Mass media campaigns and conversation:

Testing short-term and long-term priming effects

of topic-related conversation on conversational participants

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ABSTRACT


This dissertation investigates how participating in a topic-related conversation (i.e., a conversation focused on a specific event-related topic) may create short-term and long-term priming effects. In the case of topic-related conversations occurring prior to message exposure, it was expected that those conversations would function as a priming task and influence how subsequent mass media messages were evaluated. In the case of long-term engagement in topic-related conversation, it was expected that frequency of topic-related conversations and topic-related media use would predict current and future topic-related behavior. The dissertation presents the results of three studies that test hypotheses suggested by this line of reasoning.

In Study 1, the basic hypothesis was that topic-related conversation would act as a priming task and influence how ensuing mass media messages would be evaluated. Consistent with what was predicted, prior topic-related conversation did influence how subsequent stimuli (i.e., two anti-binge drinking public service announcements) were evaluated.

Study 2 was informed by the active-self account of prime-to-behavior effects (Wheeler, DeMarree & Petty, 2007, 2008). The study tested multiple hypotheses, including whether self-monitoring (Snyder, 1974) moderated the topic-related conversation—message evaluation relation and whether a measure of the active self-concept mediated the topic-related conversation—message evaluation relation. Consistent with what was predicted, self-monitoring did moderate the topic-related conversation—target stimulus evaluation relation. However, the hypothesis that

scores from a measure of the active self-concept would mediate the topic-related conversation—target stimulus evaluation relation was not supported.

Study 3 examined some longer-term effects of topic-related conversation. Influenced by prior research indicating that media use and conversation about the news can predict political participation (e.g., McLeod, Schuefele & Moy, 1999), the hypotheses for this study proposed that topic-related conversation about exercise and exercise-related media use would predict concurrent and future exercise-related behavior. Analyses indicated that at Time 1 increases in overall television use were associated with decreases in exercise, while increases in exercise-related conversation were associated with increases in exercise. A second analysis indicated that higher levels of sports television viewing and exercise-related conversation at Time 1 were associated with higher levels of exercise behavior at Time 2.

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INTRODUCTION

Imagine two college students—Jake and Brian.

Jake and Brian are roommates who periodically get together to watch television. Often while they're watching TV, they talk. They talk about what happened that day, their plans for the weekend; and because both attend the local university, they frequently talk about their experiences at school—tests passed or failed, interesting and boring professors, and what they might do when they graduate.

Now, imagine that on a particular Saturday afternoon Jake and Brian are watching television and having a conversation about their most impressive scholastic achievements. Jake is talking about a paper he received an "A" on that he wrote in one sitting the night before it was due, while Brian is wondering whether he'll make the dean's list again this semester. There is a pause in the conversation as an ad with a compelling attention-getter comes on the screen. The ad is a public service announcement that presents a message aimed at reducing the incidence of binge drinking among college students.

What happens next?

Do Jake and Brian pause to think about the ad's content? Do they consider its arguments? Does the conversation Jake and Brian were having just prior to watching the ad influence how they evaluate and think about the ad?

This latter question illuminates the central theme of my dissertation, as I am interested in the effect that a conversation's topic has on the immediate response to a mass media message. I am also interested in the long-term effects regular participation

in conversations about a specific topic may have on individuals.

Understanding these effects is directly relevant to the field of strategic communication because both as theoreticians and practitioners we need to be able to identify the conditions under which conversation (or a series of conversations) may create barriers to the success of a mass media campaign. Conversely, we also need to determine the conditions under which conversation occurring within the context in which a message is received may facilitate message effectiveness. Finally, this information is important to the field of strategic communication because it can help us understand the causal pathways that explain indirect message effects, while also providing important information to practitioners who design and place persuasive mass media messages.

The central theoretical argument of my dissertation is that topic-related conversations—that is, conversations centered on a specific topic such as student-related experiences—can function like a priming mechanism. This implies that participating in a topic-related conversation will cause certain knowledge structures or cognitive schemas to be activated within the brain. Once activated, the schemas should influence how individuals respond to subsequent stimuli, and, in turn, produce both acute, temporary effects (e.g., assimilation or contrast to some aspect of a mass media message) and chronic, long-term effects (e.g., increased salience of some topic-related aspect of self-identity, increased topic-related behavior).

As an organizational framework for the dissertation, I have broken the broad question of how and when topic-related conversation produces short-term and long-term media effects into three more focused research questions, which are then further separated into testable research hypotheses presented later in the dissertation. The

first research question is—do topic-related conversations occurring prior to exposure to a target stimulus (i.e., mass media message) produce outcomes similar to those produced by lexical tasks used in other priming studies (i.e., assimilation or contrast to a target stimulus)? If they do, then we would expect a target stimulus such as a mass media message to be evaluated differently based on the topic of conversation. This result would be consistent with research indicating that lexical tasks, such as creating sentences from topical word groups (e.g., Srull & Wyer, 1979; Higgins, King & Mavin, 1982) or writing about past personal experiences (e.g., Yopyk & Prentice, 2005), caused different reactions to subsequent stimuli. So, to return to the example in the beginning of the introduction, we would expect that a pre-message exposure conversation about salient experiences associated with being a college student might influence how a public service announcement about binge drinking is evaluated, especially given the prevalence of binge drinking among college students (e.g., Wechsler, Lee, J. E., Kuo & Lee, H., 2000).

The second research question is—do changes within the active self-concept mediate the relation between pre-exposure topic-related conversation and the evaluation of a target stimulus (i.e., mass media message)? A positive result would be consistent with the active-self account of prime-to-behavior effects (Wheeler, DeMarree & Petty, 2007, 2008). The active-self account proposes that at least some priming effects are mediated by changes in the active self-concept. This key theoretical claim then suggests that a) self-monitoring moderates prime-to-behavior effects (DeMarree, Wheeler & Petty, 2005); b) exposure to a priming mechanism changes the content of the active self-concept, which can be defined as "the subset of chronic self-concept content" that is accessible in active memory (Wheeler et al., 2007, p. 237); and c) the

active self-concept mediates prime mechanism—priming effect relation.

This implies that we should see a topic-related conversation x self-monitoring interaction, with low self-monitors displaying a stronger response to a topic-related conversational prime—a result consistent with a low self-monitor's tendency to rely on internal cues when making behavioral decisions (e.g., Snyder, 1974). The active-self account also implies that topic-related conversation should account for differences in a measure of the active self-concept. For example, people who talk about past exercise experiences should use more exercise-related self-descriptors when they are asked to write about who they are (e.g., Kuhn & McPartland, 1954). Finally, a test of the mediational pathway (i.e., Baron & Kenny, 1986) should demonstrate that changes in measure of the active self-concept will mediate the topic-related conversation—target stimulus evaluation relation.

The third research question is—do variables such as topic-related conversation and topic-related media use predict current and future topic-related behavior? If so, we would expect the amount and type of conversations and the amount and type of media use to predict volitional behaviors, such as exercising. This result would be consistent with research indicating that media use and conversation can predict political participation (e.g., McLeod, Scheufele & Moy, 1999; Shah, Cho, Nah, Gotlieb, Hwang, Lee et al., 2007). Thus, we would expect people who talk more about exercise and who consume more exercise-related media would also report exercising more frequently. Further, we would expect that conversation and media use would also predict future behavior, so what occurs at Time 1 (i.e., exercise-related conversation, exercise-related media use) should predict what occurs at Time 2 (i.e., exercise that occurs one week after the initial conversation and media use). Finally, individuals who report

higher levels of exercise-related conversation should also score higher on a scale that measures the degree to which exercise is a key component of their self-concepts (i.e., individuals who score high on the exercise identity scale; Anderson & Cychosz, 1994).

Given this preceding brief overview of the dissertation's theoretical rationale and research questions, the remainder of the dissertation proceeds as follows:

Chapter 1 contains a review of relevant literature. I draw primarily from three broad areas of research: 1) conversation and mass media, 2) priming and priming effects, and 3) the active self account. Because each of these areas is extensive, I concentrate on reviewing literature that provides a theoretical context for the dissertation. For example, the section on priming focuses on research where items in a communication context cause priming effects and on research indicating that lexical tasks such as creating sentences from word groupings or writing about past experiences can prime participants (e.g., Brewer, 1993; Higgins et al., 1982; Srull & Wyer, 1979; Yopyk & Prentice, 2005). This section also discusses what psychological assimilation and contrast are and when we might expect to see assimilation or contrast to occur within the context of topic-related conversation. The section on the active-self account begins with a short discussion of one of the prevailing accounts of priming effects that emphasizes an automatic response to environmental stimuli (i.e., ideomotor account; see Dijksterhuis & Bargh, 2001), before moving to a discussion of the active-self account. The final section also contains discussion of self-monitoring, because of previous research indicating that self-monitoring can moderate priming effects within the context of the active self-concept (DeMarree et al., 2005).

Chapter 2 presents conceptual definitions of the key variables in the dissertation, such as topic-related conversation, active and chronic self-concept,

and self-monitoring. It also introduces the basic theoretical models that are tested in the dissertation, as well as the hypotheses and expected outcomes implied by the dissertation's theoretical framework.

Chapter 3 presents the first study of the dissertation, which had two goals. The primary goal was to test whether engaging in a topic-related conversation prior to exposure to mass media messages (i.e., two anti-binge drinking PSAs) produced the same type of priming effects (i.e., assimilation to or contrast from a target stimulus) produced in other priming studies using lexical tasks as a priming mechanism. The secondary goal was to test whether topic-related conversations caused changes in the active self-concept.

Chapter 4 presents the results of Study 2. The goals of this study were threefold: 1) to test whether self-monitoring moderated topic-related conversation—target stimulus evaluation relation; 2) to test whether topic-related conversation caused changes in the active self-concept; and 3) to test whether a measure of the active self-concept mediated the topic-related conversation—target stimulus evaluation relation.

Chapter 5 presents the results of Study 3. While the first two studies tested some of the short-term and immediate effects associated with topic-related conversation, the main goal of the third study was to test whether topic-related conversation and media use predicted current and future behavior. In this study, the topic was exercise, so exercise-related conversation and media use served as the main predictor variables and self-reported exercise behavior was the main outcome variable. Data for the study were collected at Time 1 and then one week later at Time 2, which allowed me to test whether conversation and media use predicted behavior at Time 1 and at Time 2. A secondary goal of the study was to test whether frequency

of topic-related conversation would account for variation in a measure of one aspect of the self-concept (i.e, exercise identity; see Anderson & Cychosz, 1994). The logic here is that the more people talk about a behavior, the more likely it should be central to their self-concept.

Chapter 6 concludes the dissertation with a summary of the key findings of the three studies, as well as limitations of the research design. The results are then synthesized and discussed in the context of the theoretical contribution of the dissertation to our broader understanding of how topic-relatecd conversation influences how mass media campaigns are perceived. Practical implications of the dissertation for strategic communications professionals are also considered. The dissertation concludes by placing the study of topic-related conversation as a potential priming mechanism within the larger conversation—mass media literature.

CHAPTER ONE:

LITERATURE REVIEW


More than more than 100 years ago, French sociologist Gabriel Tarde's remark "One pen suffices to set off a million tongues" (Tarde, 1898/1969, p. 304) suggested the potential for mass media content and conversation to combine to create powerful indirect media effects. At the time, Tarde was referring to the ability of the press to generate conversation in the bars and cafés around Paris by reporting the news and by offering editorial comment, and he argued that the media content—conversation nexus was an important component of public opinion formation that was worth investigating.

Over the last 70 years, a variety of researchers have attempted to provide a theoretical account for the role conversation plays in disseminating messages delivered by the mass media, as well as its role in influencing the outcomes of mass media campaigns (e.g., Eveland, 2001; Hornik & Yanovitzky, 2003; Lazarsfeld, Berelson & Gaudet, 1944; Katz & Lazarsfeld, 1955; McLeod et al., 1999). While considerable progress has been made in accounting for the effects related to the intersection of mass media content and conversation, Southwell and Yzer's (2007) recent review of the literature in that area indicates many research opportunities are still presented by those "million tongues."

One area of research that Southwell and Yzer identify as ripe for exploration is the "characterization" of conversations. By this, the authors refer to the ways that conversation produces indirect media effects beyond conversation's simple presence or absence. These indirect effects include the potential for conversation to mediate or

moderate the relation between message exposure and a desired campaign outcome (e.g., increased knowledge, change in attitude or behavior). Southwell and Yzer also identify ways that researchers have characterized conversation, such as a deliberative process (e.g., Dahlberg, 2001; Graham & Witschge, 2003), a conduit of agreement or disagreement (e.g., Visser & Mirabile, 2004), and a possible mechanism for inoculation (e.g., Godbold & Pfau, 2000; see also Compton & Pfau, 2009).

Another way to characterize conversation—and the one pursued in this dissertation—is to focus on the content of the conversation and how some media effects may be explained by the topic of the conversation itself. In fact, while a number of researchers have considered how factors in the context within which a message is received, such as extra-advertising content or characters in the ads, may produce indirect media effects (e.g., Forehand & Deshpande, 2005; Shen & Chen, 2007; Yi, 1990a, 1990b), this dissertation presents one of the first direct tests of how a common everyday element within the communication context—conversation—may influence the immediate response to a mass media message. As such, one of the key theoretical contributions of the dissertation is to test whether the effect of engaging in a topic-related conversation can be explained by priming and priming effects theory. Further, experimental manipulation of the presence or absence of conversation and the topic of conversation in two of the dissertation's three studies will permit me to make causal claims about how a conversation's topic may directly influence message reception and evaluation.

A second focus of the dissertation is to begin to explore longer-term effects associated with repeated participation in topic-related conversations. Research related to political communication informs this latter investigation. That research (e.g., McLeod

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et al., 1999; Shah et al., 2007) indicates that there is a significant relation between the type of media content consumed, type of conversation, and political participation behaviors (e.g., voting, attending a political rally). Building upon this research, the dissertation uses the same variables and theoretical framework and applies them to the health communication context. While the simple presence of significant relations between media use, topic-related conversation, and behavior would not permit me to make causal claims, the nature of these relations will suggest whether this constellation of these variables plays a role in influencing how campaign messages are perceived and acted upon over a longer period of time.

The remainder of this chapter is devoted to a discussion of the literature that provides a theoretical base for the hypotheses tested in the dissertation. First, I provide an overview of three influential approaches used to study conversation and mass media research. I include this section in order to put the dissertation in context vis-a-vis previous mass media and conversation research. Next, I discuss what priming is and give examples of strategic communication research that has considered how factors within the communication context may prime message recipients and influence how subsequent stimuli (e.g., ads, PSAs) are evaluated. This section concludes with a discussion of a particular class of priming effects—assimilation and contrast—and their relevance to the dissertation. Third, I review the active-self account of prime-to-behavior effects (Wheeler et al., 2007; 2008), which suggests that exposure to a prime causes a change in the content of the active self-concept. The content of the active self-concept is then hypothesized to mediate the priming mechanism—priming effect relation. Finally, the chapter concludes with a discussion of self-monitoring and its relevance to the active-self account. The goal of these sections is not to provide

an exhaustive review of extant literature; rather, the goal is to provide the theoretical context within which this dissertation fits and to provide examples of research that support and suggest the hypotheses proposed in the next chapter.

*Opinion Leadership and the Two-Step Flow*

The first and probably best-known attempt to explain how conversation influences the outcomes of mass media campaigns was based on the assumption that a certain class of individuals within a community (i.e., opinion leaders) provides an important link between mass media campaigns and their effects on the population. This line of research was a reaction to the strong direct media effects perspective (e.g., Lasswell, 1927), and it suggested that the direct influence of mass media campaigns on a population was fairly weak but that indirect effects (i.e., those flowing through other channels) were potentially much stronger. The next section of this chapter discusses this research.

While later work by Katz and Lazarsfeld (1955) often gets more recognition, one of the first efforts to connect mass media content, conversation, and the formation of public opinion was the Lazarsfeld et al. (1944) study of voting patterns in Erie County, Ohio in the 1940 presidential election. Lazarsfeld et al. wanted to identify the processes that determined public opinion and how public opinion is translated into subsequent voting behavior. Lazarsfeld et al. argued that opinion leaders, who they defined as "people who are most concerned about [politics] as well as most articulate about it" (p. 49), serve as an intermediate step between message exposure and subsequent opinion formation.

The authors used the questions, "Have you tried to convince anyone of your

political ideas recently?" and "Has anyone asked your advice on a political question

recently?" to identify opinion leaders, finding that about 21% of the sample of voters

answered "Yes" to one or both questions. Their subsequent analyses indicated that

these opinion leaders had greater "political alertness," read and listened to more

political campaign materials, and talked more about politics with others. The perceived

role of opinion leaders in the 1940 election led Lazarsfeld et al. to suggest that the

influence of the mass media on opinion formation was mediated by these opinion

leaders. This opinion leader-as-mediator model became known as the two-step flow

of communication, which Lazarsfeld would return to in later research (i.e., Katz &

Lazarsfeld, 1955).

Berelson, Lazarsfeld, and McPhee (1954) used a similar research focus and

methodology as Lazarsfeld et al. (1944) in a study of public opinion and voting behavior

among voters from Elmira, N.Y. in the 1948 Dewey-Truman presidential election.

Berelson et al. suggested that "rank-and-file" voters may turn to opinion leaders when

making a decision about whom to vote for in the presidential election. The authors

found that about 23% of their sample could be classified as opinion leaders and that

these individuals reported higher levels of media exposure, increased likelihood to

report they were "greatly interested in the election," higher scores on an election

information test, a greater likelihood to say they had "a lot" or "some" influence on how

government runs things, and a greater chance of discussing politics with someone from

outside their families. Similar to the earlier Lazarsfeld et al. study, the Berelson et al.

findings suggested that an identifiable group of opinion leaders existed, that the opinion

leaders were more active consumers of media content related to politics and public

affairs, and that the opinion leaders were more likely to discuss politics with others.

At about the same time the Berelson et al. (1954) study was published, Katz and Lazarsfeld (1955) printed the results of a sociometric study from data that had been collected in 1945. While the earlier Lazarsfeld et al. and Berelson et al. studies had contained measures of opinion leadership, it was the Katz and Lazarsfeld study that formally introduced the "two-step flow of communication." The authors explicitly argued that media effects were largely due to the "personal influence" of opinion leaders, which flowed from opinion leaders to other members of a community via interpersonal communication. Thus, mass media campaigns first influenced opinion leaders before influencing the rest of the population.

In contrast to the previous studies, Katz and Lazarsfeld gathered data about decisions regarding daily household purchases, fashion items (e.g., dresses and cosmetics), and attendance at movies from their sample of households in Decatur, IL, in addition to asking questions about public affairs and politics. Katz and Lazarsfeld were particularly interested in three variables related to opinion leadership: life cycle types, social status, and gregariousness. The authors hypothesized that opinion leadership may be related to where someone was in his or her life cycle (e.g., age, marital status, if and how many children a person had). Katz and Lazarsfeld also thought there was a relation between social class and opinion leadership, and they suggested that people in higher social classes would be more likely to be viewed as opinion leaders. Finally, Katz and Lazarsfeld hypothesized that there would be a positive relation between opinion leadership and an individual's level of gregariousness, which they defined as "the extent of contact with other people" (p. 223).

Among the results reported in the Katz and Lazarsfeld study was the finding

that opinion leaders were more likely to be members of informal rather than formal

groups and that their influence was the result face-to-face contact rather than contact

in larger groups (e.g., membership in civic organizations). The authors also found

that while life cycle did not seem to influence voting behavior, there was a significant

relation between opinion leadership and marketing, fashion, and movie going, whereby

women who were opinion leaders did offer advice on these topics to other women in

the community. This latter result implied that individuals may be opinion leaders in a

specific subject or topic.

Katz and Lazarsfeld (1955) concluded that opinion leaders guide public opinion

and its change rather than by leading it directly via action. They also concluded that

opinion leadership is "casually exercised, sometimes unwitting and unbeknown, within

the smallest grouping of friends, family members and neighbors" (p. 154). This latter

finding presaged the "strength of weak ties" research by Mark Granovetter (1973), who

found that it was often acquaintances (i.e., the individuals with whom we have "weak

ties") who are important in helping us find a job rather than our close friends (i.e., those

with whom we have "strong ties").

The final prominent example of research linking opinion leadership to personal

influence can be found in Rogers' (1962; see also Rogers, 2003) research about the

diffusion of technological innovation. Rogers' primary interest was in identifying the

factors that facilitated the diffusion process, but he also gave considerable attention to

the role played by opinion leaders. Rogers (1962) defined opinion leaders as "those

individuals from whom others seek advice and information" (p. 208) and those "who

are influential in approving or disapproving new ideas" (p. 209). Rogers said that

opinion leaders may play a role in facilitating the diffusion of technological innovations,

although he rejected the two-step flow of communication and instead suggested there was more likely a "multistep flow" of communication whereby some opinion leaders would influence other opinion leaders, who in turn would influence their followers.

In Rogers' discussion of his findings about opinion leaders, he primarily focused on ways in which opinion leaders were likely to differ from the people who seek their opinion. For example, Rogers found that opinion leaders were more likely to use mass media and to possess "technically accurate information" than opinion seekers. As an example, Rogers reported that farmers who were opinion leaders subscribed to more farm magazines and newspapers and watched more TV farm shows than opinion seekers. Rogers also stated that opinion leaders had more face-to-face contact and social participation than their followers. This social participation included membership but not necessarily leadership in social organizations. Finally, Rogers observed that opinion leaders were more innovative than their followers, a claim based on their higher rates of past innovation adoption and predicted future adoption.

The innovativeness finding suggested that opinion leadership may be associated with some type of psychological trait. And, as one might expect, a number of researchers have conceptualized opinion leadership as an individual difference variable. For example, Robertson and Myers (1969) looked for the psychological profile of opinion leaders and found that opinion leaders were less dogmatic, more innovative, and more venturesome. Similarly, Myers and Robertson (1972) found that across a variety of topics (e.g., home entertainment, politics, cooking and food) there was a significant albeit moderate relation between opinion leadership and innovativeness. Finally, Chan and Misra (1990) found positive relations between opinion leadership, risk preference, and public individuation.

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In a similar vein, King and Summers (1970) developed a scale to measure

opinion leadership by looking at how opinion leadership is manifested across different

product categories. The 7-item King and Summers opinion leadership scale has been

applied to topics such as packaged food products, women's clothing, and small and

large appliances. Later both Childers (1986) and Flynn, Goldsmith, and Eastman

(1994) refined the King and Summers scale. Childers focused on communication

as the key component of opinion leadership, implying that initiating interpersonal

communication about an issue was opinion leadership. Flynn et al. suggested that

opinion leadership was a psychological variable that should be fairly stable, and

subsequently Flynn, Goldsmith, and Eastman (1996) proposed their own measure of

opinion leadership. This scale conceptualized opinion leadership as a domain-specific

variable that manifests itself when an individual tries to influence the purchase behavior

of another consumer.

While these trait approaches to opinion leadership do explain some variation in

outcome measures such as a willingness to provide purchase advice or involvement

in discussions with someone seeking product information, the measures also suffers

from the same issues as those in the previous Lazarsfeld et al. (1944) and Katz and

Lazarsfeld (1955) research—namely that opinion leadership seems like an important

variable in the flow of mass media content and the formation of public opinion, but it is

a variable that ultimately explains a relatively small amount of variation in the desired

outcome measures. To wit, there has been considerably less research published

recently about the two-step flow of information and opinion leadership (see Weimann,

1994 for a review; also see Nisbet & Kotcher, 2009). Thus, the two-step flow remains a

conceptually elegant idea with limited empirical support.

Nevertheless, this line of research has several implications for this dissertation. First, even though the role of opinion leaders in public opinion formation seems limited, the research does suggest that conversation can be an important factor to consider when explaining how mass media campaigns influence individuals. Second, the failure to find support for the two-step flow suggests that rather than looking at opinion leaders as the key link in the message exposure—opinion formation link, it is conversation itself that matters. Finally, the opinion leadership research has served as a foundation upon which future lines of research could respond to and build upon. In essence, the next section of the chapter does both as it presents research treating conversation as a variable that is closely related to patterns of media use and that is a potential moderator *or* mediator of relations between media use and other outcomes, such as political knowledge and participation.

*Media Uses and Conversation as Deliberation*

While Lazarsfeld and his colleagues focused on the flow of content from mass media campaigns to people in a community via the influence of opinion leaders, another group of researchers—primarily associated with the University of Wisconsin—proposed that conversation itself and the role that conversation plays in connecting exposure to media content to behavioral outcomes was the research approach that should be pursued. This line of research was initially grounded in the uses and gratifications perspective (see Rubin, 2009 for a review), and it suggested that people use media content to prepare for conversations. Later, the approach evolved into a series of models that conceptualized conversation as part of a deliberative process that potentially moderated or mediated the relation between media use and political knowledge and participation (e.g., Eveland, 2001; McLeod et al., 1999; Scheufele,

2002; Shah et al., 2007). The next section of this chapter reviews this approach to studying the intersection of conversation and mass media content.

Using the framework provided by the uses and gratifications approach to mass communication, McLeod and Becker (1981; see also Rubin, 1984) argued that individuals are active users and pursuers of media content and that one "use" of media content is to prepare for conversations about politics. McLeod and Becker used the term "communication utility" to define the motive of using mass media content to prepare for political discussions and "to give [individuals] something to talk about with others" (p. 90). McDonald (1990) later used a similar term "communicatory utility" to describe the motivation of using the media to obtain information to discuss with others.

A series of studies tested the basic hypothesis suggested by communication utility, which was that people would use media to prepare for conversations about politics. The results were decidedly mixed. For example, McDonald (1990) found a significant relation between communicatory utility and newspaper "hard" news use (i.e., stories about government and politics) and TV news use but not between communicatory utility and the frequency of newspaper or TV use. Similarly, McLeod and McDonald (1985) found that communication utility predicted willingness to blame politicians for causing inflation but that it did not predict other outcomes such as voting in local elections or volunteering for a political candidate.

About this same time, Chaffee (1982; see also, Chaffee, 1975) began to argue that exposure to different ideas through interpersonal discussion may enhance an individual's understanding of his or her own position and strengthen the impact of media on political activities. This influence would then be manifested as overt activities such as supporting a political candidate or writing a letter to the editor. This conceptual

outline would be engaged by several researchers.

For example, Scheufele (2002) argued that anticipating a conversation would have a "cognitive tuning effect" such that people would think about media content prior to anticipated interpersonal conversations in order to be able to better discuss that content with others. One hypothesized result of the cognitive tuning was greater political knowledge. To test this hypothesis, Scheufele analyzed data from the 1990 American Citizen Participation Study. He found that people who discussed politics more frequently were also more likely to report political participation (e.g., working as a volunteer for a candidate, contacting a public official) than those who did not discuss politics or did so infrequently. Scheufele found the same result when political knowledge (e.g., ability to identify local and national politicians) was used as the outcome variable. Because the presence of conversation was associated with greater political knowledge, Scheufele concluded that conversation moderates the media use—political knowledge relation. That is, the presence of conversation about politics was a marker for greater political knowledge.

Eveland (2004) later argued that conversation potentially influences thoughts about media content through "self-generated elaboration," which occurs when someone thinks about mass media content while preparing to say something during a conversation. This suggests that either thinking about having a conversation or actually participating in a conversation increases the amount of thought about the original media content as one is forced to recall the content and to respond to arguments presented by a conversational partner.

Eveland used data from the 2000 American National Election Study to test hypotheses related to two types of self-generated elaboration: "anticipatory

elaboration," which is elaboration on media content in preparation for future

conversations, and "conversation-induced elaboration," which is elaboration that occurs

during a conversation itself. Eveland found that both anticipation of conversation

and actual conversation were related to higher levels of elaboration about the media

content, and higher levels of elaboration were then related to higher levels of political

knowledge. So in contrast to Scheufele's argument that conversation moderated

the media use—political knowledge relation, Eveland concluded that conversation

mediated that relation. Eveland said that while media use may prompt conversation,

it is through conversation that people elaborate on the media content they have seen

and heard, while at the same time they are being exposed to what someone else has

seen and heard. This additional elaboration associated with the conversation is then

what leads to greater political knowledge and participation.

Along this same line of reasoning, McLeod et al. (1999) proposed a model

based on the earlier O-S-O-R model (i.e., Markus & Zajonc, 1985; see also McLeod,

Daily, Guo, Eveland, Bayer, Yang et al., 1996) where media use and interpersonal

communication are hypothesized to influence political knowledge and "external

efficacy," which then influence political participation. This model suggests that variables

such as personal interest in politics and the structure of social networks influence an

individual's initial orientation toward media use and interpersonal communication about

politics. Media use and interpersonal communication then potentially serve as stimuli

creating greater political interest and efficacy. This increased interest and efficacy then

serve as secondary orientations which influence the amount of subsequent knowledge

and political activity displayed.

To test the O-S-O-R model, McLeod et al. used predictor variables, such as interest in politics, hard news use (i.e., news about politics, the economy, and social issues), and interpersonal communication about neighborhood issues and local politics. These variables were hypothesized to explain variation in outcome variables, such as political knowledge (e.g., name of local mayor), participation in institutional forms of politics (i.e., voting, contacting a local politician), and participation in local forums (i.e., willingness to participate in and speak out in a public forum on local issues). Among the findings in their study of voting-age adults in Wisconsin, McLeod et al. (1999) found that interpersonal discussion did not predict political knowledge, but that it did predict both participation in institutional forms of politics and participation in local forums.

More recently, comprehensive models such as Shah et al.'s (2007) "communication mediation model" have been proposed. This model hypothesizes that "interpersonal political discussion" (i.e., conversations with others about politics) mediates the relation between news use and political and civic participation. Using data from the 2002 DDB Life Style Study, Shah et al. tested their model and found that online, television, and newspaper "hard news" use predicted discussion about politics, which then predicted political participation (e.g., attending a political meeting or rally, displaying a campaign bumper sticker, contributing to a candidate).

Cho, Shah, J. McCleod, D. M. McCleod, Scholl, and Gotlieb (2009) proposed an expanded model, which synthesizes the previous Shah et al.(2007) and Eveland (2004; see also Eveland, 2001) models, while also incorporating the effect of exposure to negative political advertising. Similar to what Shah et al., and Eveland found, Cho et al. found that traditional news use (e.g., exposure and attention to newspaper and television hard news) predicted discussion about politics, which then predicted both

political participation (e.g., attending a political meeting or rally, displaying campaign materials, making a campaign contribution) and political knowledge (e.g., test of who occupied key government posts and their positions on campaign issues).

These models and the other conversation—mass media research by the Wisconsin group suggest that consuming media content related to politics or public affairs leads to political discussions, which then leads to greater political participation and knowledge. This line of research is relevant to the dissertation for several reasons. First, the research points to the importance of media use, conversation, and behavior, as a constellation of variables that explain media effect. Second, the research suggests that conversation itself is potentially the key link between media use and behavior. While there some evidence supporting hypotheses related to conversation-as-moderator and some supporting conversation-as-mediator, these links should be clarified as more research is conducted. Finally, the research provides a basic theoretical framework that can easily be adapted to other applications in strategic communication. In fact, this framework is used as a basis for Study 3 of the dissertation using health-related media use, conversation, and behavior.

*Conversation as a Priming Mechanism*

While the first two approaches reviewed in this chapter have used political opinion, knowledge, and behavior as the outcomes of interest, the current section discusses a research approaach that has primarily focused on outcomes related to health. This line of research suggests that engaging in conversation about some type of media content (e.g., anti-marijuana public service announcement) increases the salience of normative expectations associated with that topic (e.g., norms in support of or against marijuana use). Once the norms are made salient, they potentially influence

an individual's intention to perform a behavior (or actual behavioral performance) either

positively or negatively. One important implication of this research is that conversation

can be conceptualized as a mechanism that primes conversational participations, one

of the central themes of the dissertation.

Hornik and Yanovitzky (2003) initially proposed the argument supporting

conversation as a potential priming mechanism. The authors stated that one of the

processes that leads to campaign outcomes is "social diffusion," which they defined

as interactions between an individual and his or her family members, peers, and other

members of the community. It is through these interactions that one learns which

behaviors are socially approved and which are not.

Hornik and Yanovitzky argued that social diffusion can influence campaign

outcomes in two ways. First, the social diffusion process can result in further spread

of a campaign message through interactions between those who have seen a

message and those who have not. In this case, the reach of a campaign is extended

via interpersonal communication as a person or persons who have been exposed to

a message tell others about the message via conversation. The second way social

diffusion can influence campaign outcomes is by increasing the salience of norms

associated with a campaign topic during conversations about the campaign message.

In this case, prior the normative expectations of the conversational participants are

transmitted from one person to another via explicit or implicit approval or disapproval of

the message.

For example, an anti-drug campaign may stimulate conversation about the

campaign itself (e.g., "Did you see the ad about your brain on drugs that had the frying

egg?"). In this case, social diffusion occurs as the information (i.e., knowledge) about

drugs contained in the campaign messages (e.g., drug use can cause brain damage) is transmitted via interpersonal communication. The second avenue of social diffusion would occur as norms about the topic of the campaign are communicated implicitly or explicitly during the conversation (e.g., "When I saw that ad it made me think about how drugs mess up your brain," or "That ad was stupid. It doesn't really show what happens when you get high.")

The result of the second type of social diffusion can be positive or negative, depending on the context of the conversation. In the case of a conversation between a parent and child about an anti-drug use campaign, presumably anti-drug norms would be expressed and activated via explicit and implicit support of the message which would be communicated by the parent. Conversely, a conversation between peers may have the effect of activating and reinforcing norms that support drug use. In this case, pro-drug use norms would be communicated by one peer to another via message or messenger denigration. This may have the ironic result of producing an increased intention to use drugs.

In fact, a recent study indicates that this latter result may occur in certain situations. In that study, David, Cappella, and Fishbein (2006) randomly assigned high school students to watch a series of anti-marijuana ads with weak or strong arguments, using the basic hypothesis that stronger arguments would result in more negative attitudes toward marijuana and lower intentions to smoke marijuana. David et al. also randomly assigned approximately half of the participants to enter a chat room and chat with other participants after viewing the ads.

The interesting finding in the study was that students who chatted after viewing the ads reported stronger pro-marijuana attitudes and stronger normative beliefs

supporting marijuana use when compared to students who did not chat, regardless

of whether they had been exposed to strong or week anti-drug messages. The David

et al. result is consistent with the Hornik and Yanovitsky (2003) hypothesis, which

suggests that because the chatting occurred in the presence of other students—where

presumably norms supporting marijuana use were predominant—there was an

increased intention to smoke marijuana.

Two other recent studies have more directly tested whether conversation

increases the salience of norms associated with a health behavior. Van den Putte,

Southwell, and Yzer (2006) found that smokers who talked to others about smoking

cessation reported stronger intentions to quit smoking, and that in particular the

norm—behavioral intention was significantly stronger for the smokers who reported

conversation about quitting. Wirtz and Southwell (2009) hypothesized that post-

message exposure conversation about a series of ads advocating dental hygiene

behaviors would make norms about dental hygiene more salient and result in a

significantly stronger norm—intention relation. They randomly assigned half of the

study participants to talk about the ads immediately after being exposed to them and

found that those who had talked about the ads displayed significantly stronger norm—

intention relations when compared to participants who did not talk about the ads These

two studies suggest that conversation about topics associated with a health campaign

may moderate the norm—behavioral intention relation, because in both cases it was

the presence of conversation that explained the difference in outcome.

Research focusing on how conversation may activate norms is relevant to

the current dissertation for several reasons. First, the idea of using conversation to

prime conversational participants is one of the central themes of the dissertation, and

evidence that conversations at least temporarily raise the salience of norms is an important foundational idea to build upon. Second, this line of research suggests that greater consideration should be given to the content and context of the conversations, and the dissertation directly tests hypotheses related to the former (i.e., content of conversations). Finally, the research suggests that some of the most important media effects may occur long after message exposure. While the dissertation does not address this point directly, it does reinforce the importance of secondary message effects.

To conclude this part of the literature review, the goal of the previous sections was to introduce three broad and influential approaches to studying the role that conversation plays in influencing attitudes, knowledge and behavior via exposure to mass media content. The first approach (e.g., Lazarsfeld et al., 1944; Katz & Lazarsfeld, 1955) viewed opinion leaders as the key link between the message and its outcome. The second approach suggested the potential importance of the media use—conversation—behavior relations. It also indicated that conversation at times mediates the media use—behavior relation (e.g., McLeod et al., 1999; Shah et al., 2007), while at other times is appears that conversation may moderate this relation (e.g., Scheufele, 2002). The final approach suggests that it is the content and context of the conversation that may matter, as engaging in conversation has other effects that influence campaign outcomes (e.g., Hornik & Yanovitzky, 2003). Each of these approaches is important, because they suggest theoretical and methodological pathways to pursue (and to avoid). The next section of the paper will provide a more in-depth discussion of what priming is and why topic-related conversation may be expected to act as a priming mechanism.

*Priming: An Overview*

There has been a recent explosion of research associated with priming and priming effects (see Dijksterhuis & Bargh, 2001; Forster & Liberman, 2007, or Kinoshita & Lupker, 2003, for reviews). For example, a recent search of the PsychInfo database using just the term "priming" returned a list of 5,705 articles and dissertations published over the last 40 years. Within the broader priming literature, there are two areas that are particularly relevant to the theoretical argument of my dissertation—1) using lexical tasks to prime individuals and 2) assimilation or contrast to a target stimulus after priming has occurred. The next sections of this chapter will provide overviews of these areas. To provide context, though, it is worthwhile to start with a definition of priming and also to consider briefly how researchers within the strategic communication field have studied how elements within the context in which a message is received may prime recipients of those messages.

*Priming: A Definition*

At the broadest level, priming can be defined as a "change in antecedent conditions which is specifically designed to increase the probability of a particular response being given to a particular stimulus" (Cramer, 1968, p. 82) or as "the facilitative effect of performing one task on the subsequent performance of the same or similar task" (Tulving, 1983, p. 100). For this dissertation, I have adopted Higgins' (1996) broad yet concrete definition of priming as "procedures that stimulate or activate some stored knowledge unit" (p. 134). Once activated, these knowledge units or cognitive schemas (see Fiske & Taylor, 1991), may also cause individuals to exhibit prime-consistent behaviors (Dijksterhuis & Bargh, 2001) or to respond to subsequent stimuli in manner that reflects the influence of the activated schema (Higgins, 1996).

For example, in a well-known series of studies Bargh, Chen, and Burrows (1996) used the task of creating sentences out of word groupings to activate schemas related to personality characteristics, such as hostility or friendliness. The result of the priming was a measurable difference in behavior. In Study 1, Bargh et al. randomly assigned study participants to make sentences out of word groups containing words associated with being rude (e.g., obnoxious, aggravating), while in a second condition the word groups were associated with being polite (e.g., courteous, patiently). The control condition contained word groups with neither rude nor polite words. All of the participants read the words and completed sentences before proceeding to the second part of the experiment, which required them to wait for instructions from a confederate. Bargh et al., found that participants who completed sentences with word groups associated with rudeness waited significantly less time to interrupt a confederate who kept them waiting when compared to the other conditions. Conversely, participants who completed the sentences with the politeness words waited significantly longer to interrupt the confederate. In two other studies, Bargh et al. (1996) used the same sentence creation task to prime schemas related to being elderly, and the authors found that participants who were primed with the "elderly" words walked significantly more slowly on their way to another part of the experiment than participants not primed with the elderly words.

Bargh et al. concluded that exposure to the words via the sentence creation task caused related cognitive schemas (e.g., schemas related to politeness or hostility) to be activated in the brains of the study participants. The result of priming was manifested in the schema-consistent behavior displayed by the participants in the second part of the study (e.g., priming with rude words resulting in less patience;

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priming with elderly words resulting in slower walking). Similar behavioral results have

been found in many other studies (see Dijksterhuis & Bargh, 2001 for a review).

Within the strategic communication field, a considerable amount of research

has focused on how elements within the context in which a mass media message

is received may prime message recipients and influence how message recipients

respond to a message. For example, Yi (1990; see also Yi, 1993) hypothesized

that reading the editorial content within which a magazine ad was embedded would

activate cognitive schemas, which would then influence how ads appearing with that

content were evaluated. In a series of studies, Yi (1990) randomly assigned some

participants to read an article about airline safety and others to read an article about

an oil entrepreneur prior to reading an ad about a brand of automobiles. Yi found that

participants who read the article about safety prior to rating the ad mentioned the

importance of safety as an important characteristic of cars more frequently. Those

participants also judged the advertised car brand as higher in safety, even though the

ad did not refer to either of the safety characteristics of the advertised car. This pattern

of evaluation did not emerge for participants in the oil entrepreneur condition.

Shen and Chen (2007) demonstrated that this same type of contextual priming

effect extends to outcomes such as attitude toward ads and intention to purchase an

advertised product. In their study, Shen and Chen randomly assigned participants to

view extra-advertising content that was applicable (i.e., large screen television) or not

applicable (i.e., handheld television) to the target stimulus (i.e., laptop computer). They

also included content about the visual superiority of a large screen (i.e., positive prime)

or content about the usefulness of mobility and convenience (i.e., negative prime) in

the extra-advertising content. After reviewing that content, participants then read and

rated an ad for a brand of laptop computers and indicated their intention to purchase the computer.

Shen and Chen reported that participants who were exposed to the large screen TV/visual superiority content reported more positive attitudes toward the laptop computer ad and higher purchase intentions toward the advertised product, while participants who were exposed to the handheld TV/convenience and portability content rated the ads significantly lower and reported lower purchase intention. Shen and Chen argued that schemas associated with the extra-advertising content (i.e., large screen, visual superiority) had been activated, which then influenced how the ad was evaluated. Because the schemas were applicable to desirable features of a computer, the evaluations were more positive. In their discussion of the results, Shen and Chen described the higher ratings as an assimilation effect (see discussion below).

Finally, Forehand and Deshpande (2001) showed that what appears in an ad can influence not only how an ad is evaluated but also what is salient about someone's self-identity. Forehand and Deshpande recruited Asian (i.e., ethnic Chinese) and Caucasian (i.e., white) participants and randomly assigned them to view ads that either contained Asian or white models in the ads. One unsurprising result was that on average Asian participants liked the ads with the Asian models better.

A more compelling result emerged in the test of Forehand and Deshpande's hypothesis that the models in the ads would make the participants' ethnic identity salient, which would be evidenced by spontaneous self-reporting of ethnicity in an open-ended measure (for a discussion, see McGuire & McGuire, 1981). In order to capture this effect, the authors asked participants to write a paragraph telling them about themselves. Forehand and Deshpande found that Asian participants who

saw ads with the Asian models were significantly more likely to refer directly to their

Chinese ethnic identity when compared to the Asian participants who saw ads with the

Caucasian models. The authors argued that the content in the ads (i.e., the models)

had primed ethnic identity.

This latter result is relevant to the dissertation for two reasons. First, it suggests

that an open-ended measure such providing answers to the question "Who am I?"

can capture the effect of priming. In the Forehand and Deshpande study, what was

spontaneously reported was influenced directly by what the participants had been

exposed to previously. Second, the results also suggests that a salient aspect of

identity can influence how an ad is evaluated—one of the central themes of the

dissertation and one that I will return to later in this chapter.

While the previous section is not exhaustive in its discussion of priming and

how it has been studied, it serves the purpose of providing the basic conceptual

definition of priming used in the dissertation and of providing a brief review of some of

the ways within the field of strategic communication that exposure to variables within

a communication context can influence response to mass media messages. The next

section of this chapter more closely examines how completing lexical tasks such as

creating sentences from word groups and writing or thinking about past events can act

as a priming mechanism and why topic-related conversation may be expected to act as

a priming mechanism.

*Priming Mechanisms*

In the same way that an extensive collection of priming studies has been

produced over the last 40 years, a similarly broad range of stimuli or classes

of stimuli—referred to here as priming mechanisms—have been used to prime

individuals. Examples of priming mechanisms include having individuals look at photos

(e.g., Fazio, Jackson, Dunton & Williams, 1995; Livingston & Brewer, 2002), create

sentences (e.g., Srull & Wyer, 1979; Bargh et al., 1996), read text (Yi, 1990, 1993),

complete questionnaires (Shih, Pittinsky & Ambady, 1999), and think or write about

personal experiences (e.g., Brewer, 1993; Yopyk & Prentice, 2005).[1]

As noted, using lexical tasks to prime individuals is particularly relevant to this

dissertation, and there are two popular approaches to this task. The first approach uses

the task of creating sentences from groups of words that relate to the cognitive schema

that the researcher wants to activate. A typical manipulation requires participants to

read a group of words and to make a sentence from each word group. In order to prime

the person, some of the word groups (e.g., 15 of 30 word groups) will contain words

that are associated with the schema of interest. The logic is that exposure to a set of

words associated with a certain topic via the sentence creation task activates cognitive

schema associated with that topic (Srull & Wyer, 1979; Wyer & Srull, 1986). Once

primed, individuals are presupposed to respond to subsequent stimuli in a manner that

reflects the influence of the active schema.

In one of the first tests of the sentence creation priming method, Srull and Wyer

(1979) hypothesized that exposure to words associated with hostility and aggression

would also prime a "hostility schema," which would then influence how participants

would respond to subsequent stimuli. So Srull and Wyer randomly assigned some

participants to make sentences out of word groups that contained words associated

with aggression and hostility (e.g., leg break arm his) and some participants to make

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[1]There is also a significant research stream associated with exposure to subliminal primes (e.g., Stapel, Koomen & Ruys, 2002; see Kinoshita & Lupker, 2003, for a review) that is not discussed in this chapter or addressed in this dissertation.

sentences out of word groups with neutral words. After completing the word task, all participants then read a story about "Donald," an individual who was described in a vignette that contained a number of behaviors (e.g., not allowing a salesman to come into a house) that could be interpreted in multiple ways (i.e., positively, negatively, or neutrally). Participants then rated Donald's personality and behavior on a number of dimensions, such as hostility and friendliness. Srull and Wyer found that participants who completed sentences with the hostility word groups interpreted Donald's actions as significantly more aggressive and hostile than those in the control condition, and Srull and Wyer concluded that the ratings were a result of the priming that occurred via the sentence creation task. (See Bargh, Bond, Lombardi & Tota, 1986; Higgins et al., 1977, for similar methods and results.)

A second type of lexical task used as a priming mechanism is to ask participants to think or write about a salient personal experience. This approach has often been used when the goal is to prime or activate some aspect of identity or self-concept. For example, in a study about athlete identity and susceptibility to depression, B. Brewer (1993, Study 1) asked a group of study participants to think about participation in past athletic events and about what participating in athletics meant to them. Participants were then asked to imagine that they could never compete athletically again (e.g., they suffered a severe injury). Finally, participants completed a scale that measured depression (i.e., Profile of Mood States; McNair, Lorr & Droppleman, 1971). Brewer found that participants who scored highest on a scale measuring athlete identity also scored significantly higher on the depression scale. Brewer concluded that thinking about athletic events and their importance caused the stronger emotional reactions for the participants with higher athlete identity, because

they faced a potentially greater loss than the other participants.

Rather than asking study participants to think about a past experience, Pickett, Silver and M. Brewer (2002) and Yopyk and Prentice (2005; Study 1) asked their study participants to write about an event that was associated with the cognitive schema the authors wished to activate. For example, Yopyk and Prentice hypothesized that writing about a past athletic event would make "athlete identity" salient, which would then cause participants to display stereotype-consistent performance on an academic task (e.g., lower performance because "jocks are stupid" or "athletes aren't good students"). Yopyk and Prentice recruited a group of college athletes and had half of the participants write about a past athletic experience and half write about a past college student experience. All participants then performed an academic task (i.e., answering GRE questions). Consistent with what they predicted, Yopyk and Prentice found that athletes who wrote about athletic experiences (i.e., those primed with athlete identity) performed significantly worse on the academic task than athletes who wrote about a student experience (i.e., those primed with student identity).

The Brewer (1993) and Yopyk and Prentice (2005) studies are relevant to this dissertation for two reasons. First, the studies indicate that thinking and writing about a specific past event can act as a priming mechanism. This suggests that talking about a specific past event should activate not only that specific episode but also cognitive schema related to that event. Second, the studies indicate that recounting a specific event can activate some aspect of one's identity. In the Brewer study, participants who had higher athlete identity scores demonstrated higher levels of negative affect when they thought about not being able to compete in athletic events in the future. In the Yopyk and Prentice study, writing about an event associated with athlete or student

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activities influenced performance on an academic task, and Yopyk and Prentice argued that this was because an aspect of the participant's identity was more salient. This latter point is important because one of the key hypotheses in the dissertations is that the effect of a prime flows through changes in the active self-concept (see pp. 36ff).

While writing and talking are not perfect analogs, it is worth noting that a number of researchers have used conversation about personal experiences in lieu of writing about an experience. For example, Jones and Guerrero (2001) had participants talk about an upsetting personal experience as part of a study about nonverbal behaviors and emotional immediacy (e.g., Guerrero, 1997; Guerrero, Jones & Burgoon, 2000; see also, Burgoon, Stern & Dillman, 1995). Because creating sentences while engaging in a topic-related conversation draws on many of the same mental schemas that the lexical task does (Wyer & Srull, 1986), this suggests that topic-related conversations would be a natural extension of an episode recounting task and that these conversations would very likely act as a priming mechanism. Thus, in the same way that creating sentences from word groupings and writing about a salient personal experience can serve as priming mechanisms, a topic--related conversation would be expected to also activate topic-related cognitive schema.

For example, we would expect that conversations related to specific experiences as students would activate student-related schemas within the brains of the conversational participants in the same way that writing about those experiences influenced participants in the Yopyk and Prentice (2005) study. Similarly, we would expect that conversations related to specific experiences associated with exercise would activate exercise-related schemas in a manner similar to the Brewer (1993) study. Once activated, these student- or exercise-related schemas should influence

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how subsequent stimuli are evaluated. In the case of this dissertation, these stimuli will come in the form of public service announcements associated with health behaviors. Thus, if a topic-related conversation primes the conversation participants then effects similar to other priming research should be observed (e.g., assimilation or contrast effects). The next section of the dissertation addresses what type of effects we would expect to occur.

*Priming Effects*

An understanding of priming begins with a discussion about the process of priming (i.e., exposure to a stimulus that activates a relevant cognitive schema within the brain). While schema activation is one of the initial effects of exposure to a priming mechanism, most research has focused on "priming effects," a class of outcomes which can be broken into two areas—behavioral and evaluative manifestations of priming. Behavioral examples of priming effects include everything from the amount of time willing to wait (Bargh et al., 1996, Study 1), to walking more slowly (Bargh et al., 1996, Study 2a, 2b), to test performance (Yopyk & Prentice, 2005), and reaction time (Fazio et al., 1995). Research related to the evaluative effects of priming generally relates to contrast from or assimilation to a target stimulus (e.g., Moskowitz & Skurnik, 1998; Stapel, Koomen & Ruys, 2002).

Study 1 and Study 2 of this dissertation use assimilation and contrast as key outcomes associated with the potential priming effects associated with topic-related conversation. More specifically, the dissertation centers on how the evaluation of a target stimulus such as an advertisement or a public service announcement may be influenced by prior involvement in a topic-related conversation. There are two reasons for this focus. First, there is a long history of research indicating that psychological

assimilation or contrast are effective ways to measure the effect of exposure to a

prime (e.g., Mussweiler, 2003). Second, at a practical level, if assimilation or contrast

occur as the result of topic-related conversation, they may manifest themselves as an

increase or decrease in the perceived relevance or realism of a mass media message

or an increase or decrease in attitude toward the message. In turn, this may help to

identify when conversation occurring within the context in which message exposure

occurs is particularly important, and it may even point to reasons why some campaigns

succeed or fail unexpectedly. Therefore, the next section of this chapter contains a

more in-depth discussion of what assimilation and contrast are, and why they are

considered important priming effects.

*Psychological Assimilation and Contrast*

Assimilation is a psychological phenomenon that describes when perception

or judgment is displaced toward some element within an environment—what Suls and

Wheeler (2007) describe as a "magnetic-like attraction" (p. 10). Within the context

of priming, Mussweiler (2003) defines assimilation effects as post-prime movement

toward a target stimulus in a manner that is closer to or consistent with a prime-

activated schema.

For example, Stapel, Koomen, Velthuijsen (Study 1; 1998) randomly assigned

participants to an elegance condition (i.e., primed with words such as elegant,

exclusive, distinguished) or a casualness condition (i.e., primed with words such as

casual, simple, normal). Participants then read an ad about a new restaurant before

rating the restaurant. Stapel et al. found that participants who were primed with

elegance words rated the restaurant significantly more positively than those who had

been primed with the casualness words. Stapel et al. stated that the elegance-primed

participants had "assimilated" their evaluation of the restaurant toward the elegance

prime, which resulted in the more positive evaluations. Thus, the higher positive

restaurant evaluation scores can be considered an assimilation effect.

*Psychological Contrast*

Contrast is a psychological phenomenon whereby the perception or judgment

of a stimulus is displaced away from a context or standard. This can be thought of as

a "kind of repulsion" away from that context or standard (Suls & Wheeler, 2007, p. 10).

Mussweiler (2003) defines contrast effects associated with priming as the distancing

that occurs after exposure to a prime such that there is a greater distance from the

prime-activated schema or stimulus than would have existed without exposure to a

prime.

For example, Dijksterhuis, Spears, Postmes, Stapel, Koomen, van Knippenberg

et al. (1998; Study 1) randomly assigned some participants to think about Albert

Einstein and then to write whatever came to mind. In a second condition, participants

were instructed to think about the supermodel Claudia Schiffer and then also to write

whatever came to mind. After the thinking and writing tasks, participants completed

a series of general knowledge questions (i.e., questions from the game Trivial

Pursuit). Dijksterhuis et al. had hypothesized that by priming Einstein, an examplar of

intelligence, participants would actually perform worse than those primed with Claudia

Schiffer, an examplar of a supermodel (see also Stapel & Suls, 2004). The results

supported their hypothesis, as participants primed with Einstein provided on average

12 fewer correct answers. Dijksterhuis et al. stated that the "repulsion" away from the

intelligence exemplar (i.e., Albert Einstein) was an example of a contrast effect.

Now that definitions of psychological assimilation and contrast and examples of

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assimilation and contrast effects have been given, the question becomes when might we expect which effect to emerge in the studies to be conducted in this dissertation?

Among the models that predict when assimilation or contrast effects will occur, the current dissertation is informed by Stapel's interpretation—comparison model (ICM) of social comparison (Stapel & Koomen, 2001; Stapel & Suls, 2004). The ICM posits that the effect of priming on subsequent stimulus evaluation is guided by the nature of the prime. When a prime is "less distinctive" or associated with less distinct schema then an interpretation mindset is likely to guide evaluation. This interpretation mindset is associated with assimilation effects. Stapel and Suls (2004) give as an example studies related to priming personality traits such as kindness or hostility (e.g., Srull & Wyer, 1979). While all individuals have a hostility or kindness schema, it is likely less distinct than an exemplar of intelligence such as Einstein, so that when someone is exposed to a hostility-related stimulus, the simple activation of the schema draws that person toward the primed concept. In the case of the Srull and Wyer (1979) study, the sentence creation task activated a hostility schema for participants in that condition, which then guided their interpretation of Donald's "ambiguous" actions.

When a prime is "more distinctive," then a comparison mindset is likely to guide evaluation. This comparison mindset is associated with contrast effects. As previously noted, an example of a "more distinctive" prime would be an exemplar. Stapel and Suls argue that when very distinct schemas (e.g., an exemplar) are active, the person who is primed compares him- or herself to that schema and the tendency is to note differences between the individual and primed construct. The effect can be behavioral (e.g., worse behavior on a test) or evaluative (e.g., lower evaluations based on the activated schema). In the case of the Dijksterhuis et al. (1998) study, the activation

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of an examplar of intelligence (i.e., Albert Einstein) created conditions in which participants in the Einstein condition contrasted away from the exemplar with the result being lower general knowledge test scores.

*Priming and the Active-Self Account*

The goal of the previous sections of this chapter was to introduce priming, topic-related conversation as a priming mechanism, and the expected outcome of assimilation or contrast to a target stimulus. The next section of this chapter presents an overview of the active-self account of prime-to-behavior effects (Wheeler et al., 2007; 2008). This account suggests that identity is an underexplored explanatory variable in priming research, and that identity may ultimately account for some of the conflicting results in priming research. Prior to discussing the active-self account, it is first necessary to first briefly discuss the ideomotor account of priming effects, as the active-self account is set in contrast to this account.

*Ideomotor Account of Priming Effects*

The ideomotor account of prime-to-behavior effects suggests that there is an automatic link between thought (i.e., ideation) and action (see Dijksterhuis & Bargh, 2001 for a discussion). This account suggests that thinking about an action is enough to initiate an action if there is no force of will to inhibit that action. Thus, when social perception occurs, it automatically activates a perceptual representation, which then has a direct effect on behavior. One result of this process is that individuals can be expected to "automatically" imitate the behavior of others (e.g., Chartrand & Bargh, 1999). Dijksterhuis and Bargh (2001) argue that these cognitive and behavioral processes occur automatically and without conscious awareness. The act of perception

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leads inexorably to action, whether the action is a behavior or an evaluation of a social group. Dijksterhuis and Bargh (2001) state that behavior "flows directly from a fact of mental representation and organization" and that "perceptual and behavioral representations for the same action overlap" (p. 2).

*Active-Self Account of Priming Effects*

Recently, Wheeler et al. (2007; 2008) have argued that the ideomotor account is incomplete, because in many circumstances there may be more complex processes occurring within the brain in social interactions that go beyond the more mechanistic explanation implied by the ideomotor account. Therefore, rather than an external stimulus simply activating abstract social or trait representations which then result in automatic motor actions associated with these representations, the active-self account suggests a fuller description of what may occur in social situations.

Prior to discussing the precepts of the active-self account (see Table 2-1), it is important to briefly consider two key concepts that are central to how the "self" is involved in explaining prime-to-behavior effects. They are the chronic self-concept and the active self-concept. The chronic self-concept consists of elements within the long-term memory that are connected to the "self" node in the brain, while the active self-concept is that part of the self-concept that is currently active and accessible. (See pp. 57-58 for conceptual definitions of the chronic and active self-concepts.)

According to the active-self account, the self-system influences behavioral outcomes and that the active self-concept can shift based on external stimuli such as primed constructs. Echoes of this account can be seen as far back as James and his contention that the self is often the source of willful action (James, 1950). This approach is aligned with research associated with the working self-concept and its

Table 1-1

*Postulates of the Active-Self Account\**

1. The aspects of the self-system currently accessible in the active self-concept guide volitional behavior.
2. The active self-concept changes in response to external stimuli, such as primed constructs. These changes can lead to changes in behavior.
3. Stimuli that enhance assimilative change in the active self-concept facilitate assimilative behavior change, while stimuli that decrease assimilative change in the active self-concept decrease assimilative behavior change.
4. Stimuli that enhance contrast in the active self-concept enhance contrast in behavior, while stimuli that decrease contrast in the active self-concept decrease assimilative behavior change.
5. Primes can have idiosyncratic meaning and generate behavior that follows from that meaning.
6. Features that affect usage of the stimulus-changed active self-concept will moderate prime-to-behavior effects.

*Adapted from Wheeler et al. (2007), p. 236.

importance in directing attention, perception, motivation, and information processing (Higgins, 1987; Kihlstrom & Cantor, 1984; Markus & Nurius, 1986). Thus, a prime influences what is salient or "active" in the self-concept, and what is active in the self-concept then influences behavior.

The idea that the self influences behavior has been addressed repeatedly in both the sociological and social psychological literatures. For example, Callero (1985) found that people who donated blood more frequently scored higher on a role-identity merger scale. Similarly, Sparks and Shepherd (1992) found that people who thought of being a "green consumer" as a significant part of their identity expressed higher intention to consume organically produced vegetables. Finally, Shadel and Mermelstein

(1996) found a relation between higher scores on a smoker identity scale and how many cigarettes a smoker reported smoking each day.

At the conceptual level, each of the conversational topics can be related to identity-related mental schemas that are expected to be resident within the study population. For example, "student identity" includes thinking about oneself as a learner, having a subordinate relationship with professors, and having peer relationships with other students (Reitzes & Burke, 1981). Student identity also includes concrete characteristics such as having a particular major, attending specific classes, and being a member of a college or university community, as well as thinking of oneself as intelligent or studious. Similar to student identity, over time individuals develop athlete and fan identities (Shank & Beasley, 1998; Wann, Tucker, & Schrader, 1996; Yopyk & Prentice, 2005).

*Self-Monitoring*

As noted, self-monitoring is a person variable that at least partially explains the degree to which individuals adjust their behavior to conform to situational cues (Snyder, 1974). For example, Snyder and Tanke (1976) found that low self-monitors were more likely to act in concert with their attitudes, while high self-monitors adjusted their behavior according to what they perceived in the immediate social environment.

More recently, DeMarree et al. (2005) tested whether self-monitoring moderates the prime—behavior relation. The authors found that low self-monitors were more likely than high self-monitors to show assimilation effects after being primed with a lexical test. To date, self-monitoring and identity strength have not been tested directly together as potential moderators of priming effects.

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CHAPTER TWO:

LOGIC AND THEORETICAL HYPOTHESES

The goal of the preceding chapter was to provide context for this dissertation vis-à-vis other research focused on the mass media content—interpersonal communication nexus and to discuss relevant theory that supports or suggests the hypotheses tested in the dissertation's three studies. The current chapter seeks to accomplish three goals: a) to present models implied by the theoretical frameworks used in the dissertation; b) to give conceptual definitions of key variables; and c) to provide theoretical hypotheses and the expected outcomes of the analyses presented later in the dissertation. Prior to presenting this information, though, it is worthwhile to briefly discuss two conceptual and methodological paradigms that influenced the design of two of the studies presented in this dissertation.

*O'Keefe's Three Classes of Research Claim*

The first influential paradigm was O'Keefe's (2003) three-fold typology of communication research. O'Keefe states that most communication research can be categorized within one of three types of research claim. The first type of claim tests whether a given psychological state (e.g., fear) may cause some distal message-processing outcome (e.g., increased intention to stop smoking). The second type of claim tests whether a given message characteristic (e.g., the presence or absence of vivid photos) causes a distal message-processing outcome (e.g., increased intention to stop smoking). Finally, the third type of research claim tests whether manipulating a

message characteristic (e.g., presence or absence of vivid photos) causes a change in a psychological state (e.g., fear), which then causes some distal message-processing outcome (e.g., increased intention to stop smoking).

O'Keefe suggests that this third type of research claim is frequently underutilized by communication scholars, but that it is the most important type of claim to pursue. That is because the third class of claim potentially yields both a specific mechanism that explains differences in a persuasion outcome—something that is important for building theory—as well as a specific message characteristic that can be altered to produce a desired outcome—something that is important for practitioners who design strategic communication campaigns.

These latter two points are why the O'Keefe article influenced this dissertation. Even though there is no message variation in the dissertation that directly matches what is presented by O'Keefe (e.g., presence of introductory metaphors in a message), topic-related conversation can be viewed as an analog to message variation because the dissertation includes conditions that test the effect of the presence or absence of topic-related conversation on how mass media messages are evaluated. Further, it is the presence and type of topic-related conversation that is hypothesized to cause a change in a psychological state—in this case a temporary change in the contents of the active self-concept. It is via the expected change in the active self-concept that differences in how individuals respond to a mass media message are hypothesized to occur. Therefore, Study 2 in the dissertation provides a test of the entire chain, beginning with topic-related conversation's effect on the active self-concept and ending with a test of the topic-related conversation—active self-concept—target stimulus

evaluation path. The ultimate goal, of course, is to generate better theory about how conversation influences the reception and processing of mass media messages while also producing practical suggestions for designing and implementing strategic communication campaigns.

*Naturalistic Research Paradigms*

The second influential methodological paradigm was William Ickes's dyadic interaction paradigm (Ickes, 1982; 1983; see also Ickes, Robertson, Tooke & Teng, 1986), which shaped the experimental manipulation used in Study 1 and Study 2 of the dissertation. Ickes developed this research method as he sought a valid measure of how individual difference variables (e.g., self-monitoring) manifest themselves in interpersonal interactions. Ickes argued that researchers often underestimate the power of experimental situations to shape behavior and that researchers often leave "cue cards" or telltale signals that show experimental participants what "role" they should play in what becomes a tightly scripted situation. Ickes then argued that "weaker" or less highly structured situations (Ickes, 1983; see also Snyder & Ickes, 1985) would lead to a more accurate measure of the effect that an individual difference variable would have on behavior.

So Ickes (1982; 1983) proposed a research paradigm specifically designed to reduce the amount of structured interaction that occurred in lab experiments. A key element of this paradigm was 5 minutes of unstructured interaction as a main part of any experiment. For example, in one study Ickes and Barnes (1977) administered the self-monitoring scale to participants prior to their arrival at the lab. Participants were then randomly assigned an experimental partner and both were left alone in a room for 5 minutes while their interactions were secretly videotaped. Consistent with what

Ickes and Barnes predicted, high self-monitors were more likely to speak first, to speak more frequently, and to be perceived by their partners as being more directive in the unstructured interactions.

A number of researchers have either adapted or used a modified version of Ickes' paradigm (e.g., Cross, Bacon & Morris, 2000; Jones & Guerrero, 2001; Leonard, 1984). For example, Cross et al. (2000, Study 3) randomly assigned participants to a partner with whom they then spent approximately 15 minutes in conversation prior to rating their partner using the relational-interdependent self-construal scale. Similarly, Jones and Guerrero (2001) had participants talk about an upsetting personal experience with a confederate for 5 minutes as part of a test of a model of emotional comforting.

Because I wanted to directly test the effect that participating in a topic-related conversation would have on participants, I adapted the dyadic interaction paradigm in studies 1 and 2 of the dissertation. Whereas Ickes used unstructured observation as a way of capturing the influence of individual differences on behavior, I used an unstructured interpersonal interaction as a means through which a topic-related conversation could be used to prime conversational participants. My goal was to use an experimental manipulation that was directed enough to activate specific cognitive schemas, while at the same time allowing for enough self-direction to simulate the experience of a "real" conversation. Therefore, in these studies I randomly assigned participants an experimental partner and a conversational topic and then gave them 5 minutes to have a conversation about their assigned topic.[2]

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[2] Both studies also included a no conversation condition, in which all aspects of the study were the same except that the two experimental partners did not engage in conversation.

Given that a task (i.e., participating in a topic-related conversation) and topic (e.g., talking about a salient experience as a college student) were assigned to the experimental participants but no other instructions given, I suggest that my adaptation presented participants with a "moderately weak" situation. I believe this manipulation allowed me to benefit from the advantages of the dyadic interaction paradigm, such as a combination of internal and external validity of results, high data yield, and the potential for multiple levels of analysis. An additional advantage was that I viewed an unstructured conversation as a potentially good venue in which the influence of self-monitoring may manifest itself (e.g., Debono & Snyder, 1995; Fiske & Von Hendy, 1992). At the same time, I recognize that this procedure included some of the disadvantages of a weakly structured experimental condition (e.g., random noise, limited length of conversation). However, I believed that the advantages of using the method outweighed the disadvantages for my studies. (See Ickes, 1982, pp. 328-331, for a more complete discussion of the advantages and disadvantages of the dyadic interaction paradigm.)

Having presented the rationale for providing a direct test of whether changes in the active self-concept mediate the topic-related conversation—target stimulus evaluation relation and the rationale for using unstructured topic-related conversations between participations as an experimental method, I now turn to the theoretical models to be tested within the dissertation, conceptual definitions of key variables, theoretical hypotheses, and their expected outcomes.

*Study 1: Topic-related Conversation and Its Effect on Target Stimulus Evaluation*

The question that guided the design of the first study of the dissertation was—

do topic-related conversations occurring prior to exposure to a mass media message produce outcomes similar to those produced by lexical tasks used in other priming studies? The theoretical model implied by this question was a simple main effects model where participating in a topic-related conversation immediately prior to exposure to a mass media message was hypothesized to cause differences in how that message was evaluated. The assumption, though not directly tested, was that exposure to the priming mechanism would activate a cognitive schema, which then would influence response to subsequent stimuli. In the first study, differences in message evaluation were expected to be manifested as assimilation or contrast to the contents and characters in the message by the experimental participants.

Therefore, the model tested in the first study was:

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┌──────────────┐              ┌──────────────┐
│ Topic-related│─────────────▶│Target stimulus│
│ conversation │              │  evaluation  │
└──────────────┘              └──────────────┘
```
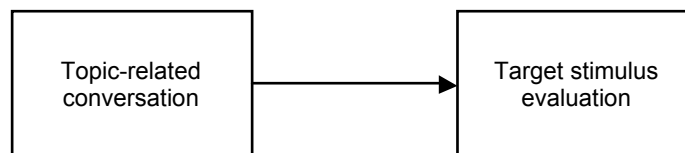
*Figure 2-1:* Main effect of topic-related conversation on target stimulus evaluation.

*Conceptual Definition of Topic-related Conversation*

The independent variable in this model is topic-related conversation. Topic-related conversation is defined conceptually as a conversation that focuses on a specific topic-related event and whose topic is embedded within a cognitive schema (or knowledge unit) which is directly relevant to the conversational topic. For example, a topic-related conversation about activities associated with being a college student should activate college student-related schemas in the brains of conversational participants. Similarly, a topic-related conversation about one's hometown should activate a cognitive schema or schemas related to the respective hometowns of the

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conversational participants. Once activated, these topic-related cognitive schemas should influence how subsequent target stimuli are evaluated in a manner similar to what other lexical tasks such as writing or thinking about a specific type of experience have demonstrated.

*Conceptual Definition of Target Stimulus Evaluation*

The main dependent variable in Study 1 was target stimulus evaluation. The target stimuli were two anti-binge drinking ads. Target stimulus evaluation is defined conceptually as the evaluation of a stimulus to which a study participant is exposed after engaging in a topic-related conversation.[3] The expectation based on prior research is that, once activated, the schema will influence how subsequent schema-relevant stimuli are evaluated. This method of capturing the effect of a priming mechanism is consistent with a range of previous studies associated with priming (e.g., Dijksterhuis, Spears, Postmes, Stapel, Koomen, van Knippenberg et al., 1998; Forehand & Deshpande, 2001; Forehand, Deshpande & Reed, 2002; see also Higgins, 1996; Forster & Liberman, 2007), as well as studies related to anti-binge drinking (e.g., Andsager, Austin & Pinkleton, 2001; Austin & Meili, 1994).

As noted in the previous chapter, the interpretation—comparison model of priming (ICM; Stapel & Koomen, 2001; Stapel & Suls, 2004) was used as a theoretical framework to predict when assimilation to a target stimulus or contrast away from a target stimulus would likely occur. The ICM suggests that when a schema is weak and less distinct that assimilation to a target stimulus is likely to occur because the activated schema will guide interpretation of the stimulus. Conversely, the theory

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[3] Operational definitions of the dependent variable for Study 1 can be found in the next chapter (see pp. 80ff).

suggests that when a schema is strong and more distinct that contrast away from a target stimulus is likely to occur because the activated schema will create a condition where comparison to the developed schema occurs.

*Theoretical Hypothesis for Study 1*

The theoretical hypothesis associated with Figure 2-1 is as follows:

*Participating in a topic-related conversation will influence how a target stimulus is evaluated. In situations where the activated schemas are weaker and less distinct, the result will be assimilation to the target stimulus. In situations where the activated schemas are stronger and more distinct, the result will be contrast from the target.*

*Expected Outcome for Study 1*

In the first study, one of the topic-related conversation conditions requires participants to talk about a salient experience associated with their hometowns. While it was expected that for some participants affiliation with their hometowns is very important and subsequently the "hometown-schema" may be very distinct, on average this schema should be more diffuse and less central to the evaluation of the target stimulus. So, a "hometown-schema" is conceptualized as a weaker and less distinct schema, and is hypothesized to be more likely to produce assimilation effects. Therefore, the expected outcome is that participants who have a conversation about their hometowns will exhibit assimilation to the anti-binge drinking PSAs and therefore on average record higher target stimulus evaluation scores. For example, when asked to rate the main characters in the ads, participants who have a topic-related conversation about their hometowns are expected to rate the characters as more like

people from their hometowns when compared to the other conditions.

A second condition in the study requires participants to have a topic-related conversation about a salient experience associated with being a college student. Because the population used in the studies consists entirely of university students, it was expected that on average their "college student schemas" should be distinct and readily accessible (e.g., Burke & Reitzes, 1981). This suggests that participants who have a student-related topic-related conversation will exhibit contrast effects and should record lower target stimulus evaluation scores. So, a college student schema is conceptualized as a stronger and more developed schema and is hypothesized to produce contrast effects. Therefore, the expected outcome for participants who have student-related conversations is that they will exhibit contrast from the ads and therefore on average record lower evaluation scores. For example, when asked to rate how realistic the stimulus materials are, participants who have a topic-related conversation about student-related experiences are expected to rate the stimulus materials as less realistic and less relevant when compared to the other conditions.

*Research Question: Does Topic-related Conversation Change Active Self-concept?*

Finally, data were also gathered in the first study to test the effect of topic-related conversation on the contents of the active self-concept. These data and analyses are secondary to the main focus of Study 1, and they are reported as a research question. A conceptual definition of the active self-concept appears in the next section (see pp. 57-58).

The research question about the effect of topic-related conversation on the active self-concept is:

*Will topic-related conversation produce significant differences in topic-*

*related self-descriptors used by participants in the measure of the*

*active self-concept?*

*Study 2: Topic-related Conversation and the Active-Self Account*

The question that guided the design of the second study of the dissertation was—do changes within the active self-concept mediate the relation between pre-exposure topic-related conversation and the evaluation of a target stimulus? The theoretical framework upon which the models and hypotheses for Study 2 rest is the active-self account of prime-to-behavior effects (Wheeler et al., 2007, 2008). This theory proposes that exposure to a priming mechanism causes a change in the active self-concept, and that the change in the active self-concept then influences subsequent behavior and responses to stimuli. Several analyses were conducted to test whether the active-self account explains effects associated with engaging in topic-related conversation.

The first analysis in the study is modeled on a previous study (DeMarree et al., 2005, Study 3), and it tests whether self-monitoring moderates the topic-related conversation—target stimulus evaluation relation (see Figure 2-2). The logic here is that because low self-monitors are more likely to act in concert with internal beliefs and cues, they are also more likely to be influenced by the effect of a prime if that prime flows through the active self-concept. Thus, if low self-monitors are affected more strongly by exposure to a prime, this would be interpreted as evidence that the active self-concept moderates the priming mechanism—priming effect relation.

The model associated with the first analysis is:

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                    ┌─────────────┐
                    │    Self     │
                    │  monitoring │
                    └──────┬──────┘
                           │
                           │
                           ▼
┌──────────────┐     ┌──────────────┐
│ Topic-related│────▶│Target stimulus│
│ conversation │     │  evaluation  │
└──────────────┘     └──────────────┘
```
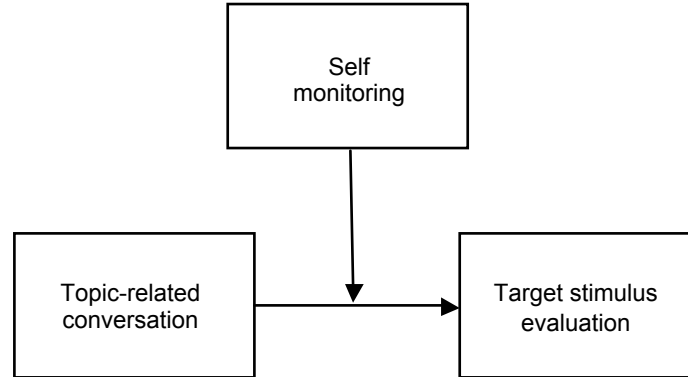
*Figure 2-2:* Self-monitoring as a moderator of the topic-related conversation—target stimulus evaluation relation

*Conceptual Definition of Topic-related Conversation*

The independent variable in this model is topic-related conversation, and it is defined conceptually in the same manner as in Study 1—it is a conversation that focuses on a specific topic-related event and whose topic is embedded within a mental schema that is directly relevant to the conversational topic.[4] One difference in the current study is that Study 2 used exercise-related and student-related conversations, as well as a no conversation condition.

*Conceptual Definition of Self-monitoring*

Self-monitoring is defined conceptually as an individual difference variable that describes the degree to which individuals are concerned about their public self-presentation and the degree to which they "value, create, cultivate, and project social images and public appearances" (Gangestad & Snyder, 2000, p. 531; see also Snyder, 1974, 1979). In general, high self-monitors vary their behavior significantly based on

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[4] Operational definitions of the independent variables for Study 2 can be found on page 110 and following.

situational cues, and the behavior of high self-monitors can be thought of as answering the question, "What does this situation ask of me?" Low self-monitors are much less likely to adjust their behavior to situational demands. Rather, they can be expected to base their behavior on internal standards of belief or value, and their behavior can be thought of as an answer to the question, "How can I express myself in this situation?"

Self-monitoring was also conceptualized (and operationalized) as a discrete or "class variable," rather than a continuous variable. Gangestad and Snyder (1985) provided the rationale for using two self-monitoring categories (i.e., high, low) when they demonstrated that a dichotomous latent variable model provided a more complete accounting of the variance associated with a sample of results of the self-monitoring scale as compared to a model conceptualizing self-monitoring as a continuous variable (see also Snyder & Gangestad, 1986). Further, von Davier and Rost (1997) suggest conceptualizing self-monitoring as a dichotomous variable when the focus of analysis is on low self-monitors, as it is in this study.

The dependent variable was target stimulus evaluation. The target stimuli were two messages advocating regular exercise and other behaviors to promote health and a normal weight. Target stimulus evaluation was defined conceptually as the evaluation of a topic-relevant stimulus to which an individual is exposed after engaging in a topic-related conversation. The reader should note that this represents a slight change from Study 1, as an effort was made in Study 2 to more closely align the stimulus materials with one of the conversational conditions.

*Theoretical Hypothesis for Model with Self-monitoring as Moderator*

The theoretical hypothesis associated with Figure 2-2 is as follows:

*Low self-monitors who engage in a topic-related conversation will*

*demonstrate a stronger priming effect when compared to high self-monitors. This effect will be manifested in their evaluations of a target stimulus.*

*Expected Outcome of Tests of Self-monitoring as Moderator*

If self-monitoring moderates the topic-related conversation—target stimulus evaluation relation, then there should be significant differences in how low and high self-monitors rate the stimulus materials. In particular, because an exercise-related conversation is expected to change the active self-concept of low self-monitors, it is also expected the low self-monitors will exhibit a stronger reaction to the prime, as evidenced by significantly higher or lower evaluation scores.

However, the literature is not entirely clear on the point of whether to expect low self-monitors to display contrast from or assimilation to a target stimulus. Applying the basic concepts of the ICM to the active-self account suggests that low self-monitors should be particularly likely to produce contrast to a target stimulus. That is because we would expect the topic-related conversation to affect the contents of the active self-concept. This should have a similar effect as activating a stronger, more distinct stimulus, which then would create contrast that would be manifested in lower evalation scores. At the same time, DeMarree et al. (2005) argued that low self-monitors should display stronger assimilation to the target stimulus, which is what they found. Their argument was that the effect of the prime would simply be stronger for the low self-monitors because of the changes in the active self-concept. Therefore, the hypothesis in Study 2 will predict a contrast effect low self-monitors, but an alternative hypothesis for low self-monitors consistent with the DeMarree et al. findings will also be included

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(i.e., low self-monitors should display stronger assimilation to the target stimulus).

Finally, the active self-account literature does not directly address how high self-monitors should respond when they have been primed. In the DeMarree et al. studies, high self-monitors did not show any effect of the priming mechanism. However, given the interpersonal interaction aspect of the experimental method, it is quite likely that high self-monitors will respond differently when compared to the low self-monitors. While we can look at other research indicating that high self-monitors adjust their actions when there is a public component to their behavior (e.g., Chen, Schechter & Chaiken, 1996; DeBono & Snyder, 1995), a research question is proposed about the possible effect of topic-related conversation on high self-monitors.

Therefore, the research question is:

*Will the natural sensitivity of high self-monitors to pressures associated with an interpersonal interaction influence how they evaluate the target stimulus materials?*

*Model Testing the Active Self-concept as Mediator*

The second analysis directly tests the effect of topic-related conversation on the active self-concept, while the third analysis provides a standard test of a mediator relation (i.e., Baron & Kenny, 1986). In the latter analysis, topic-related conversation should cause a change in the active self-concept, but also the active self-concept should cause a change in target stimulus evaluation.

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The model associated with whether the active self-concept mediates the topic-related conversation—target stimulus evaluation relation is:
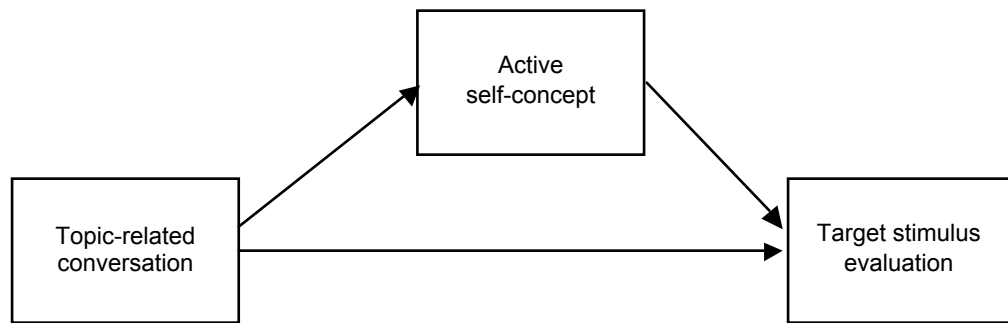


*Figure 2-3:* Model with active self-concept as a mediator of the topic-related conversation—target stimulus evaluation relation.

### *Conceptual Definitions of Active and Chronic Self-concepts*

Because the active self-concept draws primarily from the contents of the chronic self-concept, it is necessary to define the chronic self-concept prior to providing a conceptual definition of the active self-concept.

The chronic self-concept is defined conceptually as the collection of declarative elements (e.g., facts about the self) and episodic memories (e.g., specific individual experiences) within an individual's long-term memory that are linked to the "self" node in memory. These elements are easily recalled into short-term memory, and they may be chronically accessible to an individual (Wheeler et al., 2007; see also Kihlstrom & Cantor, 1984; Markus & Wurf, 1987). Examples of items that comprise the chronic self-concept include idiosyncratic aspects of the self (e.g., name, place of birth), role-based aspects of the self (e.g., role as parent, role as professor), and social group-based aspects of the self (e.g., religious affiliation, political affiliation). While there will be variation across different situations in regard to what aspects of the self-concept are

currently accessible (see discussion below), the chronic self-concept is relatively stable

for each individual across time and place.

The conceptual definition of the active self-concept is the "self-concept of

the moment" (Markus & Wurf, 1987, p. 306), and it consists of those elements of the

chronic self-concept that are currently accessible in the working memory at a particular

time and place (Wheeler et al., 2007). The contents of the active self-concept are

drawn from the chronic self-concept, and may vary based on the social setting or social

cues within a situation. For example, the author may find the component of his chronic

self-concept associated with being a graduate student very salient in one situation

(e.g., oral defense of dissertation) while another component of his chronic self-concept

associated with being an assistant professor is salient in another (e.g., a faculty

meeting).

Further, some situational cues can also be temporarily incorporated into the

active self-concept. This process is described as a temporary "enlarging" of the active

self-concept caused by some element within an environment (Wheeler, DeMarree &

Petty, 2005). Thus, the active self-concept represents a combination of material drawn

from the chronic self-concept plus some potentially small influence associated with

cues within one's environment.

The Twenty Statements Test (TST; Kuhn & McPartland, 1954) was used to

measure the active self-concept,[5] and the rationale for using it was three-fold. First,

a number of other studies have used this method to capture what is salient about

the self-concept (e.g., Coover & Murphy, 2000; Grace & Cramer, 2002; Jackson &

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[5] Further discussion of the operational definition of the active self-concept can be found in chapters 3 (p. 83) and chapter 4 (pp. 114ff).

Smith, 1999; McGuire & McGuire, 1981). Second, a number of researchers have converted the results from the TST into proportions of some aspect of the self or self-concept, which can then be treated as a continuous scale (e.g., Brewer & Gardner, 1996; Trafimow, Triandis & Goto, 1991; Trafimow, Silverman, Fan & Law, 1997). For example, Trafimow et al. (1991) had participants complete the TST in a study about what makes the private or collective self salient. In the analysis, the authors coded the data as either ideocentric or group-centric responses, and then converted these into proportions which were used in their analysis. Similarly, Brewer and Gardner (1996; Study 3) coded answers to the TST as expressing a "collective identity" or an individual identity. They then converted the answers into the proportions that were used in their analysis. The final reason for using the TST is that even though there is a lot of noise associated with the measure, using it actually provided a more conservative test of the effect of topic-related conversation on the active self-concept, because producing any significant difference between conditions would indicate the potential strength of the influence of topic-related conversation on the active self-concept.

*Measuring the Effect of Topic-related Conversation on the Active Self-concept*

There are at least two direct pieces of evidence that topic-related conversation influences the active self-concept that are pursued in this study. First, more items directly related to a conversation's topic should appear in answers to the "Who am I?" questions. In Study 2, this means we would expect a main effect for topic-related conversation such that people who had exercise-related conversations would include more exercise-related self-descriptors in their answers when compared to participants in the other conditions. Second, we also would expect that participants who had a topic-related conversation directly relevant to a known aspect of their chronic self-

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concept would show an even-greater increase in the number of topic-related self-descriptors. This would manifest itself as a main effect for "chronic self-concept."

For example, we would expect individuals who had relatively more experience related to exercise would use more exercise-related self-descriptors when compared to those who had relatively less experience. For this study, the exercise identity scale (Anderson & Cychosz, 1994) was used as a measure of one component of the chronic self-concept (i.e., exercise-related chronic self-concept). The exercise identity scale is a previously validated scale that has been shown to covary with exercise frequency and with attitudes toward exercise (Anderson, Cychosz & Franke, 2001). The scale contains items such as "I consider myself an exerciser" and "Physical exercise is a central factor to my self-concept." (See Appendix E for the entire exercise identity scale.)

So *exercise-related chronic self-concept*[6] was defined conceptually as a measure of the degree to which individuals feel exercise is a central part of their lives. Exercise identity was expected to vary by individual based on past history and experience with exercise. Those who had a richer set of past and current experiences associated with exercise were expected to score higher on the exercise identity scale, and on average they were expected to include more exercise-related self-descriptors in the TST answers. Conversely, those who had less rich past and present experiences associated with exercise were expected to score lower on the exercise identity scale, and on average they were expected include fewer exercise-related self-descriptors.

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[6] For ease of use, the term "exercise identity" will be used synonymously with the term "exercise-related chronic self-concept."

*Theoretical Hypothesis for Topic-related Conversation and Active Self-concept*

The theoretical hypothesis associated with the effect of topic-related conversation on active self-concept is:

*Topic-related conversations should influence the contents of the active self-concept such that there would be more topic-related items as captured by a measure of the active self-concept such as the Twenty Statements Test. This effect should be greater on average for individuals whose chronic self-concept contains an element directly related to the conversational topic.*

*Expected Outcome of Test of Topic-related Conversation and Active Self-concept*

If topic-related conversation influences the active self-concept, we would expect there to be a topic-related conversation main effect and an exercise identity main effect. That is, people who have exercise-related conversations should on average produce more exercise-related items in their responses to the TST. Additionally, individuals who score high on the exercise identity scale should make more references to that aspect of their identity in the responses to the "Who am I?" than those who score low on that measure. Further, this difference should be heightened after an exercise-related conversation, and a plot of the means with three conversation conditions would look like two inverted V's resting one on top of the other.

*Active Self-concept as a Mediator*

The Baron and Kenny (1986) procedure for testing a mediational pathway was used to test whether active self-concept mediated the topic-related conversation—target stimulus evaluation relation. There are three basic conditions that must be met to

indicate the presence of a mediating variable. First, variation in the first variable in the causal chain should account for variation in the mediating variable. Second, variation in the mediating variable should account for variation in the dependent variable. Finally, when the first variable—mediating variable and the mediating variable—outcome variable relations are held constant, the first variable—outcome variable relation should be significantly reduced or eliminated.

*Theoretical Hypothesis Active Self-concept as Mediator*

The theoretical hypothesis associated with the active self-concept as mediating the topic-related conversation—target stimulus evaluation relation is:

*The active self-concept will mediate the topic-related conversation—*

*target stimulus evaluation relation.*

*Expected Outcome of Test of Active Self-concept as Mediator*

The expected outcome of the mediational test is that a) variation in topic-related conversation should account for variation in the active self-concept; b) variation in the active self-concept should account for variation in target stimulus evaluation (e.g., message realism, message relevance, overall evaluation); and c) when topic-related conversation—active self-concept and active self-concept—target stimulus evaluation relations are controlled, the topic-related conversation—target stimulus evaluation relation should be significantly reduced or drop to 0.

Therefore, the topic-related conversation—target stimulus evaluation and topic-related conversation—active self-concept relations should be significant; the active self-concept—target stimulus evaluation relation should be significant; and the

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topic-related conversation—target stimulus evaluation relation should drop to 0 when controlling for active self-concept.

*Study 3: Topic-related Conversation, Topic-related Media Use, and Behavior*

The research question that guided the design of the dissertation's third study was—do variables such as topic-related conversation and topic-related media use predict current and future topic-related behavior? While studies 1 and 2 explored the immediate influence of topic-related conversation on the evaluation of mass media messages, the goal of the third study was to begin to consider longer-term or "chronic" effects of engaging in topic-related conversation.

The basic hypotheses of Study 3 were influenced by previous political communication research (e.g., McLeod et al., 1999; Shah et al., 2007). This research indicates that media use related to politics and political discussion often predict subsequent political behavior, such as voting or attending a public forum. At the broadest level, then, this theoretical framework suggests that media use, conversation, and behavior are intertwined, and that one key to predicting behavior may be to identify is media use and conversation patterns among the target population. Interestingly, though, this framework has not been applied to health communication.

So the primary goal of the study was to apply the broad ideas of this line of research to a popular health topic—exercise—that was relevant to the target population (i.e., university students). The secondary goal of the study was to return to a question that was briefly addressed in Study 2. In that study, there was discussion (and a hypothesis) about the immediate effect of topic-related conversation on the active self-concept, with the exercise identity score being conceptualized as a measure of

one aspect of the chronic self-concept. In the current study, I return to that idea by performing an exploratory analysis which uses chronic self-concept as the outcome measure and topic-related conversation as the predictor variable.

Therefore, there are three analyses that are presented in Study 3. The first analysis tests whether current media use and conversation predict current behavior. The second analysis tests whether media use and conversation at Time 1 predict behavior at Time 2 (i.e., one week later). The third analysis tests whether topic-related conversation predicts chronic self-concept.

The theoretical model for analyses 1 and 2 is:
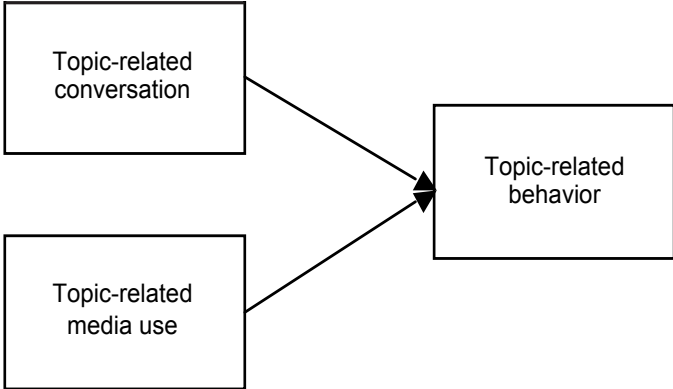


*Figure 2-4.* Model with topic-related conversation and topic-related media use predicting topic-related behavior.

*Conceptual Definition of Topic-related Media Use, Conversation, and Behavior*

Topic-related media use was defined conceptually as mass media content directly related to the conversational topic to which a person may be exposed. In the case of this study, the topic was exercise, so the focus was placed on capturing the degree to which participants watched television shows about exercise and physical activity. This variable was also conceptualized as including watching organized sports

activities. Further, because research indicates a small but significant positive relation between television and Internet use and exercise (e.g., Eisenmann, Bartee, Smith, Welk, & Fu; 2008; Foster, Gore, & West, 2006; Schneider, Dunton & Cooper, 2007) generic media and Internet use measures were included in the study. These broader measures were conceptualized as generic television or Internet use (i.e., hours per day using Internet or watching television).[7]

Topic-related conversation was defined conceptually as conversation that focuses on a specific topic or event and that is distinct enough to be embedded within a mental schema that is the same as or directly related to the conversational topic. For example, exercise-related conversation was conceptualized as conversation about one's own or someone else's involvement in exercise, while exercise TV conversation was conceptualized as conversations about exercise television shows an individual had watched or someone else had talked with them about.

Topic-related behavior was defined conceptually as volitional behaviors directly related to the conversational topic. Here, topic-related behavior was conceptualized as time spent engaging in aerobic exercise. Aerobic exercise was defined as aerobic exercise or physical activity including jogging or running, playing soccer or basketball, or aerobics.

*Theoretical Hypothesis of Media Use, Conversation, and Behavior*

The theoretical hypothesis associated with Figure 2-4 is:

*Topic-related conversation and topic-related media use will explain*

*variation in current topic-related behavior.*

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[7] Operational definitions of the predictor variables appear later in the dissertation beginning at page 144.

*Expected Outcome*

The expected outcome is that exercise-related media use will predict current exercise behavior. Therefore, the amount of this type of media use should increase as exercise behavior increases. Additionally, exercise-related conversation will predict current exercise behavior. Thus, people who report talking about exercise and physical exercise more will also report engaging in more exercise-related behavior.

*Using Media Use and Topic-related Conversation to Predict Future Behavior*

While it is worthwhile to test whether media use and conversation predict current behavior, it would also be valuable to test whether media use and conversation predicted future behavior. This type of outcome is suggested by a study that used media use and conversation at Time 1 to predict political knowledge at Time 2 (Eveland & Thomson, 2006).

In that study, Eveland and Thomson measured media use (i.e., watching television news, reading the newspaper) and political conversation (i.e., number of times talked about politics within someone else in last 6 months) at Time 1. Approximately three months later they went back to the sample and administered a basic political knowledge test (e.g., Which party controls the House of Representatives? Which party is Tom Daschle a member of?). Eveland and Thomson then used the media use and conversation measures to predict the political knowledge. They found that both media use and frequency of political discussion were significant predictors of political knowledge.[8]  Eveland and Thomson argued that while they could not make absolute causal claims, that due to the time lag between the measures,

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[8] Eveland and Thomson also included a number of other control variables, such as gender, age, education, and income. See page 531 of their study for a complete of these variables.

it was logical to at least suggest that there was some causal impact of the earlier conversation and media use.

The idea for the second analysis was based on this previous study, although the time lag was much shorter. In this study, the idea was that media use and conversation at Time 1 should predict topic-related behavior at Time 2. The argument, of course, is not that the media use and conversation cause the later behavior, but rather that we would expect the former to predict the latter. A positive finding would be consistent with the Eveland and Thomson findings.

*Theoretical Hypothesis of Media Use, Conversation, and Behavior*

The theoretical hypothesis associated with analysis two is:

*Topic-related conversation and topic-related media use measured at*

*one point in time will explain variation in future topic-related behavior.*


*Expected Outcome*

For the current study and analysis, the expected outcome is that exercise-related media use and exercise-related conversation at Time 1 will predict exercise behavior at Time 2. So, as the higher media use and conversation scores at the initial measurement stage should be associated with higher amounts of aerobic exercise reported one week later.

*Topic-related Conversation and Chronic Self-concept*

The third analysis considered whether there was any significant relation between topic-related conversation and chronic self-concept. Theory related to schema development (e.g., Tulving, 1986) suggests that behavior predicts the development of cognitive schemas, which has been defined conceptually as a proxy for the chronic

self-concept. And indeed, research indicates a reciprocal relation between exercise behaviors and exercise identity (e.g., Anderson et al., 2001).

In this case, the expectation is that topic-related conversation should predict chronic self-concept. Because measures for the chronic self-concept were taken only at one point in time, the analysis is presented as an exploration of the relations at one point in time.

The theoretical model associated with that analysis is:
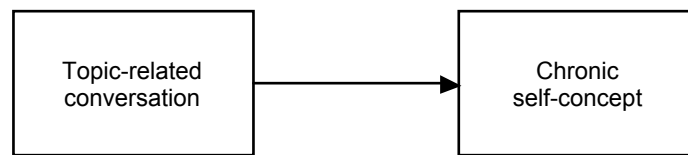


*Figure 2-5.* Model with topic-related conversation predicting chronic self-concept.


*Conceptual Definitions of Variables*

The conceptual definitions of the variables are those used previously. Topic-related conversation is defined as a conversation that focuses on a specific topic or event and that is distinct enough to be embedded within a mental schema that is the same as or directly related to the conversational topic. Chronic self-concept is defined conceptually as a collection of declarative elements (e.g., facts about the self) and episodic memories (e.g., specific individual experiences) within an individual's long-term memory that are linked to the "self" node in memory.

*Theoretical Hypothesis for Conversation, Behavior, and Chronic Self-concept*

The theoretical hypothesis associated with Figure 2-5 is:

*Topic-related conversation will account for variance in a measure*

*of the chronic self-concept when that measure is related to the*

*conversational topic.*


*Expected Outcome*

The expected outcome is that exercise-related conversation will predict

exercise identity. That is, people who report talking about exercise will have higher

scores on the exercise identity scale.

CHAPTER THREE:

TOPIC-RELATED CONVERSATION AND ITS EFFECT

ON TARGET STIMULUS EVALUATION

The goal of the first study in the dissertation was to test whether topic-related

conversations would function as a priming mechanism and influence how a target

stimulus was evaluated. In this study, the target stimulus consisted of two anti-binge

drinking PSAs. Although the literature review and logic/hypotheses chapter have

provided a rationale for why topic-related conversation may be expected to function

as a priming mechanism, this chapter provides an abbreviated review of that rationale,

as well as the specific hypotheses tested in the study. There is also discussion and

analysis related to whether topic-related conversation influences the contents of the

active self-concept. Prior to presenting the discussion and hypotheses, I first present

a brief rationale for choosing anti-binge drinking ads as the target stimulus materials.

*Rationale for Choosing Binge Drinking*

There are two primary reasons why anti-binge drinking messages were chosen

as the target stimulus for the evaluation task. First, binge drinking is a persistent

problem on many university campuses (Wechsler, Dowdall, Davenport, & Castillo,

1995; Wechsler, Lee, J. E., Kuo & Lee, H., 2000). It is considered a problem, because

college students who binge drink are also more likely to have lower grade point

averages, engage in risky sex, have sex with multiple partners, get into arguments

and physical alterations, and use illegal drugs such as marijuana or cocaine (Jones,

Oeltmann, Wilson, Brener & Hill, 2001; Wechsler et al., 1995; Wechsler, Lee, Kuo,

Seibring, Nelson & Lee, 2002). Second, binge drinking is very common at universities

and colleges in Minnesota. For example, in a large-scale survey of traditional

undergraduates (i.e., aged 18-24), 41.6% of students reported engaging in at least one

episode of binge drinking—defined as 5 or more drinks in one sitting—within the past

two weeks (Boynton Health Service, 2007). Therefore, the topic of binge drinking is one

in which the study population would be expected to be familiar, even some participants

have never engaged in binge drinking themselves.

*Topic-related Conversation as Priming Mechanism*

The rationale for conceptualizing topic-related conversation as a priming

mechanism begins with past research indicating that lexical tasks such as creating

sentences out of word groups (e.g., Srull &Wyer, 1979; Higgins, King & Mavin,

1982) and writing about past personal experiences (e.g., Yopyk & Prentice, 2005)

caused differences in how individuals reacted to subsequent target stimuli . Because

conversations draw on many of the same mental schemas that lexical tasks do

(Wyer & Srull, 1986), this suggests that topic-related conversations may be a natural

extension of lexical priming tasks. If this is true, then we would expect a target stimulus

such as a mass media message to be evaluated differently based on the topic of

conversation when the conversation occurs immediately prior to message exposure.

*Target Stimulus Evaluation*

The main dependent variable in the first study was target stimulus evaluation,

and this variable was measured on several dimensions. The first dimension was

perceived realism of the message. Message realism was used because there is

some evidence that higher levels of realism in ads are associated with more positive

attitudes toward the ads (Austin & Meili, 1994) and that this relation seems to hold

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true with regard to anti-binge drinking ads in particular (Andsager, Austin & Pinkleton, 2001; Austin & Dong, 1994). The second dimension was the perceived relevance of the message. Message relevance was used because perceived message relevance is often related to persuasion outcomes (e.g., Petty, Cacioppo, & Schumann, 1983) but also positive message evaluation (Baker & Lutz, 2000). The third measure was perceived character similarity (e.g., degree to which characters are similar to college or university students after talking about college student experiences). A number of researchers have examined the degree to which perceived similarity to characters in the mass media influences liking of the characters themselves, as well as the messages they are associated with (e.g., Appiah, 2001; Reeves & Miller, 1978; Turner, 1993; van Feilitzen & Linne, 1975). Perceived character similarity has also been shown to have a positive relation with message effectiveness (e.g., message credibility, relevance and usefulness) in a study targeting alcohol consumption among college students (Andsager, Bemker, Choi & Torwel, 2006; see also Austin & Meili, 1994). Each of these dimensions was measured separately, but the expectation was that a consistent pattern of results should emerge if topic-related conversation follows the predictions guided by the interpretation—comparison model of social comparison (ICM; see next section).

*Target Stimulus and Psychological Assimilation and Contrast*

A common method of measuring the effect of a priming mechanism is to measure the degree to which individuals "assimilate to" or "contrast from" a target stimulus. The current study uses Stapel's ICM theory of assimilation and contrast (Stapel & Koomen, 2001; Stapel & Suls, 2004) to predict when each of these effects will occur. The ICM posits that the effect of priming on subsequent stimulus evaluation

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is guided by the nature of the primed construct (i.e., cognitive schema). When a primed construct is "less distinctive" or associated with a less developed schema, then an interpretation mind set is likely to guide evaluation. This mind set is associated with assimilation effects. When a primed construct is "more distinctive," then a comparison mind set is likely to guide evaluation. This mind set is associated with contrast effects.

*Effect of Hometown-related Conversation on Message Evaluation*

One of the topic-related conversation conditions requires participants to talk about experiences associated with their hometowns. While it is possible that for some participants their affiliation with a hometown is very important and subsequently their "hometown-related schema" is very distinct, it is expected that on average this schema should be less distinctive and more diffuse. The result is that participants who have a conversation about their hometowns should exhibit assimilation effects and evaluate a target stimulus in a more positive manner. For example, when asked to rate the main characters in the stimulus materials (i.e., anti-binge drinking public service announcements), participants who have had a topic-related conversation about their hometowns should rate the characters as more like people from their hometowns.

> **Hypothesis 1A:** *Participants who have a conversation about hometown-related experiences will on average provide higher message realism scores when asked to evaluate the anti-binge drinking messages.*

> **Hypothesis 1B:** *Participants who have a conversation about hometown-related experiences will on average provide higher message relevance scores when asked to evaluate the anti-binge drinking messages.*

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*Hypothesis 1C:* *Participants who have a conversation about hometown-related experiences will on average rate characters in the ads as more like people from their hometowns (i.e., provide higher character similarity scores) when asked to rate the characters in the anti-binge drinking ads.*

*Effect of Student-related Conversation on Message Evaluation*

One of the experimental conditions requires participants to have a conversation about salient student experiences. Because the study population and sample consists entirely of college students, all will have some aspect of their chronic self-concept related to being a student (i.e., student identity schema; see also Burke & Reitzes, 1981). This schema is expected to be stronger and more distinct than that of the hometown-related schema. This suggests that participants who have a conversation about their student-related experiences should exhibit contrast effects and provide lower ratings of the target stimulus materials. For example, when asked to rate how realistic the message is, participants who have had a topic-related conversation about student-related experiences should rate the messages as less realistic when compared to the other conditions.

This leads to hypotheses about the effect of a student-related conversation on message evaluation:

*Hypothesis 1D:* *Participants who have a conversation about student-related experiences will on average provide lower message realism scores when asked to evaluate the anti-binge drinking ads.*

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*Hypothesis 1E: Participants who have a conversation about student-related experiences will on average provide lower message relevance scores when asked to rate the anti-binge drinking ads.*

*Hypothesis 1F: Participants who have a conversation about student-related experiences will on average rate characters in the ads as less like university students (i.e., provide lower character similarity scores) when asked to rate the characters in the anti-binge drinking ads.*

*Topic-related Conversation and the Active Self-concept*

As noted, data for the active self-concept were collected in this study also. The conceptual definition of the active self-concept is that it is the "self-concept of the moment" (Markus & Wurf, 1987, p. 306). The active self-concept consists of those components of the chronic self-concept that are currently accessible at that time for a particular social interaction (Wheeler et al., 2007).

The contents of the active self-concept were captured by having participants complete the "Who am I?" task (Kuhn & McPartland, 1954). While there is considerable discussion about the best way to measure the self (e.g., Brewer & Gardner, 1996; Markus & Nurius, 1987; Markus & Wurf, 1987; see also Brinthaupt & Lipka, 1992), the "Who am I?" task has been used frequently to capture what is most salient about the self and by extension what is contained in the active self-concept (Coover & Murphy, 2000; Grace & Cramer, 2002; Jackson & Smith, 1999; McGuire & McGuire, 1981).

There were two analyses for the current study. In the first analysis, the focus was on capturing the appearance of *any* topic-related self-descriptor. For example, when participants have a conversation about their hometowns, there should be an

increased likelihood that participants in that condition will mention their hometowns in their self-descriptors.

The second analysis explored whether any significant differences emerged in the *percent* of topic-related self-descriptors based on the topic of conversation. For that analysis, the coding was based on the conversational topic, and only self-descriptors (i.e., words or phrases) that matched the conversational topic were coded positively. Then the number of positively coded self-descriptors was converted to a percentage of topic-related self-descriptors. For example, for participants in the student-related conversation condition, all self-descriptors were coded positively or negatively for the student-related topic. Positive examples would include phrases such as "I am a University of Minnesota student," "I am a journalism major," or "I am a student at the SJMC." The count of student-related items were then be divided into count of total items for that person to produce a percent.

Because of the exploratory nature of the analyses, both were placed under a broad research question:

> ***Research question 1:*** *Will there be significant differences in the appearance and/or percent of topic-related self-descriptors that corresponds to the topic of the conversation?*

Method

*Participants*

Undergraduate students (N=104) were recruited from strategic communication classes at the School of Journalism and Mass Communication to participate in a study about how people process mass media health messages. Course credit was offered to the students for their involvement in the study. Because the stimulus materials used in the study related to drinking alcohol, recruiting was restricted to upper-division courses (although being over 21 was not a requirement for participating in the study). The mean age of the sample was 21.03 (SD=2.04).

*Materials*

The stimulus materials for the study were two 30-second anti-binge drinking ads prepared by a nonprofit organization. The ads were part of a campaign to reduce binge drinking among young adults in Great Britain.

There are several reasons why these ads were chosen. First, because the ads have never aired in the U.S., it is unlikely that study participants would have been exposed to them. A lack of exposure to the ads also reduced the likelihood that participants would have previously formed attitudes toward the ads or main characters in the ads. Second, the ads were professionally produced. This is important because advertising and public relations were overrepresented in the sample, and these students tend to be very critical of poorly produced stimulus materials. Finally, the ads addressed a topic that is relevant to the target population in a straightforward manner.

In the first ad, a college-aged male addresses the camera, talking about the ingredients of a "fun night out." Over the course of several short scenes, the character is shown drinking and becoming increasingly intoxicated. The ad ends when the main

character punches another patron who bumps into him and spills a drink.

In the second ad, a young woman is in an office talking about what she and her friends do for fun. Short scenes of the main character and her friends drinking are interspersed with other office scenes where she talks about what it takes to have a good time. The ad ends when one of the young women passes out on a sidewalk while waiting for a cab.

Prior to collecting the data for the study, a sample of 41 individuals from the same population but not otherwise involved in the study rated the ads. A single item measured how easy the ads were to understand using a 7-point Likert scale (i.e., 1 = strongly disagree; 7 = strongly agree). Attitude toward the *main characters* for each ad were measured using the stem, "For me, the main character is" followed by two previously validated bipolar adjective pairs (i.e., wise/foolish, good/bad; Osgood, Suci & Tannenbaum, 1957) and a 7-point semantic differential. A reliability analysis of the four items indicated that the scale was internally consistent (alpha=.69), so the four ratings (i.e., two items per ad) were summed and averaged to create a character attitude score. Attitude toward the ads were measured using the stem, "For me, the ad is" and three 7-point semantic differentials: important/unimportant, pleasurable/painful, and good/bad. A reliability analysis of the six items (i.e., three items per ad) indicated that the scale was internally consistent (alpha=.70), so the six ratings were summed and averaged to create an overall attitude toward the ad score.

Results of the pretest indicate that participants found the ads easy to understand (see Table 3-1). On average, attitudes toward the main characters were neutral or slightly positive, and attitudes toward the ads were neutral or slightly negative. Given the moderate ratings, the decision was made to use the ads and

proceed with the main data collection.

Table 3-1

*Descriptive Statistics for Pretest of Anti-binge Drinking Ads*

| Variable | Mean |
| --- | --- |
| Ad was understandable | 6.07 (0.94) |
| Attitude toward main characters | 5.07 (0.79) |
| Attitude toward ads | 3.64 (0.91) |

NOTE. Standard deviations in parentheses.

*Design*

The study used a 1 x 4 (topic-related conversation: no conversation, student-related conversation, athletics-related conversation, hometown-related conversation) completely between subjects post-test only design.

The independent variable in the study was topic-related conversation. The three conversational topics were chosen because they are topics with which most or all of the participants would be familiar and likely have direct experience. Topic-related conversation was defined conceptually as a conversation about a specific and focused topic-related event. Engaging in a topic-related conversation was expected to activate mental schemas associated with the conversational topic. For example, a topic-related conversation about an important experience associated with being a college student should activate student-related schema in the brains of conversational participants.

Student-related conversation was operationalized through a 5-minute conversation with another participant about the best and worst experiences each person associated with being a University of Minnesota student. Because writing or

talking about a positive or negative life event can serve as a positive or negative mood induction (e.g., Bless, Bohner, Schwarz, & Strack, 1990), participants were asked to talk about both the best and worst experiences they associated with the conversational topic. This reduced the likelihood that either positive or negative mood would be dominant during the post-conversation portion of the study.

Hometown-related conversation was operationalized as a 5-minute conversation with another participant about the best and worst experiences associated with the participant's hometown. Participants were instructed to choose the place where they spent the majority of time prior to coming to the University of Minnesota as their hometown.

Athletics-related conversation was operationalized as a 5-minute conversation with another participant about the best and worst experience each person associated with being a member of an organized individual or team sport or the best and worst experience each associated with being a fan of an organized individual or team sport. The latter option was provided so that even participants who had not been involved in any organized sports could still participate in the conversation.

A no-conversation condition was included to provide a point of comparison for what schemas might naturally be active when participants take part in an experiment and are exposed to anti-binge drinking ads. In order to control for any influence that another person's presence may have had on the evaluation of the ads, participants in the no conversation condition were randomly assigned to a partner with whom they completed the study.

*Measurement*

The main dependent variable in the study was target stimulus evaluation. This variable was measured by having participants rate the realism and relevance of the ads, and perceived similarity to the characters in the ads.

Ad realism was measured using a two-item scale. The statement "The ad seemed realistic" was evaluated for both ads using a 7-point Likert scale (i.e., 1 = strongly disagree; 7 = strongly agree). Although the internal reliability of the scale was low (alpha=.54), analysis proceeded using the ad realism score.[9]  Scores to both statements were summed and averaged to create an ad realism score.

Ad relevance was measured using a 4-item scale. The statements "The topic of the ad is relevant to people in my social network," and "The ad seemed relevant to people my age" were evaluated for both ads using a 7-point Likert scale (i.e., 1 = strongly disagree; 7 = strongly agree). A reliability analysis of the four items indicated that the scale was internally consistent (alpha=.84), so scores for the two statements and two ads were summed and averaged to create an ad relevance score.

Perceived similarity to the main character in the ad consisted of perceived similarity—student and perceived similarity—hometown scores. Perceived character similarity was used because it has also been shown to have a positive relation with message effectiveness (e.g., message credibility, relevance and usefulness) in a studies targeting alcohol consumption among college students (Andsager, Bemker, Choi & Torwel, 2006; see also Austin & Meili, 1994).

Perceived similarity—student was measured using the statement "The main

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[9] A separate analysis was conducted with each item, and the individual results were the same as the analysis with an ad realism scale.

character in the ad reminded me of college or university students" for the main characters of each ad using a 7-point Likert scale (i.e., 1 = strongly disagree; 7 = strongly agree). Similarly, to produce the perceived similarity—hometown score participants rated the statement "The main character in the ad reminded me people from my hometown" for the main characters for each ad. Reliability analyses indicated that both scales were internally consistent (student scale alpha=.96; hometown scale alpha=.82), so scores from both were summed and averaged to create perceived similarity—student and perceived similarity—hometown scores for each participant.

*Active Self-concept*

Active self-concept was measured using the Twenty Statements Test (TST; Kuhn & McPartland, 1954; see Appendix A). The TST instructs participants to provide 20 answers to the question "Who am I?" followed by 20 blank lines. Participants were given 5 minutes to provide as many answers to the question as possible in that time.

Prior to analysis, the results were coded, and a description of that coding process can be found in the Results section. (See also Appendix B.)

*Procedure*

Data were collected in a lab containing a check-in area and separate rooms where participants could have conversations and view the anti-binge drinking ads without being disturbed.

Prior to the start of data collection, a random table of experimental conditions was generated using SPSS software. Upon arrival, participants were randomly assigned to a condition and a conversational partner. Individual participants were asked to wait until someone else arrived or were rescheduled for a different time. The

consent form described the experiment as a study about how health messages are processed and stated that participants might be asked to have a conversation prior to evaluating two ads. No mention of the conversational topic or topic of the ads was included in the consent form.

For the three conversation conditions, participants were taken into a room with two chairs facing one another and a desk with two computers after they had provided informed consent. Participants were given a sheet of paper describing their topic and told they had 5 minutes to discuss the best and worst experiences they associated with their conversation topic. The door was then closed and participants were left alone to have the conversation. While the conversations were not recorded, the experimenter observed by the ambient noise that the majority of the participants talked for the allotted time.

Conversations were timed using a digital clock. After 5 minutes, the conversation was interrupted, and participants were asked to complete a "Lexical Task" which they were told did not relate to the main part of the study. It consisted of the "Who am I?" Twenty Statements Task. Participants were given 5 minutes to complete as many statements as possible. This portion of the experiment was timed also. Participants in the no conversation condition began the study with the lexical task.

After another 5 minutes had elapsed, the experimenter collected the answers to the "Who am I?" task and then directed participants to the computers near where they were seated. The experimenter demonstrated how to view the two ads, which were embedded in a PowerPoint slideshow. The ads began to play as soon as the participant advanced the slide. Participants were instructed to view the ads first and then to evaluate the ads (see Appendix C).

After the ad evaluation questions, questions requesting demographic information and a question about what participants had discussed with their conversational partner were listed.

After evaluating the ads, participants were thanked for their time and debriefed about the nature of the study.

Results

Two sets of analyses are presented in the Results section. The first set of analyses were used to test the hypotheses associated with the influence of topic-related conversation on target stimulus evaluation. The second set of analyses was used to answer the research question about the influence of topic-related conversation on the active self-concept.

*Target Stimulus Evaluation*

Prior to conducting inferential statistical analyses, descriptive statistics were generated for each measure of the dependent variable target stimulus evaluation (see Table 3-2). Histograms for each variable were also generated, and visual inspection of the data indicated each measure was approximately normally distributed and contained no outliers. Skewness and kurtosis statistics for each variable were within the acceptable range with the exception of the ad relevance scale, so any results associated with that measure should be interpreted cautiously.

Table 3-2

*Descriptive Statistics for Target Stimulus Evaluation Measures*

| Variable | Mean |
| --- | --- |
| Ad relevance | 5.79 (1.01) |
| Ad realism | 5.66 (0.76) |
| Perceived similarity: student | 5.79 (1.01) |
| Perceived similarity: hometown | 5.66 (0.76) |

NOTE. Standard deviations in parentheses.

The first statistical analysis consisted of planned comparisons between the hometown-related conversation and no conversation conditions for each of the measures. The second statistical analysis consisted of planned comparisons between the student-related conversation and no conversation conditions for each of the measures. Finally, an auxiliary analysis was conducted comparing results from the student-related and hometown-related conversation conditions.

*Hometown-related Conversation*

The hypotheses about hometown-related conversation condition stated that the ratings for the PSAs would be higher when compared to the no conversation condition. A comparison of the hometown-related conversation and no conversation conditions for ad realism (H1A) indicated that the difference was not significant, $t(50) = -0.55$, $p =$ .59. A similar result was obtained when hometown-related conversation was compared to the no conversation (H1B) for ad relevance, $t(50) = 0.10$, $p = .92$. However, the difference between the hometown-related conversation and the no conversation condition for character similarity—hometown (H1C) was marginally significant, $t(50) =$ 1.84, $p = .07$, $d = 0.52$.

Overall, the results indicate very limited support for hypotheses suggesting that hometown-related conversation would produced assimilation to the conversational topic in the target stimulus evaluations.

*Student-related Conversation*

The hypotheses about student-related conversation condition stated that the ratings for the PSAs would be lower when compared to the no conversation condition. A comparison of the student-related conversation and no conversation conditions for ad realism (H1D) indicated that the difference was significant, $t(50) = -2.62$, $p = .01$, d =

.74, and the student-related conversation condition was lower as predicted. (See Table 3-3 for means.) However, the difference between the student-related conversation and no conversation conditions for ad relevance (H1E) was not significant, $t(50) = 0.23$, $p = .82$. Similarly, the difference in the means between student-related conversation and no conversation for character similarity—student (H1F) was not significant, $t(50) = -0.34$, $p = .74$.

The results also indicated limited support for the hypotheses stating that student-related conversations would cause contrast effects (i.e., lower evaluations) in the way the anti-binge drinking PSAs were evaluated.

Table 3-3

*Means for Ad Realism by Condition*

| Condition | Mean |
|---|---|
| No conversation | 5.85* (0.69) |
| Student-related conversation | 5.27* (0.89) |
| Athletics-related conversation | 5.79 (0.74) |
| Hometown-related conversation | 5.75 (0.57) |

NOTE. Standard error in parentheses. *Difference significant at the .05 level.

*Comparing Hometown-related and Student-related Conversation Conditions*

An auxiliary analysis was conducted comparing the hometown-related and student-related conversation conditions. In this case, both the difference in the means for ad realism, $t(50) = -2.33$, $p = .02$, $d = .66$, and character similarity—hometown, $t(50) = -3.14$, $p = .003$, $d = .89$, differed significantly (see Table 3-4). In both cases the means for student-related conversation were lower. However, the difference in means for ad relevance, $t(50) = 0.14$, $p = .89$ and character similarity—student, $t(50) = -0.20$,

*p* =.84 did not differ significantly between the hometown-related and student-related conversation conditions.

The results of the auxiliary analysis suggest that some assimilation may have occurred in the hometown-related conversation condition and that some contrast occurred in the student-related conversation condition.

Table 3-4

*Means for Perceived Character Similarity—Hometown by Condition*

| Condition | Mean |
| --- | --- |
| No conversation | 4.38 (1.49) |
| Student-related conversation | 3.79* (1.59) |
| Athlete-related conversation | 4.48 (1.43) |
| Hometown-related conversation | 5.17* (1.58) |

NOTE. Standard deviations in parentheses. *Difference significant at .05 level.

*Topic-related Conversation and the Active Self-concept*

The second set of analyses focused on answering the research question about whether topic-related conversation would influence the appearance of any topic-related self-descriptor and whether differences in the percent of topic-related self-descriptors would be significant.

*Topic-related Conversation and the Appearance of Any Topic-related Item*

The first statistical test determined if there was a significant difference by condition in the likelihood that *any* topic-related self-descriptor appeared among the answers provided by the participants. The analysis was a logistic regression with occurrence of at least one topic-related self-descriptor as the outcome variable and

experimental condition as the predictor variable.

To prepare for the analysis, a condition-blind coding procedure was performed where the presence of one or more topic-related self-descriptors was coded as 1, and the absence of any topic-related self-descriptor was coded as 0. For example, a self-descriptor "I am a University of Minnesota student" would be coded as 1 for that participant. This procedure was repeated for each of the three conversational topics. To provide a visual representation of the data upon which the analysis, a table of just the counts of participants for the appearance of at least one topic-related self-descriptor was generated (see Table 3-5).

The first test was whether the difference across the four experimental conditions in the occurrence of any student-related self-descriptors was significant. Results of the omnibus test of differences between the conditions was not significant, $\chi^2$ (3, $N$ = 104) = 4.61, $p$ = .20, indicating that any difference was not meaningful. Further, none of the three conversation conditions differed significantly from the comparison condition (i.e., no conversation) as predictors of the occurrence of student-related self-descriptors.

Table 3-5

*Counts for "Who am I?" Self-descriptors by Condition*

| Condition | No conversation | Student conversation | Athletics conversation | Hometown conversation |
|---|---|---|---|---|
| Student-related words | 46 | 41 | 36 | 40 |
| Athletics-related words | 21 | 18 | **40** | 12 |
| Hometown-related words | 2 | 2 | 4 | **12** |

The second test was whether the difference across the four experimental conditions in the occurrence of any hometown-related self-descriptors was significant. The result of the omnibus test of differences was significant, $\chi^2$ (3, $N$ = 104) = 11.19, $p$ = .01. There was also one predictor—hometown-related conversation, Wald $\chi^2$ = 5.76, $p$ = .02—that differed significantly from the no conversation condition. This result converted to an odds ratio of 7.5, which can be interpreted that the occurrence of at least one hometown-related self-descriptor was about 7.5 times more likely in the hometown-related condition when compared to the no conversation condition.

The third test was whether any difference across the four conditions in the occurrence of athlete-related self-descriptors was significant. The omnibus test of differences between the experimental conditions was significant, $\chi^2$ (3, $N$ = 104) = 8.89, $p$ = .03. Additionally, the athletics-related conversation condition differed significantly from the no conversation condition as a predictor of occurrence of an athlete-related self-descriptor, Wald $\chi^2$ = 3.79, $p$ = .05. This result converted to an odds ratio of 3.2, which roughly translated means that the occurrence of at least one athlete-related self-descriptor was about 3.2 times more likely in the athletics-related conversation condition when compared to the no conversation condition.

*Topic-related Conversation and Percent of Topic-related Items*

In order to prepare to test whether differences in the percent of topic-related items was significant, a second coding procedure was conducted. In this case, a count of total items was used as the denominator for each participant. Each item or self-descriptor was then coded as 1 ("yes") or 0 ("no") for the three conversational topics, and each count served as a numerator. For example, a participant who listed 20 total self-descriptors and who included 4 student-related self-descriptors would generate

Table 3-6

*Descriptive Statistics for "Who am I?" Items*

| Condition | Mean |
| --- | --- |
| Total items (count) | 18.82 (3.52) |
| Student-related item (percent) | 8.51 (5.70) |
| Athlete-related item (percent) | 4.48 (6.10) |
| Hometown-related (percent) | 1.00 (2.38) |

NOTE. Standard deviations in parentheses.

a student-related item percent of 20%. This procedure was repeated for the three conversational topics for each participant.

Prior to performing the inferential statistical analysis on percent of topic-related items (i.e., percent of topic-related self-descriptors), a descriptive analysis was completed on the data (see Table 3-6). Histograms for each variable (i.e., percent student-related items, percent hometown-related items, percent athlete-related items) were also generated. Visual inspection of the data indicated that the student-related item percent (skewness statistic = .49, kurtosis statistic = -.20) and athletics-related item percent (skewness statistic = 1.54, kurtosis statistic = 1.82) were normally distributed or demonstrated a near-normal distribution. The hometown-related percent (skewness statistic = 2.38, kurtosis statistic = 5.04) was not normally distributed. The decision was made to proceed with analysis, although an additional analysis was provided for the hometown-related percent.

In order to answer the research question about whether the percent of topic-related self-descriptors differed significantly by condition, three one-way analyses of variance (ANOVA) were conducted with topic-related conversation as the independent

variable and the three topic-related item percentages as the dependent variable. Because the distribution for hometown-related item percent violated the assumption of normality, an additional analysis—a Kruskal-Wallis one-way analysis of variance by ranks—was conducted to test for differences between conditions for that variable.

The results of the one-way ANOVA with student-related item percent as the dependent variable indicated that the means did not differ across the four conditions, $F(3, 100) = 0.75$, $p = .52$. However, the results of the one-way ANOVAs with hometown-related item percent, $F(3, 100) = 4.94$, $p = .003$, and athletics-related item percent, $F(3, 100) = 4.70$, $p = .004$ were significant.

Post hoc tests using the Bonferroni correction indicated that mean for the athletics-related item percent was significantly greater in the athletics-related conversation condition than the means student-related and hometown-related conversation conditions.

Table 3-7

*Descriptive Statistics for Athletics-related Item Percent by Condition*

| Condition | Mean |
| --- | --- |
| No conversation | 4.11 (5.77) |
| Student-related conversation | 3.39 (5.55) |
| Hometown-related conversation | 2.37 (3.05) |
| Athlete-related conversation | 8.01 (7.81) |

NOTE. Standard deviations in parentheses.

The result of the omnibus Kruskal-Wallis one-way analysis of variance by ranks for hometown-related item percent was also significant, $\chi^2$ (3, $N$ = 104) = 12.64, $p$ = .005. A post hoc test using the no conversation condition as the comparison condition indicated that the difference between the hometown-related conversation and no conversation conditions was also statistically significant, $\chi^2$ (3, $N$ = 52) = 7.07, $p$ = .008.

Taken together, these results indicate that having a topic-related conversation does influence the contents of the active self-concept both in the likelihood that any topic-related self-descriptor will appear, as well as the percent of topic-related self-descriptors.

Table 3-8

*Descriptive Statistics for Hometown-related Item Percent by Condition*

| Condition | Mean |
| --- | --- |
| No conversation | 0.38 (1.35) |
| Student-related conversation | 0.51 (1.87) |
| Hometown-related conversation | 2.46 (3.47) |
| Athlete-related conversation | 0.61 (1.73) |

NOTE. Standard deviations in parentheses.

Discussion

The goal of the current study was to test whether topic-related conversations would function as a priming mechanism and influence how subsequent target stimuli were evaluated. Systematic differences in evaluation were hypothesized to be the result of participating in a topic-related conversation, and the interpretation—comparison model (ICM) of social comparison (Stapel & Koomen, 2001; Stapel & Suls, 2004) was used as a theoretical framework to suggest when assimilation to or contrast from the target stimulus would occur. For example, hometown-related conversations were expected to activate more diffuse cognitive schema and produce assimilation to the target stimuli, which in this case was two anti-binge drinking ads. The expected result was higher evaluation scores. Student-related conversations were expected to activate richer and highly structured cognitive schema and produced contrast away from the target stimuli. The expected result was lower evaluation scores.

To test the hypotheses, study participants were randomly assigned to an experimental partner and to one of four conversation conditions. Three of the conversation conditions required that participants engage in a 5-minute conversation about salient "best and worst" experiences associated with the topic. The final condition was exactly the same as the other conditions except that there was no conversation. After the conversations, participants completed the Twenty Statements Test and then watched and evaluated the two ads.

The results of the data analyses indicate there is limited evidence that topic-related conversation serves as a priming mechanism and produces assimilation and contrast according to my application of the ICM. For example, as predicted, assimilation effects did emerge in the hometown-related conversation condition but

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only in one of the measures . Participants in the hometown-related conversation condition on average rated the main characters of the ads as more like individuals in their hometowns. Contrary to what was predicted, though, participants in the hometown-related conversation condition did not rate the ads as more realistic or relevant.

One reason for this null finding may be that the schemas associated with hometowns do not relate closely enough to the target stimuli. For example, most research using target stimulus evaluation as evidence of priming has a closer relationship between the priming mechanism and the target stimulus (e.g., Shih, Pittinsky & Ambady, 1999). So it is possible that while schemas related to the participants' hometowns were activated, that the lack of a clear relationship between hometowns and binge drinking produced the null result. This possibility should be explored in future research.

The results associated with the student-related conversation condition and the evaluation of the ads are compelling albeit also not entirely consistent. For example, participants in the student-related conversation condition rated the ads as less realistic when compared to the no conversation condition. This is evidence of a contrast effect. Additionally, participants in that condition also rated the characters as less like people from their hometowns, although this difference was significant only when compared to the hometown-related condition. This result indicates some assimilation in the hometown-related conversation condition and some contrast in the student-related conversation condition. Both of these findings support a more general hypothesis that topic-related conversation may function as a priming mechanism, but neither result conforms particularly well to the ICM.

Again, it is possible that the topics associated with the conversations were not as tightly focused as some of the other "exemplar" primes. For example, it is possible that having participants talk about the best student they know or the person who best exemplifies their hometown would have done a better job of activating exemplar-related schemas. Again, this is a path for future research. It is worth noting, however, that one of the guiding principles in the design of the experiment was creating conditions and topics that were as externally valid as possible. Thus, a conversation about experiences associated with being a student were used. Still, this was a weakness in the theory-testing of the study.

The evidence that topic-related conversation influences active self-concept was more consistent, as several statistical tests provided evidence that topic-related conversations had influenced the contents of the active self-concept. For example, comparisons of any appearance of a topic-related self-descriptor indicated that topic-related conversation was a significant predictor in two of the three active conversation conditions. The appearance of an athletics-related self-descriptor was about three times more likely after an athletics-related conversation than after no conversation. Likewise, the appearance of a hometown-related self-descriptor ("I'm from Waukesha") was more than seven times more likely after a hometown-related conversation than after no conversation. This latter result must be interpreted carefully given the relatively few number of actual occurrences of hometown-related self-descriptors.

A similar pattern of results emerged when the percent of topic-related items was compared across conditions. Once again, the percent of athletics-related self-descriptors was significantly greater in the athletics-related condition, and the percent of hometown-related self-descriptors was significantly greater in the hometown-related

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conversation condition.

The finding that student-related words did not differ across conditions was not particularly surprising given that the data were collected in a university lab and most study participants were likely motivated by the offer of course credit. One implication of the latter result is that manipulations related to student identity or schema may be difficult, as it is likely that what it means to be a student is chronically accessible— especially in a setting where participants receive course credit for participating in the study. Because the results of student-related conversation condition and no conversation condition were so close, it is possible to use student identity as a comparison condition in future studies.

In addition to the mixed results of the analyses, there were several other limitations to the current study. First, it is likely that there is some type of "dose-response" effect where some topics and aspects of the self-concept matter more to some people in the population. That analysis is not possible in this study because no measure of centrality of identity was made or included in the analysis. In one sense, this is positive because the strong internal validity afforded by random assignment to conversational condition makes a causal claim possible. Nevertheless, future studies need to provide a better explanation of the causal pathways and underlying mechanisms the more fully explain the effects of conversation on message processing.

Second, the likely chronic salience of student identity or student schema has already been mentioned as a need for interpreting the results cautiously. While at one level, the fact that any differences emerged after such a short topic-related conversation is striking, other topics may lend themselves more easily to manipulation and should be considered.

Finally, while the demographic breakdown mirrored that of the department where the participants were recruited, the external validity of the study is reduced because of the overrepresentation of white/European-Americans and females. This is not a fatal flaw in the study given that the goal was to test the underlying processes of a topic-related conversation on the cognitive and affective response to the ads. Nevertheless, it is likely that future studies will require oversampling or weighing in order to achieve a more acceptable demographic representation.

Taken together, however, the results of the current study provide evidence that having a topic-related conversation influences how subsequent stimuli are evaluated, as well as the contents of the active self-concept. Even given the simplicity of the manipulation, predictable effects emerged between the experimental conditions. The next chapter provides a replication of the current study and an attempt to provide a causal mechanism through which the influence of topic-related conversation on target stimulus evaluation may be enacted.

CHAPTER FOUR:

TOPIC-RELATED CONVERSATION AND THE ACTIVE SELF-CONCEPT

The goal of the second study was to test whether the active-self account of prime-to-behavior effects (Wheeler et al., 2007, 2008) explains the relation between topic-related conversation and target stimulus evaluation. Of particular interest in this study was whether topic-related conversation changed the contents of the active self-concept and whether the individual difference variable self-monitoring moderates the topic-related conversation—target stimulus evaluation relation.

There are several analyses presented in this chapter. First, self-monitoring was tested as a moderator of the topic-related conversation—target stimulus evaluation relation. This analysis was influenced by earlier research by DeMarree et al. (2005; Study 3). The basic hypothesis here was that if the effect of a prime flows through the active self-concept, then low self-monitors should display stronger priming effects  given that low self-monitors are more likely to rely on internal cues to guide their behavior (i.e., changes in the active self-concept). Second, the effect of topic-related conversation on the active self-concept was tested. In this case, a measure of the chronic self-concept (i.e., high or low exercise identity; Anderson & Cychosz, 1994) was used to test for systematic variation in the content of the active self-concept. Finally, a test of the mediation pathway (i.e., Baron & Kenny, 1986) is provided. The hypothesis was that the active self-concept would mediate the topic-related conversation—target stimulus evaluation relation. Prior to presenting the specific hypotheses, I first present a brief discussion of the rationale for using exercise as a topic for the study.

*Rationale for Using Exercise as Topic*

There are several reasons why exercise was used as a topic for the second study. First, I wanted to see if I could produce priming effects associated with topic-related conversation while using a different topic. I believed that this type of replication, if it occurred, would provide stronger evidence that topic-related conversation serves as a priming mechanism. Second, I wanted to find a conversational topic that would relate directly to the target stimulus materials, while at the same time maintaining the unstructured dyadic interaction aspect of the experimental manipulation. Using exercise as the topic facilitated this, while also providing the added advantage of being a topic where there would be a range and depth of experience among the target population. Finally, a regular regimen of moderate exercise has been shown to reduce the risk of becoming obese (Garrow & Summerbell, 1995; Hinkleman & Nieman, 1993; Westerterp, 1999)—an important goal given the many negative health outcomes associated with obesity (e.g., cardiovascular disease, type 2 diabetes; see Berlin & Colditz, 1990; Hubert, Feinleib, McNamara, & Castelli, 1983; Kaplan, 2003). There have been a number of mass media campaigns that encourage behaviors such as walking, bicycling, jogging, low impact aerobics, and weight lifting (e.g., "Small Steps" program sponsored by the federal government). One possible benefit of looking at the effect of conversation on exercise campaigns is that it may point to practical steps strategic communication professionals could use when planning campaigns.

*Topic-related Conversation as Priming Mechanism*

The logic for using topic-related conversation as the main independent variable and target stimulus evaluation as the main dependent variable has been discussed previously . It is worth noting, however, that there were only three

conversation conditions in this study. The two active conversation conditions were exercise-related conversation and student-related conversation. The exercise-related conversation condition was included to provide a direct test of how topic-related conversation would influence the evaluation of topic-related mass media content. The student-related conversation condition was included as an active conversation condition that should not relate directly to the message content. Finally, the no conversation condition was included as a comparison condition.

*Target Stimulus Evaluation*

The measures for the dependent variable target stimulus evaluation were similar to the first study. Both message realism and message relevance were used. As noted, there is some evidence that higher levels of realism in ads are associated with more positive attitudes toward the ads (Austin & Meili, 1994). Message relevance was used because relevance is often related to persuasion outcomes (e.g., Petty, Cacioppo, & Schumann, 1983) but also positive message evaluation (Baker & Lutz, 2000). A third measure was included for this study—overall message evaluation. This measure was conceptualized as being similar to attitude toward the ad, and it was similar to how DeMarree et al. (2005; Study 3) tested whether self-monitoring moderated the prime—priming effect relation.

*Self-monitoring and Topic-related Conversation—Target Stimulus Evaluation Relation*

The first analysis in the study tests the claims of the active-self account by hypothesizing that self-monitoring will moderate the priming mechanism—priming effect relation. The logic is that because low self-monitors have been shown to rely on their internal standards when deciding how to behave, the effect of a prime that is mediated via the active self-concept should be particularly strong for low self-monitors.

Based on the earlier guidance provided by the interpretation-comparison model of assimilation and contrast effects (Stapel & Suls, 2004), the hypothesis was that low self-monitors would display contrast effects when evaluating the target stimulus after they had a topic-related conversation. This was based on conceptualizing topic-related conversation as creating a condition for low self-monitors in which they would be more likely to use the comparison route.

> **Hypothesis 2A:** *Low self-monitors in the exercise-related*
>
> *conversation condition will exhibit a contrast effect, which will be*
>
> *manifested in lower ratings of the pro-exercise messages.*

However, as noted in the discussion in chapter 2, the literature is not entirely clear on what to expect. It is possible that low self-monitors will display a stronger response to the topic-related conversation, but that this will be manifested as an assimilation effect. In fact, this is what DeMarree et al. (2005) hypothesized and found. Thus, I present an alternative hypothesis to that effect, while also believing that a contrast effect is more likely to occur.

> **Hypothesis 2A-Alt:** *Low self-monitors in the exercise-related*
>
> *conversation condition will exhibit an assimilation effect, which will be*
>
> *manifested in higher ratings of the pro-exercise messages.*

Finally, given that there is an interpersonal interaction involved with the experimental manipulation, it is likely that there will be an effect on the way high self-monitors evaluate the messages. Consistent with how high self-monitors react in social situations, it is logical to assume that this would manifest itself in higher ratings of the stimulus materials. Nevertheless, the response of the high self-monitors is not the focus of this analysis nor the focus of the dissertation, so a research question is posed

regarding the response of high self-monitors to the stimulus materials.

>**Research question:** *Will there be a systematic difference in how high*
>
>*self-monitors evaluate the target stimulus materials?*

Effect of Topic-related Conversation on the Active Self-concept

An important part of a mediational pathway is the effect of the first independent variable on the putative mediating variable. If there is no measurable effect, then there is no evidence of mediation. But it is also worth noting that in most of the priming literature that uses a measure of the active self-concept there is an assumption that there is a change in the active self-concept without actually attempting to measure that change. The second analysis in Study 2 addresses this by measuring the change in the active self-concept.

Two ways to test for changes in the active self-concept are presented here. The first is a test of the main effect of topic-related conversation on the active self-concept. This is similar to what was presented in Study 1 (see pp. 86ff). In the current study, the expectation is that individuals in the exercise-related conversation condition will give significantly more exercise-related self-descriptors when compared to the other conversation conditions.

>**Hypothesis 2B:** *Participants in the exercise-related conversation*
>
>*condition will have a higher percentage of exercise-related self*
>
>*descriptors as compared to the other topic-related conversation*
>
>*conditions.*

A second way to test the effect of topic-related conversation on the active self-concept is to include a variable associated with the chronic self-concept. The logic here is that a known component of the chronic self-concept will be more likely to appear as part of the active self-concept at a steady state but that this effect should be more pronounced after exposure to a prime associated with that component of the chronic self-concept. Therefore, individuals who score high on a measure of such as the exercise identity scale (Anderson & Cychosz, 1994) should make more references to that aspect of their identity in the responses to the "Who am I?" than those who score low on that measure.

> **Hypothesis 2C:** *Participants who score high on the exercise*
> *identity scale will have a higher percentage of exercise-related*
> *self-descriptors as compared to participants who score low on the*
> *exercise identity scale.*

*Active Self-concept as a Mediator*

The third analysis in the study tests the mediational pathway in which topic-related conversation is the initial independent variable, and its influence on target stimulus evaluation is mediated by changes in the active self-concept caused by participating in a topic-related conversation. The expected outcome is that a test of a meditational pathway (e.g., Barron & Kenny, 1986) should indicate that topic-related conversation influences the target stimulus evaluation effect and that this effect should be eliminated when active self-concept is held constant. Therefore, the topic-related conversation—target stimulus evaluation and topic-related conversation—active self-concept relations should be significant; the active self-concept—target stimulus

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evaluation relation should be significant; and the topic-related conversation—target

stimulus evaluation relation should drop to 0 when controlling for active self-concept.

**Hypothesis 2D:** *The active self-concept will mediate the topic-related*

*conversation—target stimulus evaluation relation.*

Method

*Participants*

Undergraduate students (N=266) from upper- and lower-division strategic communication classes were recruited to participate in a study about how people think about health messages. Course credit was offered to all participants.

The mean age of the sample was 19.70 years (*SD* = 1.71). Three participants elected not to provide their racial or ethnic background. Of the remainder, 83.1% (*n* = 221) were White/European-American; 8.6% (*n* = 23) were Asian/Asian-American; 3.4% (*n* = 9) were Black/African-American; 1.5% (*n* = 4) were Hispanic/Latino and 2.3% (*n* = 6) chose more than one racial category (e.g., Asian and Black/African-American).

*Materials*

Two target stimuli were used in the study. Both contained messages about exercise and physical fitness, and both were produced professionally. As noted in Study 1, having professionally produced materials was important because advertising and public relations majors were overrepresented in the sample.

The first target stimulus was a 3 ½ minute excerpt from "A Cup of Health," a radio broadcast created by the Centers for Disease Control (CDC). During the excerpt, the host of the show introduces himself and his guest, Dr. Isa Miles. The host and Dr. Miles then discuss the importance of daily exercise and some of the risks associated with a lack of exercise and physical activity (e.g., obesity, coronary heart disease, Type 2 diabetes). The excerpt concludes with Dr. Miles identifying several practical and specific things people can do to increase their daily amount of exercise (e.g., joining a recreational sports league, parking further away at the shopping mall, taking the stairs).

The second stimulus was a 30-second television ad titled "Theater," which

was produced by the Ad Council for the "Small Steps" exercise and fitness initiative sponsored by the U.S. government. The ad features a college-aged male and a college-aged female who enter a movie theater and sit down. After being seated, the female character finds an unidentified flesh-colored object about the size of a small pillow and asks the male character what it is. He identifies the object as "back fat" that someone has lost by purchasing a smaller size of popcorn at the movies. The ad ends with a tagline that suggests eating or ordering smaller portions when people eat out as a strategy for aiding in fitness.

Prior to the main data collection, a sample of 26 people from the same population but not otherwise involved in the study listened to the radio show and rated it using a 7-point Likert scale (i.e., 1=strongly disagree; 7=strongly agree). The excerpt was rated on comprehensibility, realism, and relevance. There was also an overall message evaluation scale. The comprehensibility and realism scores were obtained using single-item scales. The message relevance score used a two-item scale (*alpha* = .85), in which the items were summed and averaged. The overall message evaluation score was obtained using a three-item scale (e.g., "I enjoyed listening to the program"). A test of the internal reliability of the scale indicated that it was internally consistent (*alpha* = .67). The items were summed and averaged to produce an overall message evaluation score.

The same 26 people who rated the radio excerpt also watched and rated the "Theater" ad using a 7-point Likert scale (i.e., 1=strongly disagree; 7=strongly agree). The ad was rated using the same scales used for rating the "Cup of Health" radio excerpt.[10] Internal reliability was calculated for each scale, and all *alphas* were higher

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[10] The statement rating comprehensibility was ommitted due to experimenter error.

than .70.

On average, participants agreed that the program "A Cup of Health" was easy to understand and moderately agreed that the program was realistic and relevant to people in their social networks (see Table 4-1). Participants rated their enjoyment of listening to the program as neutral. Also, on average, participants moderately agreed that they enjoyed watching the "Theater" ad and that the ad was relevant to people in their social network. Participants moderately disagreed that the ad was realistic. This lower rating was expected given that one of the central "characters" in the ad was a large clump of "back fat."

Table 4-1

*Descriptive Statistics for Pretest of Target Stimulus Materials*

| Statement | Mean |
| --- | --- |
| *Program "A Cup of Health"* | |
| The program was easy to understand | 6.04 (.92) |
| The program seemed realistic. | 5.46 (1.39) |
| Message relevance | 4.61 (1.18) |
| Overall message evaluation | 4.01 (0.92) |
| *"Theater" television ad* | |
| The ad seemed realistic | 3.52 (1.29) |
| Ad relevance | 4.60 (0.97) |
| Overall evaluation | 4.80 (1.11) |

NOTE. Standard deviations in parentheses.

With the exception of the comprehensibility rating for the radio program excerpt, the average ratings were slightly above or below the midpoint of the ratings scales. This was an important consideration in order to avoid the possibility of a ceiling effect during the main part of the study. Therefore, the decision was made to proceed with the study using the two stimulus materials.

*Design*

The study utilized a 3 (topic-related conversation: exercise-related, student-related, no conversation) x 2 (self-monitor: high, low) completely between subjects quasi-experimental design. An additional variable, exercise identity (i.e., high, low) was used in the analysis of the effect of topic-related conversation on the active self-concept.

*Independent Variables*

*Topic-related Conversation*

The first independent variable in the study was topic-related conversation. Topic-related conversation was defined conceptually as a conversation that focuses on a specific topic or event and whose topic is embedded within a mental schema that is the same as or directly related to the conversational topic.

Exercise-related conversation was operationalized using a 5-minute conversation between two study participants about the best and worst personal experiences each person associated with exercise or physical activity. Because writing or talking about a positive or negative life event can serve as a positive or negative mood induction (e.g., Bless, Bohner, Schwarz, & Strack, 1990), participants were asked to talk about both the best and worst experiences they associated with the topic. As noted previously, this reduced the likelihood that either positive or negative mood

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would be dominant during the post-conversation portion of the study.

Student-related conversation was operationalized using a 5-minute conversation between two study participants about the best and worst personal experiences each person associated with being a University of Minnesota student.

A no conversation condition was included to provide a comparison condition for both the exercise-related and student-related conversation conditions. Other than not having a conversation, participants in the no conversation condition completed the entire experiment in the same order as the other two conditions. Having the participants complete the experiment in pairs allowed the experimenter to control for any effect the presence another person may have had on evaluating the stimulus materials.

### Self-monitoring

The second independent variable was self-monitoring. Self-monitoring is defined conceptually as a psychological individual difference variable that describes the degree to which individuals adjust their behavior to conform to situational cues in the immediate social environment. Self-monitoring was operationalized by taking a median split of the sample of self-monitoring scores. (See pp. 54-55 for a discussion of treating self-monitoring as a dichotomous variable.)

Approximately two weeks prior to the main data collection, participants completed the 18-item self-monitoring scale (Snyder & Gangestad, 1986). The scale contains items such as "I find it hard to imitate the behavior of other people" and "In different situations and with different people, I often act like very different persons." (See Appendix D for a full version of the self-monitoring scale.) Participants answered "true" or "false" to the statements, and a self-monitoring score was calculated by

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counting the number of responses associated with high self-monitors.

The two levels of the independent variable self-monitoring (i.e., high, low) were then created by taking a median split of the sample of self-monitoring scores ($M$ = 8.04, $SD$ = 3.40). Participants with scores above the median of 8 were labeled as high self-monitor, and participants with scores at or below the median were labeled as low self-monitor.

*Exercise Identity*

The variable exercise identity was used to test whether topic-related conversation had a stronger effect on individuals with a known aspect of the chronic self-concept that was related to the conversational topic. Exercise identity was conceptualized as a cognitive schema associated with the topic of exercise that would vary in its level of richness depending on past and current experience with exercise.

Exercise identity was operationalized by using scores from the 9-item exercise identity scale (EIS; Anderson & Cychosz, 1994). The EIS is a previously validated scale (Anderson, Cychosz & Franke, 2001) that measures the degree to which an individual feels exercise is a central part of that person's life. It has also been used to predict attitude toward exercise and exercise behaviors (e.g., Storer, Cychosz & Anderson, 1997; Wininger, 2007). The scale contains items such as "I consider myself an exerciser" and "Physical exercise is a central factor to my self-concept." (See Appendix E for a full version of the exercise identity scale.)

Participants rated the 9 items using a 7-point Likert scale (i.e., 1=strongly disagree; 7=strongly agree), and reliability analysis indicated that the scale was internally consistent (alpha=.94). The two levels of the independent variable (i.e., high, low) were created by taking a median split of the sample of exercise identity scores ($M$

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= 39.13, *SD* = 13.19). Participants with scores above the median of 41 were labeled as high exercise identity, and participants with scores at or below the median were labeled as low exercise identity.

In order to test whether the exercise identity score was related to individual behavior, a Pearson's correlation was calculated using the exercise identity score and self-reported frequency of exercise behavior. Self-reported exercise was measured using a one-item measure (i.e., "How many days in the last week (i.e., last 7 days) did you participate in aerobic exercise or physical activity? [Aerobic exercise or physical activity includes jogging or running, playing soccer or basketball, aerobics, etc.]).

The correlation was positive and moderately strong, *r* = .66, *p* < .0001.

*Measurement of Dependent Variable*

Differences in target stimulus evaluation were measured in three ways. Similar to Study 1, participants evaluated the realism and relevance of the messages. Additionally, an overall attitude toward the messages was used. This approach is consistent with a variety of studies (e.g., Shen & Chen, 2007; see Lutz, MacKenzie & Belch, 1983 for a discussion of attitudes toward ads and message effectiveness).

*Message Realism*

Message realism was measured using two-items. Participants rated the statement "The program (ad) seemed realistic" using a 7-point Likert scale (i.e., 1=strongly disagree, 7=strongly agree).[11] Initially scores from the two items were combined to create a message realism score; however, reliability analysis indicted that the scale was not internally consistent (alpha=.29). This is likely because the exercise ad used a plastic item that was supposed to represent fat lost through better eating

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[11] All items used 7-point Likert scales with the same anchor points (i.e., 1=strongly disagree, 7=strongly agree).

habits. Therefore, a separate analysis for message realism was conducted for the radio program and the ad.

*Message Relevance*

Message relevance was measured using a 5-item scale. The scale combined items for both stimulus materials and included items such as "The program seems relevant to people in my social network" and "The ad seems relevant to my life." A reliability analysis indicated that the scale was internally consistent (*alpha* = .77), so the scores for each item were averaged to create an message relevance score.

*Overall Message Evaluation*

Overall message evaluation was measured using a 4-item scale. The scale combined items for both stimulus materials and included items such as "I enjoyed listening to the program," "The program was informative," and "I enjoyed watching the ad." A reliability analysis indicated that the scale was internally consistent (*alpha* = .69), so scores from each item were averaged to create an overall message evaluation score.

*Active Self-concept*

The second analysis for the study centered on whether topic-related conversation and a measure of chronic self-concept (i.e., exercise identity) would explain variation in the contents of the active self-concept.  Active self-concept is defined conceptually as those elements of the chronic self-concept that are currently accessible at a particular time in a particular social interaction. The chronic self-concept is defined conceptually as declarative and episodic long-term memories that are linked to the "self" node in memory. (See discussion on pp. 58-59.)

Active self-concept was measured using the Twenty Statements Test (TST;

Kuhn & McPartland, 1954). This test has been used in a variety of studies to measure what is most salient about the self-concept in the moment (e.g., Brewer & Gardner, 1996; Trafimow et al., 1991; Trafimow, Silverman, Fan & Law, 1997).

Participants received a blank sheet with 20 lines and instructions to provide as many answers to the question "Who am I?" in the allotted time. Answers to the TST for each participant were then entered into a computer. Next, all exercise-related and student-related self-descriptors were coded for each participant with the coder blind to the experimental condition and the order of the participants randomized. Examples of exercise-related self-descriptors include items such as "I am a runner" or "I am a fitness freak." Examples of student-related self-descriptors include items such as "I am a University of Minnesota student" or "I am a journalism major." (See Appendix F for further discussion.)

A count of the total number of exercise-related and student-related items was then obtained for each participant. These counts were then converted to exercise-item percent and student-item percent by dividing the total number of exercise-related self-descriptors and the total number of student-related self-descriptors by the total number of TST self-descriptors for each participant (e.g., exercise-related percent = count of exercise-related self-descriptor / total TST self-descriptors). This procedure was adapted from Brewer and Gardner (1996), and the resulting exercise-item percent and student-item percent were treated as continuous scales with a potential range from 0 to 100.

*Procedure*

In order to avoid inadvertently biasing the results of the experiment, participants completed the self-monitoring and exercise identity scales approximately two weeks prior to the main data collection.

Data for the study were collected in a research lab containing a check-in area and a series of private rooms, each containing two computer work stations. Prior to the start of the study, a table with a randomized order of the three conversation conditions was generated using SPSS.

Upon arrival, participants were randomly assigned to an experimental condition. In cases where an odd number of participants arrived at the same time, participants were paired randomly and the unpaired participant was rescheduled for a later time slot. Participants then received a consent form explaining they were participating in a study about health messages and conversation. After agreeing to continue in the study, participants were then taken with their experimental partner into one of the private rooms.

Participants in the two conditions that included conversation were told that the first part of the study required them to talk with another participant for 5 minutes about their best and worst personal experiences associated with being a university student or their best and worst experience associated with exercise and physical activity. They were also told the conversations would be taped, but that their identities would not be recorded in future analysis.

After 5 minutes, participants received the Twenty Statements Test and were asked to write as many answers to the question "Who am I?" as possible in the allotted time. The answer sheet the statement "I am…" at the top followed by 20 blank lines. Participants in the no conversation condition began the experiment with the TST.

After 5 minutes had passed, the TSTs were collected and participants were directed to the computer terminals, in which the "Cup of Health" radio program and "Theater" ad were loaded. Participants were instructed on how to use the computers to

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listen to and watch the stimulus materials. They were also given a questionnaire that contained the items for the scales for the dependent measures and asked to complete the survey after listening to the program and watching the ad. The questionnaire also contained questions requesting demographic information which appeared as the last questions.

After completing the questionnaire, participants were thanked for their time and debriefed about the nature of the study.

Results

There are three separate analyses reported in the results section, and each is associated with a set of hypotheses. The first analysis tested whether self-monitoring moderated the topic-related conversation—target stimulus evaluation relation. The second analysis tested the impact of topic-related conversation on the active self-concept, and in particular, whether a measure of chronic self-concept would explain variation in the active self-concept. The third analysis tested whether the active self-concept mediated the topic-related conversation—target stimulus evaluation relation.

*Analysis 1: Self-monitoring as Moderator*

*Descriptive statistics for target stimulus evaluation measures*

Because of the low reliability of the message realism scale, realism scores for the "Cup of Health" and "Theater" ad were analyzed separately. This resulted in four measures of the dependent variable target stimulus evaluation—message realism—"Cup of Health," message realism—"Theater" ad, message relevance, overall evaluation.

Prior to completing the inferential statistical analyses, means and standard deviations were calculated for each of the measures (Table 4-2). Skewness and kurtosis statistics for all of the variables were well within acceptable range (i.e., -2, +2), and a visual inspection of the histograms of the variables indicated that each was normally or near normally distributed. No outliers were detected. Given the nature of the data, the decision was made to proceed with inferential statistical analysis using parametric statistical procedures.

Table 4-2

*Descriptive Statistics for Target Stimulus Evaluation Measures*

| Variable | Mean |
| --- | --- |
| Message realism: "Cup of health" | 5.35 (1.39) |
| Message realism: "Theater" ad | 4.18 (1.52) |
| Message relevance | 4.55 (1.08) |
| Overall message evaluation | 5.27 (0.76) |

NOTE. Standard deviations in parentheses.

*Inferential Statistical Analysis*

A 3 (topic-related conversation: exercise-related, student-related, no conversation) x 2 (self-monitoring: high, low) analysis of variance (ANOVA) was used to test whether self-monitoring moderated the topic-related conversation—target stimulus evaluation relation. Analysis of variance was used rather than a regression analysis, because of the three conversation conditions. This analytic strategy is consistent with what Baron and Kenny (1986) suggest (see also Winer, 1971).

A power analysis (Lenth, 2009) was conducted to determine the likelihood that the sample size was large enough to detect a moderate effect size (i.e., $d = .50$). The analysis indicated that with a sample of 266 participants and six levels of the ANOVA the probability of detecting an effect size $d$ of .50 was .97.

Results of the main effects and interactions are reported for each measure. Post hoc tests tested whether differences in individual cells were statistically significant. In addition to the omnibus test of differences, two planned comparisons were made for each variable—low self-monitors in the exercise-related conversation condition were

compared to low self-monitors in the no conversation condition, and high self-monitors in the exercise-related conversation condition were compared to high self-monitors in the no conversation condition.

*Message Realism: 'Cup of Health'*

A two-way ANOVA with topic-related conversation and self-monitoring as independent variables and message realism "Cup of health" as the dependent variable indicated that the main effect for topic-related conversation was not significant, $F(2, 260) = 1.83$, $p = .16$, and neither was the main effect for self-monitoring, $F(1, 260) = 0.11$, $p = .92$. However, the topic-related conversation x self-monitoring interaction was marginally significant, $F(2, 260) = 2.73$, $p = .07$.

The planned comparison between low self-monitors in the exercise-related conversation and no conversation conditions was not significant , $t(94) = 1.63$, $p = .11$. Similarly, the difference between high self-monitors in the exercise-related conversation and no conversation conditions was not significant, $t(80) = -1.32$, $p = .19$.

Table 4-3

*Descriptive Statistics for Message Realism "Cup of health" by Condition*

| Variable | Mean |
|---|---|
| Exercise-related conversation / low self-monitor | 4.94 (1.74) |
| Exercise-related conversation / high self-monitor | 5.51 (1.19) |
| Student-related conversation / low self-monitor | 5.69 (1.00) |
| Student-related conversation / high self monitor | 5.51 (1.19) |
| No conversation / low self-monitor | 5.45 (1.26) |
| No conversation / high self-monitor | 5.11 (1.50) |

NOTE. Standard deviations in parentheses.

*Message Realism: 'Theater' Ad*

Neither of the main effects for topic-related conversation, $F(2, 260) = 0.78$, $p = .46$, or self-monitoring, $F(1, 260) = 1.34$, $p = .25$, was significant when message realism for the "Theater" ad was used as the dependent variable. However, the topic-related conversation x self-monitoring interaction was significant, $F(2, 260) = 7.65$, $p = .001$.

Post hoc tests showed that the mean for low self-monitors in the exercise-related conversation condition was significantly lower than the mean low self-monitors in the exercise-related conversation condition, $t(89) = -3.02$, $p = .003$, $d = .64$. The mean for low self-monitors in the exercise-related conversation condition was also significantly lower than the mean for high self-monitors in the exercise-related conversation condition also, $t(85) = -3.73$, $p = .001$, $d = .81$.

The planned comparison between low self-monitors in the exercise-related conversation and no conversation conditions was not significant, $t(93) = 1.00$,

*p* = .32. However, the difference between high self-monitors in the exercise-related

conversation and no conversation conditions was significant, *t*(78) = -2.28, *p* = .02,

*d* = .52.

Table 4-4

*Descriptive Statistics for Message Realism for "Theater" ad by Condition*

| Variable | Mean |
|---|---|
| Exercise-related conversation / low self-monitor | 3.67 (1.65) |
| Exercise-related conversation / high self-monitor | 4.81 (1.20) |
| Student-related conversation / low self-monitor | 4.64 (1.41) |
| Student-related conversation / high self monitor | 4.02 (1.53) |
| No conversation / low self-monitor | 4.00 (1.50) |
| No conversation / high self-monitor | 4.11 (1.51) |

NOTE. Standard deviations in parentheses.

### Message Relevance

The result of the two-way ANOVA with topic-related conversation and self-

monitoring as independent variables and message relevance was significant, *F*(2, 260)

= 4.03, *p* = .02. Neither of the main effects was significant, although the main effect for

conversation is worth noting, *F*(2, 260) = 2.62, *p* = .07.

Post hoc tests indicated that the difference in means in the low self monitors

did not differ across the conversation conditions, but it did differ across the high self-

monitor conditions. The difference in means in for high self-monitors differed across the

conversation conditions, *F*(2, 125) = 5.25, *p* = .006. Post hoc tests also showed that the

mean for high self-monitors in the no conversation condition (*M* = 4.14, *SD* = 1.16) was significantly lower than in the exercise-related conversation condition (*M* = 4.92, *SD* = 1.13), *t*(80) = 3.06, *p* = .003, *d* = .68.

The planned comparison between low self-monitors in the exercise-related conversation and no conversation conditions was not significant, *t*(94) = 0.38, *p* = .71. However, as noted above the difference between high self-monitors in the exercise-related conversation and no conversation conditions was significant, *t*(80) = -3.06, *p* = .003, *d* = .68.

Table 4-5

*Descriptive Statistics for Message Relevance by Condition*

| Variable | Mean |
| --- | --- |
| Exercise-related conversation / low self-monitor | 4.49 (1.13) |
| Exercise-related conversation / high self-monitor | 4.92 (1.13) |
| Student-related conversation / low self-monitor | 4.77 (0.96) |
| Student-related conversation / high self monitor | 4.50 (0.95) |
| No conversation / low self-monitor | 4.58 (1.02) |
| No conversation / high self-monitor | 4.14 (1.16) |

NOTE. Standard deviations in parentheses.

*Overall Message Evaluation*

The result of the two-way ANOVA with topic-related conversation and self-monitoring as independent variables and message relevance was significant, *F*(2, 260) = 8.52, *p* = .0001. Neither of the main effects was significant.

A post-hoc test of the indicated that the means for low self-monitors differed

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significantly from the means for high self-monitors in each condition. The mean for low self-monitors in the exercise-related conversation condition was significantly lower than the mean for high self-monitors in the exercise-related conversation condition, $t(86) = 2.60$, $p = .01$, $d = .56$. Conversely, the mean for low self-monitors in the student-related conversation condition was significantly higher than the mean for high self-monitors in the student-related conversation condition, $t(86) = 2.65$, $p = .01$, $d = .57$. As well, the mean for low self-monitors in the no conversation condition was significantly higher than the mean for high self-monitors in the no conversation condition, $t(88) = 2.06$, $p = .05$, $d = .44$.

The difference in means between low self-monitors, $F(2, 135) = 3.26$, $p = .04$, and high self-monitors, $F(2, 125) = 5.35$, $p = .006$, differed significantly across the conversation conditions. For low self-monitors, the difference between the student-related and exercise-related conversation conditions was significant, $t(88) = 2.30$, $p = .02$, $d = .49$. For high self-monitors, the difference between the exercise-related and student-related, $t(83) = 2.95$, $p = .004$, $d = .65$, and exercise-related and no conversation conditions were significant, $t(80) = 2.92$, $p = .005$, $d = .65$.

The planned comparison between low self-monitors in the exercise-related conversation and no conversation conditions was marginally significant , $t(94) = 1.85$, $p = .07$, $d = .38$. Similarly, the difference between high self-monitors in the exercise-related conversation and no conversation conditions was significant, $t(80) = -2.92$, $p = .005$, $d = .65$.

The results of the first analysis indicate fairly strong support for the basic hypothesis that self-monitoring moderates the topic-related conversation--target stimulus evaluation relation. In three of the four measures, the topic-related

Table 4-6

*Descriptive Statistics for Overall Message Evaluation by Condition*

| Variable | Mean |
| --- | --- |
| Exercise-related conversation / low self-monitor | 5.12 (0.81) |
| Exercise-related conversation / high self-monitor | 5.53 (0.62) |
| Student-related conversation / low self-monitor | 5.49 (0.71) |
| Student-related conversation / high self monitor | 5.05 (0.84) |
| No conversation / low self-monitor | 5.40 (0.65) |
| No conversation / high self-monitor | 5.11 (0.66) |

NOTE. Standard deviations in parentheses.

conversation x self-monitoring interaction was significant. Further, often the differences between the individual cells was also significant, which indicates that there was an effect on the low self-monitors separate from the effect on the high self-monitors. The results also support hypothesis H2A, which stated that low self-monitors should display contrast effects. In general, the low self-monitors in the exercise-related conversation condition provided significantly lower ratings of the stimulus materials when compared to the other low self-monitors. Finally, there was a pattern of results for the high self-monitors in which the high self-monitors provided higher ratings for the stimulus materials—but only when they had had an exercise-related conversation first.

*Analysis 2: Active Self-concept*

The second analysis tested the hypotheses related to the effect of topic-related conversation on the active self-concept. Hypothesis 2B stated that topic-related conversation would influence the contents of the active self-concept. Because results from Study 1 indicated support for this hypothesis, results from the test of Hypothesis 2C, which stated that individuals who scored high on the exercise identity scale (i.e., a known measure of one aspect of chronic self-concept) should demonstrate a stronger effect of the exercise-related conversation on the active self-concept, were of particular interest.

*Descriptive Statistics for Exercise-item and Student-item Percent*

Descriptive statistics were generated for the variables associated with the active self-concept, which included total items, exercise-related self-descriptors (i.e., count), student-related self-descriptors (i.e., count), exercise-item percent, and student-item percent (see Table 4-6).

A visual inspection of the histograms of the variables indicated that they were normally or near-normally distributed and without outliers. Skewness and kurtosis statistics were within the acceptable range for all variables except exercise-item percent. Exercise-item percent was positively skewed (skewness statistic = 1.77) and leptokurtotic (kurtosis statistic = 4.13). The leptokurtoic nature of the distribution was due to the fact that many participants did not include any exercise-related self descriptors. Because a leptokurtotic distribution can lead to incorrect interpretation of inferential statistics, a log transformation of the exercise-item percent was performed. The log transformation reduced the skewness (skewness statistic =.17) and kurtosis (kurtosis statistic = -1.63) to acceptable range. Therefore, the results of the analysis

Table 4-7

*Descriptive Statistics for Variables Associated with the Active Self-concept*

| Variable | Mean | Range |
|---|---|---|
| Total items (count) | 18.13 (3.46) | 17 |
| Student-related self-descriptors (count) | 1.85 (1.36) | 7 |
| Exercise-related self-descriptors (count) | 0.95 (1.29) | 7 |
| Student-item percent | 10.32 (7.45) | 35 |
| Exercise-item percent | 5.16 (6.67) | 36 |
| Log exercise-item percent | 1.18 (1.18) | 3.63 |

NOTE. Standard deviations in parentheses.

associated with the active self-concept and the mediational analysis used the log exercise-item percent.[12]

*Topic-related Conversation and Student-item Percent and Log Exercise-item Percent*

A one-way ANOVA with topic-related conversation as the independent variable and student-item percent as the dependent variable was conducted. The result, $F(2, 263) = 2.27$, $p = .11$ indicated that the difference between the means was not significant. However, a one-way ANOVA with topic-related conversation as the independent variable and log exercise-item percent as the dependent variable indicated that the means differed significantly, $F(2, 263) = 13.20$, $p = .0001$. Post hoc tests indicated that the mean for exercise-related conversation was significantly greater than the mean for student-related conversation, $t(174) = 2.54$, $p = .0001$, $d = .72$, and the no conversation conditions $t(176) = 3.96$, $p = .0001$, $d = .60$.

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[12] The log transformation that was performed was ln(1+exercise-item percent).

Table 4-8

*Descriptive Statistics for Log Exercise-item Percent by Condition*

| Condition | Mean |
|---|---|
| Exercise-related conversation | 1.68 (1.20) |
| Student-related conversation | 0.86 (1.10) |
| No conversation | 1.00 (1.11) |

NOTE. Standard deviations in parentheses.

*Topic-related Conversation x Exercise Identity Interaction*

Next, a 3 (topic-related conversation: exercise-related, student-related, no conversation) x 2 (exercise identity: high, low) ANOVA with the log exercise-item percent as the dependent variable was used to test the hypothesis that topic-related conversation would have a stronger effect on individuals who had scored high on the exercise identity scale. Results of the 3 x 2 ANOVA revealed that the main effect for topic-related conversation was significant, $F(2, 260) = 12.43$, $p < .001$ as was the main effect for exercise identity, $F(1, 260) = 30.86$, $p < .001$.[13] However, the topic-related conversation x exercise identity interaction, $F(2, 260) = 0.15$, $p = .86$ was not significant. (See Table 4-9 for means.)

Post host analysis indicated that for participants score low on exercise identity, the mean for exercise-related conversation condition was significantly greater than the mean for the student-related conversation condition, $t(70) = 2.74$, $p = .008$, $d = .65$, and the mean for the no conversation condition, $t(71) = 2.05$, $p = .04$, $d = .49$.

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[13] A 3-way ANOVA with self-monitoring (high, low) as a third factor produced similar results. The main effect for conversation was significant, $F(2, 254) = 11.77$, $p < .001$, as was the main effect for exercise identity $F(1, 254) = 31.59$, $p < .001$. The main effect for self monitoring was not significant, $F(1, 254) = 0.15$, $p = .70$, and none of the interactions was significant.

Similarly, for participants scoring high on exercise identity, the mean for exercise-related conversation was significantly greater than the mean for the student-related conversation condition, $t(83) = 3.66$, $p = .0001$, $d = .80$, and the mean for the no conversation condition, $t(94) = 3.64$, $p = .0001$, $d = .75$. Additionally, participants who scored high on exercise identity recorded significantly higher scores than each of the low exercise identity conditions (i.e., exercise-related, student-related, and no conversation).

The results of the analyses of the measure of the active self-concept indicate moderate support for hypotheses 2B and 2C. While there was no difference across the conditions for the student-item percent, there was significant difference across the conversation conditions for the log exercise-item percent. As predicted (H2B), the mean for log exercise-item percent was significantly higher in the exercise-related conversation condition. Similarly, as predicted in H2C, individuals who scored high on the exercise identity scale, also scored highest in the log exercise-item percent. Interestingly, there was a spike in the means such that those participants who scored high on the exercise identity scale *and* had an exercise-related conversation provided the greatest percent of exercise-related self-descriptors.

Table 4-9

*Means for Exercise-Item Percent by Condition*

| Condition | Raw percent | Log percent |
|---|---|---|
| Exercise-related conversation / exercise identity: low | 5.70 (7.27) | 1.22 (1.25) |
| Exercise-related conversation / exercise identity: high | 10.26 (8.45) | 2.05 (1.02) |
| Student-related conversation/ exercise identity: low | 2.00 (3.78) | 0.55 (0.95) |
| Student-related conversation/ exercise identity: high | 4.89 (5.62) | 1.21 (1.15) |
| No conversation/exercise identity: low | 2.24 (3.18) | 0.71 (0.95) |
| No conversation/exercise identity: high | 5.26 (6.32) | 1.24 (1.18) |

NOTE: Standard deviations in parentheses.

*Analysis 3: Mediational Analysis*

The final analysis relates to Hypothesis 2D, which states that the active self-concept should mediate the topic-related conversation—target stimulus evaluation relation. To test this hypothesis, Baron and Kenny's (1986) procedure for testing mediation was used. In order to provide a test with two conditions, the student-related and exercise-related conversation conditions was conducted.[14] This analysis included the entire sample of participants in those two conversation conditions ($N$ = 177).

A positive result for the Baron and Kenny procedure for testing a mediational pathway would require that a) variation in topic-related conversation would account for variation in active self-concept; b) variation in active self-concept would account for variation in target stimulus evaluation (i.e., message realism, message relevance, overall evaluation); and c) when topic-related conversation—active self-concept and active self-concept—target stimulus evaluation relations are controlled, the topic-related conversation—target stimulus evaluation relation should be significantly reduced or 0 (Baron & Kenny, 1986).

*Topic-related Conversation—Active Self-concept*

An ordinary least square (OLS) regression with topic-related conversation as the predictor variable and log exercise-item percent as the outcome variable was conducted. The entire model was significant, $F(1, 176) = 13.45$, $p = .0001$, $R^2_{Adj} = .07$. The standardized Beta for the predictor topic-related conversation was .27, $t = 3.67$, $p = .0001$.

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[14] The same analysis was performed using the no conversation and exercise-related conversation conditions, and the results were the same.

*Active Self-concept—Message Realism: 'Cup of Health'*

Message realism "Cup of Health" was then regressed onto log exercise-item percent using OLS regression. Neither the entire model, $F(1, 176) = 1.14$, $p = .29$, nor the slope for log exercise-item percent, $\beta = .08$, $t = 1.07$, $p = .29$ was significant.

Table 4-10

*Mediation with Message Realism: "Cup of Health" as Outcome*

| Model | Beta | *t* value | *p* value |
|---|---|---|---|
| Log exercise-item percent | 0.08 | 1.07 | .29 |
| *Full model* | | | |
| Log exercise-item percent | 0.07 | 0.89 | .37 |
| Topical conversation | 0.07 | 0.89 | .37 |

*Active Self-concept—Message Realism: 'Theater' Ad*

Message realism "Theater" ad was then regressed onto log exercise-item percent using OLS regression. Neither the model, $F(1, 176) = 0.03$, $p = .96$, nor the slope for log exercise-item percent, $\beta = .08$, $t = -0.54$, $p = .96$ was significant.

Table 4-11

*Mediation with Message Realism: "Theater" ad as Outcome*

| Model | Beta | *t* value | *p* value |
|---|---|---|---|
| Log exercise-item percent | 0.00 | -0.05 | .96 |
| *Full model* | | | |
| Log exercise-item percent | -0.04 | -0.47 | .64 |
| Topical conversation | -0.04 | -0.47 | .64 |

*Active Self-concept—Message Relevance*

Message relevance was then regressed onto log exercise-item percent using OLS regression. Neither the model, $F(1, 176) = 2.93$, $p = .13$, nor the slope for log exercise-item percent, $\beta = .11$, $t = 1.52$, $p = .13$ was significant.

Table 4-12

*Mediation with Message Relevance as Outcome*

| Model | Beta | *t* value | *p* value |
|---|---|---|---|
| Log exercise-item percent | 0.11 | 1.52 | .13 |
| *Full model* | | | |
| Log exercise-item percent | -0.11 | -1.40 | .16 |
| Topical conversation | -0.11 | -1.40 | .16 |

*Active Self-concept—Overall Message Evaluation*

Finally, overall message evaluation was then regressed onto log exercise-item percent using OLS regression. Neither the model, $F(1, 176) = 3.84$, $p = .05$, nor the slope for log exercise-item percent, $\beta = .15$, $t = 1.96$, $p = .05$ was significant.

Table 4-13

*Mediation with Overall Message Evaluation as Outcome*

| Model | Beta | *t* value | *p* value |
|---|---|---|---|
| Log exercise-item percent | 0.15 | 1.96 | .05 |
| *Full model* | | | |
| Log exercise-item percent | -0.07 | -0.91 | .36 |
| Topical conversation | -0.07 | -0.91 | .36 |

The results of the mediational analysis did not support Hypothesis 2D. While there was evidence that topic-related conversation did influence the contents of the active self-concept (i.e., significant slope), log exercise-item percent failed to account for variation in target stimulus evaluation in any of the four measures.

Discussion

The goal of this study was to test whether the active-self account of prime-to-behavior effects explained the effect of topic-related conversation on how a target stimulus was evaluated. The general hypothesis was that engaging in a topic-related conversation would change the contents of the active self-concept and that this change would then influence how the target stimulus was evaluated. In the present case, the topic of interest was the importance of regular exercise and physical activity. Therefore, participants were randomly assigned to talk about past experiences associated with exercise or to talk about past experiences associated with being a university student. A third condition required no conversation, and this served as a comparison condition.

Because the individual difference variable self-monitoring had been used as a marker to explain how the active-self account may explain variation in priming effects, measurement on that variable was obtained prior to the main part of the experiment. Additionally, the exercise identity scale was used as a measure of chronic self-concept, with the logic being that people who scored higher on the scale would also have exercise as a central part of their self-concept. This assumption seems reasonable given the high correlation between scores on the exercise identity scale and self-reported exercise frequencies obtained two weeks later.

*Analysis 1: Self-monitoring as Moderator*

The first analysis tested whether self-monitoring moderated the topic-related conversation—target stimulus evaluation relation. The evidence across the four measures of target stimulus evaluation provided strong support for the hypothesis that self-monitoring served as a moderator. Consistently, low self-monitors demonstrated a significant contrast effect away from the target stimulus by rating it lower but this

effect only occurred when the low self-monitors had engaged in a conversation about previous exercise behaviors prior to exposure to the stimulus materials. This finding is consistent with DeMarree et al. (2005).

What was interesting to note was the elevation of the ratings of the high self-monitors, which was also related to topic-related conversation. For example, high self-monitors consistently rated the materials higher but only when they had engaged in conversation about past exercise experiences. This result is consistent with what might be expected of high self-monitors, who are more likely to take social cues into consideration in their behavior.

*Analysis 2: Topic-related Conversation and the Active Self-concept*

Because much of the research assumes that the results of the outcomes are evidence of changes in the active self-concept, one goal was to try to capture the change in the active self-concept. Thus, participants completed the Twenty Statements Test prior to exposure to the health messages, and the answers were coded for items related to exercise and physical activity. Results indicated that topic-related conversation influenced the contents of the active self-concept and that the effect of topic-related conversation on the active self-concept was stronger for individuals who scored higher on the exercise identity scale.

Interestingly, the results were not significantly different for low and high self-monitors. This suggests that the changes to the active self-concept occurred outside the consciousness of the experimental participants. Unfortunately, due to time and participant constraints, it was not possible to include additional groups that did not include the TST for the main study. However, in a subsequent study (Wirtz, 2009), one group did not do the TST while another group did and the results did not

differ significantly. Follow-up studies should be conducted to eliminate this possible alternative hypothesis.

*Analysis 3: Mediational Analysis*

The main analysis of the study tested whether changes in the active self-concept mediated the topic-related conversation—target stimulus evaluation relation. This hypothesis was not supported.

There are several possibilities that might explain why this hypothesis was not supported. First, it is possible that the measure of the active self-concept produced too much noise. A conservative approach to coding was used in order to provide a truer test of the hypotheses, so all answers were included. Some other researchers have used coding schemes that eliminated some of the noise in the measure such as how people feel or what they say about their immediate environment. Perhaps an analysis using that type of coding scheme would have produced a better test of the hypothesis. This problem of measuring the active self-concept is one that a number of researchers have grappled with. One approach is to do what others have done and assume the mediational pathway given the outcomes of other markers of changes in the active self-concept.

Taken together the results of the analysis suggest the importance of considering the implications of the active self-account for strategic communication campaigns.

CHAPTER FIVE:

TOPIC-RELATED CONVERSATION,

MEDIA USE, AND BEHAVIOR

The goal of the first two studies of the dissertation was to investigate the

immediate influence of topic-related conversation on how mass media messages are

evaluated when exposure to the messages occurs immediately after the conversation.

Topic-related conversations were conceptualized as a priming mechanism through

which topic-related cognitive schemas are activated, and theory about priming and

priming effects guided the development of the hypotheses and design of those studies.

The goal of the third study was to begin to consider the longer-term effect that

topic-related conversation may have on individuals. The development of this study

was guided by complementary two theoretical propositions related to how cognitive

schemas develop and the role of media and interpersonal communication on behavior.

The first theoretical proposition suggests that repeated exposure to a stimulus over

time is necessary for the development of a strong cognitive schema (e.g., Tulving,

1986). The second theoretical proposition extends the first, and it asserts that media

use and conversation can predict subsequent behavior (e.g., McLeod et al., 1999;

Shah et al., 2007).

This latter proposition is informed by an Orientation-Stimulus-Orientation

-Response model, which has to-date been primarily applied to political communication.

This model suggests that variables such as personal interest in politics and the

structure of social networks influence an individual's initial orientation toward media

use and interpersonal communication about politics. The media use and interpersonal communication then potentially serve as stimuli creating greater political interest and efficacy. This increased interest and efficacy then serve as secondary orientations which influence the amount of subsequent knowledge and political activity displayed.

*Rationale for Using Exercise as a Topic*

The behavioral focus of the study was exercise, the same as in Study 2. The rationale for using exercise for this study is similar to the rationale articulated for that study. First, I wanted to use a topic where there would be variance in the variables of interest (i.e., media use, topic-related conversation, exercise behavior). The earlier study indicated that among the target population, there was a range of how often people reported exercising and in their scores on the exercise identity scale. Second, I wanted to choose a topic that would allow me to build upon previous research while also making a theoretical and practical contribution. From a theoretical standpoint, I was seeking to extend the basic ideas of the O-S-O-R model to health communication. From a practical standpoint, I hoped that the findings may point to strategies that would increase the effectiveness of exercise and physical activity campaigns. Finally, as suggested previously, exercise and physical exercise is a topic of interest to me as a researcher, and this gave me a chance to begin to pursue this topic.

*Analysis 1: Topic-related Conversation, Media Use, and Behavior*

The first analysis tested whether certain forms of media use and conversation predicted self-reported behavior. This was a straightforward cross-sectional study design, and the analysis was similar to the analysis provided by McCloed et al. (1999) in their study of media use and political participation. The basic hypotheses of the

study were also informed by the previous research. The political engagement research suggests that there may also be significant relations between certain types of media use, certain types of conversation, and certain types of health behaviors. One open question is whether these findings only apply to political communication or whether this model extends to health-related topics such as exercise. For the current analysis, though, it is important to note that a simple linear regression was performed and is presented rather than a complete path analysis. Therefore, the hypotheses simply state that the two classes of predictor variables (i.e., media use, conversation) will predict aerobic exercise.

> **Hypothesis 3A:** *Exercise-related media use will predict self-reported aerobic exercise.*
>
> **Hypothesis 3B:** *Exercise-related conversation will predict self-reported aerobic exercise.*

*Analysis 2: Predicting Future Behavior*

The second analysis focused on whether exercise-related conversation and exercise-related media use at Time 1 would predict self-reported exercise at Time 2. One problem with cross-sectional studies is that it is difficult to claim that the predictor variables *cause* any change in the outcome variable. As mentioned, Eveland and Thomson (2004) conducted a study using media use and conversation measures at Time 1, followed by political participation measures some time later at Time 2. The idea for the second analysis was based on that previous study, although the time lag here was much shorter. For the current analysis, the lag between the initial data collection and the subsequent data collection was only one week.

The hypotheses for the second analysis were also written to reflect the two broad categories of predictor variable:

>**Hypothesis 3C:** *Exercise-related media use will predict future self-reported aerobic exercise.*

>**Hypothesis 3D:** *Exercise-related conversation will predict future self-reported aerobic exercise.*

*Analysis 3: Topic-related Conversation and the Chronic Self-concept*

The third analysis focused on whether there was a significant relation between topic-related conversation and a measure of the chronic self-concept. In Study 2, I tested whether topic-related conversation would influence the active self-concept, and one part of that test included grouping people by a measure of the chronic self-concept. In that case it was exercise identity. The logic was that someone who had more experience with a topic (e.g., exercise) would also have that topic as part of his or her chronic self-concept (e.g., exercise identity). One result would be that the individual would display a strong response to topic-related conversation. A key finding in Study 2 was that people who scored higher on the exercise identity scale on average used more exercise-related self-descriptors and that effect was magnified after they had a topic-related conversation about past exercise activities.

The current analysis simply reverses that pathway by suggesting that people who have more conversations about a topic should also be more likely to have that topic as part of their chronic self-concept. In this case, the measure of exercise-related

conversation is expected to account for variance on the exercise identity scale.

*Hypothesis 3E: Exercise-related conversation will predict scores on the exercise identity scale.*

Method

*Participants*

Undergraduate students (N=237) were recruited from strategic communication classes at the School of Journalism and Mass Communication to participate in a study about how exercise, media use, and conversation. Course credit was offered to the students for their involvement in the study. The mean age of the sample was 20.71 (SD=4.32).

At the end of the study, participants were asked whether they were interested in participating in a three follow-up surveys with an incentive of receiving a $10 Target gift card upon completion of the studies. Approximately one-half (N=96) agreed to continue in the study and data were collected from these individuals one week later. The mean age of the sample for the second part of the study was 20.52 (SD = 3.67).

*Design*

The first part of the study (i.e., Time 1) was a cross-sectional study with data gathered on variables related to media use, conversation and exercise behavior. Approximately one week later, data on the same predictor and outcome variables was collected for those participants continuing in the study.

*Data Collection*

Data were collected using an online data management system (Fidler, 2009). Participants were assigned a log in and password and logged in over a one-week period. For the initial data collection, the questions appeared in four sections, which were randomized by the computer to prevent an ordering effect. One of the sections contained a single question asking participants if they would be interested in participating in a follow-up study for a nominal reimbursement. Participants who chose

"yes" on the option were contacted by the researcher and enrolled in the second part of the study.

The second part of the study occurred approximately one week after the initial data collection ended. Data were collected using the same online data management system. Participants were sent an email reminder and given a three-day window to complete the first follow-up study.

*Variables*

The variables of interest were all related to the main objective of the study, which was to begin to investigate the relations between topic-related conversation, topic-related media use, and topic-related behavior. For this study, the topic was exercise, and all measures were adapted from previous studies associated with conversation and political participation (i.e., McLeod et al., 1999), exercise and physical activity (i.e., Robinson, Hammer, Killen, Kraemer, Wilson, Hayward et al., 1993; Sallis, Prochaska & Taylor, 2000) or media use (Webster & Wakshlag,1985).[15]

*Media Use Measures*

Media use was measured in three ways. First, generic television use was measured using a 4-item, 10-point scale with endpoints of "0" and "more than 8." Items included questions such as, "On average, how many hours of television do you watch in a weekday?" The scale was internally consistent (*alpha* = .86), so the scores were summed and averaged.

Generic Internet use was measured using a single-item, 10-point scale with endpoints of "0" and "more than 8." The item asked, "In an average day, how many hours do you spend online using the Internet to search for or read information?"

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[15] A copy of the scales used in the first and second data collection can be found in Appendix H and Appendix I.

Exercise television use was measured using a two-item scale. Participants were asked to indicate how many days in the past week they had watched a television show related to exercise (i.e., a show "that discussed or contained a segment about exercise or physical activity"). In another part of the survey, they responded to the statement "I watched a television show that featured exercise within the last 7 days." using a 7-point Likert scale (endpoints: strongly disagree / strongly agree). The scale was internally consistent (*alpha* = .68), so scores were summed an averaged.

Sports television use was measured using a single-item 8-point scale in response to the question, "How many days in the last week (i.e., last 7 days) did you watch some type of organized sports event on television? Examples include professional or college football, basketball, baseball, soccer, swimming, etc."

*Conversation Measures*

Exercise-related conversation was measured using a 3-item scale with items such as "How many days in the last week (i.e., last 7 days) did you talk with someone else about a television show that contained information about exercise or physical activity?" and "I often talk to people about exercise." The scale was internally consistent (alpha = .70), so scores were summed and averaged.

Exercise television conversation was measured using a 1-item 8-point scale using the question, "How many days in the last week (i.e., last 7 days) did you talk with someone else about a television show that contained information about exercise or physical activity?"

Sports television conversation was measured using a 1-item 8-point scale using the question, "How many days in the last week (i.e., last 7 days) did you talk with someone else about an organized sports event that you had watched on television?"

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*Outcome Variable: Exercise Behavior*

There were was one measure of exercise-related behavior—aerobic exercise. Aerobic exercise was measured using an 8-point scale and the question, "How many days in the last week (i.e., last 7 days) did you participate in aerobic exercise or physical activity?" A definition of aerobic exercise as "exercise or physical activity includes jogging or running, playing soccer or basketball, aerobics, etc." appeared alongside the question.

Results

Three analyses are presented in the results section. The first analysis used

the media use and conversation measures as predictors and aerobic exercise as the

outcome variable at one point in time. Because of the finding in Study 2 indicating that

high and low self-monitors may respond differently to conversation and mass media,

an auxiliary analysis is presented, which tests whether there are significant differences

between high and low self-monitors. The second analysis uses the media use and

conversation measures at Time 1 as predictors and aerobic exercise at Time 2 as the

outcome variable. Finally, the third analysis looks at the relation between topic-related

conversation and chronic self-concept, using the conversation measures from the first

analysis as the predictor variables and exercise identity as the outcome variable.

*Analysis 1: Cross-sectional Data with Aerobic Exercise*

   *Descriptive Statistics and Power Analysis*

Prior to statistical analysis, descriptive statistics were generated for each of

the measured variables (see Table 5-1). A visual inspection of the histograms of the

variables indicated that all had normal or near-normal distributions with no outliers.

Skewness and kurtosis statistics were within a normal range, except for the skewness

statistic (3.05) and kurtosis statistic (12.07) for exercise television conversation. A

log transformation of that variable was performed, which made the distribution more

normal. So, log exercise television conversation was used in subsequent analyses.

A power analysis (Lenth, 2009) was also conducted to determine the likelihood

that the sample size was large enough to detect a moderate effect size (i.e., $f^2 = .15$).

The analysis indicated that with a sample of 237 participants and 8 predictors the

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probability of detecting an effect size of .15 was .998.

Table 5-1

*Descriptive Statistics for Outcome and Predictor Variables (N=237)*

| Variable | Mean |
| --- | --- |
| Aerobic exercise | 3.08 (1.92) |
| Television use | 1.80 (0.75) |
| Internet use | 2.60 (0.81) |
| Exercise television use | 2.42 (1.43) |
| Sports television use | 2.55 (1.76) |
| Exercise-related conversation | 4.32 (1.30) |
| Exercise television conversation | 2.00 (1.39) |
| Sports TV conversation | 2.80 (1.97) |
| Log exercise TV conversation | 0.25 (0.43) |

NOTE. Standard deviations in parentheses.

Table 5-2

*Bivariate Correlations with Aerobic Exercise (N = 237)*

| Variable | Aerobic exercise | Sex | TV use | Internet | Ex TV | Sport TV | Ex talk |
|---|---|---|---|---|---|---|---|
| Sex | -.01 | | | | | | |
| TV use | -.15* | .14* | | | | | |
| Internet use | .04 | .00 | .08 | | | | |
| Exercise TV | .12 | .02 | .32** | .01 | | | |
| Sports TV | .14* | .25* | .30** | -.05 | .40** | | |
| Exercise talk | .50** | -.06 | -.17** | -.08 | .18** | .11 | |
| Log ex TV talk | .16* | .03 | .14* | .08 | .54** | .19** | .21** |
| Sports TV talk | .16* | .19** | .15* | .03 | .37** | .72** | .21** |

* *p* < .05,  ** *p* < .001, two-tailed

*Aerobic Exercise as Outcome*

Hierarchical linear regression with three steps was performed separately with aerobic exercise as the outcome variable. The first step included only the predictor variable gender, which served as a control variable. The second step added the media use variables (i.e., television use, Internet use, exercise television use, sports television use). The third step added the conversation variables (i.e., exercise-related conversation, log exercise TV conversation, sports TV conversation). (See Table 5-3 for full results.)

In the first step, the slope for gender was not significant. This indicated that there was no difference in how female and male participants reported their frequency of aerobic exercise.

In the second step, the slopes for television use ($\beta = -.25$, $p < .05$) and sports television use ($\beta = .17$, $p < .05$) were significant. This indicates that on average as the amount of television watched increases, the amount of aerobic exercise decreases. It also indicates that on average that there is a positive relation between watching sports on TV and aerobic exercise.

In the third step, the slopes for two variables were significant. The slope for general television use was significant, ($\beta = -.13$, $p < .05$), which means that holding the other media use and conversation variables constant, there is still a significant negative relation between television use and aerobic exercise. This can be interpreted that on average as television use increases, aerobic exercise decreases. The slope for exercise-related conversation was also significant, ($\beta = .46$, $p < .05$). The interpretation here is that with the other predictors held constant, as the amount of exercise-related conversation increases so do the amount of aerobic exercise. Finally, it is worth noting

that the slope for sports television use, (β = .25, p = .06) was marginally significant.

The results of the first analysis provided some support for Hypothesis 3B, which  predicted that exercise-related conversation would predict aerobic exercise. The significant and positive slope for exercise-related conversation indicated that for this population, higher amounts of exercise-related conversation were associated with higher amounts of aerobic exercise.

The support for Hypothesis 3A was much less clear. The significant—albeit small—negative slope for generic television use indicated that on average higher amounts of aerobic exercise were associated with lower amounts of television viewing. The slope for sports television viewing was significant when only gender and the media use variables were entered in the equation, however, it was not significant when the conversation variables were included in the analysis. Nevertheless, the result does at least suggest that sports television viewing is worth further exploration (see Discussion).

Table 5-3

*Summary of Hierarchical Regression Analysis for Variables Predicting*
*Aerobic Exercise (N = 236)*

| Variable | *B* | *SE B* | *β* |
|---|---|---|---|
| Step 1 | | | |
| Gender (male = 1) | -0.03 | 0.26 | -.01 |
| Step 2 | | | |
| Gender | -0.07 | 0.26 | -.02 |
| Television use | -0.63 | 0.17 | -.25* |
| Internet use | 0.16 | 0.15 | .07 |
| Exercise television use | 0.17 | 0.09 | .13 |
| Sports television use | 0.18 | 0.08 | .17* |
| Step 3 | | | |
| Gender | 0.03 | 0.23 | .01 |
| Television use | -0.33 | 0.16 | -.13* |
| Internet use | 0.22 | 0.14 | .09 |
| Exercise television use | 0.07 | 0.10 | .01 |
| Sports television use | 0.19 | 0.10 | .17 |
| Exercise-related conversation | 0.69 | 0.09 | .46** |
| Log exercise TV conversation | 0.23 | 0.32 | .05 |
| Sports TV conversation | -0.07 | 0.08 | -.07 |

*Note.* $R^2$ = .00 for Step 1 ($p$ = .91); $\Delta R^2$ = .08 for Step 2 ($p$ < .01); $\Delta R^2$ = .20 for Step 3

($p$ < .001). *$p$ < .05; **$p$ < .001.

*Model Checking*

For model checking, a histogram of the unstandardized residuals was normally distributed and there were no outliers (see Figure 5-1). A plot of the unstandardized residual by participant ID indicated no pattern existed.
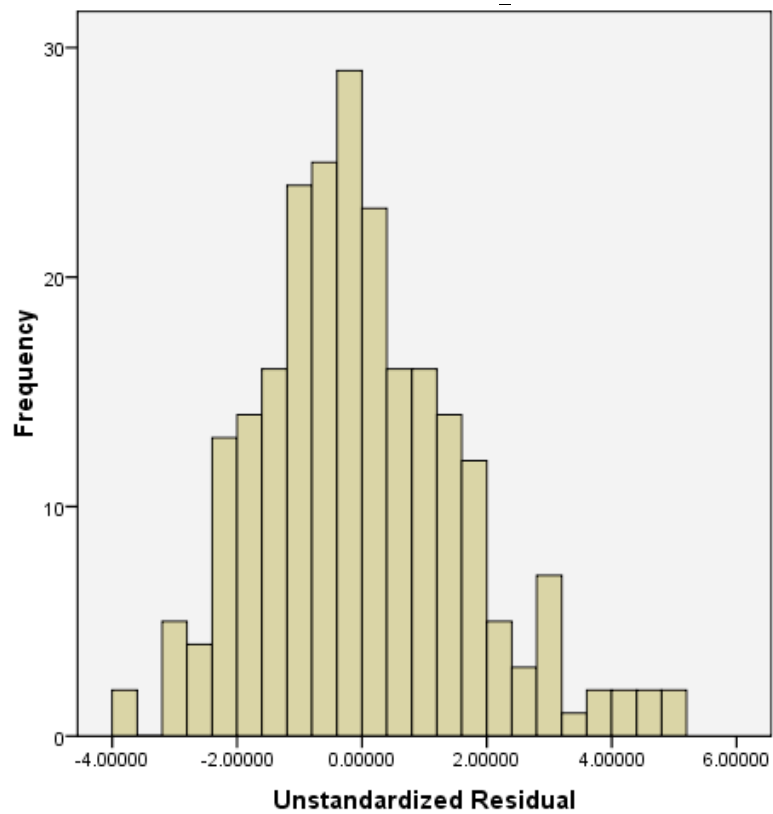


*Figure 5-1.* Histogram of unstandardized residuals of Step 3 of hierarchical linear regression with aerobic exercise as outcome variable.

*Auxiliary Analysis: Testing for Differences Between Low and High Self-monitors*

Because of the finding in Study 2 that indicates that self-monitoring moderates the relation between topic-related conversation and target stimulus evaluation, an auxiliary analysis was conducted to test whether the slopes between low and high self-monitors differed in the previous analysis. The rationale was that the interpretation of the results would be considerably different if the same pattern of results emerged in the cross-sectional data.

In order to complete this analysis, the file was first split between low and high self-monitors. Then two OLS regression models with simultaneous entry of variables was conducted. The outcome measure was aerobic exercise, and the predictor variables were gender, television use, Internet use, exercise television use, sports television use, exercise-related conversation, log exercise television conversation, and sports television conversation. (See Table 5-4 for low self-monitors and Table 5-5 for high self-monitors.)

When the absolute difference in the unstandardized slopes between low and high self-monitors was greater than .10, a Student's *t* test was used to determine if the difference was statistically significant.

*Comparison of Slopes*

There were three slopes that met the criteria for significance testing—television use, exercise television use, and log exercise television conversation.

The difference between the slopes for television use for low and high self-monitors was not significant, $t(125) = 0.69$, n.s. However the difference between the slopes for exercise television use and log exercise television conversation for low and high self-monitors was significant. The difference between the slopes for exercise

television use was $t(125) = 2.34$, $p < .05$, and the difference between the slopes for log

exercise television was $t(125) = -2.15$, $p < .05$.

There are two implications of this finding. First, there is no evidence that the low

and high self-monitors differed in how they reported the conversation variables. This

is logical, because there would be no apparent situational pressure to over- or under-

report conversation. Second, there is at least some evidence that high and low self-

monitors differed in how they reported television use. Again, this finding is logical given

that there may be some self-presentational concerns about how much television one

reports watching (i.e., potentially socially desirable to report less television viewing).

However, given the relatively small difference in the slopes, the results of the overall

analysis should not be affected.

Table 5-4

*Summary of OLS Regression Analysis for Variables Predicting*
*Aerobic Exercise for Low Self-Monitors (N = 129)*

| Variable | B | SE B | β |
|---|---|---|---|
| Gender | -0.04 | 0.31 | -.01 |
| Television use | -0.50 | 0.24 | -.19* |
| Internet use | 0.22 | 0.20 | .09 |
| Exercise television use | 0.22 | 0.14 | .17 |
| Sports television use | 0.19 | 0.14 | .18 |
| Exercise-related conversation | 0.65 | 0.12 | .43** |
| Log exercise TV conversation | -0.35 | 0.41 | -.08 |
| Sports TV conversation | -0.08 | 0.12 | -.08 |

*Note.* $R^2 = .28$ ($p < .001$). *$p < .05$; **$p < .001$.

Table 5-5

*Summary of OLS Regression Analysis for Variables Predicting*
*Aerobic Exercise for High Self-Monitors (N = 109)*

| Variable | B | SE B | β |
|---|---|---|---|
| Gender | 0.04 | 0.38 | .01 |
| Television use | -0.27 | 0.23 | -.11 |
| Internet use | 0.17 | 0.20 | .08 |
| Exercise television use | -0.26 | 0.15 | -.19 |
| Sports television use | 0.22 | 0.14 | .17 |
| Exercise-related conversation | 0.71 | 0.14 | .49** |
| Log exercise TV conversation | 1.16 | 0.57 | .25* |
| Sports TV conversation | -0.09 | 0.12 | -.09 |

*Note.* $R^2$ = .28 ($p$ < .001). *$p$ < .05; **$p$ < .001.

*Analysis 2: Predictors with Outcomes Measured at Time 2*

Approximately one week after the initial data collection, data were collected on the predictor and outcome variables for $N$ = 94 participants. The data for the predictor variables from Time 1 were then used to predict behavior at Time 2.

*Descriptive Statistics*

Prior to statistical analysis, descriptive statistics were generated for each of the measured variables (see Table 5-6). A visual inspection of the histograms of the variables indicated that all had normal or near-normal distributions with no outliers. Because of the previous analysis, log exercise television conversation was used in the analyses.

A power analysis (Lenth, 2009) was also conducted to determine the likelihood that the sample size was large enough to detect a moderate effect size (i.e., $f^2$ =.15). The analysis indicated that with a sample of 94 participants and 8 predictors the probability of detecting an effect size of .15 was .71. This was slightly below the traditional cut-point of .80, but the decision was made to proceed with the analysis.

Table 5-6

*Descriptive Statistics for Outcome and Predictor Variables (N = 94)*

| Variable | Mean |
|---|---|
| Aerobic exercise—week 2 | 2.57 (1.66) |
| Television use | 1.77 (0.73) |
| Internet use | 2.56 (0.78) |
| Exercise television use | 2.31 (1.40) |
| Sports television use | 2.41 (1.82) |
| Exercise-related conversation | 4.07 (1.41) |
| Log exercise TV conversation | 0.22 (0.37) |
| Sports TV conversation | 2.82 (1.92) |

NOTE. Standard deviations in parentheses.

Table 5-7

*Bivariate Correlations with Aerobic Exercise at Time 2 (N = 94)*

| Variable | Aerobic exercise | Sex | TV use | Internet | Ex TV | Sport TV | Ex talk |
|---|---|---|---|---|---|---|---|
| Sex | -.18 | | | | | | |
| TV use | -.15 | .11 | | | | | |
| Internet use | .00 | .20* | .13 | | | | |
| Exercise TV | .00 | -.06 | .21* | -.01 | | | |
| Sports TV | .04 | .31* | .39** | -.06 | .38** | | |
| Exercise talk | .51** | -.20* | -.16 | -.16 | -.10 | .01 | |
| Log ex TV talk | .05 | .17 | .01 | -.06 | .51** | .12 | .22** |
| Sports TV talk | .04 | .18 | .21* | -.03 | .37** | .74** | .23** |

* $p < .05$, ** $p < .001$, two-tailed

*Aerobic Exercise as Outcome*

Hierarchical linear regression with three steps was performed with aerobic exercise as the outcome variable. The first step included only the predictor variable gender. The second step added the media use variables (i.e., television use, Internet use, exercise television use, sports television use). The third step added the conversation variables (i.e., exercise-related conversation, log exercise TV conversation, sports TV conversation).

In block 1, the slope for gender was not significant. This indicates that the difference in the amount of aerobic exercise reported by males and females was not significant.

In block 2, the slope for gender was significant, ($\beta$ = -.23, $p$ < .05). This indicates that when the media use variables are held constant, there is a difference in the amount of exercise reported by males and females, with females reporting on average a slightly higher amount of aerobic exercise. None of the slopes of the other predictors was significant, though.

In block 3, the slope for gender was not significant when the media use and conversation were held constant. The two significant slopes were for sports-related television use, ($\beta$ = .33, $p$ < .05) and for exercise-related conversation, ($\beta$ = .57, $p$ < .001). This indicates that on average that participants who watched more sports television at Time 1 were also more likely to report higher levels of aerobic exercise one week later. Similarly, with all of the other predictors held constant, participants who talked more about exercise at Time 1 were also more likely to report higher levels of exercise at Time 2.

Table 5-8

*Summary of Hierarchical Regression Analysis for Variables Predicting Aerobic Exercise (N = 94)*

| Variable | B | SE B | β |
|---|---|---|---|
| Step 1 | | | |
| Gender (male = 1) | -0.63 | 0.36 | -.18 |
| Step 2 | | | |
| Gender | -0.80 | 0.39 | -.23* |
| Television use | -0.42 | 0.25 | -.19 |
| Internet use | -0.03 | 0.22 | -.01 |
| Exercise television use | -0.07 | 0.13 | -.06 |
| Sports television use | 0.18 | 0.11 | .20 |
| Step 3 | | | |
| Gender | -0.42 | 0.35 | -.12 |
| Television use | -0.29 | 0.22 | -.13 |
| Internet use | 0.18 | 0.20 | .08 |
| Exercise television use | 0.00 | 0.13 | .00 |
| Sports television use | 0.30 | 0.14 | .33* |
| Exercise-related conversation | 0.67 | 0.12 | .57** |
| Log exercise TV conversation | -0.75 | 0.47 | -.17 |
| Sports TV conversation | -0.22 | 0.12 | -.25 |

*Note.* $R^2$ = .03 for Step 1 (*p* = .08); $\Delta R^2$ = .04 for Step 2 (*p* = .38); $\Delta R^2$ = .26 for Step 3 (*p* < .001). *\*p* < .05; *\*\*p* < .001.

*Model Checking*

For model checking, a histogram of the unstandardized residuals was normally distributed and there were no outliers (see Figure 5-2). A plot of the standardized residuals by participant ID indicated no pattern existed.
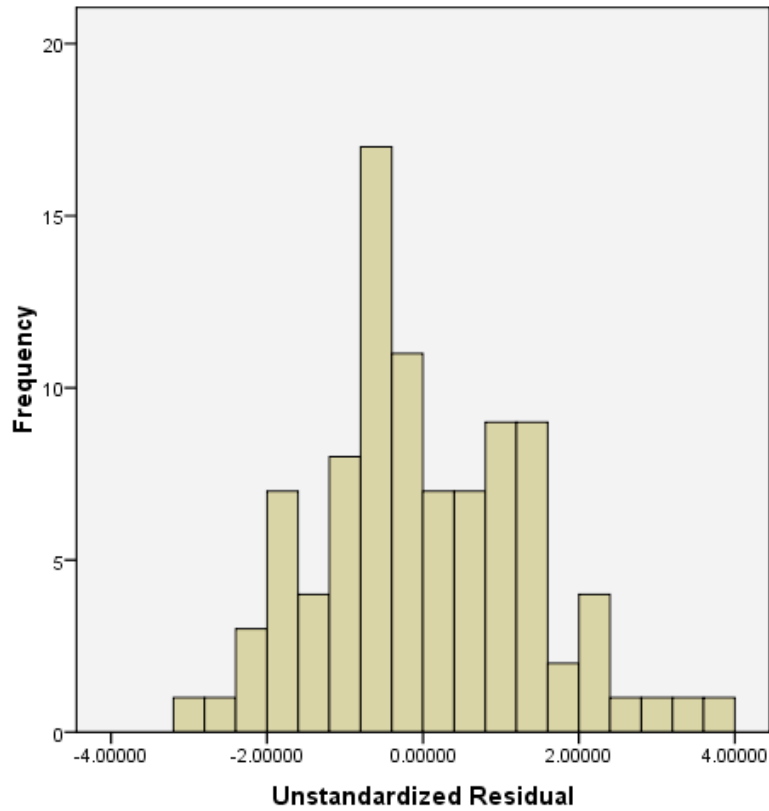


*Figure 5-2.* Histogram of unstandardized residuals of Step 3 of hierarchical linear regression with aerobic exercise at Time 2 as outcome variable.

*Analysis 3: Using Conversation to Predict Chronic Self-concept*

　　　The third analysis tested whether topic-related conversation explained variance in a measure of chronic self-concept. OLS regression with simultaneous entry of variables was used. The outcome variable was exercise identity score. The predictor variables were exercise-related conversation, log exercise TV conversation, and sports TV conversation.

　　　*Descriptive Statistics*

　　　Prior to statistical analysis, descriptive statistics were generated for each of the measured variables (see Table 5-9, Table 5-10). A visual inspection of the histograms of the variables indicated that all had normal or near-normal distributions with no outliers. Because of the previous analysis, log exercise television conversation was used in the analyses.

Table 5-9

*Descriptive Statistics for Outcome and Predictor Variables (N = 237)*

| Variable | Mean |
|---|---|
| Exercise identity score | 39.04 (12.48) |
| Exercise-related conversation | 4.32 (1.30) |
| Log exercise TV conversation | 0.25 (0.43) |
| Sports TV conversation | 2.81 (1.97) |

NOTE. Standard deviations in parentheses.

Table 5-10

*Bivariate Correlations with Exercise Identity Score (N = 237)*

| Variable | Exercise identity score |
|---|---|
| Exercise-related conversation | .71** |
| Log exercise TV conversation | .11 |
| Sports TV conversation | .13 |

** *p* < .001, two-tailed.

*Exercise Identity as Outcome*

OLS linear regression with simultaneous entry of variables was used to test the degree to which variation in the outcome variable exercise identity was accounted for by the predictor variables exercise-related conversation, log exercise television conversation, and sports television conversation. (See Table 5-11).

Only the slope for exercise-related conversation was significant, (β = .70, p < .001). The magnitude of the slope indicates that there is a strong relation between exercise-related conversation and exercise identity, so that on average as exercise-related conversation increases, scores on the exercise identity scale increase also.

Table 5-11

*Summary of Ordinary Least Squares Multiple Regression Analysis for Variables Predicting Exercise Identity Score (N = 237)*

| Variable | B | SE B | β |
|---|---|---|---|
| Exercise-related conversation | 6.76 | 0.47 | .70** |
| Log exercise TV conversation | -1.67 | 1.49 | -.06 |
| Sports TV conversation | 0.00 | 0.32 | .00 |

*Note.* $R^2$ = .48 **p < .001.

*Model Checking*

For model checking, a histogram of the unstandardized residuals was normally distributed, although there were two participants whose scores indicated they may be potential outliers (see Figure 5-3). Those two scores were removed, and the analysis was completed without those two data points. The results did not change, so they were reinserted, and the reported results reflects their presence. Finally,  a plot of the standardized residuals by participant ID indicated no pattern existed.
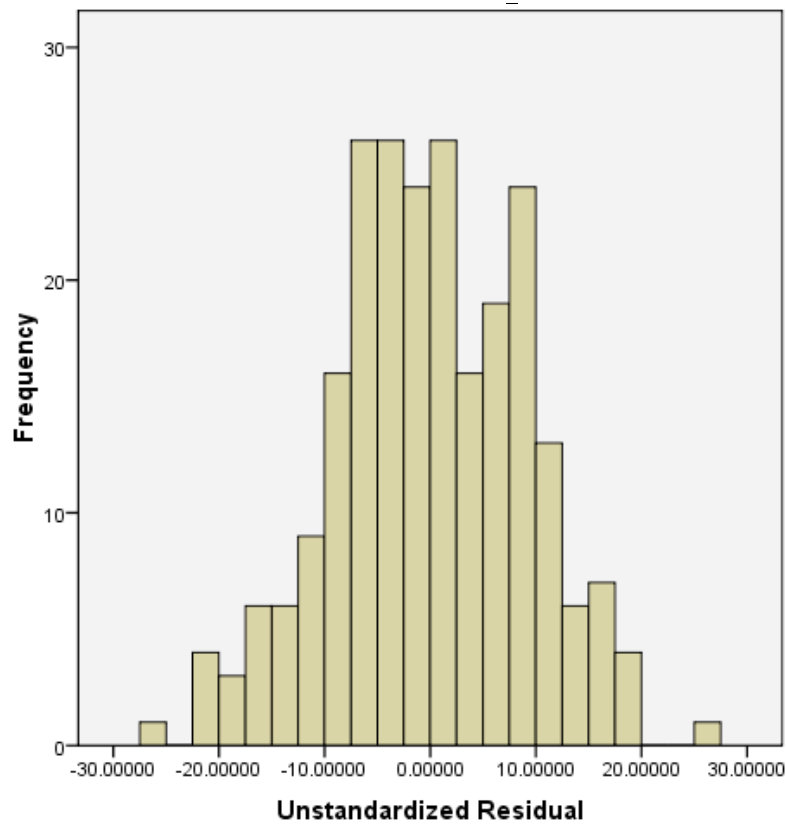


*Figure 5-3.* Histogram of unstandardized residuals of OLS linear regression with exercise identity as outcome variable.

Discussion

The goal of the current study was to investigate the degree to which media use and conversation predicted for behavior that was reported concurrently, as well as behavior that was reported one week after the initial media use and conversation measures were taken.

*Analysis 1: Media Use, Conversation, and Behavior*

In the first analysis, I gathered cross-sectional data on general and exercise-related media use, exercise-related conversation, and self-reported exercise behaviors. I then regressed the media and conversation measures on the behaviors reported for the past week. I did this for both aerobic and non-aerobic exercise.

The two significant predictors were television use and exercise-related conversation. In general, people who exercised more reported watching less television, a result that offered qualified support for hypothesis 3A, which predicted that exercise-related media use would predict aerobic exercise. While the expectation was that exercise-related media use would be important, the current result is consistent with a number of previous studies that indicated that in general people who exercise more watch less television. The result for television use is consistent with a wide range of other exercise and fitness studies (Robinson, Hammer, Killen, Kraemer, Wilson, Hayward et al., 1993; Sallis, Prochaska & Taylor, 2000), and this makes sense intuitively. People who exercise more probably have less time to watch television and they are likely to be more active physically. It was somewhat surprising that the more specific exercise-related media measure did not predict aerobic exercise given that the mean for that measure was actually greater than the mean for television use. Even though the measure asked specifically for shows related to exercise, it is possible that

some people use exercise-related television in place of actually exercising.

The result that exercise-related conversation predicted aerobic exercise supported hypothesis 3B. This result is consistent with what has been found in the political conversation literature (e.g., McLeod et al., 1999; Eveland, 2004). In that literature, people who are more active politically also tend to talk more about politics. Here, people who reported more exercise also reported more conversation about exercise. Once again, the result makes intuitive sense—we are likely to talk about the things that we do and do the things we talk about.

It is also worth noting that while in general the differences between low and high self-monitors were not significant, there were two areas where the difference was significant. The difference in the slopes for exercise television use and log exercise television conversation for low and high self-monitors was significant. At the same time, neither of those slopes differed significantly from 0, and the slopes for the significant predictors were very close and in the same direction. Nevertheless, I felt it was important to test for differences given the earlier result from Study 2.

One question that cannot be answered in the first analysis is one of causality. It is difficult to separate which come first—the conversation or the exercise. It is likely that with a topic like exercise that there is a self-reinforcing cycle where exercise causes conversation, which then leads to more exercise. Obviously, these are questions that deserve further study, although the second analysis can at least point us in the right direction.

*Analysis 2: Media Use and Conversation at Time 1; Behavior at Time 2*

In the second analysis, I regressed the media use and conversation behaviors reported at Time 1 onto the aerobic exercise that was reported at Time 2 (i.e., one

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week after the first data were gathered). While the result would still not permit a

causal claim, the results can at least suggest how what happens with media use and

conversation may predict future behavior

The result of the analysis was promising in this respect. The two significant

predictors of behavior at Time 2 from what was reported at Time 1 were watching

sports television and exercise conversation. Again, this result offered qualified support

to the hypothesis that stated media use would predict future exercise behavior

(hypothesis 3C) and stronger support to the hypothesis that stated exercise-related

conversation would predict future exercise behavior.

In the case of sports-related television, people who on average reported

watching more sports at Time 1 also reported engaging in more aerobic exercise at

Time 2. While there is limited literature about watching sports specifically, it seems

intuitive that people who are themselves active in aerobic activities, many of which

are associated with participation in sports, are also more likely to watch those sports

on television. In the case of exercise-related conversation, people who on average

reported talking more about exercise at Time 1 also reported engaging in more aerobic

exercise at Time 2. That exercise-related conversation held up as a significant predictor

suggests that we should continue to think about the conversation—behavior link. This

result also suggests the potential value of exposure to media content that is not directly

related to a desired outcome, although this is a very suggestive interpretation.

*Analysis 3: Exercise-related Conversation and Exercise Identity*

The goal of the third analysis was to reach back to the topic-related

conversation—chronic self-concept question from Study 2 and to see the degree to

which topic-related conversation may predict a measure of the chronic self-concept, in

this case did exercise-related conversation predict exercise identity? That certainly was the case, as the standardized Beta was .70.

Putting the results together, certainly topic-related conversation seems to predict topic-related behavior and a topic-related measure of the chronic self-concept. One potential problem, though, is the general nature of these measures. While the measure of aerobic exercise is consistent with other self-reported measures, it would be good to test with other measures of exercise behavior (e.g., how many times visit the recreation center.

CHAPTER SIX:

GENERAL DISCUSSION AND THEORETICAL IMPLICATIONS

The final chapter of the dissertation has several goals. First, I briefly review the key findings from the three studies, some of the methodological shortcomings in the dissertation's studies, and what next steps might be taken to answer some of the questions raised by each study's findings. Second, I consider the theoretical implications of the dissertation and discuss areas where the dissertation contributes to the existing conversation—mass media literature. Third, I discuss some of the practical implications of the findings and what they suggest for planners of strategic communication campaigns. Finally, the dissertation concludes with a discussion of why the line of research begun here should be pursued further at both theoretical and applied levels of inquiry.

*Key Findings and Next Steps for Research*

As an organizing framework for the first part of the chapter, I will return to the three broad research questions that appeared in the introduction.

*Question 1: Do Topic-related Conversations Prime Conversational Participants?*

The first broad question that the dissertation attempted to answer was whether topic-related conversations functioned like a priming mechanism. The argument I put forward was that engaging in a conversation about a specific topic would produce the same types of effects as completing a lexical task, such as making sentences from groups of words or writing about a personal experience. The underlying logic was that the process of engaging in conversation about a topic would be similar to completing

the other lexical tasks, and that one important outcome would be that cognitive schema associated with the conversational topic would be activated in the brains of conversational participants. Once activated, I argued that the schema or schemas would influence responses to subsequent stimuli.

Because many previous priming studies have used assimilation or contrast to a target stimulus as evidence that priming has occurred (e.g., Dijksterhuis et al., 1998; Stapel et al., 1998; see also Mussweiler, 2003), this was the main outcome measure in the first and second studies of the dissertation. Additionally, the interpretation-comparison model of priming effects (ICM; Stapel & Koomen, 2001; Stapels & Suls, 2004) was used as a theoretical framework to guide predictions of when assimilation or contrast were expected to occur.

The ICM predicts that assimilation will occur when schemas are relatively weak and less distinct and that contrast will occur when schemas are relatively strong and more distinct. In Study 1 I argued that a topic-related conversation about a participant's hometown should be conceptualized as a task that would activate a weaker schema and therefore produce assimilation to the target stimulus. Assimilation was then defined as higher ratings of two anti-binge drinking ads. A topic-related conversation about a participant's experiences as a university student was conceptualized as a task that would activate a stronger and more distinct schema and produce contrast from the target stimulus. Contrast was defined as lower ratings of the anti-binge drinking ads.

The results of Study 1 suggest that engaging in a topic-related conversation does prime conversational participants, although the supporting evidence was mixed and the effect size was fairly small. For example, participants who talked about hometown-related experiences prior to viewing the anti-binge drinking ads rated the

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characters in the ads as being more like people from their hometowns. This was what

might be considered a "classic" assimilation effect, where exposure to a stimulus

resulted in evaluating at least one aspect of a target stimulus as more like the activated

schema. Participants who talked about student-related experiences prior to viewing

the ads rated them as less realistic and the characters as less like people from their

hometowns than participants in the other conditions. This could be called a contrast

effect. Each of these findings was consistent with the ICM.

A question that should be considered, though, is why the assimilation and

contrast results weren't more consistent. One possible reason is that the relation

between the activated schemas and the target stimulus could have been more direct.

While there is a logical relation between being a college student and binge drinking, the

relation between hometown and binge drinking is less clear. Similarly, while message

relevance and realism have been tested in the context of anti-binge drinking ads, it is

possible that these measures were not the best measures for capturing assimilation to

or contrast from the target stimulus.

While the target stimulus evaluation may not have provided the best test

of topic-related conversation's potential to prime, a second and more consistent

piece of evidence about topic-related conversation and priming emerged in the

results of the measure of the active self-concept used in studies 1 and 2. In both

studies, participants provided answers to the question "Who am I?" after engaging

in a 5-minute topic-related conversation. The answers were then coded for content

directly related to the conversational topic. In both cases, there was a significant and

marked increase in the raw number, as well as the percent of self-descriptors directly

relevant to the conversational topic. For example, in Study 1 participants who engaged

in conversations about their hometowns were about 7 times more likely to mention their hometown or current place of residence than participants in the no conversation condition. Similarly, participants who talked about previous athletic experiences were about 3 times more likely to mention their own involvement in athletics than those who had no conversation. In Study 2, a similar pattern emerged were participants who talked about their previous experiences associated with exercise and physical activity used a significantly higher percent of exercise-related self-descriptors when compared to those who did not have a conversation, as well as those who talked about student experiences.

Because the participants for both studies were drawn from the same population and were randomly assigned to a conversational condition, and because all other elements of the experiment were held constant, we can be confident in concluding that it was the topic-related conversation that caused the differences in the answers to the "Who am I?" question. Further, the finding that only the exercise-related conversation condition produced significantly higher percentages of exercise-related items indicates that it was not only the presence or absence of conversation that caused the difference but that the topic of the conversation itself produced effects. So while the assimilation and contrast results were inconsistent, I still feel confident that an affirmative response to the question of whether topic-related conversation acts as a priming mechanism is correct.

At the same time, I recognize some limitations in how the studies 1 and 2 were conducted and can suggest ways that further research may be beneficial in understanding how topic-related conversation may prime conversational participants. For example, I chose to use target stimulus evaluation as a measure of priming partly

because it has been used frequently in the past and partly because I was interested

in the practical implications of topic-related conversation on strategic communication

campaigns. However, it is also very common to use measures such as reaction time

as evidence of that priming has occurred (e.g., Bentin & McCarthy, 1994; see also

Kinoshita & Lupker, 2003). The logic is that a quicker reaction time occurs when

someone is primed because the relevant cognitive schema have already been

activated, and this activation results in small but statistically significant differences in

reaction time to target stimuli. A benefit of this type of measure is that the difference in

response time is not under conscious control.

Along that same line of reasoning, there was an implicit assumption in studies

1 and 2 that people evaluate a mass media message as part of their engagement with

that message. And even though some studies have used direct measures of message

evaluation as an outcome (e.g., Andsager et al., 2001; Austin & Dong, 1994; Baker &

Lutz, 2000), it is also possible that the process of conscious evaluation of a message

may change the nature of that evaluation—especially in the context of interpersonal

communication. Therefore, it is possible that the type of message relevance, realism

and overall evaluation, and character similarity measures used in the dissertation are

different than those which occur in real time outside the lab.

This possibility once again suggests that one important area of future

research would be to have participants engage in a topic-related conversation and

then use a reaction time or word pairing task to test for a priming main effect related

to the topic-related conversation. For example, participants could be assigned to

talk about exercise and then have their reaction to words associated with obesity or

fitness measured. Or participants could talk about race or race relations and then

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have the speed and accuracy of the associations between same race and minority race measured. A test like that would provide additional evidence that topic-related conversations prime conversational participants.

A second outcome that would be of interest both theoretically and practically would be to use some measure of message recognition or recall as an outcome variable of interest. Message recognition and recall are often used as measures of message engagement (e.g., Lang, 2000; Southwell, Barmada, Hornik & Maklan, 2002), so it would be worthwhile to see if differences in message recognition or recall would emerge based on topic of conversation. A positive result would suggest that engaging in a topic-related conversation prior to message exposure may lead to or facilitate message engagement. Of course, this type of study and outcome would move away from the assimilation and contrast measures of priming effects discussed earlier, but it is possible that outcomes such as recognition or recall may be of greater interest to strategic communication designers, as they grapple with how conversation may promote (or reduce) increased message engagement.

Finally, it is worth noting that neither of the first two studies provided an optimal test of the ICM theory, even though the few positive results (i.e., assimilation and contrast) were consistent with what the ICM would predict. While it is logical to assert that hometown-related conversation should be conceptualized as a weaker schema and that student-related conversation should be conceptualized as a stronger schema, these assertions were only tested indirectly. Therefore, it would be useful to design a study that directly tests the precepts of ICM using topic-related conversation. For example, one condition could have participants engage in a topic-related conversation about the "best or most successful student you know personally" or about "what makes

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someone an excellent student." Along that same line, it would also be useful to see if results of the Dijksterhuis et al. (1998) study could be replicated using the task of talking about Einstein or Claudia Schiffer. These are future studies that can and should be conducted to further understand the effects topic-related conversation has on conversational participants, as well as whether and how the ICM explains these effects.

*Question 2: Does the Active-Self Account Explain Effects of Topic-related Conversation?*

The second broad research question asked whether changes in the active self-concept mediate the relation between topic-related conversation and a target stimulus evaluation. The theoretical argument used as a basis for answering this question was the active-self account of prime-to-behavior effects (Wheeler et al., 2007, 2008). This theory suggests that in at least some circumstances the priming mechanism— priming effect relation is mediated by changes in the active self-concept. The active self-concept is defined as those elements of the chronic self-concept that reside in working memory at the moment, and Wheeler et al. argue that exposure to a prime can temporarily change what is active about one's self in a situation. The reaction to a subsequent stimulus is then influenced by the contents of the active self-concept.

Three analyses were conducted to test whether outcomes associated with engaging in topic-related conversation were explained by the basic precepts of the active-self account. The first analysis tested whether the individual difference variable self-monitoring moderated the topic-related conversation—target stimulus evaluation relation. This analysis was similar in design to a previous study by DeMarree et al. (2005, Study 3). Of particular interest was how low self-monitors would respond

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because of their tendency to rely on internal cues when making evaluative judgments or behavioral choices. Thus, low self-monitors were expected to be influenced more strongly by a priming mechanism if the effect of that exposure flowed through the active self-concept.

And certainly there was substantial evidence that self-monitoring moderated the topic-related conversation—target stimulus evaluation relation since in almost every measure of evaluation low self-monitors who talked about exercise prior to exposure to the pro-exercise messages also produced significantly lower evaluation scores. For example, low self-monitors who talked about exercise experiences prior to listening to and watching the exercise-related stimulus materials, rated the materials as less realistic, less relevant, and overall less positively than low self-monitors in the other conditions. This finding suggests that topic-related conversation influenced the active self-concept of the conversational participants and that what was salient in the active self-concept then influenced how the stimulus materials were evaluated, a finding that is theoretically consistent with the active-self account of prime-to-behavior effects.

However, the target stimulus evaluation of the low self-monitors was in the opposite direction of what DeMarree et al. (2005) found. In that study, DeMarree et al. predicted that low self-monitors would be more likely to assimilate to a primed schema, and that is what they found. As suggested in the earlier discussion of Study 2, the lower ratings given by the low self-monitors (i.e., a contrast effect) would be consistent with what the ICM model would predict—as long as engaging in a conversation about exercise had the same effect on low self-monitors as exposure to a strong, more distinct schema. Given low self-monitors' tendency to rely on internal cues, this seems like a logical conclusion, but more research is needed to be clear. It is possible that

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conversation per se effects low self-monitors in a special manner, but it is also possible

that discussion of specific experiences causes the active self-concept of low self-

monitors to be particularly sensitive to measures such as message realism, relevance,

and overall evaluation. Both interpretations are consistent with what would be predicted

by the ICM, but the current research did not test which possibility would be more likely.

The finding that high self-monitors rated the target stimulus materials more

positively after engaging in topic-related conversations about exercise was not

predicted but also not entirely unexpected. That is because the result is consistent

with prior research about the relation between self-monitoring and private attitudes

and public actions (e.g., DeBono & Snyder, 1995; Snyder & Tanke, 1976) and self-

monitoring and adjusting self-evaluations based on situational cues (e.g., Chen,

Schechter & Chaiken, 1996; Fiske & Von Hendy, 1992). Thus, it is quite likely that the

conversational situation itself explains the higher message evaluations given the by

high self-monitors. Even though there was no interpersonal interaction after the initial

conversation, the experimental participants were still in the same room together, and

it is quite possible that the high self-monitors adjusted their ratings upward based on

what they thought they should exhibit after a conversation about exercise. Perhaps

high self-monitors thought that this is what the situation demanded. It is also possible

that the high self-monitors just liked the messages more than the low self-monitors.

Prior research makes that possibility seem very unlikely, but a self-report measure

such as the one used in studies 1 and 2 cannot rule out that possibility. Again, further

research is needed to determine the degree to which the interpersonal nature of

the conversations produced the different results for the high and low self-monitors.

Additionally, it would be worthwhile to investigate whether low and high self-monitors

tend to attract one another in social networks and produce other interesting effects related to conversation and exposure to mass media messages.

Interestingly, though, there was no difference between low and high self-monitors in the percent of the exercise-related self-descriptors in Study 2. This indicates that at that point in the experiment the effect of topic-related conversation on the self-descriptors was not influenced by self-monitoring. Additionally, only exercise TV and log exercise TV conversation were different between low and high self-monitors I Study 3, and those differences were statistically but not practically significant. Together these results suggest that initially there were not enough situational cues to change the behavior but that over time high self-monitors gathered enough information to adjust their evaluations of the exercise messages to what they likely thought the situation demanded.

Once again, we can see the potential value of using a reaction time measure to capture the effect of a prime and its potential difference in high and low self-monitors. In order to reduce measurement artifacts that may be attributable to the experimental situation, it would be worth testing whether the same topic-related conversation x self-monitoring interaction would emerge when using reaction time as the dependent variable. In that case, a pretest of self-monitoring and random assignment to a conversation condition would occur, but the outcome might be something like response time to words associated with obesity or physical fitness. In this case, we might expect a result similar to DeMarree et al. (2005) where the reaction response time of low self-monitors to prime-relevant words increased significantly, while the reaction time of high self-monitors did not.

The value of replicating the self-monitoring x target stimulus evaluation

interaction using a different type of measure also emerges when one considers the experimental situation itself. One advantage of the experimental situation used in the first two studies was that it provided a fairly realistic reproduction of an actual conversation. The topics were familiar to the participants, and participants were paired with a peer. At the same time, participants knew that the conversations were recorded. This also may have influenced how high self-monitors acted, as they would conceivably adjusted what they said because of the tape recording. This question could be answered by secretly taping the conversations (e.g., Ickes & Barnes, 1977) or by conducting further analyses based on who was paired with whom (e.g., high self-monitor/high self-monitor, high self-monitor/low self-monitor, low self-monitor/low self-monitor). Plans are already underway to conduct this latter analysis.

The second analysis in Study 2 was a test of the effect of topic-related conversation on the active self-concept. While I have already discussed the main effect of topic-related conversation on topic-related self-descriptors, it is worth highlighting here the results of the analysis that used exercise identity as a factor (i.e., topic-related conversation: exercise-related conversation, student-related conversation, no conversation x exercise identity: high, low). The analysis showed that the effect of topic-related conversation on the exercise-related self-descriptors was not only higher in the exercise-related conversation condition (i.e., main effect), but the percentages were also significantly higher for participants who scored highest on the exercise identity scale. This result is consistent with the basic premise of the active-self account that exposure to a priming mechanism will change the contents of the active self-concept by drawing from the contents of the chronic self-concept. In this case, exercise identity was conceptualized as a measure of one component of the chronic

self-concept, so the stronger effect of topic-related conversation on the contents of the active self-concept of the "high exercise identity" participants is exactly what would be expected.

Even given this result, one of the potential limitations in Study 2 was trying to measure the active self-concept directly. While I was pleased to find predicted differences in the content based on the topic of conversation and to find that this effect was greater for those high in exercise identity, I still find these results to be less than satisfying for two reasons. First, due to the open-ended nature of the Twenty Statements Test, there is a tremendous amount of noise in the data. Many responses fell outside the very limited number of categories that were coded (e.g., "I am happy," "I am cold"). While the coding scheme used was very conservative and the fact that any effect emerged speaks to the influence of topic-related conversation on the malleability of the active self-concept, it would be useful to look for other ways to capture temporary changes in the active self-concept.

Second, it is possible that asking participants to answer the "Who am I?" question, caused a subtle shift from the self as doer to the self as object (e.g., Epstein, 1973; James, 1890). So it is possible that if the shift occurred that it changed the measurement of the active self-concept. Even if this happened, it would not change the effect of topic-related conversation on the active self-concept, but I cannot rule out the possibility that some shift occurred. And while the issue of measuring the self is one that has no simple solutions, I think that now that I have results indicating that topic-related conversation influences the active self-concept, I would skip that measure in the future. In fact, one of the immediate issues to address in future research is to see if I can replicate the results of the topic-related conversation x self-monitoring interaction

without the "Who am I?" measure.

Finally, the third analysis failed to demonstrate that the measure for the active self-concept mediated the topic-related conversation—target stimulus evaluation relation. While topic-related conversation caused a significant change in the percent of topic-related self-descriptors, unfortunately the percent of topic-related items did not predict target stimulus evaluation, a necessary condition in the meditational analysis. This was true for each of the measures of the target stimulus evaluation. So the question then becomes why a positive result in the second analysis (i.e., topic-related conversation caused changes in the active self-concept), which supports claims associated with the active-self account, but a lack of positive result in the third analysis?

There are several possibilities. First, even though the measure of the active self-concept captured changes produced by topic-related conversation, it is possible that an open-ended measure such as the Twenty Statements Test was not sensitive enough to capture the full effect of topic-related conversation on the active self-concept. In this case, we would expect a more sensitive measure of the active self-concept to then predict changes in target stimulus evaluation. Second, it is possible that while the differences in the percent of exercise-related self-descriptors were significant, that the overall effect produced by topic-related conversation just wasn't strong enough to account for differences in target stimulus evaluation. This interpretation seems logical given the relatively limited difference produced by topic-related conversation in the target stimulus evaluation (i.e., main effect of topic-related conversation). Finally, it is possible that the interpersonal component of having a conversation also brought online other factors which obscured the changes in the

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active self-concept. Perhaps interacting with someone else brought online other variables such as impression management or uncertainty reduction, which then influenced the magnitude of difference in changes in the active self-concept or the target stimulus evaluation.

Once again, it is future research that will allow us to test whether these differences may emerge under other circumstances or with other specialized populations. For example, perhaps topic-related conversations about politics or religion among people who have strong political or religious affiliations would create greater changes in the active self-concept or target stimulus evaluation. While testing a more specialized population may be less interesting for practitioners, it is likely to allow for a more precise theoretical test of hypotheses related to topic-related conversation and the active-self account. Similarly, it is possible that changing the conversational topic to past religious or political activities may result in greater variation in a target stimulus evaluation.

*Question 3: Do media use and conversation predict behavior?*

My goal in the first two studies was to begin the process of studying how topic-related conversation influences the evaluation of a mass media message when the conversation occurs immediately prior to message exposure. My goal in Study 3 shifted somewhat, as I began to consider some of the effects over time associated with engaging in topic-related conversation. For example, would topic-related conversation predict topic-related behavior at a specific point in time? Would topic-related conversation at Time 1 predict topic-related behavior at a later date? And what would be the role of topic-related media use? Would it predict behavior?

The design and analyses for the third study were influenced by the O-S-O-R

models of media effects associated with the "Wisconsin group" of researchers (e.g., McLeod et al., 1999; Shah et al., 2007). These models argue that media content serves to orient an individual within his or her environment and that conversation provides a secondary orientation, but that media content and conversation both strengthen the stimulus—response relation. At the practical level, these models suggest that topic-related media use and topic-related conversation predict topic-related behavior. In the case of the McLeod et al. and Shah et al. studies, the topic of the conversation was political conversation; the topic of the media use was news about politics and public affairs; and the behavior was political participation, such as voting or attending a political rally. Thus, people who consume more media about politics and who talk more about politics are also more likely to be engaged in politics, which is often measured as voting or providing material support for a political candidate. My goal was to perform an initial study that used media content, conversation, and behavior related to a health topic. In this study, that topic was exercise.

For my first analysis, I gathered data measuring general media use (e.g., television viewing) and exercise-related media use (e.g., watching TV shows about exercise), conversation about exercise and conversation about media content, and exercise behaviors that occurred over the last week. I then regressed the media and conversation measures onto the measure for exercise behavior.

The two significant predictors of exercise were television use and exercise-related conversation. In general, people who exercised more reported less overall television use. The result for television use is consistent with other exercise and fitness studies (e.g., Eisenmann et al., 2008; Robinson et al., 1993), and it makes sense intuitively. People who exercise more are by definition more active physically but they

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also probably have less time to watch television. Likewise, the result that people who talk more about conversation also report more exercise makes sense intuitively. We very likely talk about the things we do and do the things we talk about. The result for exercise-related conversation is also consistent with what has been found in the political conversation literature (e.g., Eveland, 2004; McLeod et al., 1999). In that literature, people who talk more about politics tend to be more active politically. Here, people who talked more about exercise also tended to exercise more.

One of the implications of the results from the first analysis is that the constellation of variables—media use, conversation, and behavior—is important across multiple domains. This supports a general theoretical framework incorporating these variables, and further research on a general model should be conducted. Another implication is that there likely are other ways health communication researchers can use the findings related to political communication to further their work, while also recognizing that certain health behaviors may be uncomfortable to talk about or that conversations may occur infrequently.

A limitation of the initial data collection and analysis, of course, is that it is not possible to make causal claims. I can only state that there is a relation between these variables that bears further study. It is also possible that there is an unidentified third variable that is responsible for causing the relations but that it was not measured in this study. Therefore, it is impossible to disentangle whether conversation causes behavior, behavior causes conversation, or whether an unidentified variable explains the conversation—behavior relation. Finally, it is also important to remember that self-report measures are subject to memory distortions. Nevertheless, the study does provide a starting point that can help guide future research, especially research that

begins to address causality.

And, in fact, the second analysis was a first step to determining if prior conversation predicts future behavior. In that analysis, I regressed the conversation and media use measures onto exercise that was measured one week later. The two significant predictors of behavior at Time 2 from what was reported at Time 1 were watching sports television and exercise conversation.

These were interesting results. While sports television was not a significant predictor of exercise in the first analysis, a closer look indicates there is evidence a relation existed. Then the analysis showed that the sports television at Time 1 was a significant predictor for exercise at Time 2. Again, it is likely that people who are themselves active in aerobic activities, many of which are associated with participation in sports, are also more likely to watch those sports on television. That exercise-related conversation held up as a significant predictor suggests that we should continue to think about the conversation—behavior link. This result also suggests the potential value of exposure to media content that is not directly related to a desired outcome, although this is a very suggestive interpretation.

Looking forward, it is clear to see several areas where future research could help clarify the nature of the relations between media content, conversation, and behavior. One way not mentioned thus far is to include measures that do not rely solely on self-report, given that self-report is subject to memory bias and over- or under-estimation. For example, a prospective study could be designed that included a measure such as the number of check-ins at a health center or pedometers or bike odometers. Similarly, even though something like a conversation diary still relies on self-report, it could be used to validate the other self-report measures.

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Another way to move this area of research forward is by using more powerful analytic techniques (e.g., structural equation modeling) could be used to test for meditators, such as whether conversation mediates the media use—behavior relation. Additionally, experimental research could be conducted where groups of participants were randomly assigned to have conversation or to chat online, which would help to clarify the role conversation may play in causing behavior. Several researchers have already demonstrated that using coaching delivered via phone calls or conversations can lead to greater weight loss (e.g., Gillis, Brauner & Granot, 2007; Tucker, Cook, Nokes & Adams, 2008), so it would be worthwhile to test whether simply having conversations about exercise would also increase the likelihood exercise would occur.

Finally, the goal of the third analysis in Study 3 was to reach back to a question that was briefly considered in Study 2. In that study, the argument was that topic-related conversation would have a stronger effect on the active self-concept for individuals with a known aspect of the chronic self-concept. In that case, the known aspect of the chronic self-concept was exercise identity. The third analysis in Study 3, which was somewhat exploratory, was to test whether topic-related conversation predicted chronic self-concept question, or in this case, whether exercise-related conversation predicted score on the exercise identity scale. The idea was that people who talk more about exercise should also value exercise and consider it a key part of their lives.

The result of the analysis was to definitively support the hypothesis that topic-related conversation would predict score on the exercise identity scale. While the result was not particularly surprising, as we would logically expect that people who exercise more also talk about exercise more, it was interesting to see how strong the relation

was between exercise-related conversation and exercise identity. Certainly, there should be some level of caution about using a general measure (i.e., general exercise conversation, exercise identity) given that a significant stream of research indicates that we should be very specific about the behavior to predict, as well as the predictors of behavior (e.g., Fishbein & Azjen, 1975). Still, the result suggests that there may be considerable overlap between something like topic-related conversation and chronic self-concept.

*Theoretical implications of the dissertation*

This section of the current chapter discusses the theoretical implications and contributions of the three studies contained in the dissertation. The first contribution is that the dissertation provided a direct test of whether a conversational topic acts like a priming mechanism. While other studies have argued for likely priming effects of conversation, most of them have relied on cross-sectional designs and simply shown that people who report higher levels of conversation also displayed some different level of an outcome measure (e.g., intention to stop smoking, voting in a local election). Both Study 1 and Study 2 demonstrated empirically that engaging in topic-related conversation causes different outcomes associated with the effects of a priming mechanism. Therefore, the dissertation demonstrates that theory related to priming (i.e., exposure to a stimulus activates cognitive schema; Higgins, 1996) extends to topic-related conversation.

A second contribution is that the dissertation also demonstrates the importance of considering for self-monitoring as an important moderating variable in research where actual interactions occur. In some ways, this finding echoes previous research associated with self-monitoring (see Gangestad & Snyder, 2000), but it is also a

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reminder for researchers who interested in the intersection of conversation and mass media content. The fact that self-monitoring did not moderate the topic-related conversation—active self-concept relation and did not moderate the topic-related conversation—topic-related behavior relation also points to its importance in lab or other situations where there are strong situational cues of what behavior to expect.

A third theoretical contribution that the dissertation makes relates to the priming effects of conversation. One of the implications of the Hornik and Yanovitzky (2003) article was that conversation could communicate as well as prime normative expectations associated with a behavior or topic of a mass media message. This suggests that who someone is conversing with matters. As an example, conversation about a drug message between one's teen peers may actually strengthen norms supporting drug use (e.g., David et al., 2006). The findings in each of the three studies of the dissertation imply that the topic or content of the conversation also matter. That is because the results of the dissertation indicate that simply changing the topic creates differences in outcomes. Obviously, this contribution also points to the need to try to separate out the different effects that the conversational partner and conversational topic cause.

A fourth theoretical contribution is that this is the first time to my knowledge that the ideas associated with an O-S-O-R model have been applied in the context of a health-related topic. While the results of Study 3 are preliminary, they do suggest the value of considering how topic-related media use, topic-related conversation, and topic-related behavior converge to create or possibly inhibit desired outcomes. While further research and analysis are needed to see if there are other health behaviors are explained by this theoretical framework, the initial results are promising.

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A fifth theoretical contribution of the dissertation relates to the relation between topic-related conversation, the active self-concept, and the chronic self-concept. The active-self account predicted that a priming mechanism would causes changes in the active self-concept, and the results of Study 1 and Study 2 indicated that this prediction held  true for the topic-related conversation. The analyses also supported the contention that the active self-concept was influenced by the chronic self-concept.

*Practical implications for strategic communication practitioners*

Because the field of strategic communication is based on the idea of creating messages that cause change in individuals, I think it important to consider what the information from this dissertation may tell us. There are several suggestions I would make based on my review of the results.

First, conversation matters. As we know, there has been an increase in interest in conversation, particularly within the context of how talk may influence responses to mass media content. While the nature of studies 1 and 2 preclude making sweeping statements about the long-term impact of conversation, there certainly were effects. Similarly, Study 3 clearly indicated that conversation was a strong predictor of behavioral outcome. While preliminary, this does suggest that getting people to talk about an issue could be viewed as a precursor to future action. This result does not say that conversation is sufficient to produce action, but it certainly points to the power of talk to make a difference.

Second, context matters. Of course, the idea that contextual factors influence message reception is not new. A number of studies have looked at how the material alongside a message may influence how it is perceived (e.g., Yi, 1990a, Yi, 1990b) However, I think that the results of the first two studies also suggest that practioners

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should consider when and where a message is placed based on the conversations that are likely to be occurring during message reception.

Third, individual difference variables may matter. While the idea that high self-monitors may be influenced to change their answers based on public situations is not new, it is important for practitioners to think carefully about the conditions under which they evaluate campaigns. This not only would be true for situations such as focus groups, where participants are asked to speak publicly about a product or health behavior, but it would also be true in situations where there may be an element of expectation. After the initial interaction in Study 2, there was other public aspect to the study, but high self-monitors rated the materials much higher than the low self-monitors. So, practitioners would do well to consider how their measurement procedure may influence the results in predictable ways.

*Closing thoughts: Why this line of research matters*

The dissertation began with a simple anecdote of two university students, their conversation about their experiences as students, and how that conversation potentially influenced how they evaluated a message aimed at reducing the incidence of binge drinking. The idea there was to place the arc of the dissertation in context, but I want to close the dissertation with two "real-world" examples that illustrate why we should continue to study the priming potential of conversation.

The first example is a study I've already referred to—the David et al. study (2006) about the effects of online group interaction among adolescents about anti-marijuana advertisements on relevant attitudes and behaviors. The striking result of the study was that those who engaged in online chat reported more pro-marijuana

attitudes and subjective normative beliefs than those who just viewed the ads. The authors also found no support for the hypothesis that strong-argument ads would result in more antidrug beliefs relative to weak-argument ads in either the chat or the no-chat conditions. The David et al. results suggest that in at least some conditions conversation about mass media health messages has a deleterious effect.

So what went explains these results? One possibility that the results of my dissertation could suggest is that there was something about the nature of the chat that activated schemas, which then led to biased processing of the anti-marijuana messages. Perhaps the identity that was salient among the experimental participants was one that somehow supported marijuana use. While my dissertation is not designed to directly test this proposition, I believe the results can help answer the question of how conversation influences message processing.

The second example comes from a recent speech made by the president. President Obama gave a speech to the NAACP on July 15 marking the 100th anniversary of its founding. In the speech he talked about the importance of personal responsibility in the African-American community, as well as the responsibility of government to help create conditions for success for African-Americans. A few days later, President Obama spoke with Eugene Robinson, a columnist for the Washington Post.

In that interview, President Obama said:

"Don't estimate the degree to which a speech like the one I gave yesterday gets magnified throughout the African-American community. Folks on Friday go in and get their cut, they're getting ready for the weekend, they're sitting in the barber's chair, and somebody says, 'Did you see what Obama said yesterday?' It sparks a conversation."

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(Robinson, 19 July, 2009).

This idea that conversation influences how people think and that media influences conversation is at the heart of the dissertation. Certainly, we can safely assume that media use, conversation, and behavior are interrelated, but it is understanding how they are interrelated that is what prompted me to approach this dissertation.

I began with the assumption that conversation happens and that conversation matters, but the question was what type of conversation matters and what are the conditions under which it matters. This is important for practical reasons such as identifying what topics matter in conversation and how can they produce indirect media effects.

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STUDY 1:

TWENTY STATEMENTS TEST

Lexical Task

In this part of the study you will complete a simple word task. It is not part of the main study.

However, it is VERY IMPORTANT that you complete the task to the best of your ability.

You will have 5 minutes to complete the task.

Please go to the next page now.

There are twenty numbers blanks on the page below. Please write twenty answers to the simple question, "Who am I?" in the blanks. Just give twenty different answers to this question. Answer as if you were giving the answers to yourself, not to somebody else.

You should write the answers in the order that occur to you. Don't worry about logic or "importance." Go along fairly fast, for time is limited.

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APPENDIX B

STUDY 1:

CODING SCHEME FOR SELF-DESCRIPTORS


Answers to the "Who am I?" task were entered and coded for student-related, athlete-related, and hometown-related items using condition-blind coding. The results of the coding were recorded in two ways. First, the result was recorded as a binary variable (i.e., 0 = topic-related items appeared in the total; 1 = at least one topic-related item appeared in the total). Second, a count of the total number of items was recorded for each category (i.e., number of student-related items, number of athlete-related items, number of hometown-related items). This count was then converted to a percent by dividing the count by the total items per participant (e.g., number of student-related items for a participant / number of total items for that participant). This latter procedure has been used in several studies as a way to measure the degree to which a stimulus influences the contents of the active self-concept (e.g., Brewer & Gardner, 1996; Trafimow, Triandis & Goto, 1991). These percentages functioned as a continuous scale with a potential range from 0 to 100.

STUDY 1:

TARGET STIMULUS EVALUATION SCALE

## **Evaluation of ads**

On the following pages, there is a series of statements that reflect how you may think or feel after watching the two health marketing ads.

Read each statement and then circle the number from 1 to 7 that corresponds to how much you agree or disagree with each statement.

This is an example of the scale you will use to record your answers:

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

There is no right or wrong answer. Do not take too long to evaluate any statement.

When you are ready, please go to the next page.

Please proceed to the next page.

**Instructions:** The following statements refer to how you think and feel about the first ad that you saw. This ad featured the ***young man and his friends***.

A **1** on the scale means that you strongly disagree with the statement. A **7** on the scale means that you strongly agree with the statement.

1. The ad seemed realistic.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

2. The topic of the ad is relevant to people in my social network.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

3. The ad reminded me of athletes.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

4. The ad reminded me of college or university students.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

5. The ad seemed relevant to people my age.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

6. The ad reminded me of people from my hometown.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Please proceed to the next page.

**Instructions:** The following statements refer to how you think and feel about the second ad that you saw. This ad featured the ***young woman and her friends.***

A **1** on the scale means that you strongly disagree with the statement. A **7** on the scale means that you strongly agree with the statement.

1. The ad seemed realistic.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

2. The topic of the ad is relevant to people in my social network.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

3. The ad reminded me of athletes.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

4. The ad reminded me of college or university students.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

5. The ad seemed relevant to people my age.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

6. The ad reminded me of people from my hometown.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**Personal Beliefs and Attitudes**

Please read the following statements and respond using true or false. Your answer should reflect how you feel *most* or *all* of the time.

1. ___ I find it hard to imitate the behavior of other people.

2. ___ At parties and social gatherings, I do not attempt to do or say things that others will like.

3. ___ I can only argue for ideas which I already believe.

4. ___ I can make impromptu speeches even on topics about which I have almost no information.

5. ___ I guess I put on a show to impress or entertain others.

6. ___ I would probably make a good actor.

7. ___ In a group of people I am rarely the center of attention.

8. ___ In different situations and with different people, I often act like very different persons.

9. ___ I am not particularly good at making other people like me.

10. ___ I'm not always the person I appear to be.

11. ___ I would not change my opinions (or the way I do things) in order to please someone or win their favor.

12. ___ I have considered being an entertainer.

13. ___ I have never been good at games like charades or improvisational acting.

14. ___ I have trouble changing my behavior to suit different people and different situations.

15. ___ At a party I let others keep the jokes and stories going.

16. ___ I feel a bit awkward in public and do not show up quite as well as I should.

17. ___ I can look anyone in the eye and tell a lie with a straight face (if for a right end).

18. ___ I may deceive people by being friendly when I really dislike them.

APPENDIX E

STUDY 2:

EXERCISE IDENTITY SCALE

**Instructions:** The following statements refer to how you think and feel about exercise. Please rate how you think or feel most or all of the time.

A **1** on the scale means that you strongly disagree with the statement. A **7** on the scale means that you strongly agree with the statement.

1. I consider myself an exerciser.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

2. When I describe myself to others, I usually include my involvement in exercise.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

3. Physical exercise is a central factor to my self-concept.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

4. I need to exercise to feel good about myself.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

5. Others see me as someone who exercises regularly.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

6. For me, being an exerciser means more than just exercising.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

7. I would feel a real loss if I were forced to give up exercising.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

8. Exercising is something I think about often.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

9. I have numerous goals related to exercising.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

APPENDIX F

STUDY 2:

CODING SCHEME FOR SELF-DESCRIPTORS


Answers to the "Who am I?" task were entered and coded for student-related, exercise-related items using condition-blind coding. The results of the coding were recorded in two ways. First, the result was recorded as a binary variable (i.e., 0 = topic-related items appeared in the total; 1 = at least one topic-related item appeared in the total). Second, a count of the total number of items was recorded for each category (i.e., number of student-related items, number of exercise-related items). This count was then converted to a percent by dividing the count by the total items per participant (e.g., number of student-related items for a participant / number of total items for that participant). This latter procedure has been used in several studies as a way to measure the degree to which a stimulus influences the contents of the active self-concept (e.g., Brewer & Gardner, 1996; Trafimow, Triandis & Goto, 1991). These percentages functioned as a continuous scale with a potential range from 0 to 100.

STUDY 2:

TARGET STIMULUS EVALUATION SCALE

**Evaluation of radio interview: "A Cup of Health"**

Instructions: Please read each statement and circle the number that most closely reflects how you think and feel after listening to the *radio interview "A Cup of Health."*

A **1** on the scale means that you strongly disagree with the statement. A **7** on the scale means that you strongly agree with the statement.

1. The program seemed realistic.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

5. The topic of this program is relevant to people in my social network.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

6. The program made me feel angry.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

7. I feel more motivated to exercise since listening to the program.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

8. The program was easy to understand.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

10. The program made me think of friends I know who are college or university students.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

11. The program seemed relevant to people my age.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

12. The program was very informative.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

13. This is the type of program I would talk to my friends about.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

14. I felt determined to exercise after listening to the program.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Please proceed to the next page.

# Evaluation of Ad: Couple in Theater

**Instructions:** The following statements refer to how you think and feel about the second ad that you saw. This ad featured the *young man and his girlfriend in a movie theater.*

A **1** on the scale means that you strongly disagree with the statement. A **7** on the scale means that you strongly agree with the statement.

1. The program seemed realistic.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

5. The topic of this program is relevant to people in my social network.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

6. The program made me feel angry.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

7. I feel more motivated to exercise since listening to the program.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

8. The program was easy to understand.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

10. The program made me think of friends I know who are college or university students.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

11. The program seemed relevant to people my age.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

12. The program was very informative.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

13. This is the type of program I would talk to my friends about.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

14. I felt determined to exercise after listening to the program.

| Strongly disagree | disagree | somewhat disagree | neither disagree nor agree | somewhat agree | agree | strongly agree |
|:---:|:---:|:---:|:---:|:---:|:---:|:---:|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

APPENDIX H

STUDY 3:

MEDIA USE AND CONVERSATION SCALE


**General media use questions**

Instructions: This section of the survey contains questions about how often you use various types of media. Please read the question and respond based on how you act all or most of the time.


1. How many times in the *last week* did you read a print version of the newspaper?

0        1-2 times        3-4 times        5-6 times        7-8 times        9-10 times        More than 10 times

2. How many times in the *last week* did you read an online version of the newspaper?

0        1-2 times        3-4 times        5-6 times        7-8 times        9-10 times        More than 10 times

3. In an average *weekday* (i.e., Monday through Friday), how many hours of television do you watch?

0        1-2 hours        3-4 hours        5-6 hours        7-8 hours        9-10 hours        More than 10 hours

4. On an average *Saturday*, how many hours of television do you watch?

0        1-2 hours        3-4 hours        5-6 hours        7-8 hours        9-10 hours        More than 10 hours

5. On an average *Sunday*, how many hours of television do you watch?

0        1-2 hours        3-4 hours        5-6 hours        7-8 hours        9-10 hours        More than 10 hours

6. In an average *day*, how many hours do you spend online using the Internet to search for or read information (i.e., not using online chat)?

0        1-2 hours        3-4 hours        5-6 hours        7-8 hours        9-10 hours        More than 10 hours

7. In an average *day*, how many hours do you spend online chatting or using some type of chat feature?

0        1-2 hours        3-4 hours        5-6 hours        7-8 hours        9-10 hours        More than 10 hours

## Media use and behavior questions

Instructions: This section of the survey will ask you a series of 10 questions about your media use and involvement in exercise or physical activity over the last week. You should answer based on what you ACTUALLY DID OVER THE LAST 7 DAYS.

1. How many days in the last week (i.e., last 7 days) did you participate in non-aerobic exercise or physical activity? (Non-aerobic exercise or physical activity includes walking for exercise, weight lifting, cycling, golfing, etc.)

0 days     1 day     2 days     3 days     4 days     5 days     6 days     7 days

2. How many days in the last week (i.e., last 7 days) did you participate in aerobic exercise or physical activity? (Aerobic exercise or physical activity includes jogging or running, playing soccer or basketball, aerobics, etc.)

0 days     1 day     2 days     3 days     4 days     5 days     6 days     7 days

3. How many days in the last week (i.e., last 7 days) did you watch some type of organized sports event on television? Examples include professional or college football, basketball, baseball, soccer, swimming, etc.

0 days     1 day     2 days     3 days     4 days     5 days     6 days     7 days

4. Take a moment to think about this question. How many days in the last week (i.e., last 7 days) did you talk with someone else about an organized sports event that you had watched on television?

0 days     1 day     2 days     3 days     4 days     5 days     6 days     7 days

5. For as many specific conversations about a televised sporting event that you can remember from the last 7 days, write the first name and approximate length in minutes of the conversation. Example: John 10, Mary 5, etc.

_____

6. How many days in the last week (i.e., last 7 days) did you watch some type of television show that discussed or contained a segment about exercise or physical activity? Examples could include TV shows with a news segment about exercise, a show demonstrating aerobics, an interview with someone who discussed exercise or physical activity, etc.

0 days      1 day      2 days      3 days      4 days      5 days      6 days      7 days

7. Take a moment to think about this question. How many days in the last week (i.e., last 7 days) did you talk with someone else about a television show that contained information about exercise or physical activity?

0 days      1 day      2 days      3 days      4 days      5 days      6 days      7 days

8. For as many specific conversations about a television show or portion of a TV show about exercise or physical activity that you can remember from the last 7 days, write the first name and approximate length in minutes of the conversation. Example: John 10, Mary 5, etc.

_____

9. Take a moment to think about this question. How many days in the last week (i.e., last 7 days) did you talk with someone else about your own involvement or their own involvement in exercise or physical activity?

0 days      1 day      2 days      3 days      4 days      5 days      6 days      7 days

10. For as many specific conversations about your own or someone else's exercise or physical activity that you can remember from the last 7 days, write the first name and approximate length in minutes of the conversation. Example: John 10, Mary 5, etc.

_____

STUDY 3:

MEDIA USE AND CONVERSATION SCALE—FOLLOW-UP

## Media use and behavior questions

Instructions: This section of the survey will ask you a series of 10 questions about your media  use and involvement in exercise or physical activity over the last week. You should answer based on what you ACTUALLY DID OVER THE LAST 7 DAYS.

1. How many days in the last week (i.e., last 7 days) did you participate in non-aerobic exercise or physical activity? (Non-aerobic exercise or physical activity includes walking for exercise, weight lifting, cycling, golfing, etc.)

0 days        1 day        2 days        3 days        4 days        5 days        6 days        7 days

2. How many days in the last week (i.e., last 7 days) did you participate in aerobic exercise or physical activity? (Aerobic exercise or physical activity includes jogging or running, playing soccer or basketball, aerobics, etc.)

0 days        1 day        2 days        3 days        4 days        5 days        6 days        7 days

3. How many days in the last week (i.e., last 7 days) did you watch some type of organized sports event on television? Examples include professional or college football, basketball, baseball, soccer, swimming, etc.

0 days        1 day        2 days        3 days        4 days        5 days        6 days        7 days

4. Take a moment to think about this question. How many days in the last week (i.e., last 7 days) did you talk with someone else about an organized sports event that you had watched on television?

0 days        1 day        2 days        3 days        4 days        5 days        6 days        7 days

5. For as many specific conversations about a televised sporting event that you can remember from the last 7 days, write the first name and approximate length in minutes of the conversation. Example: John 10, Mary 5, etc.

6. How many days in the last week (i.e., last 7 days) did you watch some type of television show that discussed or contained a segment about exercise or physical activity? Examples could include TV shows with a news segment about exercise, a show demonstrating aerobics, an interview with someone who discussed exercise or physical activity, etc.

0 days     1 day     2 days     3 days     4 days     5 days     6 days     7 days

7. Take a moment to think about this question. How many days in the last week (i.e., last 7 days) did you talk with someone else about a television show that contained information about exercise or physical activity?

0 days     1 day     2 days     3 days     4 days     5 days     6 days     7 days

8. For as many specific conversations about a television show or portion of a TV show about exercise or physical activity that you can remember from the last 7 days, write the first name and approximate length in minutes of the conversation. Example: John 10, Mary 5, etc.

_____

9. Take a moment to think about this question. How many days in the last week (i.e., last 7 days) did you talk with someone else about your own involvement or their own involvement in exercise or physical activity?

0 days     1 day     2 days     3 days     4 days     5 days     6 days     7 days

10. For as many specific conversations about your own or someone else's exercise or physical activity that you can remember from the last 7 days, write the first name and approximate length in minutes of the conversation. Example: John 10, Mary 5, etc.

_____