsmoking. Schneider et al. manipulated visual and auditory messages. They prepared visual images that were either gain-framed or loss-framed (i.e., a person

looking happy and healthy or looking unhappy and unhealthy), and auditory messages that were also either gain-framed or loss-framed. The experimenters placed subjects into one of four groups. Each group was exposed to one of the following four types of televised antismoking advertisements: gain-framed visual images with gain-framed auditory; gain-framed visual images with loss-framed auditory tracks; loss-framed visual images with gain-framed auditory tracks; and loss-framed visual images with loss-framed auditory tracks. By the time of the 6 week follow-up, subjects who were exposed to either gain-framed visual or audio messages promoting antismoking behaviour showed a larger decrease in smoking behaviour “over the last 30 days” than subjects who were exposed to loss-framed visual or audio antismoking messages.

Therefore, using positive images to emphasize things one can gain from not smoking may be an effective advertising strategy. However from the perspective of prospect theory, in the case of antismoking advertisements, it must be assumed that people generally view quitting smoking as a positive change. If one considers quitting to be a negative course of action, perhaps because he or she may gain weight or lose social acceptance, then loss-framed advertisements may be more effective (Schneider, 2001).

### Conclusions

Transportation theory may help to explain the effectiveness of some advertisements over others. The evidence shows that individuals who experience a higher level of transportation into a narrative are more likely to have beliefs consistent with the story, and are less likely to counterargue the facts of the story. In antismoking advertising, this could mean that with the use of narratives, rather than rhetoric, viewers

may be more likely to walk away with attitudes favouring a smoke-free lifestyle. Also, factors that promote transportation could improve the effectiveness of the message. One of these factors is the tone of the message. The tone of an advertisement plays an important role in how the message is perceived. Overall, studies generally lend support to the use of fear-based (or negative) advertisements over more positively-toned advertisements. This may be an effect of increased transportation. Transportation appears to be affected by the tone and outcome of a narrative. If a more negatively-toned narrative induces a higher level of transportation than a positively-toned narrative, it may be more effective. However, it is difficult to understand how transportation plays a role in antismoking advertising, and advertising in general, as rhetoric has often been the focus of scientific research. Because transportation occurs when reading a story containing characters and events with which the viewer can become engaged, rhetoric does not provide the necessary components to effectively elicit transportation.

In addition to antismoking advertising, the use of narratives can be extended to many other areas of health promotion. The current research on transportation and narratives is growing, and may lead to a better understanding of the use of narratives in all types of advertising.

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## Abstract

Transportation Theory offers insight into methods of creating effective advertising for health promotion. Individuals who are highly transported (immersed) into a narrative are presumably more likely than those less transported to experience a change in attitudes and beliefs consistent with story themes. Narratives allow for transportation, whereas rhetoric, another form of advertising, fails to effectively do so. Second, it was hypothesized that an advertisement's tone (strongly negative, mildly negative, or positive) would also affect level of transportation. With a 2 x 3 factorial design, undergraduate participants were instructed either to immerse themselves into the antismoking narrative (high transportation) or to count words they felt individuals at a fourth grade reading level would find difficult (low transportation). The tone of the narrative was also manipulated. There was no statistically significant difference in attitudes towards smoking between individuals in the high and low transportation groups; however participants who were highly transported, despite their assigned transportation condition, were more likely to be in favour of a smoke-free lifestyle than those who were less transported. There was no significant effect of tone on level of transportation.

## The Effects of Transportation in Antismoking Advertisement Narratives on Attitudes Towards Smoking

For decades smoking has been known to be a serious health risk. Despite this, it continues to be a common practice. Across the globe almost one out of three adults are smokers (Sarna, Cooley, & Danao, 2003); therefore, it is important to find more effective ways to reduce these rates. Antismoking advertisements have been successful in lowering smoking rates (Goldman & Glantz, 1998), but the problem still exists and new and more effective advertising techniques are continuously being sought.

Advertisements have often used rhetoric, in the format of nonnarrative messages that list and explain the main points the advertiser wants to deliver. Rhetoric involves no plot; rather it delivers the information in a straightforward, educational message (e.g., a Surgeon General's warning). Researchers have focused primarily on the effectiveness of this type of advertising. The use of narratives in advertising has been studied to a lesser extent (Brock & Green, 2005). A narrative is a story with a beginning, middle and end (Green & Brock, 2000) that is usually based around a series of events concerning the main character(s). Green and Brock (2000) point out that this imbalance in research is surprising, as narratives (e.g., movies, soap operas, books, etc.) are a much greater part of everyday life than messages of rhetoric (e.g., billboards or editorials). Narratives have been shown to alter viewers' beliefs and attitudes regarding the subject material (Green & Brock, 2000), and therefore may be an effective format for antismoking advertising.

Advertisements not only differ in form, but also in tone. A well-established and well-investigated aspect of antismoking advertising is whether one type of advertisement (or tone) is more persuasive, and therefore more effective, than others. There is much

research comparing negative and positive antismoking advertisements, but a relatively new theory, known as Transportation Theory (Green & Brock, 2000), may help explain why some advertisements are more effective than others. Perhaps the answer lies in the degree to which the tone allows the viewer (or reader, or listener) to become involved in the story. This involvement is known as transportation, and is the basis of Transportation Theory, which states that transportation can be used as a mechanism to change real-world beliefs. It may be that one type of tone is more effective than the other because it induces a greater level of transportation. The purpose of this study is to examine the roles of both transportation and tone in the effectiveness of antismoking advertisements.

What makes a narrative effective may be the degree to which viewers are transported (see Green & Brock, 2000; Green, 2004). Green and Brock (2000) describe transportation into a narrative as a “distinct mental process, an integrative melding of attention, imagery, and feelings” (p. 701). Individuals who are highly transported into a story have less awareness of their physical surroundings and feel “swept away” into the events of the narrative. Gerrig (1993) describes transportation as follows:

Someone (“the traveler”) is transported, by some means of transportation, as a result of performing certain actions. The traveler goes some distance from his or her world of origin, which makes some aspects of the world of origin inaccessible. The traveler returns to the world of origin, somewhat changed by the journey. (p. 10-11)

Green and Brock (2000) tested their theory by asking participants to read a narrative entitled *Murder at the Mall*, in which a girl and her young sister venture to the mall where the young sister is then brutally murdered by a psychiatric patient. They found that participants who were highly transported into the narrative had beliefs more consistent with the story than those less transported. For example, highly transported

participants were more likely to indicate that there should be tighter regulations on outings for psychiatric patients. The authors point out that this observation is correlational, and therefore cannot indicate causality, but suggest that it is likely that participants had changed their real-world beliefs as a result of reading the narrative.

Transportation Theory states that, while transported, viewers' beliefs and understanding of real-world facts may not be at the forefront of consciousness because of their level of engagement into the narrative, and therefore viewers are less likely to contradict facts within the narrative (Brock & Green, 2005). In addition, unlike rhetoric, narratives do not necessarily tell you explicitly what to believe. Narratives are stories from which viewers can make their own assumptions. Therefore, as Transportation Theory explains, viewers may be less likely to experience resistance towards a narrative. Green (2006) argues that this is especially important to consider in terms of health promotion, because when faced with issues (such as cancer) people often choose to believe they are invulnerable and that it "couldn't happen to them." To illustrate, Green describes the effectiveness of narratives in a study by Slater and Rouner (1996) in which participants who were shown alcohol education messages were more likely to indicate that the narrative was more persuasive than statistical evidence when the message involved values that were incongruent with their own.

Over the past few years research has examined the role of transportation in changing attitudes. However, there is very little understanding of the role of transportation, specifically in changing peoples' beliefs and attitudes concerning smoking or other health-related issues. In the search for new methods of creating effective antismoking advertisements, Transportation Theory may provide new insight. It is the

intent of this study to investigate the possibility that transportation affects the effectiveness of advertising and could help in changing attitudes towards a smoke-free mentality.

In addition to transportation, the second focus of this study is the tone of antismoking advertisements. Antismoking advertisements can have different tones, including fear-based, positive-based, or humour-based. They can also be distinguished by the content, such as second-hand smoke messages, or anti-industry messages. This study focuses on negative (fear-based) and positive messages. Many studies have found that fear-based messages can give rise to positive changes in smoking behaviour (i.e., reduce smoking) (e.g., Arthur & Quester, 2004; Hafstad & Aaro, 1997), but other studies have shown that advertisements using positive images and messages can be effective as well (e.g., Schneider et al., 2001). Positive images could include, for example, healthy, smiling individuals, whereas negative images may portray sick or unhappy individuals.

Antismoking advertising has used fear for decades, and it continues to be a prominently used tone (see Beaudoin, 2002). Fear naturally induces arousal within the viewer, which is thought to then lead to interest and consequently deeper information processing (Lee & Ferguson, 2002). In this way, transportation into a narrative may be aided by fear. Green and Brock (2000) found that participants who read *Murder at the Mall* (depicting a young girl's brutal murder) were more likely to be highly transported than participants who read a much less serious version (a young girl being approached by a clown blowing bubbles which causes her to laugh and laugh). Perhaps then, more negative advertisements arouse higher levels of transportation, and therefore are more effective in creating more story-consistent beliefs.

As previously mentioned, there is also support for the use of positive, rather than negative, images in antismoking advertising. For example, Shadel, Niaura and Abrams (2002) looked at nonsmoking adolescents' impressions of images taken from both smoking and antismoking advertisements. Any references to product names were removed so that the subjects' perceptions would be unbiased. The researchers found that the adolescents liked the images taken from smoking advertisements more than those taken from antismoking advertisements. The adolescents also indicated the images from the smoking advertisements made them feel more positive than the images from antismoking advertisements. Shadel et al. concluded that if antismoking advertisements contained more positive images then, at least when concerning adolescents, they would be more appealing, better received, and perhaps more effective. However, it may be that neither negativity nor positivity per se increases the likelihood of one being transported. Perhaps it is just "level of arousal" (which can be affected by both negative and positive narratives) that determines transportation. If a frightened person and a happily excited person have the same degree of arousal, perhaps they will be equally transported. This possibility was examined in the present study.

In this study, transportation's effectiveness in changing smoking-related attitudes through narratives was investigated. Furthermore, the role of negativity in possibly increasing transportation was assessed. A 2 x 3 design was implemented (Degree of Transportation x Tone of Advertisement), creating six conditions. The two levels of Degree of Transportation were High and Low. This was manipulated by the instructions given prior to reading an antismoking narrative. Negative versus positive tone (i.e., the second independent variable) was analyzed in terms of the effect of tone in increasing or

decreasing transportation. Participants read either a positive, strongly negative (i.e., fear-based), or a mildly negative advertisement. The purpose of having these three levels was to assess whether or not level of arousal is the key determinant in transportation. If only level of arousal (whether brought about by negative or positive tone) affects transportation, then participants in the Mildly Negative condition should be less transported than those in either the Positive and Strongly Negative conditions.

I hypothesize a main effect of Degree of Transportation in that more highly transported individuals will experience a greater change in attitudes than those less transported, as suggested by past studies (e.g., see Green & Brock, 2000; Green, 2004). Furthermore, in noting that in past studies (see Green & Brock, 2000) participants were more likely to be transported and have story-consistent beliefs after reading a narrative with a more fearful outcome, I hypothesize that there will be a main effect of Tone of Advertisement. That is, individuals exposed to a strongly negative (fear-based) advertisement will experience a higher level of transportation than those exposed to a positive or mildly negative advertisement. Thus they will experience a greater change in attitudes towards smoking. I predict an interaction of the two independent variables, in that individuals who are in both the High Degree of Transportation and Strongly Negative conditions will have attitudes most congruent with a smoke-free mentality.

## Method

### *Participants*

One hundred and twenty Algoma University College and Sault College students took part. Participants included both males ( $n = 30$ ) and females ( $n = 90$ ), smokers ( $n = 38$ ) and nonsmokers ( $n = 82$ ). Students were asked during class hours to volunteer for the

study, and bonus marks given by some professors were used as an incentive.

### *Materials*

Each package of materials included the following: a set of instructions explaining how to complete the task, a consent form (see Appendix A), reading instructions (see Appendix B), one of three versions of the printed antismoking narrative, and a questionnaire. The type of reading instructions each participant received depended on the experimental condition (either the high or low transportation condition). The questionnaire contained four sections: questions regarding subject-variables, a brief recall test, the Transportation Scale (Green & Brock, 2000) (See Appendix C), and the Smoking Attitudes Scale (revised) (Stockdale, Dawson-Owens, & Sagrestano, 2005) (see Appendix D).

Questions regarding subject-variables asked participants their age, sex, smoking status (or history), and whether or not they have known someone with a smoking-related illness. These questions were included to see if different groups of individuals would respond differently on the Smoking Attitudes Scale. The recall test was given to check that all participants paid attention to the story. It included ten True or False statements about details of the narrative (e.g., “The story took place in northern Ontario”). The Transportation Scale was used as a manipulation check to ensure that participants were transported to appropriate levels depending on their assigned condition. It included 12 statements (e.g., “While reading the narrative, I could easily picture the events in it taking place”). Participants had to indicate on a seven-point Likert scale ranging from “Not at all” to “Very much” the extent to which they agreed with each statement. Scores could range from 12 to 84. Eleven items were general, and one was story-specific. The



Smoking Attitudes Scale by Stockdale et al. (2005) is a revised version of the Smoking Attitudes Scale developed by Shore, Tashchian and Adams (2000). It was used to measure participants' opinions on a number of smoking-related issues, such as rights, legal issues, and smoking in public places. The scale consists of 22 items and participants respond using a seven-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree". A participant's overall score is determined by finding the average score of all 22 responses. The higher the score, the more in favour one is of a smoke-free lifestyle.

All three versions of the antismoking narrative told the story of a main character with a career and family, who has smoked for many years. After not feeling well for some time, he visits the doctor, who conducts a number of tests. While waiting for the results, the main character fears the worst; he worries about having cancer, dying, and leaving his family behind. The three versions were identical up until the point of diagnosis in order to reduce any confounding variables.

The advertisements were differentiated mainly by the outcome of the story. In the strongly negative advertisement the main character received a cancer diagnosis, and died shortly thereafter. In the mildly negative advertisement the main character received a diagnosis of emphysema; he lives, but experiences many consequences as a result of his illness. In the positive advertisement there was neither diagnosis; the main character chooses to quit smoking, becomes healthier because of it, and now leads a happy life with his family.

### *Procedure*

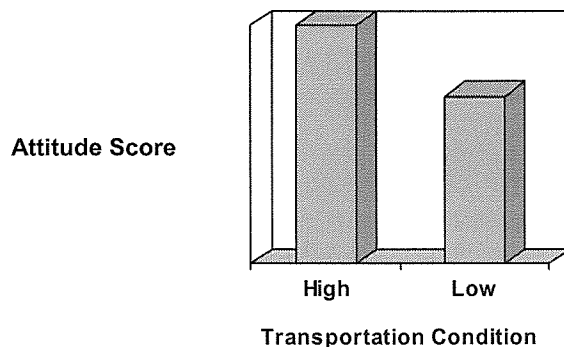
Participants were assigned randomly to one of the six conditions. Participants

were invited to take part in groups to save time, however individual sessions were also held. Upon arrival, participants received a package of instructions and materials. Participants were asked to follow the instructions given in the package, and to return the package upon completion. Participants were instructed to complete the consent form, read the reading instructions, read the narrative, and to complete all four sections of the questionnaire.

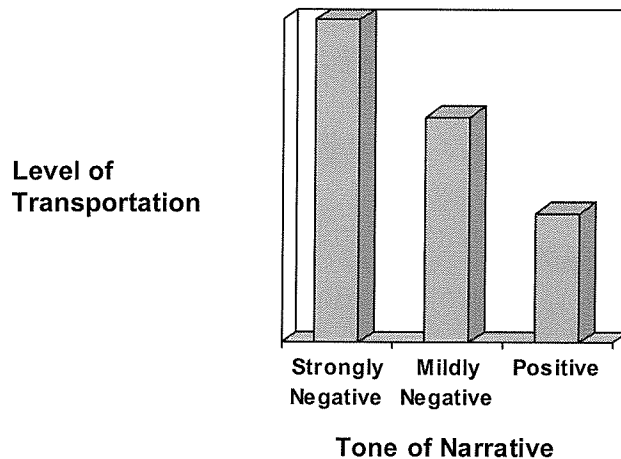
In the High Transportation condition, participants were asked to immerse themselves into the story and to try to understand how the main character must feel. In the Low Transportation condition, participants were asked to simply identify words that would not be understandable to someone at a 4<sup>th</sup> grade reading level. As a form of debriefing, upon the collection of data from all conditions participants were then emailed with an explanation and the results of the experiment.

#### Expected Results

I expected to find a main effect of Degree of Transportation in that participants in the High Transportation condition will have attitudes most congruent with a smoke-free mentality, and those in the Low Transportation condition will have attitudes less congruent. This would indicate that advertisements that can effectively induce transportation may be more effective in persuading people to choose smoke-free lifestyles.



I also expected to see a main effect of Tone of Advertisement in that participants who read the strongly negative advertisement will be most likely to be highly transported, those who read a mildly negative narrative will be less transported, and those who read a positive narrative will be least transported.



I expected an interaction between the two independent variables in that participants most highly transported and who read the strongly negative advertisement will be the most likely to have attitudes congruent with a smoke-free mentality.

## Results

### *Hypothesis 1*

It was predicted that participants in the high transportation condition would on average score higher on the Smoking Attitudes Scale than those in the low transportation condition. That is, they would be more in favour of a smoke-free lifestyle. However, there was no statistically significant difference in attitudes towards smoking between the two groups (high mean = 5.84, low mean = 5.81;  $p = 0.851$ ). The means for each condition are displayed in Table 1.

Table 1  
Mean Scores on the Smoking Attitudes Scale

	Strongly Negative	Mildly Negative	Positive	Total Average
Low	5.97	5.79	5.67	5.81
High	5.87	5.94	5.71	5.84
Total Average	5.92	5.87	5.69	

To confirm that transportation was manipulated effectively, data from the transportation manipulation check was analyzed. The difference in average transportation level between the high and low groups was statistically significant (57.10 and 47.75 respectively; see Table 2); therefore level of transportation was manipulated effectively. In looking at mean transportation scores across conditions, it is evident that transportation manipulation is more apparent in some narrative conditions than others. Mean levels of transportation for all six conditions are displayed in Table 2.

Table 2  
Mean Transportation Scores

	Strongly Negative	Mildly Negative	Positive	Total Average
Low	51.60	46.00	45.65	47.75
High	59.05	59.85	52.40	57.10
Total Average	55.33	52.93	49.03	

In the mildly negative condition, there is a significant difference (13.85 points) in transportation scores between individuals in the high and low transportation conditions. The difference in transportation scores between the high and low groups is reduced in the strongly negative and positive conditions (7.45 and 6.75 points respectively).

It is important to note that individual transportation scores varied within each condition. To see if individuals who were highly transported (identified as “actual high”), regardless of the transportation condition, significantly differed in reported attitudes toward smoking from those who were less transported (identified as “actual low”), data

from highly transported participants (i.e., the top half;  $n = 57$ ) were separated from those less transported (i.e., the bottom half;  $n = 63$ ). Mean attitudes between these two new groupings of data were then compared. Individuals who were highly transported were significantly more in favour of a smoke-free lifestyle than those less transported (actual high mean = 6.01, actual low mean = 5.62;  $p = 0.009$ ). Table 3 displays the attitude scores across the three narrative versions.

Table 3  
Mean Scores on the Smoking Attitudes Scale

	Strongly Negative	Mildly Negative	Positive	Total Average
Actual Low	5.79	5.80	5.36	5.62
Actual High	6.01	5.91	6.14	6.01
Total Average	5.92	5.87	5.69	

### *Hypothesis II*

In knowing that in past studies (e.g., Green & Brock, 2000) participants who read a narrative with a negative outcome were more highly transported than those who read a less negative outcome, it was predicted that participants who read the strongly negative narrative would be more highly transported than those who read a mildly negative or positive narrative. Despite a trend in data that lends support to the hypothesis, there was no statistically significant difference between groups (strongly negative mean = 55.3, mildly negative mean = 52.9, positive mean = 49.0;  $p = 0.064$ ); however, the  $p$  value approached the 0.05 level of significance.

To see if there was a main effect of narrative tone on attitudes toward smoking, attitude means were compared between the three groups. Level of negativity positively correlated with attitude means, however there was no statistically significance difference

in attitudes between the strongly negative, mildly negative and positive groups (5.92, 5.87, and 5.69 respectively;  $p = 0.445$ ).

### *Recall Test*

Previous studies (e.g., Green & Brock, 2000) indicated no difference in recall between high and low transportation groups; however, here it was found that on average participants in the high transportation condition scored higher on the recall test than those in the low transportation condition (7.97 and 8.93 respectively),  $p < 0.001$ . Despite this finding, means indicate all participants were able to remember most key elements of the narrative. Mean scores for all conditions are displayed in Table 4.

Table 4  
Mean Scores on Recall Test

	Strongly Negative	Mildly Negative	Positive	Total Average
Low	8.25	7.60	8.05	7.97
High	9.35	8.85	8.60	8.93
Total Average	8.80	8.23	8.33	

### *Differences Between Participants*

Information about participants was gathered to see if attitudes vary between different groups of individuals. On average females had a higher score on the Smoking Attitudes Scale than males (i.e., women were more in favour of a smoke-free lifestyle than men; female mean = 5.95, male mean = 5.44;  $p = 0.003$ ). Differences in attitude toward smoking were also found between individuals who have never smoked ( $n = 67$ ; mean = 6.06), who used to smoke but have since quit ( $n = 15$ ; mean = 5.94), who only smoke occasionally ( $n = 17$ ; mean = 5.60), and those who smoke daily but less than one pack of cigarettes ( $n = 21$ ; mean = 5.18),  $p < 0.001$ . No individuals indicated they smoked more than one pack a day. A post hoc analysis revealed that individuals who

have never smoked or used to smoke but have since quit were significantly more in favour of a smoke-free lifestyle than those who either smoke daily or at least occasionally. There was no significant difference in attitude toward smoking between individuals who have known someone with a smoking-related illness and those who have not (5.87 and 5.77 respectively;  $p = 0.526$ ).

### Discussion

The effect of level of transportation into an antismoking narrative on attitudes towards smoking was investigated. Despite an effective manipulation of transportation, there was no statistically significant difference in attitudes towards smoking between individuals in the high and low transportation conditions. A possible explanation for this finding is that a single exposure to a short antismoking narrative may not have enough impact to shift attitudes. Health-related attitudes, such as those toward smoking, are likely long-held and difficult to change with one small treatment. If transportation were more greatly manipulated, or if a larger number of participants were used, perhaps there would have been a greater difference in attitudes between the high and low transportation groups.

Despite no statistical significance, a trend in means suggests that on average a strongly negative narrative would elicit a higher level of transportation than a mildly negative or positive narrative (see Table 2). As to why the mildly negative condition allowed for the greatest difference in transportation scores between individuals in the high and low transportation conditions (see Table 2), this may be because it was neither too negative nor too positive. One would expect those who read the strongly negative narrative to be highly transported, and those who read the positive narrative to be

significantly less so. It may be that the mildly negative narrative was negative enough to elicit high transportation for those in the high transportation condition, but not so negative that those in the low transportation condition became highly immersed.

By looking at the participants who, for whatever reason, were truly highly transported and those who were less so, despite the transportation condition, it is evident that those who were more highly transported on average had attitudes more in favour of a smoke-free lifestyle. Although it cannot be said that a higher degree of transportation led to attitudes more in favour of a smoke-free lifestyle, these results support the findings of past studies which have shown that those who are more highly immersed into a narrative are more likely to have story-consistent beliefs.

It would therefore be worthwhile for future research to continue to focus on the role of transportation into narrative antismoking advertisements. Because health-related attitudes are long-held, and are of a personal and important nature, people may be reluctant to change their views. To address this challenge of changing long-held beliefs and attitudes, future directions of research might include looking at the impact of repeated exposures to an antismoking narrative on attitudes towards smoking, and whether or not level of transportation affects these attitudes over a longer period of time. Future research could also focus on ways to increase the level of transportation into an antismoking narrative. This could be done perhaps by increasing the negativity of the narrative, by including characters that individuals can easily relate to, or by tailoring story lines to suit specific audiences. Research focusing on other forms of advertising, such as television or radio, would be valuable to further understand which medium allows for the greatest degree of transportation. Perhaps a narrative accompanied by visual



images would further increase transportation into the story. By increasing the degree to which an individual is immersed into an advertisement possibly via these measures, antismoking advertising, as well as other areas of health promotion, could improve to more effectively impact viewers to favour a more healthy lifestyle.

Appendix A

Consent Form

My name is David Viitala and I'm a 4<sup>th</sup> year psychology student at Algoma University College. I am in need of individuals to participate in my thesis study.

My thesis advisor is Professor Jack Dunning. We foresee no risks or discomforts as a result of your participation; however, you may choose to withdraw from the experiment at any time without penalty. Your name will not be used in any way. You will remain anonymous.

You are being asked to 1) read a set of instructions followed by a short story, and 2) complete a questionnaire.

The results of this study will be presented at the Annual AUC Thesis Conference on March 23<sup>rd</sup>, 2007, and may be presented in other professional or public forums. I encourage you to attend the AUC Thesis Conference.

If you would like to know the details of the study and its purpose, you are welcome to provide your e-mail address here and I will send you the information after data collection is complete:

Your e-mail address (optional): \_\_\_\_\_

Are you receiving bonus marks for participating?            Yes    No

If yes, please indicate the class: \_\_\_\_\_ Professor: \_\_\_\_\_

If you have any questions, feel free to contact me at [dviitala@students.auc.ca](mailto:dviitala@students.auc.ca), or my advisor at [dunning@algonau.ca](mailto:dunning@algonau.ca).

I, \_\_\_\_\_ (please print), understand that my participation in this experiment is voluntary and that I may withdraw at any time without penalty.

\_\_\_\_\_  
Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Experimenter

## Appendix B

### Reading Instructions

#### High Transportation Condition:

Today, you will be reading a narrative that will be used to help actors and actresses become involved in a role. While reading this narrative, use your imagination. Think about the setting, about how the characters are feeling, and how you might feel in the situation. Immerse yourself in the action of the story.

#### Low Transportation Condition:

Many adults in adult literacy programs are able to reach fourth-grade level reading. Interesting stories at the fourth-grade level are therefore needed for these adults. For the fourth-grade reader, it is important to avoid long words (too many syllables). Today, we are asking you to read a narrative and evaluate it for use by adults who read at the fourth-grade level. While reading this narrative, please count how many words you find that would be difficult for someone at the fourth-grade reading level to understand. Please note that only an approximate number is necessary. A space for your total is provided at the end of the narrative.

## Appendix C

## Transportation Scale

Circle the number under each question that best represents your opinion about the narrative you just read.

1. While I was reading the narrative, I could easily picture the events in it taking place.

1 2 3 4 5 6 7  
not at all very much

2. While I was reading the narrative, activity going on in the room around me was on my mind.

1 2 3 4 5 6 7  
not at all very much

3. I could picture myself in the scene of the events described in the narrative.

1 2 3 4 5 6 7  
not at all very much

4. I was mentally involved in the narrative while reading it.

1 2 3 4 5 6 7  
not at all very much

5. After the narrative ended, I found it easy to put it out of my mind.

1 2 3 4 5 6 7  
not at all very much

6. I wanted to learn how the narrative ended.

1 2 3 4 5 6 7  
not at all very much

7. The narrative affected me emotionally.

1 2 3 4 5 6 7  
not at all very much

8. I found myself thinking of ways the narrative could have turned out differently.

1 2 3 4 5 6 7  
not at all very much

9. I found my mind wandering while reading the narrative.

1 2 3 4 5 6 7  
not at all very much

10. The events in the narrative are relevant to my everyday life.

1 2 3 4 5 6 7  
not at all very much

11. The events in the narrative have changed my life.

1 2 3 4 5 6 7  
not at all very much

12. I had a vivid mental image of John.

1 2 3 4 5 6 7  
not at all very much

Appendix D

Please indicate the extent to which you agree with each statement by filling in the circle that corresponds with your opinion.

1=Strongly Disagree  
 2=Moderately Disagree  
 3=Slightly Disagree  
 4=Neither Disagree nor Agree  
 5=Slightly Agree  
 6=Moderately Agree  
 7=Strongly Agree

	1	2	3	4	5	6	7
1. All else being equal, I would prefer to patronize a smoke-free bar than a bar that permitted smoking. ....	1	2	3	4	5	6	7
2. All forms of cigarette advertising should be illegal. ....	1	2	3	4	5	6	7
3. Cigarette companies should be permitted to advertise their products in any way they wish. ....	1	2	3	4	5	6	7
4. Employers should be required to provide a smoke-free work environment for their employees. ....	1	2	3	4	5	6	7
5. I prefer not to spend a lot of time with people who smoke. ....	1	2	3	4	5	6	7
6. I prefer to sit in non-smoking sections of a restaurant or bar. ....	1	2	3	4	5	6	7
7. I would not date a person who smokes. ....	1	2	3	4	5	6	7
8. I would object to living with a smoker. ....	1	2	3	4	5	6	7
9. Laws restricting smoking in the workplace are unfair to smokers. ....	1	2	3	4	5	6	7
10. Nonsmokers should learn to be more tolerant of smokers. ....	1	2	3	4	5	6	7
11. People have a basic right to breathe smoke-free air. ....	1	2	3	4	5	6	7
12. People should have a right to smoke in bars and restaurants. .	1	2	3	4	5	6	7
13. People should have the right to smoke where and when they want. ....	1	2	3	4	5	6	7
14. Restricting smoking in public places is unfair to smokers. ....	1	2	3	4	5	6	7
15. Secondhand smoke is a legitimate health risk. ....	1	2	3	4	5	6	7
16. I support efforts to encourage local restaurants to become smoke-free. ....	1	2	3	4	5	6	7
17. I would like all public places in Ontario to be smoke free. ....	1	2	3	4	5	6	7
18. I support efforts to encourage local bars to become smoke-free. ....	1	2	3	4	5	6	7
19. Smoking should not be restricted by law in any way. ....	1	2	3	4	5	6	7
20. The sale of cigarettes should be outlawed altogether. ....	1	2	3	4	5	6	7
21. There is no good reason to ban smoking on airplane flights. ....	1	2	3	4	5	6	7
22. I support Ontario's smoking/tobacco cessation efforts. ....	1	2	3	4	5	6	7

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