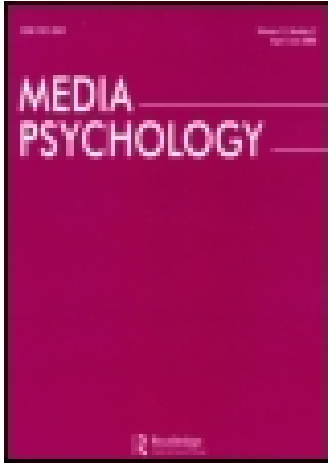


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The MODE Model and Its Implications for Studying the Media

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THEORETICAL INTEGRATION

The MODE Model and Its Implications for Studying the Media

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Attitude and norm accessibility influence social behavior and how messages are processed. The Motivation and Opportunity as DEterminants (MODE) model is offered as a framework for understanding when attitude and norm accessibility should play an important role in social behavior. In this article, we outline the MODE model and consider the implications of the MODE model for both how people process media messages and the consequences of media messages.

The cognitive revolution that occurred in the 1970s in social psychology demonstrated the importance of accessibility for understanding a number of social phenomenon (Higgins, 2012). Accessibility refers to the ease by which a concept is activated from memory. While much of the research on accessibility involved concept accessibility (Higgins, 2012), this article will focus on the extensive research on attitude accessibility (Arpan, Rhodes, & Roskos-Ewoldsen, 2007; Fazio, 2007; Rhodes & Ewoldsen, 2013) and the more recent research on norm accessibility (Rhodes, Roskos-Ewoldsen, Edison, & Bradford, 2008; Rhodes & Ewoldsen, 2009) by looking at these

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two phenomena within the context of the Motivation and Opportunity and DEterminants (MODE) model (Fazio, 1990). Within this framework, we hope to demonstrate the importance of attitude and norm accessibility, and the MODE model for understanding a number of phenomena of interest to media psychologists.

ATTITUDE ACCESSIBILITY

As already stated, attitude accessibility refers to the ease with which an attitude is activated from memory. Fazio (1986) argued that attitudes can be thought of as existing on a continuum ranging from not available to automatically accessible from memory. At the low accessible end of the continuum is the situation where no attitude might exist in memory, primarily because an attitude has not been consolidated and stored in memory (Roskos-Ewoldsen & Fazio, 1997). As one moves along the continuum, an attitude has been consolidated in memory but may require cognitive energy and controlled processes to be activated from memory. Closer to the highly accessible end of the continuum, the attitude becomes more accessible from memory and, hence, more likely to be activated with little or no effort on the part of the person upon mere observation of the attitude object. Finally, at the high accessibility end of the continuum are attitudes that are automatically accessible (Fazio, Sanbonmatsu, Powell, & Kardes, 1986; Roskos-Ewoldsen & Fazio, 1992). Consider for example, when you see your favorite dessert, you will experience that “like” response without any conscious goal of determining whether you like the dessert or not. Instead, the attitude toward the dessert is automatically activated from memory upon mere observation of the object without any conscious effort to retrieve the attitude.

Attitude accessibility was initially studied in the context of the attitude–behavior relationship. The original justification for the study of attitudes was the assumption that attitudes were strong predictors of behavior (Allport, 1935). However, research in the 1970s on the attitude–behavior relationship was ambivalent regarding the ability of attitudes to predict behavior. Indeed, in a classic review of this literature, Wicker (1969) concluded that it might be time to abandon the attitude concept because attitudes did such a poor job of predicting behavior. Several promising lines of research emerged in contrast to Wicker’s pessimism, including work on important moderators of the attitude behavior relationship (Zanna & Fazio, 1982), theoretical models of the relationship such as the theory of reasoned action (Fishbein & Ajzen, 1975), and a focus on the nature of attitudes including attitude accessibility (Fazio & Zanna, 1981).

Work on attitude accessibility drew from the basic idea that an attitude is only likely to influence behavior to the extent that the attitude is activated when the decision (conscious or nonconscious) to engage in the behavior

is being made. If the attitude was not activated, then it should not play a role in the decision to engage in a behavior. Conversely, if the attitude is activated from memory, then it should be more likely to influence the person's subsequent behavior (Fazio, 1986). Harkening back to the attitude–nonattitude continuum, attitudes that are chronically accessible from memory should be activated from memory when considering the attitude object and, consequently, influence the person's behavior toward that object. Indeed, numerous studies have demonstrated that attitudes that are more accessible from memory are more predictive of behavior (Fazio & Roskos-Ewoldsen, 2005). For example, in a field study, Fazio and Williams (1986) demonstrated that people with more accessible attitudes toward their preferred presidential candidate in 1984 (Ronald Reagan or Walter Mondale) were more likely to vote for that candidate than were people with attitudes of identical extremity but less accessibility. This relationship has been demonstrated across a number of different contexts ranging from product choice, voting behavior, and gender discrimination (see Roskos-Ewoldsen, 1997; Fazio & Roskos-Ewoldsen, 2005, for reviews).

Based on these findings, Fazio (1986) proposed the process model of the attitude–behavior relationship. The process model begins with the observation that accessible attitudes are more likely to be activated when a person is exposed to the attitude object. Once the attitude is activated, the attitude colors how the object is perceived. For example, if you see a bug when you are at a favorite restaurant and you have an automatically accessible negative attitude toward bugs, then that attitude will be activated and you will perceive the bug as something that is nasty. These evaluations of the attitude object then influence how you perceive the event within which you see the bug. In this example, the event is the act of trying to eat a meal. The activation of the negative attitude may lead to the judgment that you are in an aversive event because there is a bug in a place where a bug is undesirable. This aversion to the bug could influence your behavior to flee and not eat the meal or to have the bug removed from the situation so you can eat the meal.

Norms also influence behavior and according to the process model norms influence how you define the situation or context of the potential behavior. Consequently, norms establish what are acceptable or unacceptable behaviors within that situation. If you are in a university student bar, then you are likely in an informal setting and norms dictate that different behaviors are appropriate when faced with the aversive event of a bug than if you were in a fancy restaurant. Consequently, norms help dictate the available behaviors that the definition of the event affords. Based on the definition of the event that is driven by the activated attitudes (e.g., this is a nasty event) and the definition of the situation that is driven by the available social norms (e.g., this is an informal setting), then you act accordingly. For example, in the student bar, you may simply squish the bug on the floor, whereas in a fancy restaurant you might discretely point out the offensive critter to

the management. So the accessible attitude impacts behavior through its influence on how the event is defined and social norms influence which specific behaviors are appropriate response options for enactment within the event.

The process model rests on the assumption that accessible attitudes influence how people interpret social information (Fazio, 1986; Fazio, Roskos-Ewoldsen, & Powell, 1994). Our social environment is characterized by ambiguity because many objects, events, and situations can be categorized and interpreted in different ways. Research has demonstrated that attitudes color how people interpret ambiguous information (Lord, Ross, & Lepper, 1979) and numerous studies have shown that attitudes that are more accessible from memory are more likely to bias how people process social information (Fazio et al., 1994; Houston & Fazio, 1989). For example, Houston and Fazio (1989) demonstrated that people with highly accessible positive attitudes toward capital punishment are likely to interpret a pro-capital punishment study as a stronger, more methodologically sound study than people with less accessible positive attitudes toward capital punishment. Conversely, people with highly accessible negative attitudes are more likely to perceive the study as weak and flawed than people with less accessible negative attitudes.

Indeed, while the initial research on attitude accessibility focused on the role of accessibility as an explanatory mechanism in the attitude–behavior research (Fazio, 1986), extensive research has demonstrated that accessible attitudes are highly functional for the individual for a number of reasons. As just mentioned, accessible attitudes influence how people understand and interpret their social world (Fazio et al., 1994; Rhodes et al., 2008). Additional research has demonstrated that accessible attitudes influence people’s motivation to process information (Fabrigar, Priester, Petty, & Wagener, 1998; Rhodes et al., 2008; Roskos-Ewoldsen, Bischel, & Hoffman, 2002). People with more accessible attitudes toward the topic of a message or the source of a message are more likely to elaborate while processing that message. Furthermore, while people with accessible attitudes are generally more likely to elaborate while processing a message, when the message is counterattitudinal, they will engage in biased elaborative processing (Rhodes et al., 2008). In addition, accessible attitudes ease the stress that people can experience when making decisions (Fazio, Blascovich, & Driscoll, 1992). Consider the difficulty of choosing between 21 different flavors of ice cream if you didn’t have any attitudes toward any of the flavors, but instead were faced with the task of making a new evaluative judgment each time you decided what ice cream to eat. Accessible attitudes enable people to make efficient judgments and thereby decrease the stress of decision-making. Finally, research has demonstrated that people are more likely to orient their attention toward objects that they have more accessible attitudes toward (Roskos-Ewoldsen & Fazio, 1992). Indeed, Roskos-Ewoldsen (1997) argued that accessible attitudes operate as a transactive system to protect and reinforce themselves, which may

explain why accessible attitudes are less likely to change across time (Fazio, 1995). For example, research has demonstrated that attitude accessibility plays an important role in inoculating people against future attacks on their attitudes (Compton & Pfau, 2008, 2009; Pfau et al., 2003; Pfau et al., 2004).

NORM ACCESSIBILITY

Social norms have long been understood to affect behavior (e.g., Asch, 1956; Deutsch & Gerard, 1955) and in combination with attitudes, norms are important contributors to the study of behavior (Rhodes & Ewoldsen, 2013). Indeed, the two most prominent models of the attitude behavior relation—the theory of reasoned action and its derivatives and the process model—both include an important role for norms (Ajzen, 1991; Fazio, 1986; Fishbein & Ajzen, 1975; Fishbein & Yser, 2003). More relevant to the current discussion is the research demonstrating that injunctive norms (i.e., socially transmitted codes of behavior that carry with them implied social rewards and punishments) are important predictors of adolescent health risk behaviors. The recent proliferation of social norms research in communication journals attests to the importance of norms in communication (Mollen, Rimal, & Lapinski, 2010; Rhodes, Ewoldsen, Shen, Monahan, & Eno, 2014). What is less clear about norms is the mechanism through which they have their effects on behavior (Rimal, 2008; Rimal & Real, 2003; Rhodes & Ewoldsen, 2009, 2013; Yanovitzky & Rimal, 2006).

In an attempt to address the processes through which norms influence behavior, Cialdini and his colleagues developed the focus theory of norms (Kallgren, Reno, & Cialdini, 2000). The work within this theoretical perspective has demonstrated that social norms can be a strong determinant of behaviors when the norm is made salient (Cialdini, Kallgren, & Reno, 1991; Cialdini, Reno, & Kallgren, 1990; Kallgren, Reno, & Cialdini, 2000; Reno, Cialdini, & Kallgren, 1993). For example, in several studies a confederate picked up a piece of trash in view of the research participants as they walked to their cars in a parking deck which should make the injunctive norm against littering salient to the research participants. In other conditions, participants saw the confederate litter or the confederate simply walked by the litter. When the participants got to their cars, there were fliers under the windshield wipers. Participants were consistently less likely to litter when the injunctive norm had been made salient by the confederate picking up a piece of trash. In contrast, when a descriptive pro-littering norm was made salient by the presence of litter in the environment, participants were more likely to throw the flyer on the ground (Reno et al., 1993). Early work in this area demonstrated that invoking thoughts of different significant others (e.g., friends on campus vs. older family members) induced behavior consistent with the norms of the imagined audience (Baldwin & Holmes,

1987). Likewise, research has found that making a reference group more salient resulted in behavior that was more consistent with that group's norms (White, Hogg, & Terry, 2002). We argue that manipulations of norm salience used in in this research are likely increasing the temporary accessibility of the norms by priming the relevant injunctive or descriptive norms (Rhodes & Ewoldsen, 2009). Consequently, we argue that like attitudes, accessibility may be an important characteristic of norms when trying to understand normative effects on behavior. For example, within the process model, we would hypothesize that injunctive norms that are more accessible from memory are more likely to influence how the situation is defined and what behaviors are deemed acceptable to perform within that situation.¹

As with attitudes, norms may exist on a continuum ranging from non-accessible norms to chronically accessible norms. Some norms may not be stored in memory or may not be accessible. If a person is asked whether that person's family thinks they should eat Tibetan food, that person may not have any knowledge of the family's injunctive norms for eating Tibetan food stored in memory. Conversely, if a person is asked whether that person's family thinks they should begin smoking, that person may easily activate the knowledge that family thinks they should not smoke. Or the norm may be automatically accessible such that when an adolescent is offered a cigarette at a party, the teen immediately thinks, "OMG, my mom would kill me!" In this case, the injunctive norm against smoking automatically comes to mind. Recent research has begun focusing on studying the chronic accessibility of injunctive norms (Rhodes et al., 2008; Rhodes & Ewoldsen, 2009; Rhodes et al., 2014). Because of the recency of this work, we will describe it in more detail than the work on attitude accessibility.

In the initial test of norm accessibility, college students completed both paper-and-pencil measures of attitudes toward smoking and subjective norms regarding smoking (Rhodes & Ewoldsen, 2009). Subjective norm accessibility was measured by having participants indicate as quickly as they could whether important people in one's life want one to smoke cigarettes. The outcome measure was a continuous measure of smoking behavior ranging from committed nonsmoker to daily cigarette use. This study showed that the accessibility measures accounted for substantially more variability in participants' smoking behavior than the paper-and-pencil measures. Attitude toward smoking was the only significant predictor of smoking behavior among the paper-and-pencil measures ($R^2 = .35$). However, both attitude and norm accessibility were significant predictors of smoking behavior ($R^2 = .77$). Thus, the speed with which individuals indicated the normative view of important others predicted smoking behavior over and above the standard measures of attitude and subjective norm. Those who more quickly indicated that others would not approve of their smoking were less likely to smoke.

The influence of attitude and norm accessibility was also tested in a sample of fifth and eighth grade students using susceptibility to smoking

(e.g., ratings of future intention to smoke cigarettes in the next week, the next month, and the next year) as the outcome variable (Rhodes & Hestevold, 2008). However, based on previous work on smoking initiation, the measure of norm accessibility was refined to include a measure of accessibility of the peer norm and the accessibility of the family norm. The results are similar to those obtained with the college sample: For the deliberative paper-and-pencil measures, only attitude toward smoking was a significant predictor of susceptibility to smoking. However, measures of the accessibility of family-based subjective norms significantly predicted susceptibility to smoking over and above attitude toward the behavior. Specifically, those who quickly indicated that their family was opposed to them smoking were less likely to indicate an intention to begin smoking than their peers who were less quick to indicate family opposition to smoking.

A third study tested the model with a sample of high school freshman in urban and rural schools in Georgia. The measures were identical to the fifth and eighth grade study except that intention to engage in future behavior (likelihood of smoking in next six months) and recent behavior (self-reported smoking in the past month) were the outcome variables. In addition, three additional risky behaviors were studied: drinking alcohol, smoking marijuana, and engaging in risky sexual behavior. Multilevel modeling found the same pattern of results across the four behaviors: Behavioral intentions were predicted by family and peer subjective norm accessibility. Recent behavior was predicted by attitude accessibility and family and peer subjective norm accessibility (Rhodes et al., 2014). Thus, attitude and norm accessibility are relevant in justifying past behavior, but norm accessibility alone seems to be important in building intentions to behave in the future. Indeed, this finding suggests that parents should communicate frequently with their teenaged children about their expectations for their teens' behaviors (Rhodes et al., 2014).

A consistent pattern emerged across the three samples (fifth and eighth graders, ninth graders, college students). For the youngest sample, accessible family norms predicted susceptibility to become a smoker; more accessible negative norms related to reduced susceptibility. Likewise, in the high school sample behavioral intentions were predicted by accessible family and peer norms regarding smoking (as well as drinking alcohol, smoking marijuana, and sexual behavior). Thus, consistent with a substantial literature, norms predict smoking initiation (Jacobson et al., 2001). Conversely, when explaining recent smoking behavior, attitude and norm accessibility were significant predictors of behavior. In other words, norm accessibility appears to play an especially important role in the initiation of these risky behaviors in these adolescent samples whereas attitude accessibility emerges as an important predictor of actual behavior.

Based on the transactive model of attitude accessibility (Roskos-Ewoldsen, 1997), we hypothesize that attitude accessibility is related to actual

behavior because accessible attitudes operate as a mechanism for defending the behavior. Recall the earlier research demonstrating that accessible attitudes bias how information related to the attitude object is processed. Accessible attitudes may be developing after these adolescents begin smoking as a mechanism for defending their engaging in this risk behavior. This would lead to the hypothesis that accessible attitudes toward smoking should be related to more biased processing of anti-smoking messages. In a sample of college students, Rhodes et al. (2008) showed participants four different anti-smoking PSAs. Using cognitive response data, this study found that smokers with more accessible pro-smoking attitudes engaged in much more biased elaborative processing of the anti-smoking messages than did smokers with less accessible pro-smoking attitudes. This hypothesis was again tested in the sample of ninth grade student discussed earlier. After measuring attitude and norm accessibility, the students were presented with an anti-smoking advertisement and rated how biased they perceived the ads (Shen et al., 2009). As hypothesized, participants with more accessible pro-smoking attitudes judged the ads as more biased.

What was the effect of norm accessibility on message processing? Using cognitive response data, Rhodes et al. (2008) found that smokers with accessible pro-smoking subjective norms engaged in heuristic processing of the ads by expressing responses that were unrelated to the content of the messages (e.g., "The music is cheesy"). Whereas the accessible attitudes directed processing to the content of the message, albeit in a biased fashion, the accessible norms deflected processing away from the content of the message. The accessible norm functioned for these smokers as a bubble to protect them from thinking about this counterattitudinal message. Importantly, attitude and norm accessibility, through these different processes, had significant effects on quitting intention after seeing the message. For those smokers who had accessible pro-smoking attitudes, the intention to quit depended on the nature of the thoughts generated: To the extent their message related thoughts were congenial to the message, they reported intending to quit smoking. If they only generated counterarguments, they were less likely to intend to quit. For the smokers with the accessible pro-smoking norms, there was no effect of message exposure on quit intention. Thus, the accessible pro-smoking norm deflected thoughts away from the anti-smoking message, and protected them against the attack: they were not swayed by viewing the message.²

THE MODE MODEL

Accessibility sometimes plays an important role in explaining people's behavior and at other times accessibility does not provide as rich of an explanation. The question then becomes, under what circumstances is it important to

consider accessibility as an important moderator of the relation between attitudes or norms and the outcome under consideration? Fazio's (1990) MODE model provides a useful framework for understanding when accessibility will provide a useful explanatory mechanism and when accessibility will be less important because deliberative processes are operating. While the MODE model has traditionally focused on attitude accessibility, the mechanisms outlined by the MODE model should operate the same way when considering norm accessibility.

The central assumption of research on accessibility is that highly accessible attitudes or norms will be automatically activated from memory and influence how relevant objects and situations are perceived and influence behavior through these processes. This suggests that once an attitude or norm is activated, it is more likely to influence behavior by influencing how ambiguous information is interpreted and what behavior is deemed acceptable. However, research has found that the influence of automatic processes can be controlled (Anderson, Moskowitz, Blair, & Nosek, 2007; Olson & Fazio, 2009; Sanbonmatsu & Fazio, 1990; Schuette & Fazio, 1995). As suggested by the name of the MODE model, motivation and opportunity are critical factors in determining whether accessible attitudes or norms will influence behavior in a more automatic fashion or whether decision making occurs in a more controlled fashion, which may diminish the influence of automatically activated information.

Controlling automatic processes requires cognitive resources (Anderson et al., 2007; Fazio, 1990; Kruglanski & Sleeth-Keppler, 2007; Lang, 2010; Olson & Fazio, 2009; Petty, Briñol, & Priester, 2009). When motivation is low, people likely make decisions based on what information comes to mind quickest. In this situation, information that is more accessible from memory is more likely to influence a person's decisions and behavior. Conversely, when a person is highly motivated, that person is willing to devote more resources to the decision process, and thus is more likely to actively search memory (or the environment) for information such as beliefs, attitudes, and norms that relevant to the decision and use more information when making that decision. In this situation, accessible information can certainly play a role in decision making, but the relative influence of the accessible information is likely diminished because additional information is brought to bear in making the decision in a more deliberative fashion. Some motivations that might lead to more careful scrutiny of an attitude object include the desire to make accurate judgments, the need to belong, and motivation to avoid appearing prejudiced (Olson & Fazio, 2009).

In addition to the motivation to process, the opportunity to process is also an important determinant of processing. When a person is provided with less of an opportunity to actively consider the available information, that person is more likely to rely on information that is accessible and quickly comes to mind (Fazio, 1990; Kruglanski & Sleeth-Keppler, 2007). Without

adequate opportunity, even if a person is motivated, the person may not have the ability to make a deliberative judgment at that given time. In other words, opportunity to consider the available information—as opposed to accessible information—is necessary if a person is going to control for the effects of automatically activated information when making a decision. Factors such as time and available cognitive resources can influence a person's opportunity to make deliberative judgments (Fazio, 1990; Olson & Fazio, 2009; Sanbonmatsu & Fazio, 1990). So according to the MODE model, when a person is highly motivated and that person has adequate opportunity to consider the available information, that person is more likely to consider the available information and less likely to rely solely on accessible information when making a decision. However, when either motivation or opportunity are low, or both are low, then the person is more likely to make decisions based on that information that is highly accessible from memory such as accessible attitudes or norms.

This leads to an important distinction within the MODE model between deliberative and spontaneous processes. As noted, deliberative processes involve more controlled, effortful consideration of the available information which will include information that is accessible from memory as well as information available in memory or the larger environment. For example, purchasing a home should be a deliberative behavior given the costs of purchasing a home and the long-term implications of home ownership. According to the MODE model, people should be highly motivated to make a correct decision and, except in rare occasions, people will likely have the opportunity to carefully consider the decision. Conversely, spontaneous processes involve more automatic processes and less cognitive resources so that the person is considering less information and that information is likely to be highly accessible from memory or temporarily made salient by cues within the environment (Fazio, Powell, & Williams, 1989). Given the low costs of purchasing junk food, people are typically less motivated to carefully consider the pros and cons of a specific brand of junk food, particularly when compared to purchasing a home. Likewise, people often do not have the time (or take the time) to deliberate about which junk food they wish to purchase. We would anticipate that most people (hopefully) spend much more time deciding what home to purchase than they do what junk food to purchase. The low motivation and low opportunity to consider the decision would lead to the categorization of junk food purchases as an example of a more spontaneous behavior.

From the perspective of the MODE model, these are important distinctions. The processes that lead to spontaneous vs. deliberative behaviors are markedly different. Spontaneous behaviors are more likely to be influenced by accessible norms and attitudes, and models such as Fazio's (1986) process model are more likely to adequately explain the processes that lead to the behavioral outcomes of interest. Conversely, deliberative

processes are more likely to be influenced by the careful consideration of the larger set of high and low accessible beliefs, attitudes, and norms that are considered relevant to target behavior. In this instance, models such as the theory of reasoned action and its derivatives (Ajzen, 1991; Fazio, 1986; Fishbein & Ajzen, 1975; Fishbein & Yser, 2003) probably provide a better explanation of the processes that lead to the behavioral outcomes of interest.

Of course, the distinctions between spontaneous and deliberative processes can become blurry. Recall that accessible attitudes toward the topic of a message or the source of a message can increase people's motivation to elaborate while processing the message (Fabrigar, Priester, Petty, & Wegener, 1998; Roskos-Ewoldsen et al., 2002; Roskos-Ewoldsen, Yu, & Rhodes, 2004). These studies strongly suggest that deliberative processes can be influenced by accessible attitudes (Fazio, 1990; Roskos-Ewoldsen, 1997; Roskos-Ewoldsen et al., 2004). Likewise, accessible attitudes may bias how information is deliberatively processed (Rhodes et al., 2008) and accessible norms can motivate people to switch from deliberative to more spontaneously, heuristically driven decisions (Rhodes et al., 2008).

IMPLICITLY MEASURED ATTITUDES

There has been a surge of interest in the social sciences in the study of implicitly measured attitudes (e.g., Petty, Fazio, & Briñol, 2009; Wittenbrink & Schwarz, 2007). A quick perusal of journals devoted to the study of media (e.g., Eno & Ewoldsen, 2010; Goodall, 2011; Goodall & Slater, 2010) suggests that implicitly measured attitudes are becoming more vogue with communication and media scholars (Roskos-Ewoldsen, 2009). The designation of "implicit attitude" means that the attitude is measured without asking someone to explicitly indicate their attitude, in contrast to paper-and-pencil measures of attitudes (DeHouwer, 2006; Fazio & Olson, 2003).

An example of an implicit measure of an attitude is attitude priming (Fazio et al., 1986; Fazio, Jackson, Dunton, & Williams, 1995; Wittenbrink & Schwarz, 2007). In the attitude priming task measuring racial attitudes, participants complete one of two different tasks (Fazio et al., 1995). One task is presented as involving participants' ability to remember faces. The faces that participants are presented with were as either White or African American. The other task involves judging whether the participant likes or dislikes various words (e.g., coffee, disco, spinach, cake). In some blocks of trials, participants complete one or the other of these judgment tasks. In the critical blocks, participants complete both judgment tasks such that they are presented with a face that they are instructed to remember and then a word that they judge as something they liked or disliked. Research suggests that people with more racist attitudes are quicker to indicate "I

dislike” after viewing the face of an African American than they are when there is a white face or no face is presented prior to the attitude judgment (Fazio et al., 1995). The critical point is that implicit measures never make it explicit that people’s attitudes toward a certain object is being measured. Thus, the person’s attitude is inferred by the pattern of response latencies rather than by direct responses.

In theory, implicit measures of attitudes may have advantages over explicit measures for topics where social desirability concerns may result in participants not wanting to express their true attitudes. A consistent finding in the literature is that explicit and implicit measures of attitudes, although moderately correlated overall, diverge when the attitude target is one where there are strong social motivations for reporting a particular attitude (Greenwald & Nosek, 2009). For example, implicitly measured attitudes have been used quite extensively in the study of racial attitudes because explicitly measured racial attitudes have been shown to be strongly influenced by motivational factors (e.g., Amodio & Devine, 2009; Fazio et al., 1995).

The extensive research on implicit measures of attitudes has resulted in some scholars arguing that these two different measures map onto two separate attitude systems—an explicit and an implicit system of attitudes (Greenwald & Nosek, 2009; Wilson, Lindsey, & Schooler, 2000). This approach makes the assumption that implicitly measured attitudes reflect a system of attitudes that operate outside of people’s awareness, are automatically activated from memory (see earlier discussion on attitude accessibility), and are beyond people’s control. In contrast, explicitly measured attitudes are hypothesized to reflect a more deliberative system that is available for people’s introspection and can be controlled. According to this dissociative view, the underlying attitudes measured by the different procedures represent distinct attitudes within two distinct cognitive systems.

A more parsimonious explanation is found in the MODE model (Fazio & Olson, 2003; Olson & Fazio, 2009). It is important to consider how motivation and opportunity might influence explicit and implicit measures of attitudes (Olson & Fazio, 2009). Responding to an explicit measure is an exercise in verbal behavior. When individuals complete explicit measures of attitudes, they are aware of the content of the questions and are rarely placed under time constraints. Neither motivation nor opportunity to respond are constrained, which should result in more deliberative judgments of the attitude object. In contrast, with implicit measures of attitudes, individuals are typically asked to make rapid judgments of seemingly unrelated stimuli which results in both opportunity and motivation being limited. Consequently, according to the MODE model, implicit measures are more likely to reflect spontaneous judgments of the attitude object (Olson & Fazio, 2009). For most topics, explicitly measured attitudes are correlated with implicitly measured attitudes because deliberative and spontaneous processes result in similarly reported attitudes. In other words, when responding to the explicit

measure, the individual may experience no hesitation about reporting the attitude that was automatically activated. Any further deliberation sanctions expression of that very attitude. However, for socially sensitive topics such as racial attitudes, explicitly and implicitly measured attitudes may diverge. According to the MODE model, this divergence reflects deliberative processing that counters the influence of the automatically activated attitude. When responding to implicit measures of attitudes, prejudiced respondents are not able to monitor their response because they are either unaware of what attitude is being measured or unable to control its influence. In contrast, with explicit measures where it is clear the goal of the scale is to measure racial attitudes, individuals with racist attitudes are often motivated to mask their true feelings so as not to appear prejudiced (Eno & Ewoldsen, 2010; Fazio et al., 1995). In addition, they have the opportunity to control their response because explicit measures of attitudes typically allow participants unlimited time to complete the scale. Consequently, respondents will make more deliberative judgments and respond with a non-prejudiced attitude. (For a recent review of literature related to the MODE model, see Fazio & Olson, 2014.)

IMPLICATIONS OF THE MODE MODEL FOR UNDERSTANDING THE MEDIA

Outcomes of Media Exposure

An important implication of the MODE model for understanding the media pertains to understanding the behavioral outcomes of media exposure. Traditionally, the focus of media research has not been on the nature of the resulting behavior. Indeed, it would not be much of an exaggeration to say that as far as media effects scholars have been concerned, there is little difference between buying a package of M&Ms and purchasing a house. If the researcher is interested in the effects of television coverage on junk food consumption, a typical research paradigm will quantify in some way the frequency with which a person is exposed to junk food on television (e.g., a content analysis of program content, product placements, or commercials) and then will measure junk food consumption (typically by using a self-report measure or a measure of behavioral intentions). Conversely, if the researcher wants to study the impact of television coverage on home ownership, the researcher would again measure the appropriate characteristics of television coverage (e.g., depictions of the joys of home ownership) and then measure home ownership (or intention to purchase a home). Clearly, this is an exaggeration, but it is difficult to find thoughtful discussions of differences in the types of behavior or the processes that lead to the enactment of the target behavior beyond the justification that a particular behavior has

some importance so that the consequences of the media on that behavior is important to study.

As discussed earlier, the distinction between spontaneous and deliberative behavior is important because attitude objects and the situation in which they are encountered may motivate people to deliberate to varying degrees. For example, Fazio's (1986) process model is designed to predict spontaneous behavior. Within this model, it is the accessibility of the attitude (and, based on more recent research, also the norm) that is important to consider. Conversely, the integrative model (Fishbein & Yzer, 2003) is a model best designed to predict deliberative behavior and several variables that are not particularly relevant to spontaneous behaviors play a central role in this model including behavioral beliefs, behavioral intention, and self-efficacy. While a discussion of why these variables are not included in models of spontaneous behaviors is beyond the scope of this article, the important point is that if a scholar is interested in the impact of the media on a deliberative behavior, then measuring the influence of media messages on perceptions of self-efficacy may be an important avenue to pursue. Conversely, if the focus of the research is on situations that do not evoke a motivation to deliberate and, hence, involve a more spontaneous attitude-behavior process, then understanding whether the media influences self-efficacy beliefs may be less critical to our understanding of media influences. Critically, we are not arguing that one model is better than the other model. Rather, we are arguing that the nature of the behavior in question and the extent to which it motivates deliberation places an important constraint on the type of theory that is appropriate for understanding and predicting that behavior.

Consider the research discussed earlier on adolescent smoking behavior. While the potentially deadly outcomes associated with smoking behavior would hopefully motivate people to carefully deliberate before beginning to smoke, research on smoking initiation suggests smoking initiation is typically much more spontaneous in nature (Gerrard, Gibbons, Vande Lune, Pexa, & Gano, 2002; Gerard, Gibbons, Houlihan, Stock, & Pomery, 2008; Rhodes & Ewoldsen, 2009). The research on attitude and norm accessibility discussed earlier involved tests of both deliberative (the theory of reasoned action) and implicit models (the process model; Rhodes & Ewoldsen, 2009) and this research suggested that smoking initiation is best accounted for by spontaneous models of behavior.

However, for illustrative purposes, let us assume that smoking initiation is the result of deliberative processes. If so, then attitude toward smoking is the key variable to consider in smoking initiation and maintenance (Rhodes & Ewoldsen, 2009; Rhodes *et al.*, 2014; Rhodes & Hestevold, 2008) because these studies found that attitude toward smoking was the only deliberative measure that predicted smoking initiation and maintenance. Based on the assumption that smoking is a deliberative behavior, campaigns

that want to decrease smoking initiation and maintenance should focus on changing people's attitudes toward smoking. Conversely, the picture is much more complex if we assume that smoking initiation stems from a largely spontaneous attitude-behavior process. The research measuring spontaneous processes suggests that family and peer norms play a critical role in smoking initiation (Rhodes et al., 2014; Rhodes & Hestevold, 2008) and attitude accessibility was not a significant predictor of smoking susceptibility or intention. However, current smoking behavior was predicted by both attitude accessibility and norm accessibility which suggests to us that attitude accessibility developed as a mechanism to defend the risky behavior that the adolescent was engaged in performing (Rhodes et al., 2008). Based on the assumption that smoking initiation and maintenance are the result of spontaneous processes, campaigns aimed at stopping smoking initiation should focus on family and peer norms. Conversely, campaigns aimed at getting people to quit smoking should focus on family and peer norms as well as attitude accessibility. It is critical to understand that these two models point to very different types of campaigns to combat smoking initiation and maintenance. Hopefully, this example highlights how important it is to consider the type of behavior that is being studied when exploring media processes and effects.

However, when studying human behavior, it is always important to consider its complexity. Much of social behavior can be categorized as primarily spontaneous or deliberative. However, there are categories of behaviors where some of the relevant behaviors are the outcome of deliberative processes and other relevant behaviors are the outcomes of spontaneous processes. These categories of behaviors tend to occur when people's accessible attitudes are at odds with the types of behaviors that they are motivated to engage in. One example of this type of behavior involves racism (Amodio & Devine, 2009; Dunton & Fazio, 1997; Devine, Plant, Amodio, Harmon-Jones, & Vance, 2002; Fazio et al., 1995). Interestingly, in this instance, the effects of media use on racist behavior may differ based on the type of behavior that is under consideration.

To test this idea, Ewoldsen, Ellithorpe, and Fazio (2012) looked at the effect of lifetime television use on both explicit and implicit measures of racism. While portrayals of African Americans on television news or athletic events is still problematic (Dixon & Linz, 2000; Rada & Wulfemeyer, 2005), television programming and commercials are generally presenting an increasingly egalitarian view of African Americans (Mastro, 2009; Mastro & Behm-Morawitz, 2005; Mastro & Tukachinsky, 2012). However, although the explicit representation of African Americans is generally more egalitarian, a recent analysis of nonverbal behaviors on weekly television shows found that across programs the nonverbal behaviors directed toward African American characters were decidedly more negative than the nonverbal behaviors directed toward White characters (Weisbuch, Pauker, & Ambady, 2009).

Research suggests that these subtle cues can influence implicitly measured attitudes (Weisbuch et al., 2009). Ewoldsen et al. (2012) hypothesized based on the MODE model that both the changing explicit portrayals and the more subtle racist implicit messages would influence racial attitudes but in a complex fashion. Specifically, we hypothesized that heavy television use would be associated with higher levels of motivation to avoid racism (Dunton & Fazio, 1997). Moreover, any such enhanced motivation should in turn result in the relatively more positive behavior toward African Americans, at least in situations in which the opportunity to pursue an egalitarian goal is not constrained. Thus, we predicted that heavy television use also would be associated with the verbal expression of relatively more positive attitudes on an explicit measure of racial attitudes. In other words, motivations to avoid prejudice and any deliberative behaviors prompted by such motivations would be affected largely by the egalitarian portrayals evident in the television shows and, hence, would relate positively to more extensive television exposure. Nevertheless, the manner in which the African American television characters are treated nonverbally may influence heavy viewers' attitudes toward African Americans, which may be apparent when those attitudes are measure implicitly. Indeed, that is what Ewoldsen et al. (2012) found. The results suggest that heavy viewers of television had greater motivation to avoid engaging in racist behavior. Consistent with the MODE model, the heavier television users were likely to endorse more favorable views of African Americans on explicit measures of racial attitudes. Simultaneously, heavy viewers were more likely to express more negative implicitly measured attitudes. Clearly, these results are correlational in nature, but we think they highlight an important point. Based on the MODE model, these results can be interpreted as suggesting that media use might lessen the problem of racism for deliberate behaviors by increasing heavy viewers' motivation to avoid racism and correspondingly increasing the positivity of these viewers' deliberately expressed racist attitudes. Conversely, heavier media use might increase the problem of more spontaneous racist behavior by increasing the negativity of implicitly measured racial attitudes. Thus, heavy television use may be associated with both increased and decreased racist behavior depending on whether that behavior is the result of spontaneous versus deliberative processes.

Interpretation of Media Texts

A common assumption made by communication scholars and psychologists studying the media is that individuals interpret a film the way it was intend it to be interpreted (Morley, 1992; Roskos-Ewoldsen, Roskos-Ewoldsen, Yang & Lee, 2007). In reality, the process is much more complex and messages in the media are deliberately polysemic (i.e., there are multiple possible interpretations; Morley, 1992) and the existing discourse (e.g., prejudice,

resistance, knowledge) of audience members will contribute to how the message is interpreted. In a classic study demonstrating the polysemic nature of media texts, Vidmar and Rokeach (1974) examined the main character in the show *All in the Family*—Archie Bunker. One central theme of *All in the Family* involved racial prejudice. Interestingly, how prejudice was treated in the show was open to different interpretations. Indeed, participants low in prejudice interpreted *All in the Family* as a humorous satire, whereas participants high in prejudice interpreted the show as a realistic depiction of how prejudice is manifested in everyday life (Vidmar & Rokeach, 1974). This research suggests that individual differences in racial attitudes influenced interpretations of this media text.

Based on research demonstrating the accessible attitudes influence how information is understood (Fazio et al., 1994; Young & Fazio, 2013), Eno and Ewoldsen (2010) used the MODE model to hypothesize what types of information would be used when interpreting media texts. Specifically, when are implicitly measured versus explicitly measured racial attitudes likely to predict the interpretations of two films dealing with racism—*Remember the Titans* and *Rosewood*? In their first study, Eno and Ewoldsen focused on global judgments of the film. Judgments were considered global if the judgment reflected a more general evaluation about the role of race as the theme of the film. Because the films dealt explicitly with racism and egalitarian attitudes, we assumed that participants would be highly motivated to control their prejudiced reactions. Given this assumption, we used the MODE model to predict that evaluations of global events would be predicted by explicitly measured attitudes but not implicitly measured attitudes, because neither opportunity nor motivation would be limited: Individuals would have the entire duration of the film to make those evaluations and given the content of the films, they should be motivated to avoid racist reactions to the films. As hypothesized, global judgments of *Remember the Titans* were predicted by explicitly measured attitudes but not implicitly measured attitudes. These results are consistent with Vidmar and Rokeach (1974) study of *All in the Family* and suggest that when viewers engage in deliberative processing of a film, their explicitly measured racial attitudes did influence how they interpret that film.

A second study examined how explicitly and implicitly measured attitudes predict evaluations of specific character's responsibility for both violent and heroic events that occurred in the movie *Rosewood*. Based on the MODE model, it was predicted that individuals should be more motivated to deliberate about characters that have a more central role in the film. Thus, explicitly measured racial attitudes should predict judgments of central African American characters. Conversely, participants should have less motivation and less opportunity to make deliberative judgments of characters that have a less central role. Thus, implicitly measured racial attitudes should predict judgments of more minor African American characters in the

film. The film used in this study was *Rosewood* (Peters & Singleton, 1997) because there are ambiguities within the film where racial prejudice could influence the interpretation of African American characters. This study found little evidence that explicitly measured racial attitudes predicted judgments of central African American characters in the film but this was likely due to ceiling effects in that all participants rated the African American main characters very positively. However, implicitly measured racial attitudes did influence the specific judgments of the African American minor characters' in the film. Consistent with the MODE model, this suggests that judgments of minor characters reflect more spontaneous processes.

Taken together, the two studies provide support for the MODE model as a theoretical approach for understanding the processes that underlie people's interpretations of film. The results of the first study support the idea that explicitly measured attitudes influence people's more deliberate interpretations of global themes in the film. Of course, it is important to recall that in this study, participants should be motivated to control their prejudiced reactions. Films that do not involve explicit racial themes may not invoke the same motivations so that viewers may be more likely to engage in spontaneous judgments that reflect their implicitly measured attitudes. When viewers were provided with the opportunity and motivation to interpret a film, participants engaged in deliberative processes to make these judgments. Conversely, the results of the second study support the idea that implicitly measured attitudes may influence judgments about minor African American characters' responsibility for events. When viewers have low motivation (because the characters are minor) and less opportunity (the characters only appeared for short periods in the film), then participants appeared to make judgments of the characters that followed directly from their automatically activated attitudes, as indexed by the implicit measure.

FUTURE DIRECTIONS

Obviously, we believe that the MODE model provides important insights to understanding the processes whereby the media influences behavior (Rhodes & Ewoldsen, 2013). Likewise, we believe the MODE provides important insights into what types of information is likely to influence how people interpret media stories (Eno & Ewoldsen, 2010). But the MODE model also raises important questions that media scholars need to continue to address. First, we believe that the MODE model's interpretation of implicitly and explicitly measured attitudes highlights that this distinction is a methodological one and not a conceptual one. When theorizing about results of research utilizing implicit and explicit measures of attitudes, it is important to focus on the processes that result in the outcomes of these two types of measures and the likely influences of the media on spontaneous

versus deliberative processes. For example, Shrum's (2009) work suggests that television viewing has differential effects on people's perceptions of social reality based on whether people are engaged in deliberative versus spontaneous processing. Specifically, Shrum's research indicates that when people spontaneously make frequency judgments about events in the real world (first order cultivation effects), heavy television viewers are more likely to show cultivation effects because their answers reflect the reality found on television. However, if people are made aware of their television viewing habits, they are able to deliberately correct for the effect of media on their judgments when given the opportunity and sufficient motivation to do so. This is based on research showing that making people's media use salient will negate the cultivation effect because people are able to override the effects of the media on their judgments when it is brought to their attention (Shrum, 2009).

Second, the MODE model suggests that to the extent that research is interested in understanding how information is being processed, that media scholars need to pay more attention to motivation because of the role that motivation plays in distinguishing whether spontaneous versus deliberative processes occur as well as the outcomes that result from those processes. In our view, the dynamic relationship between media and motivation is understudied by communication scholars. While research on the presumed media influence hypothesis has demonstrated that media can influence people's perceptions of what is normative behavior (Tal-Or, Cohen, Tsifti, & Gunther, 2010), the interplay between media and motivation has been largely ignored.

Third, in order to understand how the media influences behavior—particularly spontaneous behavior—it is critical to focus on accessibility (Roskos-Ewoldsen, 1997). As an example, research suggests that people do not engage in pro-environmental behaviors to the extent that their explicitly measured attitudes and social norms would suggest they should. Because many environmental behaviors are spontaneous (e.g., putting a bottle in a recycling bin, conserving water while washing dishes by turning it off), the research on the MODE model would suggest that instead of focusing on changing the extremity of the attitude or social norms related to environmental behaviors, campaigns should focus on changing the accessibility of the appropriate attitudes or norms. In other words, in domains where the corresponding attitudes or norms are already in the desired direction, then the focus should be on re-enforcing the existing attitudes and norms with an emphasis on increasing the accessibility of the attitudes and norms from memory. Indeed, research on eco-entertainment demonstrated exposure to a pro-environmental entertainment program increased intentions to engage in pro-environmental behaviors by changing the accessibility of participants' already pro-environmental attitudes and social norms (Toole, Arpan, & Rhodes, 2012).

CONCLUSION

Human behavior is complex. Unfortunately, theorizing by media scholars often ignores this complexity and we believe it does so at its own peril. There has been a long standing bias toward studying deliberative behavior and relying on models such as the theory of reasoned action and its derivatives. We do not want to argue that deliberative models are wrong. Indeed, when trying to explain the appropriate types of behaviors, these models are extremely useful. But much of the behavior that media scholars are interested in involves more spontaneous processes (Rhodes & Ewoldsen, 2013). Consequently, the utility of models focused on deliberative reasoning when trying to predict spontaneous behaviors is suspect. We believe that the MODE model embraces this complexity and provides a useful framework for understanding both spontaneous and deliberative behavior and the processes that explain these behaviors. Furthermore, the MODE model provides a framework for understanding what types of information people are likely to utilize when making judgments (Eno & Ewoldsen, 2010).

NOTES

1. The early work on norm accessibility focused on injunctive norms due to Cialdini et al.'s (1991) findings that priming injunctive norms had a stronger influence of subsequent behavior than did priming descriptive norms (Rhodes et al., 2008). However, we anticipate that if descriptive norms do influence how a situation is defined, then accessible descriptive norms should be more likely to influence how the situation is defined than less accessible descriptive norms.
2. An important distinction has emerged in the literature on dual process models between process and content (Kruglanski & Thompson, 1999) because there are instances where responses based on seemingly peripheral aspects of the message, such as the source of the message or the music played with the message, can function as elaborations on the message. We do not believe this was the case in the present work, however. In this instance, message elaborations were predicted by attitude accessibility and peripheral responses were predicted by norm accessibility, which provides discriminant validity for the coding that was used in this study.

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