

WHO ARE OTHERS IN THE THIRD-PERSON EFFECT? : DOWNWARD COMPARISON
TOWARD A SMOKING ISSUE AMONG NON-SMOKERS AND SMOKERS

by

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Abstract

With regards to the third-person effect, the purpose of this paper is to answer the fundamental question ‘who are others?’ when assessing the perceived effects of anti-tobacco advertising and cigarette advertising. The particular interest in this study is investigation of the underlying mechanism of the third-person effect between non-smokers and smokers by applying the social comparison theory to the third-person effect. Findings indicate that, in terms of overall third-person effect judgments, people are inclined to consider as others those persons sharing similar demographic characteristics including gender, race, and age. However, in terms of smoking status, people have a tendency to contrast themselves with other smokers rather than non-smokers, regardless of whether or not they themselves smoke. Moreover, the first-person effect toward an anti-tobacco advertisement was found amongst non-smokers, but it was not found amongst smokers. The magnitude of the third-person toward a cigarette-advertisement effect was greater among non-smokers than it was among smokers.

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CHAPTER 1 - Introduction

Davison (1983) first described people's distorted perception of media effects on others and on themselves and provided a notion of 'third-person effect hypothesis' - (1) Individuals exposed to a persuasive message are inclined to expect that the message has greater effects on others than on themselves and (2) the affected others are likely to take some actions regarding the message. The phenomenon has thus been named the 'third-person effect,' since two different observational points of view are involved on the part of those assessing the effects of a message. They come to believe that media has a greater impact not on 'me' or 'you', but on 'them' – the third persons (Davison, 1983, p. 3).

A self- enhancement explanation has been centered on as a critical mechanism of third-person perception (Duke & Mullin, 1995; Gunther & Mundy, 1993; Gunther & Thorson, 1992). We simply see ourselves as less vulnerable to a persuasive message and more resistant to its negative effects, which makes us - to our own minds - better off than others (Gunther & Mundy, 1993). Individuals are inclined to believe that negative occurrences will less likely to happen to themselves than to other people, whereas they also believe that positive events are more likely to occur in their lives than in that of the average person (Weinstein, 1980; Heine & Lehman, 1995). To some degree that perceived effects of media are biased toward optimal personal outcomes, the-third person effect may play a role in reinforcing self-esteem and self-worth (Henriksen & Flora, 1999).

Based on the mechanism, the key explanatory factors contributing to the third-person phenomenon are the social desirability of messages (Gunther & Mundy, 1993; Gunther & Thorson, 1992; Hoorens & Ruiter, 1996; Innes & Zeitz, 1988) and the social distance between

the self and others (Cohen & Davis, 1991; Cohen, Mutz, Price & Gunther, 1988). In prosocial or antisocial issues, the third-person perception was consistently found in association with antisocial messages (Youn, Faber & Shah, 2000; Gunther & Hwa, 1996; McLeod, Eveland, & Nathanson, 1997). Conversely, for prosocial messages, either the weak third-person perception or the first-person perception often appeared – people believe that message has greater effects on themselves than on others. In specific, the prosocial messages include the use of seat belts, anti-tobacco advertising, and drunk-driving Public Service Announcements, as well as in antisocial messages focused on smoking, gambling, pornography and violent games. In order to define a reference group, most studies use the ‘social distance concept,’ in which participants are asked to compare media effect on themselves and on the following given undefined groups - a subsequent list of generally defined groups, such as your best friends, others in your age (Henriksen & Flora, 1999, p. 651), other adults and children (Youn, Faber, & Shah, 2000), or other adults and other teenagers (Wan & Youn, 2004). The results of the aforementioned studies all indicate the increase in the third-person effect as the social distance increased.

The previous studies failed, however, to provide not only theoretical explanations behind the ‘social distance concept’ but also the critical answer to the fundamental question “who are the others?” regarding the characteristics of the reference group in the third-person effect. Due to the given specific groups of people in the measurement, there has - as of yet - been no study providing in-depth understanding regarding “who individuals consider their comparison group to be” when assessing the effects of either potentially negative or positive messages between on themselves and on others. Answering this question is a critical component of the third-person effect, not only in helping to investigate the characteristics of the reference group, but also in examining the judgmental procedures of the direction (the third-person or the first-person effect)

and magnitude with regard to the media effects between, in and on themselves and others. The purpose of the study is to extend the theoretical perspectives of the third-person effect in order to explore the question “who is the third-person?” by analyzing both cigarette advertising and anti-tobacco advertising.

CHAPTER 2 - Who are others in the previous third-person effect studies?

The concept of a reference group was suggested as playing a critical role in explaining the third-person effect (Davison, 1983). His indication often provoked many researchers to argue that the nature of the social comparison between the self and others depends in important ways on the characteristics of the hypothetical reference group (Perloff, 1999).

The most often used reference concept is called the ‘social distance corollary,’ named after the consistent findings of positive relationships between perceived media effects and the physical distance of the self from the other – the effect size pattern increases as the generality of comparison groups increase. The social distance concept is often operationalized as levels of increasing generality or geographical distance from the self, in which the third persons are defined as those specific people far away from the self. For instance, a study in which participants were asked to estimate how much an article would affect the opinions of (a) other Stanford students, (b) other Californians, and (c) public opinion at large (Cohen *et al.*, 1988, p.168). Many scholars assumed that the core idea behind the social distance corollary lies in the perceived similarity between the self and others, in which people would expect others who are less similar (more socially distant) to be more likely than they themselves to be influenced by negative communications.

When considering prosocial or antisocial messages, most studies use a social distance concept that provides several generalized ‘other people’. For instance, a study in which participants were asked to estimate how much antisocial messages (e.g., cigarette advertising, gambling advertising, Internet and violent games) have effects on themselves, as compared to the

following groups – their best friends, and others in their age (Henriksen & Flora, 1999, p. 651), other adults and children (You *et al.*, 2000), and other adults and other teenagers (Wan & Youn, 2004). Consistent with the main idea of the social distance corollary, for antisocial related messages, greater third-person effects occur as the physical distance of the self from others increases.

As other third-person researchers have often assumed, a self-serving out-group bias commonly occurs for individuals, which individuals make more favorable evaluation of their own groups than of the out-group (Hamilton & Troler, 1986). Applying this concept to that of the social distance corollary, the various out-groups may be formed based on the increasing social distance corresponding to perceived similarity (e.g., Brosius & Engel, 1996; McLeod *et al.*, 1997; Perloff, 1993, 1996). If people perceive that messages' influence will be negative, they are more inclined to assume that negative effects will be more powerful in influencing groups less similar (more socially distant) than groups more similar (less socially distant) to themselves.

Despite strong support for the social distance corollary, some studies have contested its existence. Cohen and Davis (1991) did not show a growing pattern of the effect size of negative political advertising while comparing themselves with other comparison groups with increasing generality from people in "your home state, people from your region of the country, to people in the U.S. in general." Similarly, McLeon *et al.* (1997) also determined that there was no significant difference between his study's participants (University of Delaware students) and youth in New York and Los Angeles, in terms of the perceived effects of misogynic rap lyrics. Moreover, his result showed that the perceived effects were not even greater for the most socially distant group, an average person than for Delaware students.

Based on these findings, other scholars suggest a ‘target corollary concept’ based on ‘the perceived likelihood of exposure’ instead of ‘perceived similarity’ (Eveland, Nathanson, Detenber, & McLeod, 1999). Attribution theorists insist that individuals are “intuitive psychologists” who consistently try to connect the relations between causes and effects (Ross & Fletcher, 1985). Similarly, in terms of media effects, DeFleur and Ball-Rokeach (1989) provided “the magic bullet theory,” which asserts that every single unit of exposure to a media communication will have some corresponding effects on that individual’s behavior. It can therefore be inferred that frequent exposure to negative media strongly influences individuals’ behavior or experience related to the negative media influence.

Applying these theories to the third-person perception, Eveland *et al.* (1999) developed the ‘target corollary concept,’ based on the perceived likelihood of exposure to a message in which individuals are considered to be more exposed to negative media messages and are also perceived to be more affected by the message. In his study, Eveland *et al.* (1999) suggests that the perceived likelihood of exposure to a certain message is a better predictor than the perceived level of similarity to a reference group (the fundamental concept behind the social distance corollary) (Eveland *et al.*, 1999; McLeod, Detenber, & Eveland, 2001; McLeod *et al.*, 1997). Unfortunately, in terms of prosocial and antisocial contents, the target corollary was not often directly applied for measurement, though it was quite often discussed due to its interpretation of the results in the several studies (e.g., Lo & Wei, 2002; Wan & Youn, 2004).

In spite of scholars’ having taken early notice of the importance of the reference groups upon the third-person effect, current revealed geographic characteristics of reference groups are still limited due to the lack of theoretical foundation underlying the issue. For instance, the ‘social distance concept’ provides us with one possibility of ‘others’ wherein reference groups

are psychologically or physically distant from the self. However, this finding is based solely on empirical findings with given diverse options of reference groups, rather than with a theoretical explanation. In addition, the 'social corollary target' also appears difficult to apply to the diverse cases in which the targets of a media message are not explicit; for example, situations in which there might be many, simultaneous targets, such as product commercials, comedy programs, and family movies. Therefore, the two most prevalently used concepts - social distance and target corollary concepts both fail to extend theoretical explanations in order to provide detail information about comparison groups. The focus of the next chapter is to investigate the mechanism of the third-person effect based on 'social comparison theory.'

CHAPTER 3 – Who are others?

The relation between social comparison and the third-person effect under the mechanism of self-enhancement

Considering the third-person effect, the important question lies in the relation between ‘why others more than me?’ and “who is ‘more’ influenced by a media message between ‘you’ and ‘others?’” Among the various possible interpretations, self-enhancement is most prevalently discussed throughout studies of the third-person effect – As humans, we have a natural tendency to perceive the self in ways that make us look good or at least better than other people (Perloff, 1987). Gunther and Mundy (1993) propose a self-enhancement explanation regarding the third person effect. According to their view, individuals believe that others are more vulnerable to media messages than they are themselves as a mechanism for reinforcing self-esteem. In specific, they suggested two ways that people most often bolster their self-esteem. First, a person believes that they are more resistant to persuasive messages, and second, a person believes that they are less susceptible to negative messages. This shows how the third-person effect is based on comparative judgment.

Alternative explanations of the third person effect include social comparisons that are closely related to comparative judgments about various attributes of individuals, such as an attitude, ability, belief, or emotion (Kruglanski & Mayseless, 1990). Through such comparative judgments, people can evaluate their own relative status in comparison to surrounding, diverse reference groups (Jones & Harris, 1967). People’s general tendencies distort the perceived effect between the self and others with an upward direction that projects them as inherently better off than others (Hoorens, 1996).

The concept of comparative judgment also plays an important role in both the third-

person effect (Duck, Hogg, & Terry, 1995; Gibbon & Durkin, 1995; Gunther, 1991) and the self-enhancement phenomenon (Duck *et al.*, 1995; Hoorens & Ruiter, 1996). In specific, in comparative judgments, people are inclined to predict for themselves lower chances of facing negative events such as health problems (e.g., Weinstein, 1982, 1987), being the victim of crime (e.g., Perloff, 1987) while alternatively increasing their chances of experiencing positive events such as having a successful work career (e.g., Larwood & Whittaker, 1977). The studies consistently indicate the potential for social comparison to play a critical role in showing self-enhancement from the third-person effect amongst individuals. For the purpose of my proposed study, in depth discussion about social comparison is necessary in order to shed light upon the mechanism of third-person effect.

Social comparison theory

According to Festinger's theory (1954), in social comparison, people require accurate, stable appraisals about themselves. People prefer to use objective and nonsocial standards to create such assessments about themselves. However, if objective information is not accessible, then other people are used as reference points for evaluation. As a result, in order to have precise standards for accurate evaluation about themselves, people are more likely to compare their abilities or opinions with similar people. For instance, one study shows that a person prefers to compare his or herself with an individual who is 'about the same level' taking into consideration their given attributes (Collins, 1996). People spontaneously consider other people whose respective performances they consider to be similar to their own, to constitute their own comparison group.

Additionally, some modifications of this theory suggest that people are also likely to compare themselves with others having diverse attributes other than performance only (Goethals

& Darley, 1977). For example, for evaluation of his or her tennis playing skills, a tennis player is likely to compare himself or herself with another player similar in age, experience, and training. Another study revealed that people prefer to choose members of the same-gender or generation in spite of obvious dissimilarity in performance level (Zanna, Goethals, & Hill, 1975). The initial social comparison consistently provided findings that, in general, people are more likely to compare themselves with familiar people in terms of the diverse attributes such as ability, gender, and age than unfamiliar ones for evaluative accuracy.

Downward comparison: When we perceive negative effects of a media message

In addition to the purpose of evaluative accuracy, a number of studies have indicated that self-enhancement is another important function of social comparison (Wills, 1981). Schachter (1959) developed this understanding and posited that downward comparison occurs amongst threatened ones. The purpose of social comparison is often used, not for accurate self-evaluation but rather, for self-enhancement amongst individuals under threat (Wills, 1981). In specific, people can emphasize others' misfortune to bolster themselves (e.g., Taylor & Lobel, 1989). Gruder (1977) also insisted the importance of the role of self-enhancement in situations where threats to self-esteem are present. Consistently, Brickman and Bulmar (1977) argued that people avoid social comparison when the outcome might be unfavorable to the self. In such cases, they prefer comparison with dissimilar people over similar ones under the mechanism of downward comparison.

Specifically, people use downward comparison as an effort to make themselves feel better in comparison with those who are worse-off. In this way, people have the power to reduce or eliminate certain negative feelings such as anxiety, tension, and threat (e.g., Hackmiller, 1966, Wood, 1989). For instance, those suffering from negative experiences such as depression

(Gibbons, 1986), a serious illness (Wood *et al.*, 1985), personal failures (Pyszczynski, Greenberg, & LaPrelle, 1985; Swallow & Kuiper, 1993), or a smoking addiction (Gibbons et al., 1991) showed a preference for comparison with people even less fortunate than themselves. These studies provide us evidence to suggest that people may think of other unfortunate people when they perceived negative and unfavorable effects from a media message. Applying this to the issue of smoking, smokers will turn towards heavier smokers in order to reduce the anxiety or tension regarding a smoking health related issues such as cancer.

Within a purpose of downward comparison, individuals having no problem focusing on certain issues may exaggerate dissimilarities between themselves and a worse-off other; this acts as a means of protecting their own perceived superiority (Gump & Kulik, 1995). People are unlikely to draw spontaneous similarity between themselves and worse-off others. Instead, individuals have positive illusions about their own abilities and future events (Taylor & Brown, 1988), and have a tendency to build relations between themselves and other successful individuals rather than unsuccessful individuals (e.g., Buunk & Ybema, 1997). Most people do not expect to face difficulties when pursuing their goals (Buehler, Griffin, & Ross, 1994). The explanations indicate that people would spontaneously position themselves distinct from ones having difficulties by not considering the possibility of undergoing something similar in the future. In terms of the smoking issue seen above, non-smokers will stress dissimilarity between themselves and others when they are asked to assess the effects of cigarette advertising on themselves.

With regard to the different function of downward comparisons, Trafimow, Armendariz, and Madson (2004) clearly presented two possible scenarios. One is that person A is actually better than person B in which case person A can honestly enhance his or her self-esteem. The

second possibility is that person B is worse than person A, which means that person A is not very bad but possibly not actually good. By constructing such perceptions, even though person A cannot enhance his or her self-esteem, he or she can at least prevent its loss. This is very similar to the concepts that Gunter and Mundy (1993) suggested in their third-person effect study. Therefore, applying downward comparison to the third-person effect, both smokers and non-smokers will consider other (heavier) smokers when they perceived negative effects of a media message. In addition, the distance between self-smoking status and others' smoking status will operate the magnitude of the third-person effect in which non-smokers will show greater third-person effect than non-smokers.

The third-person effect and the perceived desirability of a media message

Regarding Davison's contention, subsequent scholars examined the stronger third-person effects that occur in ostensibly negative rather than positive contents. Specifically, people exhibited the tendency to have the third-person effect when judging the media effects that are seemingly less desirable or potentially harmful to the self such as defamatory communications with others (Cohen *et al.*, 1988), pornography (Gunther, 1995; Rojas, Shah, & Faber, 1996, Lo & Wei, 2002), antisocial rap music (McLeod *et al.*, 1997), media violence (Duck & Mullin, 1995), and violent videogames (Wan & Youn, 2004). As a result, those people utilizing the third-person effect are more willing to support the censorship of these undesirable messages (Youn *et al.*, 2000; Gunther & Hwa, 1996; McLeod *et al.*, 1997; Shah, Faber, Youn, & Rojas, 1997). On the other hand, it seems that the perceptual bias is considerably attenuated when the message effects are perceived to be positive—such as anti-tobacco messages, drunk driving advertising and other similar PSAs (Duck *et al.*, 1995; Gunther & Thorson, 1992; Henriksen & Flora, 1999; Innes & Zeitz, 1988; Meirick, 2005; Thorson & Coyle, 1994).

Similarly, regarding social desirability issues, a number of previous studies have been conducted regarding both prosocial (e.g., seat belts, PSAs) and antisocial (e.g., smoking, gambling and violent games) messages. Not surprisingly, for antisocial messages, people consistently showed the third-person effect, suggesting that messages have greater effects on others than on themselves (Henriksen & Flora, 1999; Meirick, 2005; Youn *et al.*, 2000; Wan & Youn, 2004).

In specific, Henriksen and Flora (1999) reported that children believe that their peers are more likely to smoke after viewing cigarette advertisements than either they themselves or their best friends. This third-person perception appeared among children regardless of their smoking behavior and intention. Meirick (2005) also examined the third person perception regarding cigarette advertising among adults with a mean age of 20. For gambling advertising, Youn *et al.* (2000) found the third person effect toward both casino and lottery advertising and its positive relation to the procensorship for the messages among adults between 18 and over. In their survey of 184 adults, Wan and Youn (2004) concluded that the perceived effect of gambling and violent game sites was assumed to be greater on others than on the tested individuals themselves, and was a good gauge for predicting censorship attitudes. People are more likely to approve of censorship as a result of believing others to be susceptible to violent advertisements.

In contrast to antisocial messages, with respects to prosocial messages, the direction or the magnitude of the third-person perception was inconsistent. The third person effect was significantly reduced or the reversed third person effect was shown (the first-person effect) – people believe that the prosocial messages have more impact on themselves than others (Duck *et al.*, 1995; Gunther & Thorson, 1992; Henriksen & Flora, 1999; Innes & Zeitz, 1988; Meirick, 2005; Thorson & Coyle, 1994). This is because the perception of message desirability has been

conceptualized as a personal benefit probability that is judged based on the congruence with preexisting attitudes (Perloff, 1999).

In Innes and Zeitz (1988)'s study, participants perceived the third-person perception – others are assumed to be more influenced by a media message aimed at preventing drunk driving than the self. Gunther and Thorson (1992) also found that the first-person perception was not shown in the context of public service announcements (PSAs) that are purposely designed to induce pro-social behavior. In some studies, the first-person perception occurs among participants. Thorson and Coyle (1994) noted that participants admit to a greater impact on themselves than on others for the PSAs, but they showed a traditional third-person perception for product advertisements. Other studies also indicate the first-person perception toward anti-tobacco advertising amongst children (Henriksen & Flora, 1999). In one study, either the third-person or the first-person perception occurs depending on the perceived message quality of AIDS public service advertisements. The respondents did not admit the effect of the prosocial messages on themselves unless the message is a high in quality of production (Duck et al., 1995).

These inconsistent findings give a critical inference that people's perceived social desirability may differ depending on individuals' needs and subjective feelings toward the messages that might be formed from their previous or current experiences. For instance, Cohen (1982) examined the strong third-person effect amongst nuclear experts who believed that most people are misled by biased information of nuclear power in the mass media due to the lack of access to good sources of technical information. After the examination of the strong third-person effect amongst experts (Cohen, 1982), Davison (1983) shed light on the potential importance of preexisting experiences in determining social desirability of messages: the information may not

be of a factual or technical nature; it may have to do with our own 'experiences', like and dislike (Davison, 1983, p.9). Lord, Ross, and Lepper (1979) also indicate that existing belief and the perceived efficacy on certain social issues lead one to investigate relevant empirical issues in a biased manner.

Take into consideration, differing from antisocial messages, the third-person effect in conjunction with prosocial messages has been inconsistent since in the past most research has neglected to take into account the fact that perceived social desirability is not directly measured (Eveland & McLeod, 1999) based on respondents' preexisting experiences. Most studies overlook the potential of preexisting experience in defining perceived message desirability, with the notable exception for one study, which considers children's preexisting attitudes towards smoking messages (Henriksen & Flora, 1999). Accordingly, the strength and direction of the third-person effect toward anti-tobacco advertising will be different depending on the different preexisting smoking experiences between smokers and non-smokers.

Considering preexisting smoking attitudes, this study assumes that the prevailing anti-tobacco advertising may produce different perceptions regarding the effect of the advertisement on the self and on others because most smoking-cessation messages usually emphasize the costs of continuing to smoke rather than the benefits of quitting smoking (Steward, Scheneider, Pizarro & Salovey, 2003). The focus of those kinds of anti-smoking messages is indicating unfavorable effects of smoking such as heart disease, bronchitis, emphysema, stroke, and lung cancer. The congruency between smokers' experiences and the undesirable effect of smoking will generate the perceived negative effect of the anti-tobacco message. In addition, the preexisting smoking attitudes of non-smokers will also produce negative perceptions of those types of anti-tobacco messages.

Hypothesis and research questions

Taking into consideration the previous findings, the following hypothesis and research questions are developed. According to the consistent findings in social comparison theory, the first hypothesis indicates that people generally consider others as sharing similar characteristics when comparing the perceived effects of media messages on themselves and on others.

However, based on downward comparison, it is questionable whether individuals are more likely to compare themselves with other, worse off people in terms of issues stemming from negative-effecting messages - research question 1a and research question 1b. Due to the following reasons, this is tested as a research questions rather than hypotheses. First, the previous downward comparison studies were only focused on individuals with severe problems such as cancer, depression, and personal failure. Due to this reason, it is not clear whether non-smokers and light smokers would process downward comparison regarding a less severe issue in terms of smoking. Second, the different perceptions of current anti-tobacco advertisements have not been verified between non-smokers and smokers.

Subsequently, research questions 2 and 3 are tested with regard to the possible different perceptions toward both anti-tobacco advertisements and cigarette advertisements, depending on individuals' current smoking behaviors. Research question 2 is used because of the inconsistent and insufficient findings in terms of the different perceptions toward anti-tobacco advertisements between non-smokers and smokers. The third-person effect towards cigarette advertisements is tested via research question 3, related to the research question 1 – the greater difference between non-smokers and smokers, than between smokers and heavier smokers will generate greater third-person effect.

Hypothesis

H1: People are more likely to compare themselves with others who share demographic similarity such as age, gender and ethnicity.

Research questions

RQ1a: Are non-smokers more likely to compare themselves with smokers when judging the perceived effects of both cigarette and anti-tobacco advertising?

RQ1b: Are smokers more likely to compare themselves with heavier smokers when judging the perceived effects of both cigarette and anti-tobacco advertising?

RQ2: Will non-smokers show greater signs of the third-person effect than smokers toward cigarette advertising?

RQ3: Do the signs of the first-person effect toward anti-tobacco advertising differ between non-smokers and smokers?

CHAPTER 4 - Method

Participants

A questionnaire was administered to 180 students at Kansas State University via both an Internet and paper survey. In order to obtain a sufficient number of smokers, snowball sampling was partially applied by asking smokers to help distribute survey questionnaires to other smokers. However, smoker participants were not informed that the participation of the survey was based on their smoking status. A large portion of the sampling was obtained from young adults aged 18 to 24 and the participants' gender was equal.

Procedure

The survey was conducted from May 4th through May 7th. The Internet survey was administrated through the Axio survey program on Kansas State University's website. The links were distributed through school email, Facebook, and Craigrisr. The introduction clearly indicates that only k-state students are considered as participants for this survey. The paper survey was conducted in the library at Kansas State University.

For the cigarette advertisement portion, participants were asked to remind themselves of any cigarette advertisements they had seen in the past. With regard to the anti-tobacco advertisements, the study used a color advertisement from a magazine that meet several required conditions aimed at reducing possible biases on the perceived desirability of the advertisements. First, the advertisement did not include any human model, in order to eliminate the possible effects of role models on the perceived effect of advertising. Next, prevailing advertisements were avoided because they tend to influence individuals' judgments with regards to the perceived effects of advertising. In addition, to reduce the order effect, the order of each cigarette

and anti-tobacco advertisements and their related questions were randomly alternated. Several other conditions were equally controlled including vividness, size, and existing arguments. In total, the questionnaire contained a list of 31 questions divided into four sections including smoking status, the third-person effect, the characteristics of others, and demographics and control variables.

Measurement of key variables

Smoking status: the first section measured participant's smoking status and general attitudes toward smoking. Participants' smoking status was assessed on a 5-point scale - (lifelong non-smoker, previous smoker, occasional smoker, light smoker, heavy smoker).

The third-person perception: Regarding smoking, the traditional measurements of the third-person effect were modified because of two key problems: First, the effects of media messages were not clearly defined. For instance, a question like 'how much does cigarette (anti-tobacco) advertising influence you and others' will cause participants to come to divergent understandings about the effects of advertising. Second, the previous questions were biased for non-smokers because they potentially induce non-smokers to think of other smokers. For instance, questions such as "How much does cigarette advertising make you want to smoke" or "How much does anti-smoking advertising make you not want to smoke?" (Henriksen & Flora, 1999) are inappropriately applied because smoking status is the key variable in this study.

Therefore, based on Meirick (2005)'s measurement, some modifications were made regarding the third-person effect on smoking issues. Participants were asked to assess "How effective do you think this type of the anti-tobacco advertisements will be in dissuading you (others) from smoking?" for an anti-tobacco advertisements and "How do you think the cigarette advertisement affects the likelihood that 'you' will smoke?" for a cigarette advertisement.

The characteristics of others: After measuring the third-person effects of each cigarette and anti-tobacco advertisements, diverse questions were given regarding the features of ‘others’ in participants’ third-person effect judgments. The questions included a number of reference people, psychological and geographical distances between others and the self, specific features of others, and descriptions of the general characters of others.

Specifically, one question asked participants to answer, ‘how many people (or a person) did you consider for ‘others’ when assessing the effects of a cigarette advertisement on others’ with four options - single person, plural people, and other. Secondary questions were employed to examine both psychological and physical distance between others and the self by asking ‘who was (were) ‘others’ among the following group of people when assessing the effects of a cigarette advertisement on others,’ with five options - family, close friend(s), acquaintance(s), undefined person (people) and other. With regard to geographical distance, participants were asked to answer to the question ‘where was (were) ‘others’ among the following places when assessing the effects of a cigarette advertisement on others.’ with six options – in Kansas State University, in Manhattan, in Kansas, in another state in the U.S., in another country, and no specific place. In addition, others’ smoking status was asked by using the same question for self-smoking status. Next, the questions asked about diverse demographics of ‘others’ when evaluating the effects of both cigarette and anti-tobacco advertisements such as gender (male or female), age (from under 18 years old to over 61), and race. At the end of the questionnaire, some general questions about others were also asked in terms of life style and personality. For each issue, participants are asked to answer ‘how similar does others’ lifestyle (personality) compare to your lifestyle (personality) with a 7- point scale from very dissimilar (1) to very

similar (7). The same questions used for cigarette advertisements were repeated for a anti-tobacco advertisements.

Demographics and control variables

Control variables: Four control variables were measured due to the possible impact of other factors on the perceived desirability of both cigarette and anti-tobacco advertising. These variables dealt with the quality of advertising, the exposure to advertising, the perceived predisposition toward advertising, and the number of close smokers. First, concerning the effect of messages quality on perceived messages desirability (Duck *et al.*, 1995), respondents were asked to assess the degree of quality of various advertisements' visual factors, persuasiveness, believability, and efficacy. In specific, the participants evaluated 'how persuasive (believable, vivid, effective) are cigarette (anti-tobacco advertisements)?' on a 7- point scale. Next, in order to measure the perceived exposure, the measurements used by Eveland et al (1999) were applied. The respondents were asked to estimate 'how frequently you (others) are exposed to cigarette (anti-tobacco) advertising.' on scales ranging from 1 (never) to 7 (very frequently). With regard to the perceived predisposition toward a message, Meirick's (2005) measurement was applied by asking people 'how would you describe your and others' attitudes toward smoking with a 7 scale from very unfavorable (1) to very favorable (7). For the last question, regarding their religious behavior respondents were asked to answer the following two questions - 'how faithful are you to your religion? and 'how often do you go to a religious place?'

Demographics: Participants were asked to answer to questions regarding age, gender, level of education, ethnicity, political ideology, and region. The political ideology was measured by asking 'how would you describe your political ideology with a 7- point scale from very liberal (1) to very conservative (7). The final two questions given inquired as to general religious life

and practice. Participants additionally answered the question ‘how faithful do you think you are?’ with a 7-point scale from very unfaithful (1) to very faithful (7). The other question was asked ‘how often do you go to religious place per a week?’ with a 7-point from never (1) to very often (7).

CHAPTER 5 - Results

To test hypothesis 1, chi-square test and frequency statistics were applied in terms of others' diverse demographic similarity, including age, gender, and ethnicity. Specifically, the chi-square test was applied in order to examine whether people consider others to be of similar age or not. Frequency statistics was employed to determine whether people compare themselves with others in terms of gender and/or race. Thus, for research question 1a and 1b, a chi-square test was applied; whereas questions 2 and 3 made use of t-test. In specific relation to research question 2, the significant difference of the first-person effect toward the anti-tobacco advertisement was examined in accordance with participants' smoking status (non-smoker and smoker). In addition, the magnitude of the third-person effect toward a cigarette advertisement was compared for non-smokers versus smokers.

Descriptive Statistics

Most of the participants were non-smokers. In specific, Table 1 indicates that of the 181 people, 140 were non-smokers: lifelong non-smokers constituted 128 (70.7%), and previous smokers 12 (6.6%). Of the current 41 smokers, 31 identified as occasional smokers (17.1% of all participants); light and heavy smokers were 8 (4.4%) and 2 (1.1%) respectively. In general, participants' answers indicate that smoking behavior is unfavorably perceived by both themselves and the public at large. In specific, the Table 2 shows participants' tendency to believe that others are less likely to perceive smoking as negative behavior than themselves do ($M1=2.22$, $M2=3.02$; $t = - 5.843$; $p < 0.001$). In terms of gender and age, male and female participants constituted 50.8% and 49.2% of those tested, respectively. All participants were between 18 and 24 years old.

Hypothesis and Research questions testing

First, frequency statistics and chi-square were used to test hypothesis 1 – people are more likely to compare themselves with others sharing similar demographics including gender, race and age. With regard to gender, frequency statistics were used and the results partially supported the hypothesis. Table 3-1 shows that after viewing the anti-tobacco advertisement, male participants were more likely compare themselves with other males (73%) as opposed to females (19.1%). However, female participants considered both females (45.2%) and males (45.2%) as a comparison group in equal proportion. A similar pattern manifests when the cigarette advertisement was shown (see the Table 3-2).

In terms of race, frequency statistics were once again used. The results supported hypothesis 1, indicating that most participants are more likely to consider others with the same race (71.9%) rather than either different race (14%) or both races (14.1%) as their peers, when assessing the effects of both anti-tobacco and cigarette advertisements (see the Table 4-1 and Table 4-2).

Regarding age, chi-square testing results also supported hypothesis 1, showing that participants are inclined to identify with age group of people of similar age when assessing the effects of the anti-tobacco advertisement ($df=1; \chi^2 = 22.55; P < 0.001$) and cigarette advertisement ($df=1; \chi^2 = 15.53; p < 0.001$). For an anti-tobacco advertisement, 67.9 % of the participants between 18 and 24 considered others between 18 and 24 and 27.3% considered a different age group of people. With a cigarette advertisement, the 63.5 % of the participants aged 18 to 24 chose others between 18 and 24 as a comparison group and 29.5% of the participants considered a different group of people (see the Table 5-1 and Table 5-2).

Subsequently, in terms of the research question 1a and 1b, the results were found by conducting another chi-square test. The research question 1a asks whether, regardless of current smoking behavior, participants are more likely to compare themselves with smokers when judging the perceived effect of both anti-tobacco advertising and cigarette advertising. The Table 6-1 and 6-2 show that non-smokers are inclined to consider smoker groups (65.1%) over non-smokers (34.9%) and similarly, smokers also consider other smokers (81.1%) more than non-smokers (18.9%) when evaluating the influences of both anti-tobacco advertisements ($df=1; \chi^2 = 3.40; p > 0.05$). A similar pattern was also revealed for cigarette advertisements ($df=1; \chi^2 = 1.35; P > 0.05$).

However, the finding was inconsistent with the research question 1b - smokers more likely to compare themselves with heavier smokers when judging the perceived effects of both cigarette and anti-tobacco advertising. The results of Table 7-1 and Table 7-2 indicates that smokers generally consider smoker groups – but not specifically heavier smokers – as a comparison group for both an anti-tobacco advertisement ($df=6; \chi^2 = 9.561; p > 0.05$) and a cigarette advertisement ($df=6; \chi^2 = 6.323; p > 0.05$).

Finally, t-test was conducted with regard to research questions 2 and 3. It was found that the first-person effect toward the perceived effect of anti-tobacco advertisement can differ depending on a participants' smoking status. The result of the t-test results was consistent with the notion (see the Table 9). Prior to the test, the first-person effect was computed by subtracting the perceived effects of an anti-tobacco advertisement on others from one of an anti-tobacco advertisement on the self. After creating this variable, the paired-samples t-test was applied for non-smokers and smokers individually. In specific, the results were found that the first-person

effect occurred among non-smokers ($M=0.26$; $t= 2.230$, $p<.05$) but it did not occur among smokers ($M= -1.20$; $t= - .98$; $p>.05$).

In terms of research question 3, the results were found that non-smokers show greater signs of the third-person effect than smokers toward cigarette advertising. Before conducting Independent-samples t-test, the magnitude of the third-person effect variable was created by subtracting the perceived effects of a cigarette advertisement on the self from one of a cigarette advertisement on others. Subsequently, the t-test was conducted to examine the significant difference of the magnitude of the third-person effect toward a cigarette advertisement between non-smokers and smokers. The t-test result was consistent with the research question 3 ($M1=1.11$, $M2= 0.59$; $t= 2.06$, $p<.05$).

Summary of findings

Both men and women tend to compare themselves to others of similar age and race when considering the potential effects of both anti-tobacco and cigarette advertisements. In terms of gender, however, males are likely to consider other males rather than females as their peers; whereas females equally consider both other females and males for their comparison groups.

Downward comparison occurs only for non-smokers. The findings indicate that regardless of current smoking behavior, both non-smokers and smokers consider other smokers more susceptible than non-smokers to smoking related issues, but smokers themselves do not prefer heavier smokers for the construction of their comparison group.

Finally, different perceptions toward anti-tobacco and cigarette advertisements were revealed between non-smokers and smokers. The third-person effect toward anti-tobacco advertisements - the effect of the media message is perceived to be greater on the self than on

others - occurs amongst only non-smokers. Additionally, the magnitude of the third-person effect toward cigarette advertisements was greater for non-smokers than smokers.

CHAPTER 6 – Discussion

Most previous studies were empirically conducted and provided limited insight into the ‘hypothetical others’ so often made mention of with respects to the third-third-person effect. Within the bounds of the ‘social distance concept’, the prevailing findings have consistently supported the notion that people are inclined to consider others geographically far away from the self to be more susceptible when assessing the influence of antisocial messages upon popular perception at large. In contrast, regarding the effects of prosocial messages, people have the tendency to consider others geographically close to the self, particularly family or close friends.

However, there were two critical issues in terms of social distance concept. First, most studies to this effect were conducted under restricted conditions that limited the answers to the questions participants were given to work with to several rigid definitions of others within relative geographical proximities. In order to move beyond these limitations, in this study participants were given more diverse options with regards to geographic factors and other demographic characteristics that constitute 'others' including gender, ethnicity, age, and smoking status. Consequently, the hope is that the resultant findings are able to provide more in-depth understanding of the constructs of hypothetical others in the third-person effect. Second, the theoretical mechanism of the social distance concept was never explained in the previous studies. Throughout this study, efforts were made to investigate underlying procedures behind the social distance concept by applying social comparison and downward comparison to the third-person effect judgments.

Next, because of the critical focus on the measurements that encompassed the

aforementioned previous studies, there has been, as of yet, no study that suggests the theoretical framework of what constitutes the hereto undefined ‘others’ in the third-person effect – those who are supposedly so much more effected by the media than is the self. The main implication of this study is therefore providing theoretical foundations regarding the fundamental question – “who are others?” based on social comparison and downward comparison theories. The results of the study suggest that both social comparison and downward comparison play a role in the selection, by the self, of others in the third-person judgment. Under the social comparison mechanism, people are likely to consider similar other groups of people when it comes to the unrelated or less related smoking (antisocial) issues such as race and age. Additionally, the downward comparison mechanism appears to only occur to those who are obviously better off than others as a tool of self-enhancement. For instance, non-smokers may feel more comfortable than smokers when establishing self-esteem by comparing themselves with other smokers. In contrast, smokers are much more reluctant to compare themselves with other, even heavier, smokers in order to bolster their self-worth because their current behavior, though different, nevertheless still has a close similarity.

The additional, significant finding of this research is realization that the magnitude of first-person and third-person effects differ depending on current behavior. In this study, for anti-tobacco advertisements, the first-person effect only occurred among smokers. Moreover, the magnitude of the third-person effect was greater for non-smokers than for smokers. These results indicate that current behavior affects the judgment of the third-person effect. The selection of others based on current smoking behavior may partially cause such results. In specific, consistent with the social distance concept, the decision is based more upon greater distance between non-smokers and smokers than between two different types of smokers, in regards to the perceived

effects of anti-tobacco and cigarette advertisements. This finding particularly contributes to the explanations of the previous inconsistent findings regarding pro-social messages – the current experience may make different perception of desirability of the messages.

The most prominent limitation to the current research is the lack of smoking samples. Out of 181 participants, only 41 participants were current smokers. The limited number of non-smokers could possibly generate different results, with particular regard to research question 2 – having occasional or light smokers may also show the first-person effects toward an anti-tobacco advertisement. Moreover, using the snowball method to collect smoker samples might affect the in which the smoker participants answered the survey questions due to their forewarned notice of the survey's relation to smoking. Future research ought ideally be re-conducted with a balanced number of non-smokers and smokers, all of whom more randomly selected.

Secondly, regarding hypothesis 1, college students may have a stronger tendency to consider similar group of peoples than other potential test groups because of their unique lifestyle – one that involves close, frequent association with peers. Even though the questionnaire was randomly distributed via online and paper survey, distribution itself is still a limitation. In the future, a random sample would be needed in order for the research to be generalizable.

Third, the answers could be affected by the differences between the two survey methods. Moreover, the same anti-tobacco advertisement could be differently assessed by online and paper survey participants due to different conditions of the advertisement regarding the quality of color, the perceived size, and the place. Future research should be conducted with one consistent survey method in order to eliminate these possible effects.

In addition, in terms of cigarette advertisements, participants were asked to remind themselves of any cigarette advertisement they had seen in the past. In this case, it is possible that the diverse assortment of potentially remembered advertisements might create different perceived effects of said advertisements on both the self and on others. Further study is advised to be conducted with balanced stimuli by providing actual copies of both anti- tobacco and cigarette advertisements.

Lastly, the repeated question forms for both anti-tobacco and cigarette advertisements may influence participants' answers to the questions. It is possible that the repeated form might discourage people from thinking hard about the questions. Furthermore, similarly worded questions might encourage people to avoid paying full attention to all the questions. Therefore, future researchers need to conduct research with between-factorial design instead of a within-between factorial design.

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Appendix

TABLE 1: The participants' self-smoking status

Frequency Statistics

Variable	Frequency	Valid Percent	Cumulative Percent
Lifelong non-smoker (A)	128	70.7	70.7
Previous smoker (B)	12	6.6	77.3
Occasional smoker (C)	31	17.1	94.5
Light smoker (D)	8	4.4	98.9
Heavy smoker (E)	2	1.1	100.0
Total	181	100	

TABLE 2: The perceived general attitudes toward smoking behavior of the self and others

T-test

Variable	N	Mean	Mean Difference	SD	T	df	Sig
The perceived attitudes toward smoking behavior of the self	179	2.22	-.79	1.82	-5.84	178	.000
The perceived attitudes toward Smoking behavior of others	179	3.02					

TABLE 3-1: The relation between the self-gender and others' gender when assessing the perceived effects of anti-tobacco ad on the self and on others

Frequency Statistics

	Male (Self)	Female (Self)	Total
Male (Other)	65 (73.0%)	38 (45.2 %)	103
Female (Other)	17 (19.1 %)	38 (45.2 %)	55
Both (Other)	7 (7.9 %)	8 (9.6 %)	15
Total	89	84	173

TABLE 3-2: The relation between the self-gender and others' gender when assessing the perceived effects of cigarette ad on the self and on others

Frequency Statistics

	Male (Self)	Female (Self)	Total
Male (Other)	62 (71.3%)	40 (46.5 %)	102
Female (Other)	17 (19.5 %)	38 (44.2 %)	55
Both (Other)	8 (9.2 %)	8 (9.3 %)	16
Total	87	86	173

TABLE 4-1: Others' race when assessing the perceived effects of anti-tobacco ad on the self and on others

Frequency Statistics

Variable	Frequency	Valid Percent	Cumulative Percent
Same race	128	71.9	71.9
Different race	25	14.0	86.0
Both same and different race	25	14.1	100.0
Total	178	100	

TABLE 4-2: Others' race when assessing the perceived effects of the cigarette ad on the self and on others

Frequency Statistics

Variable	Frequency	Valid Percent	Cumulative Percent
Same race	132	73.7	71.9
Different race	22	12.3	86.0
Both same and different race	25	14.0	100.0
Total	179	100	

TABLE 5-1: The relation between the participants' age and others' age when assessing the perceived effects of anti-tobacco ad on the self and on others

Cross tabulation

	18-24 years old (Self)	Other ages (Self)	Total
18-24 years old (Other)	93 (67.9%)	12 (27.3 %)	105
Other ages (Other)	44 (32.1%)	32 (72.7%)	76
Total	137	44	181

Chi-square = 22.55 ($df=1, p <.001$)

TABLE 5-2: The relation between the participants' age and others' age when assessing the perceived effects of cigarette ad on the self and on others

Cross tabulation

	18-24 years old (Self)	Other ages (Self)	Total
18-24 years old (Other)	87 (63.5%)	13 (29.5%)	100
Other ages (Other)	50 (36.5%)	31 (70.5%)	81
Total	137	44	181

Chi-square = 15.53 ($df=1, p <.001$)

TABLE 6-1: The relation between the self smoking status and others' smoking status when assessing the perceived effects of anti-tobacco ad on the self and on others

Cross tabulation

	Non-smoker (Self)	Smoker (Self)	Total
Non-smoker (Other)	44 (34.9%)	7 (18.9 %)	51
Smoker (Other)	82 (65.1 %)	30 (81.1 %)	112
Total	126	37	163

Chi-square = 3.41 ($df=1, p >.05$)

TABLE 6-2: The relation between the self smoking status and others' smoking status when assessing the perceived effects of cigarette ad on the self and on others

Cross tabulation

	Non-smoker (Self)	Smoker (Self)	Total
Non-smoker (Other)	46 (36.2%)	9 (25.7 %)	55
Smoker (Other)	81 (63.8 %)	26 (74.3 %)	107
Total	127	35	162

Chi-square = 1.35 ($df=1, p >.05$)

TABLE 7-1: The relation between smokers and others' smoking status when assessing the perceived effects of anti-tobacco ad on the self and on others

Cross tabulation

	Occasional (Self)	Light (Self)	Heavy (Self)	Total
Non-smokers	4 (13.8%)	1 (16.7%)	2 (100.0 %)	7
Occasional smokers	11 (37.9%)	3 (49.0%)	0	14
Light smokers	8 (27.6%)	1 (16.7%)	0	9
Heavy smokers	6 (20.7 %)	1 (16.7%)	14 (37.8%)	7
Total	29	6	2	37

Chi-square = 9.561 ($df = 6, p > .05$)

TABLE 7-2: The relation between smokers and others' smoking status when assessing the perceived effects of cigarette ad on the self and on others

Cross tabulation

	Occasional (Self)	Light (Self)	Heavy (Self)	Total
Non-smokers	6 (22.3%)	1 (16.7%)	2 (100.0 %)	9
Occasional smokers	10 (37.0%)	2 (33.3%)	0	12
Light smokers	7 (25.9%)	2 (33.3%)	0	9
Heavy smokers	4 (14.8 %)	1 (16.7%)	14 (37.8%)	5
Total	27	6	2	35

Chi-square = 6.323 ($df=6, p > .05$)

TABLE 8: Participants' smoking status and the effects of anti-tobacco advertisement and cigarette advertisement on the self and on others

Descriptive Statistics

Variable		N	Mean	SD
Anti-tobacco ad on the self	Non-smokers	139	3.04	1.14
	smokers	40	2.95	1.15
Anti-tobacco ad on others	Non-smokers	140	3.47	1.77
	smokers	41	3.02	1.54
Cigarette ad on the self	Non-smokers	140	1.98	1.62
	smokers	41	2.59	1.43
Cigarette ad on others	Non-smokers	140	3.09	1.45
	smokers	41	3.17	1.30

TABLE 9: Participants' smoking status and the perceived effects of anti-tobacco advertisement and cigarette advertisement on the self and on others

Paired-samples t-test

Variable		N	Mean	SD	T	df	Sig
Anti-tobacco ad on the self	Non-smokers	139	0.26	1.40	2.23	138	.027
– anti-tobacco ad on others	smokers	41	-1.20	1.27	-.98	40	.331
Cigarette ad on the self	Non-smokers	140	-1.11	1.51	-8.71	139	.000
– Cigarette an on the others	smokers	41	-.59	1.18	-3.17	40	.003

TABLE 10: The magnitude of the first-person and the third-person effects toward anti-tobacco ad and cigarette ad depending on smoking status

Independent-samples t-test

Variable		N	Mean	Mean	T	df	Sig
				Difference			
Anti-tobacco ad on the self	Non-smokers	139	0.26	.45	1.90	178	.06
– anti-tobacco ad on others	smokers	41	-1.20				
Cigarette ad on the others	Non-smokers	140	1.11	.53	2.06	179	.04
– Cigarette an on the self	smokers	41	.59				