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EFFECTS OF EXPOSURE TO VERBALLY AGGRESSIVE
TELEVISION ON AGGRESSIVE BEHAVIOR AND BELIEFS

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of the requirements for

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**EFFECTS OF EXPOSURE TO VERBALLY AGGRESSIVE TELEVISION ON
AGGRESSIVE BEHAVIOR AND BELIEFS**

By

Rebecca M. Chory

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ABSTRACT

EFFECTS OF EXPOSURE TO VERBALLY AGGRESSIVE TELEVISION ON AGGRESSIVE BEHAVIOR AND BELIEFS

By

Rebecca M. Chory

A great deal of research has suggested that exposure to television's portrayals of physical violence can lead to aggressive behavior in subsequent interactions. Much less research has focused on the short-term influence of exposure to verbally aggressive TV content on subsequent behavior. The present study tested the proposition that exposure to verbally aggressive TV sitcoms would prime aggression-related thoughts and behavioral tendencies, leading individuals to behave more aggressively and to hold positive beliefs about aggression. Participants in the study were exposed to sitcoms either high or low in verbal aggression or they read descriptions of sitcoms over a two-day period. Their behavior during a discussion task was observed and coded for verbal aggression, and their hostility and related beliefs were assessed via self-report measures either immediately after the final exposure or the day following the final exposure. Results show no main effect for exposure to verbally aggressive sitcoms, no main effect for time of measurement, and no interaction effect between exposure to verbally aggressive sitcoms and time of measurement on aggressive behaviors and beliefs. Conceptual and methodological issues concerning the results are discussed and directions for future research on the effects of exposure to verbally aggressive media content are suggested.

To Robin -- whose courage, laughter, and love continue to inspire me

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INTRODUCTION

The impact of television content on aggressive behavior has been a central issue for media researchers. In general, this research has focused on the effects of portrayals of physical violence. Much less research has focused on the short-term influence of verbally aggressive television content on subsequent action. Specifically, no study has yet to examine the short-term effects of verbally aggressive television programming on aggressive beliefs and behavior. This study was designed to test the proposition that exposure to verbally aggressive television content will prime aggression-related thoughts and behavioral tendencies, leading individuals to behave more aggressively and to maintain pro-aggression beliefs.

A great deal of literature has suggested that exposure to televised depictions of aggressive behavior can lead to a heightened level of aggressive behavior in subsequent interactions (Comstock & Strasburger, 1990; Friedrich-Cofer & Huston, 1986; Hearold, 1986; Paik & Comstock, 1994; Wood, Wong, & Chachere, 1991). At the same time, television exposure can be seen as an important factor in the formation of beliefs related to aggression. The ubiquity of television and the enormous amounts of time spent watching television create the potential for viewers' beliefs to be strongly affected by TV exposure. Consistent with some analyses of verbal aggression (Infante & Wigley, 1986; Infante, 1987), it is suggested that verbally aggressive communication and beliefs concerning verbal aggression can be affected by exposure to aggressive television programming.

The current investigation examines this issue by applying a rationale developed from the literature on priming and construct accessibility to the study of verbally aggressive TV. This rationale suggests that exposure to verbally aggressive TV primes mental constructs related to aggression in individuals' memories, making these constructs more accessible for a short time after TV exposure. Thus, televised depictions of verbal

aggression are expected to result in a priming effect whereby viewers will engage in more aggressive behavior, will hold positive beliefs about aggression, and will believe others are more aggressive.

The cognitive-neoassociationistic perspective taken here to examine the impact of exposure to verbally aggressive media will enable researchers to understand the means by which exposure to this content can affect related behaviors and beliefs. By identifying televised verbal aggression as a factor that can impact thought processes, the indirect impact of television on aggressive communication and behaviors can be better evaluated.

Verbal aggression

Verbal aggression involves "attacking the self-concept of another person instead of, or in addition to, the person's position on a topic of communication" (Infante & Wigley, 1986, p. 61). Originally, verbal aggression was proposed as a trait, and individual differences in the predisposition to attack the self-concepts of others were emphasized (Infante & Wigley, 1986). Although some scholars have begun to consider verbal aggression as involving genetically inherited neurobiological structures (Valencic, Beatty, Rudd, Dobos, & Heisel, 1998), the majority of the theory and research focusing on verbal aggression has been based on its original trait conceptualization and does not involve the more recent communibiological approach (Beatty & McCroskey, 1997).

Attacking the self-concept of another person may involve insulting the other's character, competence, background, or physical appearance. Verbal aggression may also be expressed in the form of maledictions (wishing harm on another), teasing, ridicule, threats, swearing, or nonverbal emblems (kinesic behaviors that are functionally equivalent to words) (Infante & Wigley, 1986) (Infante, Sabourin, Rudd, & Shannon, 1990). Although verbal aggression may take many forms, the most common forms of verbal aggression are teasing and swearing (Infante, Riddle, Horvath, & Tumlin, 1992).

Verbal aggression has become an important issue over the past few years for scholars concerned with interpersonal relationships and violence. Several studies suggest

that verbal aggression can lead to a wide range of negative outcomes from embarrassment to physical aggression (Infante, 1987; Infante & Rancer, 1996; Infante, Chandler, & Rudd, 1989; Infante & Wigley, 1986; Infante et al., 1990; Roloff, 1996). Specifically, verbal aggression in these situations has been reported to be a major contributing factor to relationship termination and interpersonal violence (Infante et al., 1989; Infante & Wigley, 1986). The use of character attacks, in particular, has been shown to elicit physical abuse from one's spouse (Infante et al., 1989). Scholars and practitioners concerned with school and youth violence also point to verbal aggression as an antecedent to physical violence. Psychologists, school administrators, and students themselves cite being threatened, disrespected, or humiliated by one's peers as powerful stimulators of youth and school violence (Fatum & Hoyle, 1996; Katz, 1999; Shapiro, 1999). Verbal aggression can also have significant adverse effects on one's long-term emotional and mental health through its ability to damage the self-concept (Infante, 1987). Given that verbal aggression may inflict long-term emotional damage and verbal aggression's potential for escalating into physical aggression, verbal aggression should be of particular concern to those of us who study the effects of aggressive programming. However, to date no research has directly addressed the role played by exposure to verbally aggressive television on beliefs and behaviors.

Verbal aggression on television

In 1973, Wotring and Greenberg stated that verbal aggression was frequently shown on TV. Almost three decades later, verbal aggression is still prevalent on television and has been more common than physical aggression in TV programming during this time (Greenberg, Edison, Korzenny, Fernandez-Collado, & Atkin, 1980; Martin, Koehn, Weber, & Mottet, 1997; Potter & Ware, 1987; Potter & Vaughn, 1997; Williams, Zabrack, & Joy, 1982).

From 1975 to 1978, an average of 22.8 acts involving insults, swearing, negative affective reactions, threats, and hostile yelling took place per hour on prime-time

programming (Greenberg et al., 1980). In addition to these acts, the most popular North American programs at this time also contained an average of 4.4 acts per program hour of verbal abuse and sarcasm, not to mention 1.6 acts per program hour of aggressive joking or harassment (Williams et al., 1982). In 1985, over half of the anti-social acts occurring on prime-time TV were verbal in nature (Potter & Ware, 1987). By 1994 the rate of insults, swearing, negative affective reactions, threats, and hostile yelling on evening TV had risen to 27 acts per hour. In particular, verbal aggression in situation comedies had increased from 33.5 acts per hour during the 1975-78 period to 41.9 acts per hour in 1994 and from 22 acts per hour to 28.6 acts per hour in action/adventure programming (Potter & Vaughn, 1997).

Encountering and processing verbally aggressive TV programming might be expected to facilitate aggressiveness by evoking thoughts related to verbal aggression in the communicator's mind, thus making these thoughts and related mental constructs more accessible to the communicator. These constructs made accessible by the media can passively and involuntarily influence the communication and beliefs of individuals (Berkowitz, 1984; Jo & Berkowitz, 1994). The means by which verbally aggressive TV programming influences aggressiveness can be explained within the cognitive-neoassociationistic perspective (Anderson & Bower, 1973; Landman & Manis, 1983) and related work on priming (Berkowitz, 1984; Jo & Berkowitz, 1994) and mental construct accessibility (Bruner, 1957; Bushman, 1998; Higgins & King, 1981; Jo & Berkowitz, 1994; Wyer & Srull, 1981). These perspectives provide a theoretical foundation for understanding and investigating the effects of exposure to verbally aggressive media on individuals' aggressive behaviors and beliefs.

Priming aggressive thoughts and behaviors

The cognitive-neoassociationistic perspective (Anderson & Bower, 1973; Landman & Manis, 1983) conceives of human memory as a collection of networks containing nodes that represent substantive elements of thought, feelings, behavioral

tendencies, etc. These nodes are linked through associative pathways, the strength of which is influenced by contiguity, similarity, and semantic relatedness (Jo & Berkowitz, 1994). When individuals experience an event via the mass media or any other channel, the cognitive-neoassociationistic perspective suggests that ideas similar to the event are activated in the minds of these individuals for a short time afterwards. This initial activation acts as a *prime* that subsequently activates other semantically related thoughts, emotions, or behavioral tendencies, making them more likely to come to mind (Berkowitz, 1984; Jo & Berkowitz, 1994). Individuals with highly integrated cognitive structures on a topic have shown clear, patterned, and predictable thought connections after a prime, indicating that this process does in fact occur (Domke, Shah, & Wackman, 1998).

In terms of the cognitive-neoassociationistic perspective, it appears that the activation of the primed thoughts spreads along previously established associative pathways (Collins & Loftus, 1975) to other related thoughts and ideas, passively and involuntarily in the minds of receivers (Berkowitz, 1984). According to this perspective, energy from activated thoughts radiates out to stimulate connected nodes, evoking semantically-related thoughts. In this “spreading activation” process, it seems as if there is some enduring excitation at the initially activated node that temporarily makes it easier for the concept associated with that node and thoughts and feelings related to that concept to be activated (Berkowitz, 1984). These primed constructs, then, are likely to remain active only for “a short time afterwards” (Jo & Berkowitz, 1994, p. 45), and the accompanying increase in the construct's accessibility is only temporary (Bushman, 1998).

While a single priming incident temporarily increases the accessibility of a construct, a mental construct becomes more permanently or *chronically accessible* through repeated or frequent activation of the construct or related constructs (Bushman, 1998). This sustained activation may be due to individuals continuing to think about the

situational cues they have encountered or through their acting on the cues for longer periods of time. The constructs may also be made chronically accessible through people's encountering stimuli that are similar to the cues previously encountered, which prolongs their thoughts on the subject or reactivates (re-primes) their associated memories, ideas, and action tendencies (Jo & Berkowitz, 1994). This frequent or repeated activation may result in a lowered activation threshold for the construct, which enables the given construct to be invoked more readily in processing information, making it more frequently used. Constructs that are easily and frequently invoked remain on the top of one's mental bin, causing the constructs to be chronically accessible (Bushman, 1998) and making them more likely to be used to process and interpret information (Bruner, 1957; 1958). This increased use of a construct in making judgments, forming responses, and in performing these responses over a longer period of time occurs in an "essentially automatic fashion" (Zillmann & Weaver, 1999, p. 148).

Based on the spreading activation perspective, Berkowitz (1984) suggested that the aggressive ideas found in violent media content have the ability to prime other semantically related, though not necessarily identical, ideas, increasing the probability that media consumers will experience other aggressive thoughts during this time. For example, viewing a murder on TV may prime thoughts of physical fighting, which may then bring about anger and motivation to harm others (Bower, 1981; Bushman, 1998; Lang, 1979).

Mass media research has supported Berkowitz's (1984) predictions concerning media violence's priming effect on aggressive constructs and the accessibility of these constructs. One study showed that immediately after exposure to a violent film, participants demonstrated faster reaction times to aggressive words than did participants who viewed a nonviolent film, suggesting that the violent media increased the accessibility of aggressive constructs, making participants react more quickly to aggressive cues presented after the media exposure (Bushman, 1998). Past research has

also demonstrated that exposure to aggressive media content and later priming of this content affected viewers' subsequent physical aggression. For example, a study involving second and third grade boys revealed that when boys who were characteristically aggressive were frustrated and primed by the presence of an object that appeared in a previously viewed violent program, they exhibited more aggression during a subsequent hockey game (Josephson, 1987).

Exposure to violent media has also been shown to have an aggression-related priming effect on individuals' evaluations of others (Carver, Ganellen, Froming, & Chambers, 1983) and on the perceptions of individuals. Regarding the latter effect, college students who were exposed to a violent movie later associated homonyms (that could have an aggressive or non-aggressive meaning) and non-aggressive words with more aggressive words than did those who were exposed to an equally exciting, but nonviolent film. This finding suggests that exposure to the violent video primed and made accessible aggressive constructs in the participants' memories, leading them to assign aggressive meanings to the words (Bushman, 1998).

Although the effect of media physical violence on aggression, beliefs, and evaluations of others has been studied within the priming and construct accessibility framework, there appears to be no published research that specifically addresses the effects of exposure to TV verbal aggression in terms of priming or construct accessibility. While no research addressing these issues currently exists, the spreading activation perspective provides a foundation upon which predictions concerning the effect of exposure to TV verbal aggression on aggression-related responses may be made.

Priming and verbal aggression

Spreading activation logic suggests that when individuals are exposed to aggressive TV content, thoughts, emotions, and behavioral tendencies semantically-related to the TV aggression are temporarily primed in the minds of these individuals (Berkowitz, 1984; Jo & Berkowitz, 1994). In terms of the present analysis, exposure to

verbally aggressive media content is expected to activate aggression-related beliefs, making these associated thoughts or ideas temporarily more accessible to individuals. These TV-primed aggressive thoughts and tendencies may subsequently manifest themselves in the form of verbally aggressive behaviors and beliefs supportive of aggression.

While a single incident of exposure to verbally aggressive TV content would prime and temporarily increase the accessibility of aggression-related constructs, continuous and frequent exposure to TV verbal aggression would render these constructs chronically accessible (Bushman, 1998). Therefore, aggression-related mental constructs would be invoked regularly in information processing (Bruner, 1957; 1958) and communicating, leading individuals to frequently engage in verbal aggression and to persistently hold aggression-related beliefs. As opposed to the single priming event, frequent priming is likely to have an effect on aggressive behaviors and beliefs that lasts some time after the final exposure to TV verbal aggression.

Factors influencing the accessibility of verbal aggressiveness

The chronic accessibility of aggression-related constructs and TV verbal aggression's priming effect on their accessibility and resulting subsequent aggressive behavior is likely to be influenced by individuals' traits, feelings, and experiences, as well as the specific TV content to which they are often exposed. For example, due to the frequent use of verbal aggression and its repeated activation of aggression-related constructs, persons who are high in trait verbal aggressiveness and those who lack argumentative and persuasion skills (and thus, tend to engage in verbal aggression) (Infante, 1987; Infante & Wigley, 1986; Infante, Trebing, Shepherd, & Seeds, 1984; Tedeschi, Smith, & Brown, 1974) are more likely than those low in trait verbal aggressiveness and those who possess argumentative and persuasion skills to have aggression-related constructs accessible prior to TV exposure. Similarly, feeling frustrated and angry, and being in a bad mood (Infante, Riddle et al., 1992; Infante et al.,

1984; Infante & Wigley, 1986) are also likely to bring to mind aggression-related constructs that may amplify and prolong the priming effects of exposure to verbally aggressive TV on aggression-related thoughts and behaviors.

The communication and behaviors that individuals regularly encounter in their daily lives are also expected to influence the accessibility of aggression-related constructs and subsequent aggression. Frequently receiving aggressive messages from others and witnessing the aggressive behaviors of others continuously primes aggression-related constructs in the minds of receivers, making these constructs chronically accessible. This chronic accessibility of aggression-related constructs should increase the ease with which exposure to verbally aggressive TV can activate aggressive thoughts and behaviors.

Behavioral outcomes of verbally aggressive primes

If verbally aggressive media content along with other factors does in fact prime people to behave in similarly aggressive ways, then we can make predictions regarding these priming effects. Specifically, we might expect that exposure to verbally aggressive TV content subsequently influences hostile beliefs and behaviors.

The spreading activation perspective implies that exposure to highly verbally aggressive TV content will activate thoughts related to verbal aggression in the minds of viewers. These primed thoughts will remain on the top of one's mind for a period following the exposure. Because these thoughts are mentally accessible during this time, it is expected that individuals will invoke them when forming beliefs and behaving toward others.

The current study examines the use of primed constructs related to verbal aggression in situations involving interpersonal conflict. Investigating verbal aggression as a conflict resolution strategy is important because, as previously described, using verbal aggression in conflict situations may escalate into physical aggression, a primary consideration of scholars and practitioners concerned with youth, school, relationship, and workplace violence (Allen & Lucero, 1998; Astor, Behre, Fravil, & Wallace, 1997;

Baron & Neuman, 1998; Cannon, 1999; DiMartino, 1998; Fatum & Hoyle, 1996; Garner, 1998; Infante et al., 1990; McGovern, 1999; O'Leary-Kelly, Griffin, & Glew, 1996; Shapiro, 1999; U.S. Department of Health and Human Services, 1991; Ward, 1998). Likewise, it is important that we identify outcomes that can result from verbally aggressive primes. As the spreading activation perspective suggests, exposure to verbally aggressive TV is likely to be one such factor.

The spreading activation perspective indicates that one of the most likely outcomes resulting from exposure to verbally aggressive TV is verbally aggressive behavior. Due to its semantic closeness with the TV content, exposure to verbally aggressive TV should bring to mind thoughts of verbally aggressive behaviors that will spread to tendencies toward engaging in verbal aggression (Berkowitz, 1984; Jo & Berkowitz, 1994). Specifically, thoughts of verbally aggressive behaviors will spread first, and with the most strength, to constructs that are most closely associated in semantic space with the verbally aggressive behavior observed. As such, we should expect that thoughts of verbally aggressive behavior, particularly the forms of verbally aggressive behaviors observed in the TV programming would be activated first. Thoughts of these particular forms of verbally aggressive behaviors will then spread with reduced strength to other types of verbally aggressive behavior and then to other constructs semantically related to verbal aggression.

For example, using categories based on work by Infante and colleagues, content analysis of family sitcoms by Martin et al. (1997) shows that these sitcoms contained an average of 30 verbally aggressive messages per hour (15 per episode), as compared to featuring only 0.65 physically aggressive acts per hour (0.33 acts per episode). The most common type of verbally aggressive message communicated was character attacks (43%), followed by competence attacks (20%), teasing (17%), threats (10%), physical appearance attacks (9%), and nonverbal emblems (1%). A spreading activation understanding of the impact of exposure to this type of content on outcome processes

might suggest that the character attacks prevalent in this type of content would first, and most strongly, activate thoughts related to this specific type of verbally aggressive behavior. These thoughts of character attacks might then spread with slightly less strength to other types of verbally aggressive behaviors, such as attacks on one's physical appearance, competence, and background, as well as swearing and teasing, because of their semantic closeness with character attacks. This spreading activation should continue to radiate out with reduced strength to thoughts of other semantically related behaviors, like acts of hostility, and then further with even less strength perhaps to various beliefs associated with hostility and aggression.

Applied specifically to a conflict situation, this reasoning suggests that after having recently viewed verbally aggressive TV, constructs related to these aggressive behaviors should be at the top of one's minds, and thus, are expected to be invoked when formulating behavioral responses to the conflict. Because of their accessibility, the activated verbal aggression constructs should facilitate the enactment of the verbally aggressive behaviors one uses to resolve the conflict. Beyond this, the activated constructs should influence various beliefs about aggression that one associates with the conflict situation and others involved in the conflict, further exasperating the situation.

Predicting verbally aggressive behavior. Both the logic of spreading activation as well as research investigating the effect of exposure to violent TV indicate that exposure to verbally aggressive TV should initiate processes that would radiate out to impact behaviors and beliefs associated with aggression. For example, exposure to physically violent TV has been associated with the willingness to use physical violence to solve one's own problems (Dominick & Greenberg, 1972; Greenberg, 1975) and to suggesting physically violent solutions to conflict situations (Greenberg, 1975). In addition, exposure to physically aggressive films has been linked with more intense verbal aggression in young boys (Sebastian, Parke, Berkowitz, & West, 1978; Wotring & Greenberg, 1973) and viewing aggressive TV content has been related to the more

frequent use of verbal aggression (Belson, 1978; Eron, 1982; Hapkiewicz & Stone, 1974; Leyens, Camino, Parke, & Berkowitz, 1975; McCarthy, Langner, Gersten, Eisenberg, & Orzeck, 1975; Milavsky, Kessler, Stipp, & Rubens, 1982; Paik & Comstock, 1994). Finally, viewing all types of television content (anti-social, pro-social, and neutral) has been related to higher frequencies of verbal aggression (Hearold, 1986; Joy, Kimball, & Zabrack, 1986) and the willingness to use violence (Hearold, 1986). Even though past investigations have not looked at verbally aggressive TV exposure and verbally aggressive behaviors in terms of priming or construct accessibility, spreading activation logic can be applied here to predict that exposure to specific verbally aggressive content should prime constructs leading to the use of this and other forms of verbally aggressive behavior. Consistent with logic from the previous example of exposure to sitcoms featuring verbal character attacks, the following hypotheses are proposed.

H1: In a conflict situation, individuals exposed to TV sitcoms high in character attacks will more frequently communicate character attacks than will individuals exposed to TV sitcoms lower in verbally aggressive messages, who will more frequently communicate character attacks than will individuals not exposed to TV sitcoms.

H2: In a conflict situation, individuals exposed to TV sitcoms high in character attacks will more frequently communicate other types of verbally aggressive messages than will individuals exposed to content lower in verbally aggressive messages, who will more frequently communicate other types of verbally aggressive messages than will individuals not exposed to TV sitcoms.

Hostile acts. Beyond its effect on verbal behavior, constructs activated by exposure to verbal aggression should radiate out to influence other behaviors. For example, Berkowitz (1965) found that in addition to its impact on verbal aggression, exposure to violent media content can impact acts of hostility. In this research, angered

participants showed more hostility immediately after exposure to a physically violent film clip than did those who viewed part of a non-violent film (Berkowitz, 1965). Similar effects of exposure to media violence have also been observed when hostility was not measured immediately after exposure. Zillmann and Weaver (1999) showed that participants were more hostile toward an experimenter one day after exposure to the last of four violent films. The spreading activation perspective suggests that Berkowitz's findings were due to violent media's temporary priming effect of hostility-related constructs, as participants demonstrated more hostility immediately after exposure to the media content. On the other hand, Zillmann and Weaver's results indicate a more permanent effect of viewing violent films on hostility. This effect is likely due to a more long lasting or "chronic accessibility" of violence-related constructs that resulted from repeated exposure to media violence. Regardless of the temporary or chronic nature of the aggression-related constructs' accessibility, the cognitive neoassociationistic perspective suggests that it is the accessibility of thoughts resulting from the violent media content that led participants to express hostility toward others.

Exposure to verbally aggressive TV is expected to impact the accessibility of hostility-related constructs and acts of hostility in much the same way. As previously discussed, after first priming verbally aggressive behaviors through exposure to verbally-aggressive TV, thoughts of verbally aggressive behaviors will spread with less strength to other types of aggressive behaviors and thoughts, such as acts of hostility toward another. The third hypothesis is therefore advanced.

- H3: In a conflict situation, individuals exposed to TV sitcoms high in verbal aggression will demonstrate more hostility toward another individual than will individuals exposed to TV sitcoms lower in verbal aggression, who will demonstrate more hostility toward another individual than will individuals not exposed to TV sitcoms.

Belief-related outcomes of verbally aggressive primes

In addition to influencing behaviors related to verbal aggression, viewing verbally aggressive TV is expected to affect one's beliefs that are semantically-related to verbal aggressiveness. The importance of studying such beliefs stems from their ability to provoke individuals to engage in potentially dangerous behaviors toward others. When an individual believes another person is hostile or that aggression is acceptable and effective in resolving conflicts, the individual is likely to respond to people with verbal or physical aggression (Infante, Hartley, Martin, Higgins, Bruning, & Hur, 1992). The aggressive response is likely to be reciprocated with physical violence or verbal aggression (which may then escalate into physical aggression) and a potentially dangerous cycle ensues.

Beliefs about others' hostility. A cycle like that described above might begin when exposure to verbally aggressive TV primes constructs of verbally aggressive behaviors and associated hostile acts. If verbal aggression and related thoughts at the top of one's mental bin are invoked in the processing of others' behavior, these behaviors are more likely to be interpreted through a frame causing persons to be deemed hostile.

Previously mentioned research on priming and homonyms supports this reasoning (e.g. Bushman, 1998). Additional research by Carver and colleagues (1983) demonstrated that exposure to a video containing hostility led respondents to subsequently rate an unrelated person as more hostile (Carver et al., 1983). While not framed in the priming and construct accessibility perspectives, the findings are certainly explainable from these perspectives. Here it would be suggested that exposure to the hostile video likely primed constructs related to hostility in the viewers' minds, making these constructs accessible, and leading them to be invoked in evaluations of others.

The spreading activation perspective suggests that similar relationships would exist between TV verbal aggression and related beliefs. Specifically, exposure to verbally aggressive TV would activate thoughts associated with verbal aggression, making verbal aggression thoughts accessible and likely to be used in interpreting the actions of others.

Thoughts related to verbal aggression would then radiate out to semantically-linked thoughts such as those concerning hostility and would influence judgements about others. Hypothesis four addresses this prediction.

H4: In a conflict situation, individuals exposed to TV sitcoms high in verbal aggression will believe another individual is more hostile than will individuals exposed to TV sitcoms lower in verbal aggression, who will believe another individual is more hostile than will individuals not exposed to TV sitcoms.

Beliefs about the acceptability and effectiveness of verbal aggression. A person's beliefs about the appropriateness and effectiveness of verbal aggression are likely to play an important role in determining the use of verbal aggression in conflict situations. The spreading activation perspective suggests that once exposure to verbally aggressive TV content begins to activate semantically-related ideas, this activation will continue to spread with reduced intensity to more remotely related thoughts. Potentially, this process could influence decisions about the appropriateness of verbal aggression and the extent to which it is effective in interpersonal situations. Because TV content individuals are exposed to can show heavy use of verbal aggression in varying circumstances, without negative consequences and perhaps with positive consequences, primed thoughts should bias decision processes toward the acceptability and effectiveness of verbal aggression. These accessible mental constructs should then be used passively and involuntarily by individuals forming beliefs related to verbal aggression's use in conflict situations. Hypotheses five and six address the relationships between exposure to TV verbal aggression and beliefs about verbal aggression:

H5: In a conflict situation, individuals exposed to TV sitcoms high in verbal aggression will express greater belief that verbal aggression is an acceptable means of resolving conflict than will individuals exposed to TV sitcoms lower in verbal aggression, who will express greater belief that

verbal aggression is an acceptable means of resolving conflict than will individuals not exposed to TV sitcoms.

- H6: In a conflict situation, individuals exposed to TV sitcoms high in verbal aggression will express greater belief that verbal aggression is an effective means of resolving conflict than will individuals exposed to TV sitcoms lower in verbal aggression, who will express greater belief that verbal aggression is an effective means of resolving conflict than will individuals not exposed to TV sitcoms.

Beliefs about the acceptability and effectiveness of physical aggression.

A person's beliefs about the appropriateness and effectiveness of physical aggression are also likely to play an important role in determining the use of verbal and physical aggression in conflict situations. For example, individuals who believe physical aggression is acceptable and effective in resolving conflicts may choose to forego both rational discussion and verbal aggression in favor of using physical violence in conflict situations. According to the spreading activation perspective, exposure to verbally aggressive TV content will activate semantically-related ideas and this activation will continue to radiate out with reduced intensity to more remotely related thoughts. Just as it is possible that this spreading activation could influence decisions about the appropriateness and effectiveness of verbal aggression in conflict situations, this process also has the potential to continue spreading even further and with less strength to more distant, but related, thoughts, such as those concerning the acceptability and effectiveness of physical aggression in conflict situations. Similarly, exposure to TV content portraying frequent and heavy use of verbal aggression in diverse circumstances, without negative consequences and sometimes with positive consequences, is likely to prime thoughts of physical aggression that is depicted in comparable ways. These primed thoughts should bias decision processes toward the acceptability and effectiveness of physical aggression. Individuals are then expected to passively and involuntarily invoke these accessible

mental constructs when forming beliefs related to the use of physical aggression in conflict situations.

Although not framed in terms of priming or construct accessibility, research on physical aggression has demonstrated findings consistent with these perspectives. It has been shown that high levels of exposure to media violence were related to positive attitudes toward aggression, the acceptance of violence as a way of life, higher tolerance of aggressive behavior (Rule & Ferguson, 1986) and approval of physical aggression in general (McIntyre, Teevan, & Hartnagel, 1972) and as a means to resolving conflict (McLeod, Atkin, & Chaffee, 1972). Research also indicates that exposure to violent TV and perceived effectiveness of using physical violence to solve problems were positively correlated (Dominick & Greenberg, 1972; Greenberg, 1975) as were exposure to all types of television content and beliefs concerning the effectiveness of aggression (Hearold, 1986). The spreading activation perspective suggests that exposure to verbally aggressive TV will produce similar effects on beliefs concerning physical aggression. Hypotheses seven and eight address the relationships between exposure to TV verbal aggression and beliefs about physical aggression:

H7: In a conflict situation, individuals exposed to TV sitcoms high in verbal aggression will express greater belief that physical aggression is an acceptable means of resolving conflict than will individuals exposed to TV sitcoms lower in verbal aggression, who will express greater belief that physical aggression is an acceptable means of resolving conflict than will individuals not exposed to TV sitcoms.

H8: In a conflict situation, individuals exposed to TV sitcoms high in verbal aggression will express greater belief that physical aggression is an effective means of resolving conflict than will individuals exposed to TV sitcoms lower in verbal aggression, who will express greater belief that

physical aggression is an effective means of resolving conflict than will individuals not exposed to TV sitcoms.

Long-term outcomes of verbally aggressive primes

While exposure to verbally aggressive TV content is expected to prime and temporarily increase the accessibility of aggression-related constructs immediately after exposure, it has been suggested that regular and frequent exposure to TV verbal aggression would make these constructs chronically accessible (Bushman, 1998). Therefore, repeated exposure to verbally aggressive TV content should have an effect on aggression-related constructs that lasts some time after the final exposure to TV verbal aggression.

Past research provides support for this supposition. Zillmann and Weaver (1999) found that participants who had viewed violent films for four consecutive days showed more hostility toward another person on the fifth day than did participants who viewed nonviolent films for the same four days. These results are consistent with the notion that prolonged exposure to media aggression makes aggression-related constructs chronically accessible, leading these constructs to influence behavior not only immediately after exposure, but for longer periods of time after exposure as well. Spreading activation and priming logic combined with the results of Zillmann and Weaver's study suggest that the relationship hypothesized between exposure to verbally aggressive TV content and aggressive behaviors and beliefs may be prolonged. However, the logical and empirical foundation for this suggestion is still in question. The following research question addresses this issue.

RQ: Do the effects of repeated exposure to TV sitcoms high in verbal aggression on aggressive behaviors and beliefs in a conflict situation remain for an extended period of time following exposure?

METHODS

Overview

Four weeks prior to the start of a lab experiment, participants completed a self-report trait verbal aggressiveness measure that was used to assess the extent to which trait verbal aggressiveness influences the relationships posited in the hypotheses and research question. Participants were recruited for participation in a lab experiment approximately three weeks thereafter. To create the high and low verbally aggressive TV exposure conditions for the lab experiment, four sitcoms were selected, content analyzed, and edited. Once in the lab, participants were exposed to the given sitcoms, verbally responded to TV reviews of the sitcoms, discussed a university policy issue with a confederate, and completed self-report surveys. Participants' verbal responses to the TV reviews and their communication during the discussion with the confederate were coded for the types and frequency of verbally aggressive messages. The self-report surveys were used to assess participants' hostile acts and beliefs and their beliefs about verbal and physical aggression. These measures served as the dependent measures in tests of the hypotheses and the research question.

Participants

Undergraduate students in a communication course at Michigan State University during the spring semester of 2000 were recruited for participation in this study. Using a procedure similar to that used by Zillmann and Weaver (1999), potential participants were told that the study involved watching and evaluating popular TV sitcoms on three consecutive days. A total of 152 individuals completed the pre-test of trait verbal aggressiveness. Of these 152 participants, 121 reported to the lab for at least one day, as did an additional seven other individuals who had not completed the pre-test. Thus, 128 individuals were exposed to at least two sitcoms and responded to at least two of the four TV critics' reviews. Of these 128 participants, 122 were exposed to all four sitcoms and

responded to the four critics' reviews over two consecutive days. The other six participants either did not participate both days or participated on two non-consecutive days; thus, their responses were dropped from analysis. Furthermore, the data obtained from two of the 122 participants were excluded from analysis (one participant was aware she had been videotaped and the other discerned the true purpose of the study), and the responses of nine additional participants were not able to be coded due to technical problems involved with the videotaping. Therefore, responses from 111 participants were included in statistical analyses of the critic responses. One hundred and four of these 111 participants completed the trait verbal aggressiveness pre-test.

Of the 122 participants who performed all four critic responses, 114 engaged in the discussion task, while eight experienced scheduling problems that prevented their participation. Of the 114 participants in the discussion task, seven had to be dropped from analysis. Three of these seven knew the discussion topic was phony, two were acquainted with the confederate, one discerned the study's true purpose, and one was aware she had been videotaped. The remaining 107 individuals provided self-report data that was employed in analyses of the measures of hostile acts and beliefs related to hostility and aggression. Ninety-nine of these 107 participants completed the trait verbal aggressiveness pre-test. The behavior of ten of these 107 individuals could not be coded for verbal aggression due to technical difficulties associated with the videotaping. Therefore, analyses involving communication during the discussion task were performed on the behavior of the remaining 97 participants. Ninety-one of these 97 participants completed the pre-test of trait verbal aggressiveness.

Of the 107 individuals who actually participated in every phase of the experiment, 49 (71% female) participated in one of the immediate conditions: 15 in the highly verbally aggressive sitcom condition, 19 in the low verbally aggressive sitcom condition, and 15 in the control condition. Fifty-eight individuals (54% female) participated in one of the delayed conditions: 19 in the highly verbally aggressive sitcom condition, 17 in the

low verbally aggressive sitcom condition, and 22 in the control condition. Eighty-nine percent of the participants were White, 7% were African-American, 1% was Latino/a, 1% was Asian-American, and 2% indicated they were of another race. The average age of the participants was 21.4 years, with an average family household income of \$58,000.

Participation in this study or participation in a writing activity was a course requirement for which minimal course credit was granted. The lab experiment took place outside of the participants' regularly scheduled class times.

Experimental procedures

A 2 X 3 factorial design examined the impact of exposure to TV verbal aggression (high, low, control) and time of measurement (immediate or delayed) on beliefs and behaviors involving aggression. Participants were randomly assigned to one of six conditions: (1) highly verbally aggressive TV/same day task; (2) highly verbally aggressive TV/next day task; (3) low verbally aggressive TV/same day task; (4) low verbally aggressive TV/next day task; (5) no TV exposure/same day task; or (6) no TV exposure/next day task. Participants in the treatment groups were exposed to two TV sitcoms in groups of two (though logistics warranted occasional viewing in groups of three participants) each day for two consecutive days, usually at the same time each day. On the days in which the discussion task was performed, one confederate viewed along with each two-person group. The TV programs were viewed on a Mitsubishi model # VS-50501 50-inch color TV in a lab setting. Participants in the control groups read descriptions of the TV sitcoms rather than viewing the sitcoms.

On each of the first two days, immediately after exposure to each TV sitcom, participants completed the sitcom evaluation survey. Participants in the control groups were told that the videotapes they were supposed to have watched that day were not ready for viewing. These participants were provided brief written descriptions of the sitcoms and completed the sitcom evaluation survey. These measures served to maintain

the participants' belief that the study was concerned with watching and evaluating popular TV programs.

Immediately after exposure to and evaluating the sitcoms, on each of the first two days, the experimenter told the two participants in the sitcom viewing group that they would now be separated to answer questions about the given sitcoms in private. The experimenter then escorted one of the participants to a separate room across the hall.

Participants first read a review of the sitcom they had viewed (or read about) first that day. The experimenter then asked the participant, "If you had the opportunity to respond to that critic, what would you say to him/her?" While the experimenter jotted down the participant's responses in a notebook, the responding participant was videotaped from behind a one-way mirror. When the participant appeared to have finished responding, the experimenter asked, "Anything else?" to make sure that the participant had indeed completed his/her response. The experimenter then gave the participant a TV critic's review of the second sitcom (s)he had viewed (or read about) that day and the question-response process was repeated. On the first day of the study, the participants were then dismissed. On the second day of the study, half the participants remained to perform the discussion task, while the other half was dismissed to return on the third day to perform the discussion task.

After viewing (or reading about) and evaluating the sitcoms and after responding to the TV critics on day two, or upon arrival on day three to the experiment location (depending on the given condition), the experimenter explained to the participants and confederate that enough data had been collected for the TV study and that they could participate in another study in order to obtain their full participation credit. The experimenter then explained that this substitute study was a partner task. The experimenter paired one participant with a confederate and escorted that pair into a room across the hall in which no one else was present. The other participant remained in the first room. The experimenter asked the confederate and participant to sit at a pre-arranged

table that had two chairs facing one another, located approximately four feet apart. A written description of the proposal to require comprehensive exams for graduation and a short history of the proposal were placed face down on top of the table prior to the experimenter's escorting the participant and confederate into the room. After the participant and confederate were seated, the experimenter introduced the study and told them that their opinions would be considered by the university's board of trustees in making its decision on the proposal at its next meeting. The experimenter then instructed them to read the paper on their desks and to decide their positions on the topic. The experimenter told them that when the participant was ready, (s)he was to communicate his/her position on the topic to the confederate and the confederate was to respond with his/her position. The experimenter instructed the participant and confederate that (s)he would be leaving the room to check on the other participant and that they were to discuss the topic until (s)he returned to the room and administered some questionnaires. The experimenter then reminded the participant to begin when (s)he was ready and asked if there were any questions. The experimenter exited the room, leaving the participant and confederate alone in the room during the execution of the task.

The experimenter then started videotaping the participant and confederate through a one-way mirror. Two minutes after the participant's first spoken word, the experimenter re-entered the room and asked the participant and confederate to stop discussing the topic. The experimenter told them that they needed to answer some questions related to the board of trustee's proposal and that they would need to complete a few short questionnaires about their discussion, but that they would answer these questions in private.

The experimenter then escorted the confederate back into the first room where the second participant had been waiting, and explained the discussion task to them just as she had done with the first participant and the confederate. These two were then left alone to discuss the proposal. Again, the experimenter videotaped the discussion between the

participant and confederate through a one-way mirror. Two minutes after the participant's first spoken word the experimenter re-entered the room and stopped the conversation. Just as she had done previously, the experimenter told this participant and the confederate that they had to answer some questions related to the board of trustee's proposal and that they had to complete a few short questionnaires about their discussion. The experimenter also told this pair that they would answer these questions in private and then she escorted the confederate out of the room.

While seated in two separate rooms, the participants completed the hostile acts measure and the beliefs about hostility scale, the beliefs about the acceptability and effectiveness of verbal and physical aggression measures and the measure of support for the proposal the participants had discussed. The support for the proposal questionnaire served only to maintain the participants' belief that the study concerned their opinions about the proposal. (Appendix A contains the items for this scale.) After the participant had completed all the scales, the experimenter attempted to discern participant suspicion in the study's true purpose and then debriefed the participant. All responses from participants who had discerned the study's true purpose ($n = 1$), who were aware of the bogus university policy issue ($n = 3$), or who realized that they were being videotaped ($n = 1$) were dropped from analysis. Participants were informed that their discussion with the confederate was videotaped, as were their previous discussions with the experimenter regarding the TV critics. Every participant's permission to use the videotapes for the present study was then secured. The experimenter asked the participants not to discuss the details of the study with other participants. Finally, the participants were granted their course credit and dismissed. The script for the experimental procedure appears in Appendix B.

Manipulation of TV verbal aggression

The TV programs participants were exposed to were selected to maximize the differences in the verbal aggressiveness of the episodes without maximizing the

differences in the likability and realism of the episodes. Because sitcoms have been shown to contain a great deal of verbal aggression (Martin et al., 1997; Potter & Vaughn, 1997) and because they are popular with viewers (Nielsen Media Research, 2000), four different sitcoms served as the TV content. The commercials were deleted from every sitcom episode. A highly verbally aggressive episode and a low verbally aggressive episode of each of the following four sitcoms (a total of eight different episodes--two per sitcom) were selected or created through editing: *Friends*, *Frasier*, *Just Shoot Me*, and *Will & Grace*. All four sitcoms aired during prime-time in February and/or March of 2000 on NBC.

One female graduate student and one female undergraduate student coded the sitcoms for verbal aggression. The coders were trained in recognizing types of verbal aggression and practiced coding sitcom material not contained in the final sample. To assess intercoder reliability, the coders coded two half-hour sitcoms that were not used for practice coding or in the actual lab study. These two sitcoms were transcribed, with the characters' dialogue broken down into statements. A *statement* was defined as a continuous stream of words and/or vocal utterances spoken by one TV character. One character's statement ended and a second character's statement began when that second character began speaking. The two sitcoms used in training contained 500 individual statements. The coders watched the sitcoms, following along with the transcript, and coded each statement as containing verbal aggression or not. Each statement coded as containing verbal aggression was then classified according to the type of verbal aggression it contained. (See Appendix C for the 12 types.) Using Potter and Levine-Donnerstein's (1999) adapted version of Scott's pi, in which the percentage of agreement expected by chance is computed using the normal approximation to the binomial distribution, interrater agreement between the two coders on categorizing a statement as verbally aggressive or not was .93 with a Scott's pi of .86. The interrater agreement on

classifying the verbally aggressive statements into type of verbal aggression was .82 with a Scott's pi of .80.

After this level of interrater reliability had been established, two episodes of each of the four sitcoms used in the lab study were transcribed and coded in the same way by both of the coders. When a disagreement among the coders occurred, a third (and if necessary, fourth) coder was used to settle the disagreement. Both episodes of each of the sitcoms contained roughly the same amount of verbal aggression. Therefore, verbally aggressive segments were edited out of one episode of each sitcom. The content removed was not pertinent to the storyline, nor did it interfere with the flow of the dialogue.

The highly verbally aggressive episodes had a mean length of 21 minutes, containing 39 verbally aggressive messages, for a rate of 1.9 verbally aggressive messages per minute of actual sitcom programming. The low verbal aggression episodes had a mean length of 15.4 minutes, containing a mean of 16 verbally aggressive messages per episode, for a rate of 1.0 verbally aggressive message per minute. Thus, the ratio of verbal aggression between the high and low sitcom conditions was approximately two to one. The most common verbal aggression type in both the high and low conditions was character attacks (29 character attacks across the high episodes and 11 across the low episodes). Within each sitcom other than *Just Shoot Me*, character attacks were also the most common type of verbal aggression. *Just Shoot Me* contained seven character attacks and eight competence attacks. Table 1 contains the breakdown of the verbal aggression types contained in each sitcom episode.

Table 1. Frequency of verbal aggression per sitcom episode by type of verbal aggression.

		Character Attacks	Competence Attacks	Background Attacks	Physical Appearance Attacks	Dislike
Sitcom	Condition					
<i>Friends</i>						
	High VA	2	7	0	0	1
	Low VA	6	1	0	0	0
<i>Frasier</i>						
	High VA	9	1	0	0	7
	Low VA	1	5	0	0	0
<i>Just Shoot Me</i>						
	High VA	7	8	5	2	1
	Low VA	2	1	0	0	0
<i>Will & Grace</i>						
	High VA	11	5	5	6	5
	Low VA	2	3	0	9	1
Total						
	High VA	29	21	10	8	14
	Low VA	11	10	0	9	1

		Demand	Rejection	Swearing	Threat
Sitcom	Condition				
<i>Friends</i>					
	High VA	4	3	6	0
	Low VA	1	0	0	4
<i>Frasier</i>					
	High VA	1	0	3	1
	Low VA	5	2	0	0
<i>Just Shoot Me</i>					
	High VA	5	3	4	2
	Low VA	1	1	2	0

Table 1 (cont'd).

<i>Will & Grace</i>					
	High VA	8	1	1	2
	Low VA	2	0	1	1
Total					
	High VA	18	7	14	5
	Low VA	9	3	3	5
		Mocking	Sarcasm	Malediction	Total
Sitcom					
Condition					
<i>Friends</i>					
	High VA	3	7	0	33
	Low VA	2	2	0	16
<i>Frasier</i>					
	High VA	5	4	0	31
	Low VA	1	3	0	17
<i>Just Shoot Me</i>					
	High VA	1	3	0	41
	Low VA	0	0	0	7
<i>Will & Grace</i>					
	High VA	2	5	0	51
	Low VA	1	3	0	23
Total					
	High VA	11	19	0	156
	Low VA	4	8	0	63

Potter and his colleagues' content analyses of prime-time sitcoms airing in 1994 (Potter & Warren, 1996, 1998; Potter & Vaughn, 1997) indicate that approximately 16 to 21 acts of verbal aggression (e.g. verbal hostility, rejection of others, threats, resentment, malicious remarks, cursing, and criticizing) occurred per 30 minute sitcom. Defining verbal aggression in the same way, the high verbal aggression sitcom episodes used in the present study contained an average of 26 verbally aggressive messages per sitcom, while the low verbal aggression sitcom episodes contained a mean of 12 verbally aggressive messages per 30 minute sitcom. Thus, the high and low verbal aggression sitcoms used in the present study appear to actually contain higher and lower levels of verbal aggression, respectively, when compared to the mean level of verbal aggression found in this genre of TV programming.

Participants in the highly verbally aggressive TV conditions viewed two highly verbally aggressive episodes of two different sitcoms each of the first two days of the study, while participants in the low verbally aggressive TV conditions viewed two low verbally aggressive episodes of the same two sitcoms. The control group participants read descriptions of the sitcoms in place of viewing the sitcoms. These descriptions were retrieved from NBC's website and contained a black and white photo of the sitcom's cast. (Appendix D contains the control groups' sitcom descriptions.) The order of sitcom presentation was rotated across all conditions to control for the effect that could result from exposure to one unique final sitcom.

Manipulation of time

The aggressive behaviors and beliefs of the participants were measured either immediately after exposure to the TV sitcoms or the day following exposure. Individuals in the immediate condition participated in the experiment for two days, while those in the delayed condition participated for three days. Both the immediate and delayed conditions viewed the TV sitcoms and responded to the TV critics' reviews on the first and second days. However, participants in the immediate condition also engaged in the discussion

task and completed the self-report measures of the dependent variables following their responses to the TV critics' reviews on the second day. Participants in the delayed condition engaged in the discussion task and completed the self-report measures of the dependent variable upon arrival to the lab on a third day.

Pre-test of trait verbal aggressiveness

Participants' trait verbal aggressiveness was assessed by the 20 item self-report Verbal Aggressiveness Scale (Infante & Wigley, 1986). Sample items include, "I am extremely careful to avoid attacking individuals' intelligence when I attack their ideas" and "If individuals I am trying to influence really deserve it, I attack their character." Participants indicated their endorsement of items such as these on a five-point Likert-type scale with responses ranging from strongly disagree to strongly agree. Higher scores represented a higher level of trait verbal aggressiveness. Two of the original 20 items were dropped from further analysis because they were shown to be negatively correlated with other items in the scale. A confirmatory factor analysis of the remaining 18 items was then conducted in which tests of homogeneity (internal consistency) indicated that only 6.54% of all residual errors (computed by comparing the predicted and observed inter-item correlations) exceeded sampling error. All 18 items were retained. The standard item alpha of the scale was .84. The mean on the trait verbal aggressiveness scale was 43.29 with a standard deviation of 10.46. The maximum score obtained was 77 (out of a possible maximum of 90), while the minimum score on the scale was 23. (Appendix E contains the Verbal Aggressiveness Scale items and factor loadings.)

Verbally aggressive behavior

Participants' communication during two tasks executed in the lab served as the behavior examined for verbal aggression. Participants' responses to the fictional TV critics and their discussions with the confederate about the university proposal were videotaped, transcribed, and coded for verbal aggression frequency and types of verbal aggression.

Responses to TV critics. One measure of verbally aggressive behavior required participants to read and to respond to fictional TV critics who had made statements about the given sitcom or sitcom characters. Participants responded to the critics by telling the experimenter what they would have said to the critics if they had had the opportunity to respond to the critics about the TV reviews. Each TV sitcom review contained a black and white photo of the given critic along with statements about the program and characters featured in each sitcom. The reviews were formatted so that they resembled articles retrieved from the *Infotrac* databases accessed through the university's website. Fictitious names of the critics appeared with their photos, though no title of the publication source was provided. Because the sitcoms to which participants were exposed were selected in part for their popularity with the participant population, the critics' statements contained comments about the programs' or programs' characters' lack of popularity, appeal, or likability among the participant population (i.e. among 18 to 25 year olds). The fictional critics' statements were designed to be at odds with the opinions of the participants so as to elicit an opposing opinion from the participants. (Appendix F contains the critics' reviews.)

The discussion task. To assess the effect of exposure to verbally aggressive TV on aggressive behavior in conflict situations, participants engaged in a discussion with a confederate on a proposal said to be under consideration by their school's board of trustees that would require all students to pass a comprehensive exam in order to graduate. Although no such proposal actually existed at the participants' university, the topic was expected to be salient for undergraduate students and to be fairly easy for students to think of arguments supporting or opposing such a proposal. Participants were told that the discussion task was part of a university-wide assessment of undergraduate students' opinions on the proposal, and that their views would be considered by the university's board of trustees in making its decision on the proposal at its next meeting. (Appendix G contains the proposal read by the participants.)

The confederates. Five female and one male undergraduate student served as confederates in the study. The confederates were trained to state and defend all foreseeable positions on the controversial topic. In all conditions, the confederate disagreed with the participant's position on the controversial topic. The confederate countered statements made by the participant with an opposing argument or point of view. In the case that the confederate was stumped by the participant's arguments, the confederate simply said, "I disagree," "I don't know," and/or posited another opposing argument. At no time were the confederates to communicate verbally aggressive messages to the participant. Confederates were instructed not to engage in verbal aggression because the study was designed to assess the priming effect of verbally aggressive TV on verbally aggressive behavior in situations in which verbal aggression is not warranted. The confederate remaining argumentative and topic-focused frames the discussion as a rational disagreement in which verbal aggression is not initiated. Appendix H contains the arguments used by the confederates during this discussion task.

The coding. As previously mentioned, participants' responses to the fictional TV critics and to the confederate during the discussion task were videotaped and then transcribed to aid in the coding of the responses. Participants' responses to the four fictional TV critics and their communication during the two-minute discussion task period were coded for the *frequency of verbally aggressive messages* and the *types of verbal aggression*.

Each independent thought expressed by the given participant served as the unit of analysis for the frequency and types of verbal aggression measures. Each independent thought was classified as verbally aggressive or not, and each statement that was classified as verbally aggressive was then categorized according to the type of verbally aggressive message it contained. The types of verbally aggressive messages included Infante and Wigley's (1986) message types and items adapted from Joy et al.'s (1986) checklist of verbally aggressive behaviors. The 12 types of verbal aggression coded were

swearing, rejection, dislike, sarcasm, competence attacks, character attacks, background attacks, physical appearance attacks, threats, maledictions, demands, and mocking.

Coders. Three female undergraduate students served as coders of the participants' behaviors for the present study. These coders were trained for approximately ten hours on the verbal aggression construct and behaviors and the judging procedure. To assess interrater reliability, the coders coded a total of 130 statements made by participants representing every combination of sitcom and TV verbal aggression level, as well as every combination of discussion task and TV verbal aggression level. The behaviors of participants coded during the training period were not included in the final sample of participant behaviors that were analyzed.

Since three coders were used to rate verbal aggression, a version of Cohen's kappa (Potter & Levine-Donnerstein, 1999) appropriate for situations with more than two coders was employed as the index of interrater reliability. The percent agreement among the coders in classifying an independent thought as verbally aggressive or not was 84% with a kappa of .78. The percent agreement among coders in categorizing the verbally aggressive statements according to the type of verbal aggression was 89% with a kappa of .89 as well. After these levels of interrater reliability were reached, each of the judges, blind to the experimental conditions, independently coded approximately one-third of the participants' videotaped behaviors for the frequency and types of verbally aggressive communication.

Descriptive statistics for verbally aggressive behavior. The number of verbally aggressive messages communicated during the discussion task ranged from zero to seven with a mean of 1.01 ($SD = 1.32$), and the number of verbally aggressive messages communicated across all four critic responses ranged from zero to 15 with a mean of 1.77 ($SD = 2.08$). The most common type of verbal aggression expressed during the discussion task was competence attacks, with a mean of 0.35 per discussion ($SD = .63$), while the most common type of verbally aggressive message communicated in the critic

responses was character attacks, which occurred with a mean frequency of 0.76 across all four critic responses (SD = 1.17). Neither the critic responses nor the discussion task contained any physical appearance attacks, maledictions, or sarcasm. Table 2 contains a summary of the frequency of verbal aggression types communicated across the critic responses and the discussion task.

Table 2. Descriptive statistics for verbally aggressive behavior measures by type of verbal aggression.

Verbal Aggression Type	Across Four Critic Responses			Discussion Task		
	Mean	N	(SD)	Mean	N	(SD)
Competence Attacks	0.41	45	(0.80)	0.35	34	(0.63)
Character Attacks	0.76	84	(1.17)	0.18	17	(0.46)
Dislike	0.51	57	(1.03)	0.20	19	(0.53)
Rejection	0.05	5	(0.31)	0.07	7	(0.30)
Mocking	0.01	1	(0.09)	0.01	1	(0.10)
Demand	0.01	1	(0.09)	0	0	
Background Attacks	0.03	3	(0.16)	0	0	
Swearing	0	0		0.19	18	(0.53)
Threat	0	0		0.01	1	(0.10)
Sarcasm	0	0		0	0	
Malediction	0	0		0	0	
Physical Appearance Attacks	0	0		0	0	
ALL TYPES	1.77	196	(2.08)	1.01	97	(1.32)

Note: For the critic responses n = 111; for the discussion task n = 97

Self-report dependent measures

To determine the internal consistency of the various self-report measures used in this study, items on each scale were subjected to confirmatory factor analyses involving tests of homogeneity (internal consistency) and heterogeneity (parallelism). Parallelism tests were conducted among the approval and effectiveness of verbal and physical aggression scales and between the hostile acts and beliefs scales. All scales met the criteria set forth by these tests. Standard item alpha served as the index of reliability for the scales. Table 3 contains the factor loadings and reliabilities for the self-report measures. Table 4 contains the descriptive statistics for the self-report measures.

Table 3. Standard item alphas per self-report dependant variable measure and factor loading by scale item for each measure.

Scale (Standard Item Alpha) Item	Factor Loading
<u>Hostile Acts (.77)</u>	
I would like to talk about other issues with this person in the future.*	.57
The person I discussed the MSU proposal with was very smart.*	.32
The person I talked with was not very good at defending their position.	.45
If I had a choice, I would not want to work on a class project with this person.	.72
I would not mind having this person in a class with me.*	.52
This person presented their opinions very well.*	.68
I would never work for a person like the one I discussed the MSU proposal with.	.67
The person I talked with was not very informed about the issues involved with the MSU proposal.	.40
<u>Hostile Beliefs (.84)</u>	
The person I discussed the MSU comprehensive exam proposal with was friendly.*	.68
The person I discussed the MSU comprehensive exam proposal with was kind.*	.72
The person I discussed the MSU comprehensive exam proposal with was thoughtful.*	.62
The person I discussed the MSU comprehensive exam proposal with was likable.*	.80

Table 3 (cont'd).

The person I discussed the MSU comprehensive exam proposal with was hostile. .58

The person I discussed the MSU comprehensive exam proposal with was considerate.* .71

Approval of Verbal Aggression (.78)

It's ok to tell a person you hope something bad will happen to them if they don't agree with you. .48

Swearing at another person is justified when that person swears at you first. .66

Making fun of someone is appropriate if the person has said something stupid. .71

There's really nothing wrong with saying mean things to someone when you are arguing with them. .51

Attacking someone's self-concept is justified when you strongly disagree with what someone says. .89

Effectiveness of Verbal Aggression (.65)

Attacking someone's character is the best way to settle an argument once and for all. .47

Sometimes swearing at a person will make them do what you want. .64

When someone says something you don't agree with, yelling at them never gets them to change their mind.* .37

Threatening a person is an effective way to win an argument. .52

Telling someone they don't know what they're talking about is sometimes the best way to end a conflict. .62

Table 3 (cont'd).

Approval of Physical Aggression (.83)

Pushing someone is never the right thing to do in an argument.*	.54
Slapping someone is appropriate if the person has said something stupid.	.92
Beating someone up is justified when you strongly disagree with what someone says.	1.00
Punching another person is justified when that person punches you first.	.29
It's ok to hit a person if they don't agree with you.	.85

Effectiveness of Physical Aggression (.80)

Hitting someone rarely gets them to back down in a disagreement.*	.30
Sometimes a fist fight is the easiest way to get what you want.	.74
Sometimes shoving a person will make them do what you want.	.75
Beating someone up is an effective way to win an argument.	.75
Physically fighting with a person occasionally gets them to see things your way.	.58
When someone says something you don't agree with, a fist fight never gets them to change their mind.*	.44
A physical fight is the best way to settle an argument once and for all.	.72

*Item is to be reverse coded

Table 4. Descriptive statistics for the self-report outcome measures.

Measure	N	Mean	SD	Min	Max	Potential Max
Hostile Acts	107	17.21	3.76	9	31	40
Hostile Beliefs	107	11.70	2.85	6	20	30
Approval of Verbal Aggression	107	8.38	2.83	5	19	25
Effectiveness of Verbal Aggression	107	9.47	2.77	5	17	25
Approval of Physical Aggression	107	7.80	2.57	5	15	25
Effectiveness of Physical Aggression	107	11.61	3.62	7	24	35

Hostile acts. Participants' hostility toward the confederate were assessed by having them indicate their preference for interacting with the confederate in the future and by having them rate the confederate's performance using methods from previous studies to assess participants' hostility toward others (Berkowitz, 1965; Zillmann & Weaver, 1999). Participants rated the confederate on an eight item five-point Likert-type scale with responses ranging from strongly disagree to strongly agree. Sample items included "I would like to talk about other issues with this person in the future" and "The person I discussed the MSU proposal with was very smart." Higher scores indicated more hostility by the participants. A confirmatory factor analysis was conducted in which tests of homogeneity (internal consistency) revealed that only 7.14% of all residual errors exceeded sampling error. All eight items were therefore retained. The standard item alpha of the scale was .77. The mean score on the acts of hostility scale was 17.21 with a standard deviation of 3.76. The maximum score was 31 (out of a possible maximum score of 40), while the minimum score was nine.

Hostile beliefs. Respondents' beliefs about the confederate's hostility were measured by a five-point Likert-type scale with responses ranging from strongly disagree to strongly agree. The items contained in the measure were those adapted from Srull and Wyer (1979) by Carver et al. (1983). Participants rated the confederate's behavior on six dimensions of hostility: hostility, friendliness, likability, kindness, consideration, and thoughtfulness and on six dimensions unrelated to hostility (selfishness, intelligence, narrow-mindedness, dependability, and how boring and interesting the confederate was). Higher scores indicated believing that the confederate was more hostile. The six hostility items were subjected to a confirmatory factor analysis in which tests of homogeneity (internal consistency) showed that none of the residual errors exceeded sampling error. All six of these items were therefore retained. The standard item alpha of this scale was .84. The mean score on the beliefs of hostility scale was 11.70 with a standard deviation of 2.85. The maximum score obtained was 20 (out of a possible maximum score of 30), while the minimum score was six.

Approval of verbal aggression. Participants' belief that verbal aggression is an acceptable means of resolving conflict was assessed by a five item self-report measure adapted from McLeod et al.'s (1972) measure of approval of aggression and Martin, Anderson, and Horvath's (1996) measure of justification for engaging in verbal aggression. The scale used in the current study presents conditions under which verbal aggression may be used. Sample conditions included "It's ok to tell a person you hope something bad will happen to them if they don't agree with you." and "Attacking someone's self-concept is justified when you strongly disagree with what someone says." Participants indicated their approval of such statements on a five-point Likert-type scale with responses ranging from strongly disagree to strongly agree. Higher scores represented greater belief that verbal aggression is an acceptable means of resolving conflict. A confirmatory factor analysis of the five items indicated that they comprised an internally consistent scale. Tests of homogeneity (internal consistency) indicated that

only 10% of all residual errors exceeded sampling error. All five items were thus retained, yielding a standard item alpha of .78 for the approval of verbal aggression measure. The scale's mean score was 8.38, with a standard deviation of 2.83. The maximum score obtained was 19 (out of a possible maximum score of 25), and the minimum score was five.

Effectiveness of verbal aggression. Participants' belief that verbal aggression is an effective means of resolving conflict was measured by a five item self-report scale adapted from Dominick and Greenberg (1972) and Greenberg (1975). Sample items included "Threatening a person is an effective way to win an argument" and "Attacking someone's character is the best way to settle an argument once and for all." Participants indicated their endorsement of items such as these on a five-point Likert-type scale with responses ranging from strongly disagree to strongly agree. Higher scores represented greater belief in the effectiveness of verbal aggression as a means to solve interpersonal conflicts. A confirmatory factor analysis was conducted on the five items in which tests of homogeneity (internal consistency) revealed that none of the residual errors exceeded sampling error. All five items were therefore retained. The standard item alpha of the effectiveness of verbal aggression scale was .65. The scale's mean was 9.47 with a standard deviation of 2.77. The maximum score on the scale was 17 (out of a possible maximum of 25) and the minimum score was five.

Approval of physical aggression. Participants' belief that physical aggression is an acceptable means of resolving conflict was assessed by a five item self-report measure adapted from McLeod et al.'s (1972) measure of approval of aggression and Martin et al.'s (1996) measure of justification for engaging in verbal aggression. The scale used in the current study presents conditions under which physical aggression may be used. Sample conditions included, "Punching another person is justified when that person punches you first" and "It's ok to hit a person if they don't agree with you." Participants indicated their approval of such statements on a five-point Likert-type scale with

responses ranging from strongly disagree to strongly agree. Higher scores represented greater belief that physical aggression is an acceptable means of resolving conflict. A confirmatory factor analysis was conducted in which tests of homogeneity (internal consistency) showed that only 10% of all residual errors exceeded sampling error. All of the scale items were therefore retained. The standard item alpha of this scale was .83. The mean score on the approval of physical aggression scale was 7.80 with a standard deviation of 2.57. The maximum score was 15 (out of a possible maximum score of 25), while the minimum score was five.

Effectiveness of physical aggression. Participants' belief that physical aggression is an effective means of resolving conflict was measured by a seven item self-report scale adapted from Dominick and Greenberg (1972) and Greenberg (1975). Sample items included "Beating someone up is an effective way to win an argument" and "Physically fighting with a person occasionally gets them to see things your way." Participants indicated their endorsement of items such as these on a five-point Likert-type scale with responses ranging from strongly disagree to strongly agree. Higher scores represented greater belief in the effectiveness of physical aggression as a means to solve interpersonal conflicts. A confirmatory factor analysis was conducted in which tests of homogeneity (internal consistency) indicated that only 4.76% of all residual errors exceeded sampling error. All seven items were retained. The standard item alpha of the scale was .80. The mean on the effectiveness of physical aggression scale was 11.61 with a standard deviation of 3.62. The maximum score obtained was 24 (out of a possible maximum of 35), while the minimum score on the scale was seven.

Additional self-report measure: Evaluation of sitcoms

Participants' evaluation of the sitcoms and the sitcoms' characters they were exposed to and their past viewing of the sitcoms were measured by 20 self-report items (10 items for the control conditions). Sample items included, "I really like watching [the sitcom]" and "[Character X] was very funny in the episode of [the sitcom] I just

watched." Participants in the control condition only responded to the ten questions that dealt with the program in general because they did not view or read about a particular episode. Participants indicated their endorsement of items on a five-point Likert-type scale with responses ranging from strongly disagree to strongly agree. Higher scores represented a higher evaluation of the sitcom and its characters. The standard item alphas of the scales ranged from .64 to .93 with a mean of .83. Appendix I contains the scale items and the standard item alphas for the scales.

Twelve oneway analyses of variance with TV exposure condition (high, low, and control) as the independent variable were run using outcome measures of liking and enjoyment of the sitcoms in general, liking and enjoyment of the given episodes of the sitcoms viewed, and the realism of the sitcoms in general on each of the four sitcoms. These tests were run in order to show that participants in the high, low, and control conditions did not differ in terms of how much they liked and enjoyed the four sitcoms in general or the given episodes of the four sitcoms they viewed, nor that they differed in their assessments of the realism of the four sitcoms. Appendix J contains the results of these ANOVA's.

None of the 12 ANOVA's produced statistically significant differences among the high, low, and control TV verbal aggression groups on any of the sitcom evaluation measures. Because the three TV verbal aggression groups did not differ in their evaluations of the sitcoms, factors such as liking, enjoyment, and perceptions of realism concerning the sitcoms were ruled out as potential causes of any effects that may have been observed in tests of the hypotheses or investigation of the research question. Furthermore, because the sitcom exposure groups did not differ in their evaluations of the sitcoms, statistically controlling for the effects of liking, enjoyment, and beliefs about sitcom realism was deemed unnecessary.

RESULTS

Hypotheses and research question

Because the discussion task involved interacting with one of six confederates and subsequent measures involved beliefs associated with this interaction, it is possible that the given confederate influenced the verbally aggressive behaviors during the task as well as the responses on the self-report measures. To test this possibility, oneway analysis of variance (ANOVA) was run on measures of verbal aggression during the discussion. Confederate condition served as the independent variable. Results of the analysis show a significant difference in total number of verbally aggressive messages communicated across the six confederates ($F [5, 91] = 3.79, p < .05$). This outcome suggests the need to control for the impact of confederate condition on tests involving discussion task verbal aggression. Since outcome measures of hostile acts and beliefs and beliefs concerning aggression came after the discussion task, confederate condition was considered a threat to analyses on these variables as well. Therefore, in order to control for the confederates' impact, analyses of covariance (ANCOVA), with the confederate serving as the covariate, were conducted for tests involving outcome measures on hostile acts and beliefs, beliefs about aggression, and verbal aggression used in the discussion task. Analysis of variance was used on tests of the critic response measures.

To simultaneously test the eight hypotheses looking for an overall impact from exposure to verbal aggression as well as the research question considering a possible interaction between exposure to verbal aggression and time of measurement, 2 X 3 ANCOVA and ANOVA were conducted on all outcome measures. Main effects for TV verbal aggression exposure (high, low, or control) were inspected to test the eight hypotheses, while interaction effects between TV verbal aggression exposure and time of measurement (immediate or delayed) were inspected to address the research question. In

sum, no significant differences were observed on any outcome measure. No support was found for any of the eight hypotheses or the research question.

Types of verbally aggressive behavior. The first hypothesis predicted that individuals exposed to TV sitcoms high in character attacks would more frequently communicate character attacks than would individuals exposed to TV sitcoms lower in verbally aggressive messages, who would more frequently communicate character attacks than would individuals not exposed to TV sitcoms. A 2 X 3 ANOVA conducted with the number of character attacks communicated during responses to the critics showed no main effect for verbally aggressive TV exposure ($F [2, 105] = 0.04, p > .05$), no main effect for time of measurement ($F [1, 105] = 0.00, p > .05$), and no interaction effect between TV verbal aggression exposure and time of measurement ($F [2, 105] = 0.64, p > .05$). A 2 X 3 ANCOVA was conducted with the number of character attacks communicated during the discussion task as the outcome measure. Results showed no main effect for verbally aggressive TV exposure ($F [2, 90] = 0.01, p > .05$), no main effect for time of measurement ($F [2, 90] = 1.93, p > .05$), and no interaction effect between TV verbal aggression exposure and time of measurement ($F [2, 90] = 0.04, p > .05$). The first hypothesis was not supported.

Frequency of verbally aggressive behavior. Hypothesis two predicted that individuals exposed to TV sitcoms high in character attacks would more frequently communicate other types of verbally aggressive messages than would individuals exposed to TV sitcoms lower in verbally aggressive messages, who would more frequently communicate other types of verbally aggressive messages than would individuals not exposed to TV sitcoms. A 2 X 3 ANOVA conducted with the total number of verbally aggressive messages communicated during responses to the critics showed no main effect for verbally aggressive TV exposure ($F [2, 105] = 0.80, p > .05$), no main effect for time of measurement ($F [1, 105] = 1.85, p > .05$), and no interaction effect between TV verbal aggression exposure and time of measurement ($F [2, 105] =$

2.23, $p > .05$). A 2 X 3 ANCOVA was conducted with the total number of verbally aggressive messages communicated during the discussion task as the outcome measure. Results showed no main effect for verbally aggressive TV exposure ($F [2, 90] = 0.29, p > .05$), no main effect for time of measurement ($F [1, 90] = 0.38, p > .05$), nor any interaction effect between TV verbal aggression exposure and time of measurement ($F [2, 90] = 2.02, p > .05$). The second hypothesis was not supported.

Hostile acts. The third hypothesis predicted that individuals exposed to TV sitcoms high in verbal aggression would demonstrate more hostility toward another individual than would individuals exposed to TV sitcoms lower in verbal aggression, who would demonstrate more hostility toward another individual than would individuals not exposed to TV sitcoms. A 2 X 3 ANCOVA was conducted with hostile acts as the outcome measure. Results showed no main effect for verbally aggressive TV exposure ($F [2, 100] = 1.47, p > .05$), no main effect for time of measurement ($F [1, 100] = 0.31, p > .05$), and no interaction effect between exposure to TV verbal aggression and time of measurement ($F [2, 100] = 0.66, p > .05$). Hypothesis three was not supported.

Hostile beliefs. The fourth hypothesis predicted that individuals exposed to TV sitcoms high in verbal aggression would believe another individual was more hostile than would individuals exposed to TV sitcoms lower in verbal aggression, who would believe another individual was more hostile than would individuals not exposed to TV sitcoms. A 2 X 3 ANCOVA was conducted with hostile beliefs as the outcome measure. Results showed no main effect for verbally aggressive TV exposure ($F [2, 100] = 0.38, p > .05$), no main effect for time of measurement ($F [1, 100] = 3.00, p > .05$), and no interaction effect between exposure to TV verbal aggression and time of measurement ($F [2, 100] = 0.55, p > .05$). The fourth hypothesis was not supported.

Approval of verbal aggression. Hypothesis five predicted that individuals exposed to TV sitcoms high in verbal aggression would express greater belief that verbal aggression was an acceptable means of resolving conflict than would individuals exposed

to TV sitcoms lower in verbal aggression, who would express greater belief that verbal aggression was an acceptable means of resolving conflict than would individuals not exposed to TV sitcoms. A 2 X 3 ANCOVA was conducted with beliefs about the approval of verbal aggression as the outcome measure. Results showed no main effect for verbally aggressive TV exposure ($F [2, 100] = 0.44, p > .05$), no main effect for time of measurement ($F [1, 100] = 0.01, p > .05$), and no interaction effect between exposure to TV verbal aggression and time of measurement ($F [2, 100] = 0.80, p > .05$). Hypothesis five was not supported.

Effectiveness of verbal aggression. The sixth hypothesis posited that individuals exposed to TV sitcoms high in verbal aggression would express greater belief that verbal aggression was an effective means of resolving conflict than would individuals exposed to TV sitcoms lower in verbal aggression, who would express greater belief that verbal aggression was an effective means of resolving conflict than would individuals not exposed to TV sitcoms. A 2 X 3 ANCOVA was conducted with beliefs about the effectiveness of verbal aggression as the outcome measure. Results showed no main effect for verbally aggressive TV exposure ($F [2, 100] = 1.59, p > .05$), no main effect for time of measurement ($F [1, 100] = 0.45, p > .05$), and no interaction effect between exposure to TV verbal aggression and time of measurement ($F [2, 100] = 0.21, p > .05$). Hypothesis six was not supported.

Approval of physical aggression. The seventh hypothesis predicted that individuals exposed to TV sitcoms high in verbal aggression would express greater belief that physical aggression was an acceptable means of resolving conflict than would individuals exposed to TV sitcoms lower in verbal aggression, who would express greater belief that physical aggression was an acceptable means of resolving conflict than would individuals not exposed to TV sitcoms. A 2 X 3 ANCOVA was conducted with beliefs about the approval of physical aggression as the outcome measure. Results showed no main effect for verbally aggressive TV exposure ($F [2, 100] = 0.09, p > .05$), no main

effect for time of measurement ($F [1, 100] = 0.84, p > .05$), and no interaction effect between exposure to TV verbal aggression and time of measurement ($F [2, 100] = 1.11, p > .05$). The seventh hypothesis was not supported.

Effectiveness of physical aggression. Hypothesis eight posited that individuals exposed to TV sitcoms high in verbal aggression would express greater belief that physical aggression was an effective means of resolving conflict than would individuals exposed to TV sitcoms lower in verbal aggression, who would express greater belief that physical aggression was an effective means of resolving conflict than would individuals not exposed to TV sitcoms. A 2 X 3 ANCOVA was conducted with beliefs about the effectiveness of physical aggression as the outcome measure. Results showed no main effect for verbally aggressive TV exposure ($F [2, 100] = 0.18, p > .05$), no main effect for time of measurement ($F [1, 100] = 0.02, p > .05$), and no interaction effect between exposure to TV verbal aggression and time of measurement ($F [2, 100] = 1.61, p > .05$). Hypothesis eight was not supported.

Table 5 contains the means and standard deviations of the dependent measures by condition. Table 6 shows the results of all the ANCOVA's used to test the hypotheses and to examine the research question.

Table 5. Means for all outcome measures by condition.

		Immediate			Delayed		
		High	Low	Control	High	Low	Control
Verbally Aggressive Behavior							
Character Attacks (critic responses)	M	0.22	0.21	0.13	0.15	0.19	0.22
	<u>SD</u>	0.30	0.31	0.29	0.24	0.30	0.35
	N	18	18	13	23	20	19
(discussion task)	M	0.27	0.25	0.25	0.10	0.12	0.14
	<u>SD</u>	0.65	0.45	0.45	0.45	0.49	0.36
	N	11	16	12	20	17	21
Total Verbal Aggression (critic responses)	M	0.69	0.53	0.31	0.28	0.45	0.39
	<u>SD</u>	0.65	0.43	0.41	0.31	0.66	0.52
	N	18	18	13	23	20	19
(discussion task)	M	1.64	0.81	1.08	0.75	1.35	0.76
	<u>SD</u>	1.96	1.17	1.31	1.02	1.58	1.00
	N	11	16	12	20	17	21
Hostile Acts	M	17.00	16.53	18.87	16.37	17.24	17.50
	<u>SD</u>	2.70	3.56	4.87	2.45	3.61	4.63
	N	15	19	15	19	17	22
Hostile Beliefs	M	12.53	11.47	12.80	11.37	11.29	11.18
	<u>SD</u>	2.59	1.93	3.63	2.01	3.37	3.23
	N	15	19	15	19	17	22
Approval of Verbal Aggression	M	8.40	7.79	9.00	7.89	8.82	8.55
	<u>SD</u>	3.31	2.25	2.78	2.23	3.09	3.33
	N	15	19	15	19	17	22
Effectiveness of Verbal Aggression	M	8.80	8.79	10.13	9.63	9.18	10.14
	<u>SD</u>	2.86	2.57	2.29	2.89	2.53	3.23
	N	15	19	15	19	17	22
Approval of Physical Aggression	M	7.47	7.95	8.73	8.00	7.41	7.41
	<u>SD</u>	3.00	2.57	2.28	2.62	2.60	2.46
	N	15	19	15	19	17	22
Effectiveness of Physical Aggression	M	11.20	11.00	13.00	11.47	12.24	11.09
	<u>SD</u>	2.81	3.83	3.16	4.22	4.24	3.19
	N	15	19	15	19	17	22

Table 6. F values for 2 X 3 ANCOVA's and ANOVA's used to test the hypotheses and to examine the research question.

Source of Variance				
	Confederate	Exposure to TV Verbal Aggression	Time of Measure	Exposure to TV Verbal Aggression X Time of Measure
F values				
Verbally Aggressive Behavior				
Character Attacks				
(critic responses)	-----	0.04	0.00	0.64
(discussion task)	0.30	0.01	1.93	0.04
Total Verbal Aggression				
(critic responses)	-----	0.80	1.85	2.23
(discussion task)	11.90*	0.29	0.38	2.02
Hostile Acts	0.10	1.47	0.31	0.66
Hostile Beliefs	0.17	0.38	3.00	0.55
Approval of Verbal Aggression	0.02	0.44	0.01	0.80
Effectiveness of Verbal Aggression	1.40	1.59	0.45	0.21
Approval of Physical Aggression	0.02	0.09	0.84	1.11
Effectiveness of Physical Aggression	1.00	0.18	0.02	1.61

Note: n = 111 for critic responses, n = 97 for discussion task responses, n = 107 for all other variables; *p < .05

Post hoc analyses

To determine whether or not participants' trait verbal aggressiveness was masking the effects of exposure to TV verbal aggression and time of measurement on subsequent aggressive behaviors and beliefs, the relationships posited in the hypotheses and research question were examined using 2 X 3 ANCOVA's in which trait verbal aggressiveness and the confederate both served as covariates. Because the critic responses occurred before the confederate task, 2 X 3 ANCOVA's in which only trait verbal aggressiveness served as the covariate were conducted for the number of character attacks and the total number of verbally aggressive behaviors communicated during the critic responses. Results indicated that after accounting for the effects of participant trait verbal aggressiveness and the confederate, there was no main effect for exposure to verbally aggressive TV or time of measurement on any dependent measure, nor was there any interaction effect between TV verbal aggression exposure and time of measurement on any dependent measure. Table 7 contains the results of these ANCOVA's.

Table 7. F values for 2 X 3 ANCOVA's used to examine the effects of exposure to TV verbal aggression and time of measurement on aggressive behaviors and beliefs when the effects of trait verbal aggressiveness and the confederate are removed.

Source of Variance					
	Trait Verbal Aggression	Confederate	Exposure to TV Verbal Aggression	Time of Measure	Exposure to TV Verbal Aggression X Time of Measure
F values					
Verbally Aggressive Behavior					
Character Attacks					
(critic responses)	2.55	-----	0.48	0.04	0.41
(discussion task)	0.40	0.18	0.02	2.30	0.03
Total Verbal Aggression					
(critic responses)	2.17	-----	0.98	2.59	2.04
(discussion task)	2.93	8.42*	0.29	0.45	1.63
Hostile Acts	0.69	0.00	1.18	0.01	0.30
Hostile Beliefs	0.51	0.11	0.23	2.34	0.72
Approval of Verbal Aggression	2.45	0.17	0.94	0.21	0.66
Effectiveness of Verbal Aggression	1.47	1.98	2.05	0.85	0.33
Approval of Physical Aggression	0.83	0.02	0.16	0.59	0.69
Effectiveness of Physical Aggression	3.97*	0.52	0.44	0.00	1.58

Note: n = 104 for critic responses, n = 91 for discussion task responses, n = 99 for all other variables

*p < .05

DISCUSSION

The results of the current study failed to support the hypothesized effects of exposure to verbally aggressive TV sitcoms on aggressive behaviors and beliefs. According to the cognitive-neoassociationistic perspective (Anderson & Bower, 1973; Landman & Manis, 1983), when individuals experience events, such as those used in this study, ideas similar to these events should be activated in the minds of these individuals for a short time afterwards. The initial activation anticipated from exposure to the verbally aggressive sitcom used here was expected to *prime*, or activate, other semantically related thoughts, emotions, or behavioral tendencies, making them more likely to come to mind and to be enacted by individuals (Berkowitz, 1984; Jo & Berkowitz, 1994). No evidence supporting these expectations was found.

In terms of the present study, two interpretations of the failure to observe differences in aggressive behaviors and beliefs after exposure to verbally aggressive TV sitcoms seem possible. First, the data can be used to support conceptual challenges to this study. The findings are consistent with the notion that neoassociationistic logic does not apply to the particular situations considered in this investigation. Perhaps TV verbal aggression in general, or TV verbal aggression specifically in comedic programs, tends to activate thoughts and behaviors other than those related to verbal aggression. Second, it is possible that methodological limitations prevented the observation of TV verbal aggression's impact on aggressive behaviors and beliefs.

Conceptual challenges

First, let us consider the possibility that exposure to the sitcoms does not activate aggressive mental constructs in the minds of the participants. It is plausible that characteristics inherent to this TV genre render it incapable of acting as an aggressive prime under most normal exposure conditions. In fact, the belief that standard sitcom episodes are unlikely to bring about verbally aggressive behaviors in viewers is consistent

with long held beliefs and interpretations of this TV genre as non-aggressive and harmless. Potter and Warren (1998) have suggested that over time TV viewers' develop unitized schemas for comedy narratives. Unitized schemas are cognitively condensed sets of expectations that are used in situations that do not require a great deal of involvement, such as TV viewing. These schemas are used when efficiency, as opposed to accuracy, is the goal of cognitive processing. When using a unitized schema in processing stimuli, discrepancies between the schema and details of the stimuli are ignored by the viewer. According to this perspective, when individuals are exposed to TV comedy, these unitized comedy narrative schemas should be applied with the goal of efficiently processing program material in order to perpetuate positive affective states associated with humor and mirth. Consistent with these goals, discrepant content in TV sitcoms, such as aggression, should not be noticed, or should be ignored when noticed.

The activation of a unitized comedy narrative schema when exposed to TV comedy is consistent with logic suggesting that exposure to verbally aggressive sitcoms are more likely to activate non-aggressive semantic constructs that are stronger and more closely related to sitcoms than those related to verbal aggression. For example, exposure to verbally aggressive TV sitcoms may activate thoughts related to playful and humorous communication between friends that leads to greater intimacy and successful social relations, rather than thoughts associated with potentially hurtful aggressive communication. Therefore, when exposed to verbally aggressive TV sitcoms, the activated constructs would be humor and enjoyment, not verbal aggression-related thoughts and behavior.

Methodological limitations

In contrast to interpretations challenging the conceptual logic offered in this research, it is possible that exposure to TV verbal aggression does, in fact, impact hostile beliefs and behaviors, but methodological limitations prevented the observation of this relationship in the present study. Consideration of the procedures and measures used in

this investigation point to the possibility that weak manipulations, insensitive measures, or procedural bias could have suppressed the relationship between exposure to verbally aggressive TV sitcoms and aggressive behavior and beliefs.

Manipulation strength. One possible explanation for the failure to find a relationship between exposure to sitcom verbal aggression and aggressive behaviors and beliefs in this study is that the induction used here was too weak to activate relevant hostile constructs. If this is true, it might imply either that the verbal aggression in TV sitcoms is generally too weak to activate the type of hostility posited in this study, or that the particular manipulation in this study was too weak to observe the relationship that actually exists.

The first possibility is that, once again, no real impact is likely to result from TV sitcom verbal aggression. The sitcoms to which participants were exposed were network broadcast TV programs airing during prime-time. The high verbal aggression episodes were not altered in any way (other than having their commercials deleted) from the manner in which TV audiences would normally view them. For instance, they were not edited or changed to contain an exaggerated, artificial amount of verbal aggression. Furthermore, content analysis on these materials suggest that the verbal aggression they contained is consistent with verbal aggression commonly found in this genre. If it is the case that the type of sitcom verbal aggression used in this study was too weak to prime participants to behave more aggressively or to cause verbal aggression-related thoughts to spread to more remotely related constructs such as beliefs concerning physical aggression, then it seems unlikely that under normal viewing conditions exposure to standard TV sitcoms will affect aggressive behaviors and beliefs.

The second possibility is that a relationship exists between TV verbal aggression and aggressive behaviors and beliefs, but the manipulation in this study was too weak to observe it. When looking at the manipulation used, it is plausible that verbal aggression-related constructs were equally activated across all three conditions. While the high and

low verbal aggression sitcom episodes did differ in the number of verbally aggressive messages they contained, both versions of the sitcoms intentionally contained some degree of verbal aggression. In addition, the descriptions read by participants in the control condition also contained phrases that could suggest the presence of verbally aggressive communication occurring in the sitcoms (e.g. “razor-sharp wit,” “lovable wiseguy,” “gruff,” “wise-cracking,” “jaded,” etc.). Furthermore, participants in the control group may have experienced thoughts of frustration and/or anger because they were expecting to view TV sitcoms in the lab, but were instead told that the videotapes were not ready and that they would have to read descriptions of the sitcoms. Taken in consideration with the facts that the sitcoms selected were shows popular with the participant population and that sitcoms in general are known for their verbally aggressive-based humor, it seems very possible that exposure to any description of these sitcoms could activate aggression-related mental constructs associated with these programs. If this is true, then it is unlikely that any differences among the three groups would be observed or even expected.

A separate issue related to the manipulation of exposure to TV verbal aggression involves the duration of exposure on a given day and the number of days the exposure occurs. Both of these factors have implications regarding the long-term effects of exposure to TV verbal aggression. The present study borrowed an exposure procedure successfully used by Zillmann and Weaver (1999). However, changes made in the procedure for the present study may have had important implications. The present study exposed participants to the high verbal aggression TV sitcoms for a maximum of 43 minutes a day over two days (a total of only 86 minutes). Prior research demonstrating a remnant effect (24 hours after the final exposure) for exposure to aggressive media content involved exposing participants to one aggressive feature film per day for four consecutive days (Zillmann & Weaver, 1999). Assuming each of these films were at least 86 minutes long, this amount of exposure time is at least four times the total amount of

exposure that participants in the present study received. Furthermore, the frequency with which the participants encountered the aggressive media in the Zillmann and Weaver study is twice that of the participants in the present study. Since the logic underlying the chronic accessibility of constructs suggests that both the strength of a single activation and the frequency of repeated activation can impact a construct's accessibility, the changes in the procedures for this study may have weakened the manipulation's lasting effect. As such, if the present study had found differences among exposure groups in aggressive behaviors and/or beliefs immediately following exposure, the duration of the exposure and the number of days the participants were exposed to the sitcoms could have made finding any long-term effects extremely difficult. Exposure for a maximum of 43 minutes a day over two days may not be sufficient to render relevant mental constructs chronically accessible.

Insensitive measures. While the manipulation of TV verbal aggression may have activated mental constructs other than aggression or it may have equally activated aggression-related mental constructs across exposure conditions, we should also consider the possibility that aggression-related thoughts and behavioral tendencies may have been successfully altered by this study's manipulation of sitcom verbal aggression, but that these differences were not clearly observed with this study's procedures for having participants respond. Logic behind the priming process and construct accessibility concept suggests that constructs made accessible by the media can passively and involuntarily influence the communication and beliefs of individuals (Berkowitz, 1984; Jo & Berkowitz, 1994). This implies that the spreading and invoking of accessible mental constructs is a passive process, while the present study may have inadvertently encouraged a more active cognitive process. It is possible that thoughts related to aggressive behaviors and beliefs were actually activated in the minds of participants after exposure to the verbally aggressive sitcoms, but that the circumstances surrounding the measurement of the dependent variables may have caused participants to shift into a

central processing mode (Eagly & Chaiken, 1993) in which they *actively* considered their thoughts before responding to the dependent measures. In particular, three characteristics of the experimental procedures may have influenced the participants' cognitive processing. If any of these are true, it is possible that participants consciously excluded from their responses the aggressive mental constructs made cognitively accessible by exposure to the verbally aggressive sitcoms.

First, the presence of the experimenter during the participants' spoken responses could have inhibited participants from speaking freely. The experimenter was initially introduced to the class from which the participants were drawn as a graduate student who was in charge of the study, which may have led some participants to perceive her as an authority figure. If that was the case, the participants may have consciously monitored their word choice and nonverbal cues when expressing their feelings about the critics' reviews. Participants may have considered verbal aggression an inappropriate form of communication when interacting with an authority figure. Hence, participants in all experimental conditions adjusted their responses so as to comply with the conversational norms that exist regarding interacting with individuals of higher status.

Participants' responses during the discussion task may have been similarly affected. Although the experimenter was not present during the discussion task, participants were required to express their opinions on a controversial topic to a stranger. Participants may not have felt comfortable enough to speak freely, or to show emotions such as anger or frustration in the presence of the confederate. Again, conversational norms surrounding communication with strangers call for individuals to interact in a polite manner. Therefore, participants may have scrutinized their thoughts and responses before speaking, which led them to rule out the use of cognitively accessible verbal aggression-related constructs.

Second, the presence of the experimenter taking written notes of the participants' spoken responses to the critics' reviews (thus, keeping a permanent record of responses)

may have affected participants' cognitive processing. Because their responses were being recorded in a written form that could be referred to in the future, participants may not have spoken as openly for fear that they would not be able to change the written record if they communicated inappropriately. Therefore, participants may have more carefully considered their responses. Upon careful examination of their thoughts, which may have been related to verbal aggression, they may have concluded that verbal aggression was not an appropriate response.

Third, the measures and procedures involved in assessing hostility and beliefs about the acceptability and effectiveness of aggression may have hindered the expression of aggression. The items contained in the surveys were rather straightforward regarding physical and verbal aggression. Given the disapproval associated with holding and expressing positive attitudes toward aggression, and being faced with survey items that blatantly asked the extent to which the participant believed aggression was acceptable and effective, participants may have more carefully considered their responses. This more careful cognitive processing could have led participants to exclude the cognitively accessible mental constructs related to verbal aggression from their responses, based on the social undesirability of such construct-influenced responses. Such exclusion was likely further encouraged by the fact that their responses would be permanently recorded in writing for seemingly anyone to inspect at a later date.

Procedural threats. In addition to the characteristics of the experimental procedures that may have affected participants' cognitive processing, other characteristics of the procedure may have threatened the internal validity of the study. The hypothetical nature of the critic response task and the salience of the critics' reviews and the comprehensive exam proposal may have also influenced the behavioral responses. The critics themselves were not present to hear and to respond to the participants' opinions, rather the participants were asked to imagine that they had the opportunity to talk with the critic. In addition, participants may not have felt personally involved or affected by

the TV critics' negative reviews of the sitcoms, albeit well-liked sitcoms, to the extent that they would communicate aggressively in response to them. On the other hand, the discussion task involved a seemingly real life situation that required actual input from the participants, however not all participants would have been affected by the university policy (due to anticipated graduation dates) discussed during this task. Both the realism of the critic-response scenario and the salience of the critics' reviews and the university policy involved could have affected whether or not participants invoked the verbal aggression constructs which could have been made accessible by the TV sitcoms in responding to the two situations. These possibilities have yet to be examined, but may be boundary conditions under which the priming and construct accessibility logic may or may not hold.

Future implications

While the present study may not have demonstrated effects of exposure to verbally aggressive TV on aggressive behaviors and beliefs, it does provide a number of options for future investigations of this topic. Perhaps the most appropriate place to begin this research is with a more limited study of the immediate effects of exposure to TV verbal aggression, allowing a larger sample size to be used. This research would employ simpler and more sensitive measures, such as word recognition and association tasks, which have been used in the past to assess the effects of exposure to aggressive media content on construct accessibility (e.g. Bushman, 1998). If effects related to exposure are observed using these measures, subsequent investigations of behavioral and belief-related effects would follow.

Another area of research related to the present study and suggested by other media scholars (e.g. Potter & Warren, 1998) is the role that humor and other contexts play in the relationship between exposure to aggression and aggressive responses. The humorous context of verbally aggressive sitcoms may serve to decrease the aggression-related effects associated with exposure to this genre, while the context of other TV

genres, such as professional wrestling, may actually increase the effects of verbally aggressive TV exposure. Similarly, researchers should consider examining the effects of stronger TV verbal aggression manipulations. For example, exposure to more obvious and intense forms of verbal aggression (e.g. threats of physical violence) versus more ambiguous forms (e.g. sarcasm) may affect the types and intensity of activated mental constructs, which may manifest themselves in different ways. Examining the effects of exposure to various types and intensities of TV verbal aggression occurring in different contexts is an area relatively unexplored and deserving of closer attention by media scholars, researchers, and practitioners concerned with the anti-social effects of the media.

Future studies may also assess the outcomes associated with verbally aggressive TV exposure in other participant populations. The sample involved in the present study consisted of college-aged adults of both sexes. Past studies demonstrating relationships between exposure to aggression and verbally aggressive responses primarily involved samples of children (e.g. Josephson, 1987; Wood et al., 1991; Wotring & Greenberg) or teenagers (e.g. Sebastian et al., 1978; Wood et al., 1991). Aggression-related effects of exposure to verbally aggressive TV may be more observable in children and pre-teens who are less aware of conversational norms and may not censor themselves during interactions to the extent that older individuals self-censor.

Similarly, conducting research in settings outside the lab and observing communication between friends or family members after exposure to verbally aggressive TV would also encourage more natural, less consciously constructed, responses. Because the spreading of activated mental constructs and the invoking of accessible constructs in forming behaviors appears to be a passive process, such responses would be particularly valuable in providing a more accurate assessment of the priming effects associated with exposure to verbally aggressive TV programming.

The present study is a first attempt at a topic that is increasingly gaining the attention of communication scholars and other individuals concerned with the causes and prevention of aggressive behaviors. Continued research on the effects of exposure to verbally aggressive media content is both practically and theoretically important in expanding our understanding of the relationship between media violence and aggressive responses.

APPENDICES

APPENDIX A

Scale items for the MSU comprehensive exam proposal support measure

- 1. I think that the Board should adopt this policy.**
- 2. I think that the Board of Trustees needs to do more research on the proposal before they make a decision.**
- 3. Most MSU undergrads would not support this proposal.**
- 4. This proposal is not fair to the students.**
- 5. The Board is interested in improving the quality of education for undergraduate students.**
- 6. The Board does not understand what it's like to be an undergraduate student at MSU.**
- 7. This proposal would decrease enrollment at MSU.**

APPENDIX B

Script for experimental procedure

Immediate Condition

Day One

1. Escort participants into the large screen TV room in the lab.
2. Pass out the consent forms and ask participants to read and sign them.
3. Tell participants they will watch one sitcom, then complete a short questionnaire about the sitcom. Then they will watch a second sitcom and complete a short questionnaire about that sitcom.
4. Start sitcom one and leave room.
5. Fourteen to 21 minutes later (depending on the sitcom length) enter the large screen TV room, stop the sitcom, and hand out sitcom 1 evaluation survey. Do NOT collect it.
6. After participants have finished completing this survey, start sitcom 2 and leave room.
7. Fourteen to 21 minutes later (depending on the sitcom length) enter the large screen TV room, stop the sitcom, and hand out sitcom 2 evaluation survey.
8. After participants have finished completing this survey, go around and staple together the consent form and both sitcom evaluation surveys for each participant. Collect them.
9. Explain to the participants that the next part of the study is going to be conducted separately. Choose one participant to stay in the large screen TV room and escort the other participant to the smaller observation room.
10. Turn on both cameras.
11. Participants should now be in separate rooms. Give participant one the critic's review and instruct the participant to read it.
12. After the participant has read the review, ask him/her, "If you had the opportunity to respond to that critic, what would you say to him/her?" Take brief notes on the participant's response while (s)he is speaking. When the participant

has finished speaking, ask him/her, "Anything else?" Take brief notes on the participant's response to this question. After participant has finished speaking, give him/her the second critic review and instruct him/her to read it while you check on the second participant. Exit the room.

13. Follow the same procedure with the second participant.

14. Repeat the process for the second critic review.

15. While still separated, remind the participants to come back the next day and not to discuss the study with anyone else who may be participating in it.

16. Tell the participants they are dismissed and escort them out of the lab.

17. Turn off the cameras.

Day Two

******Confederates must view sitcoms with participants!!!!!!!!!!!!**

1. Escort participants into the large screen TV room in the lab.

2. Tell participants they will watch one sitcom, then complete a short questionnaire about the sitcom. Then they will watch a second sitcom and complete a short questionnaire about that sitcom.

3. Start sitcom three and leave room.

4. Fourteen to 21 minutes later (depending on the sitcom length) enter the large screen TV room, stop the sitcom, and hand out sitcom 1 evaluation survey. Do NOT collect it.

5. After participants have finished completing this survey, start sitcom four and leave room.

6. Fourteen to 21 minutes later (depending on the sitcom length) enter the large screen TV room, stop the sitcom, and hand out sitcom 2 evaluation survey.

7. After participants have finished completing this survey, go around and staple together the consent form and both sitcom evaluation surveys for each participant. Collect them.

8. Explain to the participants that the next part of the study is going to be conducted separately. Choose one participant to stay in the large screen TV room and escort the other participant to the smaller observation room.

9. Turn on both cameras.

10. Participants should now be in separate rooms. Give participant one the third critic's review and instruct the participant to read it.

11. After the participant has read the review, ask him/her, "If you had the opportunity to respond to that critic, what would you say to him/her?" Take brief notes on the participant's response while (s)he is speaking. When the participant has finished speaking, ask him/her, "Anything else?" Take brief notes on the participant's response to this question. After participant has finished speaking, give him/her the fourth critic review and instruct him/her to read it while you check on the second participant. Exit the room.

12. Follow the same procedure with the second participant.

13. Repeat the process for the fourth critic review.

14. Turn off the cameras.

15. While still separated, tell subjects that the researchers have enough data for this study and that instead of coming back for their third day, they can participate in another study today to get their full research credit. Assure them that they will get credit for three days and that their COM 200 grade will not be affected.

16. Assuming they agree, tell them that they need to be partnered with another participant for this "substitute" study. Leave the room and return to the room with one confederate. (Do the same for both participants.)

17. Explain the focus group task. **EXPERIMENTER SAYS:**

"Because we have already collected enough data for the TV study, we have a substitute activity for you to participate in so that you can get your full research credit for COM 200. Dr. Atkin, one of the Communication Department faculty members, has been hired by the University to conduct small focus groups in order to see how students will respond to proposed policy changes by the University. Perhaps some of you have been involved in some of the past focus group projects the Department has conducted on issues like hazing or alcohol abuse. Today, we want to get student feedback on a policy change being considered by the MSU Board of Trustees. If you have never taken part in focus group projects, the goal is to have people speak freely on issues so we can identify all the different thoughts and concerns that might come up once the policy is enacted.

The Board of Trustees is currently considering a proposal that would require all students to pass a comprehensive exam in order to graduate.

The Board would like to get student reactions and input about this proposal before they make their final decision. They have asked our department, among others, to find out what undergraduates think about this proposal. The feedback you provide will be combined with other students' opinions in a report that the Board will review at their next meeting.

The paper on the desk in front of you contains information about this proposal. Please read this information and when you are ready, discuss the proposal and your opinions on the proposal with each other. I will leave you alone to discuss this for a minute while I check on another group. When I get back I will ask you some questions about the proposal to get your feedback for the Board. After you have read the information on the paper, John*, you can go first and give your thoughts about the proposal. After Andrea** gives hers, the two of you can discuss the issue. I will be back in a few minutes."

*Participant

**Confederate

18. Exit the room and turn on the camera(s).

19. Watch and record the interaction between the subject and the confederate for at least two minutes, starting when the participant first speaks.

20. EXPERIMENTER RETURNS TO ROOM AFTER THE CONFEDERATE AND PARTICIPANT HAVE DISCUSSED THE PROPOSAL FOR TWO MINUTES. EXPERIMENTER SAYS:

"Now we're going to ask you some questions individually; so Andrea** (confederate), could you wait for me in the other room for this next part.

21. Experimenter escorts confederate out of the room.

22. Confederate then turns off camera(s).

23. EXPERIMENTER THEN SAYS TO THE PARTICIPANT:

"Part of focus group research involves finding out not only what you think about an issue, such as the comprehensive exam, but what you think other people would have to say about the issue, and how this might impact your perception of the issue and other people. So I'm going to ask you about this first by having you answer some questions about your conversation with Andrea (the confederate). Then I'll ask you about your thoughts on the comprehensive exam proposal."

24. FIRST EXPERIMENTER THEN GIVES THE PARTICIPANT THE "PERCEPTIONS OF OTHER" AND THE "EVALUATION OF OTHER"

MEASURES TO COMPLETE. THE EXPERIMENTER THEN SAYS:
"I will be right over here working on some homework. Just let me know when you are finished."

25. EXPERIMENTER SITS AT A DESK IN THE ROOM, BUT AWAY FROM THE PARTICIPANT. AFTER THE PARTICIPANT FINISHES THE "PERCEPTIONS OF OTHER" AND THE "EVALUATION OF OTHER" MEASURES THE EXPERIMENTER COLLECTS THEM AND SAYS:
"We also know that people are going to disagree about the comprehensive exam proposal and we want to prepare for this as well. So we have some questions to ask you about how you think disagreements like these might be effectively addressed."

26. EXPERIMENTER THEN GIVES THE PARTICIPANT THE "APPROVAL AND EFFECTIVENESS OF PHYSICAL AND VERBAL AGGRESSION" MEASURES TO COMPLETE. THE EXPERIMENTER THEN SAYS:
"I will be right over here working on some homework. Just let me know when you are finished."

27. EXPERIMENTER SITS AT THE SAME DESK AS BEFORE. AFTER THE PARTICIPANT FINISHES THE "APPROVAL AND EFFECTIVENESS OF PHYSICAL AND VERBAL AGGRESSION" MEASURES THE EXPERIMENTER COLLECTS THEM AND SAYS:
"Now, to get your feedback on the comprehensive exam proposal, could you please complete this questionnaire?"

28. EXPERIMENTER THEN GIVES THE PARTICIPANT THE "OPINION ABOUT THE MSU PROPOSAL" MEASURE TO COMPLETE. THE EXPERIMENTER THEN SAYS:
"I will be right over here working on some homework. Just let me know when you are finished."

29. EXPERIMENTER SITS AT THE SAME DESK AS BEFORE. AFTER THE PARTICIPANT FINISHES THE " OPINION ABOUT THE MSU PROPOSAL" MEASURE THE EXPERIMENTER COLLECTS IT AND SAYS:
"The last thing we want to do before we conclude today is to make sure you understood the purpose of the study. To do this, I would like you to write down on this sheet of paper what you think the purpose of our study is today."

30. EXPERIMENTER HANDS THE PARTICIPANT A BLANK SHEET OF PAPER AND WAITS FOR THE PARTICIPANT TO WRITE HIS/HER RESPONSE. EXPERIMENTER THEN SAYS:
"Finally, do you have any other thoughts on the purpose of our study?"

31. EXPERIMENTER WAITS FOR THE PARTICIPANT TO RESPOND.

32. The experimenter then debriefs the participants. Tell them they were videotaped the previous day and today.

33. Have participants read and sign the debriefing form.

34. Tell participants NOT to discuss the study with anyone else who may be participating in it.

35. Remind subjects that they do NOT have to come back for their third day, but tell them some people in COM 200 will actually have to come for three days. Remind them again not to tell anyone anything about the study.

36. Thank the participants, make sure their names have been written down so that they get their COM 200 credit, and escort them out of the lab.

37. The second experimenter should perform steps 17 through 36 with the second participant at the same time the first experimenter is performing steps 17 through 36 with the first participant. If there is no second experimenter, then the first experimenter repeats the entire process with the second participant.

Delayed Condition

Day One

1. Escort participants into the large screen TV room in the lab.

2. Pass out the consent forms and ask participants to read and sign them.

3. Tell participants they will watch one sitcom, then complete a short questionnaire about the sitcom. Then they will watch a second sitcom and complete a short questionnaire about that sitcom.

4. Start sitcom one and leave room.

5. Fourteen to 21 minutes later (depending on the sitcom length) enter the large screen TV room, stop the sitcom, and hand out sitcom 1 evaluation survey. Do NOT collect it.

6. After participants have finished completing this survey, start sitcom 2 and leave room.

7. Fourteen to 21 minutes later (depending on the sitcom length) enter the large screen TV room, stop the sitcom, and hand out sitcom 2 evaluation survey.

8. After participants have finished completing this survey, go around and staple together the consent form and both sitcom evaluation surveys for each participant. Collect them.
9. Explain to the participants that the next part of the study is going to be conducted separately. Choose one participant to stay in the large screen TV room and escort the other participant to the smaller observation room.
10. Turn on both cameras.
11. Participants should now be in separate rooms. Give participant one the critic's review and instruct the participant to read it.
12. After the participant has read the review, ask him/her, "If you had the opportunity to respond to that critic, what would you say to him/her?" Take brief notes on the participant's response while (s)he is speaking. When the participant has finished speaking, ask him/her, "Anything else?" Take brief notes on the participant's response to this question. After participant has finished speaking, give him/her the second critic review and instruct him/her to read it while you check on the second participant. Exit the room.
13. Follow the same procedure with the second participant.
14. Repeat the process for the second critic review.
15. While still separated, remind the participants to come back the next day and not to discuss the study with anyone else who may be participating in it.
16. Tell the participants they are dismissed and escort them out of the lab.
17. Turn off the cameras.

Day Two

******Confederates must view sitcoms with participants!!!!!!!!!!!!**

1. Escort participants into the large screen TV room in the lab.
2. Tell participants they will watch one sitcom, then complete a short questionnaire about the sitcom. Then they will watch a second sitcom and complete a short questionnaire about that sitcom.
3. Start sitcom three and leave room.

4. Fourteen to 21 minutes later (depending on the sitcom length) enter the large screen TV room, stop the sitcom, and hand out sitcom 1 evaluation survey. Do NOT collect it.
5. After participants have finished completing this survey, start sitcom four and leave room.
6. Fourteen to 21 minutes later (depending on the sitcom length) enter the large screen TV room, stop the sitcom, and hand out sitcom 2 evaluation survey.
7. After participants have finished completing this survey, go around and staple together the consent form and both sitcom evaluation surveys for each participant. Collect them.
8. Explain to the participants that the next part of the study is going to be conducted separately. Choose one participant to stay in the large screen TV room and escort the other participant to the smaller observation room.
9. Turn on both cameras.
10. Participants should now be in separate rooms. Give participant one the third critic's review and instruct the participant to read it.
11. After the participant has read the review, ask him/her, "If you had the opportunity to respond to that critic, what would you say to him/her?" Take brief notes on the participant's response while (s)he is speaking. When the participant has finished speaking, ask him/her, "Anything else?" Take brief notes on the participant's response to this question. After participant has finished speaking, give him/her the fourth critic review and instruct him/her to read it while you check on the second participant. Exit the room.
12. Follow the same procedure with the second participant.
13. Repeat the process for the fourth critic review.
14. While still separated, remind the participants to come back the next day and not to discuss the study with anyone else who may be participating in it.
15. Tell the participants they are dismissed and escort them out of the lab.
16. Turn off the cameras.

Day Three

1. Escort participants **and confederates** into the large screen TV room in the lab.
2. Tell participants that the researchers have enough data for the study they participated in on the previous two days and that to get their full research credit they can participate in another study today. Assure them that they will get credit for three days and that their COM 200 grade will not be affected.
3. Assuming they agree to participate in this "substitute" study, tell them that they need to be partnered with another subject for this study. Pair one confederate with one participant and escort them to the smaller observation room. Leave one confederate and one participant in the big TV room.
4. Explain the focus group task. **EXPERIMENTER SAYS:**

"Because we have already collected enough data for the TV study, we have a substitute activity for you to participate in so that you can get your full research credit for COM 200. Dr. Atkin, one of the Communication Department faculty members, has been hired by the University to conduct small focus groups in order to see how students will respond to proposed policy changes by the University. Perhaps some of you have been involved in some of the past focus group projects the Department has conducted on issues like hazing or alcohol abuse. Today, we want to get student feedback on a policy change being considered by the MSU Board of Trustees. If you have never taken part in focus group projects, the goal is to have people speak freely on issues so we can identify all the different thoughts and concerns that might come up once the policy is enacted.

The Board of Trustees is currently considering a proposal that would require all students to pass a comprehensive exam in order to graduate. The Board would like to get student reactions and input about this proposal before they make their final decision. They have asked our department, among others, to find out what undergraduates think about this proposal. The feedback you provide will be combined with other students' opinions in a report that the Board will review at their next meeting.

The paper on the desk in front of you contains information about this proposal. Please read this information and when you are ready, discuss the proposal and your opinions on the proposal with each other. I will leave you alone to discuss this for a minute while I check on another group. When I get back I will ask you some questions about the proposal to get your feedback for the Board. After you have read the information on the paper, John*, you can go first and give your thoughts about the proposal.

After Andrea** gives hers, the two of you can discuss the issue. I will be back in a few minutes."

*Participant

**Confederate

5. Exit the room and turn on the camera(s).

6. Watch and record the interaction between the subject and the confederate for at least two minutes, starting when the participant first speaks.

7. EXPERIMENTER RETURNS TO ROOM AFTER THE CONFEDERATE AND PARTICIPANT HAVE DISCUSSED THE PROPOSAL FOR TWO MINUTES. EXPERIMENTER SAYS:

"Now we're going to ask you some questions individually; so Andrea** (confederate), could you wait for me in the other room for this next part.

8. Experimenter escorts confederate out of the room.

9. Confederate then turns off camera(s).

10. EXPERIMENTER THEN SAYS TO THE PARTICIPANT:

"Part of focus group research involves finding out not only what you think about an issue, such as the comprehensive exam, but what you think other people would have to say about the issue, and how this might impact your perception of the issue and other people. So I'm going to ask you about this first by having you answer some questions about your conversation with Andrea (the confederate). Then I'll ask you about your thoughts on the comprehensive exam proposal."

11. FIRST EXPERIMENTER THEN GIVES THE PARTICIPANT THE "PERCEPTIONS OF OTHER" AND THE "EVALUATION OF OTHER" MEASURES TO COMPLETE. THE EXPERIMENTER THEN SAYS:

"I will be right over here working on some homework. Just let me know when you are finished."

12. EXPERIMENTER SITS AT A DESK IN THE ROOM, BUT AWAY FROM THE PARTICIPANT. AFTER THE PARTICIPANT FINISHES THE "PERCEPTIONS OF OTHER" AND THE "EVALUATION OF OTHER" MEASURES THE EXPERIMENTER COLLECTS THEM AND SAYS:

"We also know that people are going to disagree about the comprehensive exam proposal and we want to prepare for this as well. So we have some questions to ask you about how you think disagreements like these might be effectively addressed."

13. EXPERIMENTER THEN GIVES THE PARTICIPANT THE "APPROVAL AND EFFECTIVENESS OF PHYSICAL AND VERBAL AGGRESSION"

MEASURES TO COMPLETE. THE EXPERIMENTER THEN SAYS:

"I will be right over here working on some homework. Just let me know when you are finished."

14. EXPERIMENTER SITS AT THE SAME DESK AS BEFORE. AFTER THE PARTICIPANT FINISHES THE "APPROVAL AND EFFECTIVENESS OF PHYSICAL AND VERBAL AGGRESSION" MEASURES THE EXPERIMENTER COLLECTS THEM AND SAYS:

"Now, to get your feedback on the comprehensive exam proposal, could you please complete this questionnaire?"

15. EXPERIMENTER THEN GIVES THE PARTICIPANT THE "OPINION ABOUT THE MSU PROPOSAL" MEASURE TO COMPLETE. THE EXPERIMENTER THEN SAYS:

"I will be right over here working on some homework. Just let me know when you are finished."

16. EXPERIMENTER SITS AT THE SAME DESK AS BEFORE. AFTER THE PARTICIPANT FINISHES THE " OPINION ABOUT THE MSU PROPOSAL" MEASURE THE EXPERIMENTER COLLECTS IT AND SAYS:

"The last thing we want to do before we conclude today is to make sure you understood the purpose of the study. To do this, I would like you to write down on this sheet of paper what you think the purpose of our study is today.

17. EXPERIMENTER HANDS THE PARTICIPANT A BLANK SHEET OF PAPER AND WAITS FOR THE PARTICIPANT TO WRITE HIS/HER RESPONSE. EXPERIMENTER THEN SAYS:

"Finally, do you have any other thoughts on the purpose of our study?"

18. EXPERIMENTER WAITS FOR THE PARTICIPANT TO RESPOND.

19. The experimenter then debriefs the participants. Tell them they were videotaped the previous two days and today.

20. Have participants read and sign the debriefing form.

21. Tell participants NOT to discuss the study with anyone else who may be participating in it.

22. Thank the participants, make sure their names have been written down so that they get their COM 200 credit, and escort them out of the lab.

23. The second experimenter should perform steps 4 through 22 with the second participant at the same time the first experimenter is performing steps 4 through 22 with the first participant. If there is no second experimenter, then the first experimenter repeats the entire process with the second participant.

APPENDIX C

Types of verbal aggression

1. **Swearing**: cursing, using foul, offensive or obscene language; Includes "hell", "asshole", "shit", "fuck", "damn", etc.
2. **Rejection**: disagreeing with another in a rude or disrespectful way; denying something for another; telling someone "no" in a rude or disrespectful way
3. **Dislike**: expressing hate or dislike for or toward another; saying things that convey disliking another person
4. **Sarcasm**: saying one thing, but meaning the opposite
5. **Competence Attack**: criticizing another's ability, thinking; finds faults with ability, thinking, intelligence, skill, etc. Calling someone "stupid" or saying things they do or think are "stupid"; saying things that imply that the person is stupid or incompetent or has missed the point; making fun of something the person has said or done because the speaker thinks it's stupid
6. **Character Attack**: saying unfavorable things about another's character, morality, ethics, good/badness, etc. For example, "This person is mean," "They just want our money"
7. **Background Attack**: saying unfavorable things about another's family, race, age, geographical place of residence or origin, etc.; making fun of someone being poor, their sexual orientation, or things the person can't control about herself/himself. For example, "He's an old fogey"
8. **Physical Appearance Attack**: expressing dissatisfaction with the way one physically looks, dresses, appears, etc. making fun of what one wears
9. **Threat**: an intimidation by another; saying you'll do something harmful to the other person under certain conditions; For example, "I'm going to kill him!" or "You're going to pay" or "it had better be..."
10. **Malediction**: saying one hopes something bad will happen to another; For example, "I hope you fail that test" or "hopefully they'll get nothing but negative evaluations"
11. **Demand**: commanding another to do or not do something in a loud or angry voice; For example, "Shut up!" or "Stop it!"
12. **Mocking**: imitating another in a mean-spirited way

APPENDIX D

Descriptions of sitcoms used in the TV verbal aggression control condition

NBC.com: Friends

The series focuses on the friendship of three men and three women who frequently gather at each other's apartments and share sofa space at Greenwich Village's Central Perk coffeehouse. Monica Geller (Cox Arquette) is a restaurant chef with an obsession for neatness and order in her life. Her roommate, Rachel Green (Aniston), is Monica's pampered best friend from high school who works at a department store. Rachel has long been the object of affection for Ross (Schwimmer), Monica's older, twice divorced brother.

Living across the hall from Monica and Rachel are roommates Chandler Bing (Perry) and Joey Tribbiani (LeBlanc). Chandler, a dry wit who is never at a loss for words, is a lovable wiseguy who works at a corporate office. Joey is a struggling actor who loves women, sports, New York and, most of all, himself. Rounding out the circle of friends is Monica's ex-roommate, Phoebe Buffay (Kudrow), an offbeat, eternally optimistic folk singer and massage therapist, who recently gave birth to triplets as a surrogate mother for her half-brother and his wife.

NBC.com: Frasier

This upscale comedy provides a weekly dose of the neuroses and tribulations suffered by an insecure and pompous psychiatrist, Dr. Frasier Crane, host of a Seattle radio advice show. The twice-divorced doctor's peaceful home life of fine cigars and haute cuisine was shattered when his gruff, ex-cop father, Martin (John Mahoney), was injured in the line of duty and forced to move in with Frasier. Martin brought with him a semi-psychic, live-in home-care provider, Daphne Moon (Emmy nominee Jane Leeves); his pesky Jack Russell terrier, Eddie (Moose); and a duct-taped recliner that clashes with Frasier's more aesthetically pleasing Earnes and Wassily chairs. Their home is frequently visited by Frasier's snobbish and competitive brother, Niles (Pierce), a recently divorced fellow psychiatrist. At work, his slightly jaded producer, single parent Roz Doyle (Peri Gilpin), supports Frasier.

NBC.com: Just Shoot Me!

The show is set at the New York editorial offices of the fictional "Blush" magazine, and creator Levitan describes it as "'Die Hard'" in a fashion magazine." The ensemble cast consists of Laura San Giacomo ("sex, lies and videotape"), George Segal ("Who's Afraid of Virginia Wolf?"), Emmy nominated David Spade ("Saturday Night Live"), and, Wendie Malick ("Dream On"), and Enrico Colantoni ("Hope & Gloria"). In the series, Maya Gallo (San Giacomo), a journalist with a razor-sharp wit, not only recently reconciled with her father, "Blush" publisher Jack Gallo (Segal) -- an oft-wed ex-womanizer whose current wife is Maya's former high school classmate -- but also reluctantly took a job at his fluffy "Cosmo" -esque magazine. There, she struggles to hold her own with the beauty and fashion editor, Nina Van Horn (Malick), a neurotic and pretentious ex-model who's going through middle age kicking and screaming through middle age; the magazine's in-house photographer and ogler of beautiful women, Elliot DiMauro (Colantoni); and her father's wise-cracking, power-hungry assistant, Dennis Finch (Spade).

NBC.com: Will & Grace

Will Truman (Eric McCormack) and Grace Adler (Debra Messing) are roommates in this adult comedy about two people who seem perfect for each other but can never actually find romance together because Will is gay and Grace is straight.

"When you look out at the television landscape," says executive producer David Kohan, "the men and women you see are either romantically involved, or they want to be romantically involved, or they inevitably will end up romantically involved. What we want to do is to examine a relationship between a man and a woman where sex isn't a factor."

Will is a successful Manhattan lawyer, likable, handsome and charming, and he recently ended a long-term relationship. Grace is a beautiful self-employed interior designer who just left her fiancé at the altar. They both love French films, poker night with the guys and the home version of "The \$10,000 Pyramid." Will and Grace have been friends forever, and though they're both looking for love, they long ago accepted the fact there will be no romance between them. Despite the fact, or possibly because of it, they face life's ups and downs together, knowing they will always have each other to lean on.

Grace's work life is complicated by her unusual assistant, Karen Walker (Megan Mullally, "The Ellen Burstyn Show"), a wealthy socialite who only bothers to show up at work because it keeps her "down to earth," and because she likes to tell Grace how to live her life. Will has another good friend in the outrageous Jack McFarland (Sean Hayes, "Billy's Hollywood Screen Kiss"), a well-meaning but self-involved young man who comes with a complete set of emotional baggage.

APPENDIX E

Verbal Aggressiveness Scale items and factor loadings

Item

I am extremely careful to avoid attacking individuals' intelligence when I attack their ideas.	.67
When individuals are very stubborn, I use insults to soften the stubbornness.*	.66
I try very hard to avoid having other people feel bad about themselves when I try to influence them.*	.59
When people refuse to do a task I know is important, without good reason, I tell them they are unreasonable.	.19**
When others do things I regard as stupid, I try to be extremely gentle with them.*	.54
If individuals I am trying to influence really deserve it, I attack their character.	.45
When people behave in ways that are in very poor taste, I insult them in order to shock them into proper behavior.	.44
I try to make people feel good about themselves even when their ideas are stupid.*	.50
When people simply will not budge on a matter of importance I lose my temper and say rather strong things to them.	.56
When people criticize my shortcomings, I take it in good humor and do not try to get back at them.*	.40**
When individuals insult me, I get a lot of pleasure out of really telling them off.	.50
When I dislike individuals greatly, I try not to show it in what I say or how I say it.*	.41
I like poking fun at people who do things which are very stupid in order to stimulate their intelligence.	.38

When I attack persons' ideas, I try not to damage their self-concepts.*	.47
When I try to influence people, I make a great effort not to offend them.*	.44
When people do things which are mean or cruel, I attack their character in order to help correct their behavior.	.31
I refuse to participate in arguments when they involve personal attacks.*	.51
When nothing seems to work in trying to influence others, I yell and scream in order to get some movement from them.	.38
When I am not able to refute others' positions, I try to make them feel defensive in order to weaken their positions.	.33
When an argument shifts to personal attacks, I try very hard to change the subject.*	.35

*Reverse score these items

**These items were dropped from analysis

APPENDIX F

Fictional TV critics' reviews of the sitcoms



No longer *Friends*. (Television program review) (Column) *Beverly Jillson*.

Full Text: COPYRIGHT 2000

The characters on NBC's Thursday night sitcom *Friends*, which were once wildly popular among 18 to 25 year-olds, are now some of the most disliked TV characters among viewers of that age. Eighteen to 25 year olds, namely college students, who used to flock to their TVs every Thursday night to watch Monica, Rachel, Phoebe, Joey, Chandler, and Ross are now tuning in to other networks. This is not surprising, given that *Friends'* once fresh characters have become simple stereotypes and lost their appeal, not to mention the fact that the *Friends* cast simply can not act. The show's comedic gags are predictable and most of the characters' dialogue is mindless. *Friends'* previously imaginative characters like Phoebe and Monica have turned out to be only below average this season. The friends on *Friends* are just no longer funny.



Past their prime on *Frasier*. (Television program review) (Column) *John Walter Hayes*.

Full Text: COPYRIGHT 2000

Sitcoms are a thinning genre, and with programs like *Frasier*, it's a good thing. The disappointing thing about *Frasier* is that its characters, who used to be so amusing, have become monotonous and uninteresting in their portrayals. When the program originally debuted some years ago, *Frasier* himself was lovably arrogant, but bumbling. His brother Niles was just as stuffy, but a bit more neurotic, making him the perfect sidekick. But over the years the characters have failed to develop. In fact, they have regressed and become quite boring. Today they are nothing more than buffoons, less witty and less entertaining than ever before. Viewers no longer enjoy watching *Frasier* and Niles as they erratically make an attempt at comedy every week. These two are way past their prime.



Article 4 of 9

Please, *Just Shoot ME!* (Television program review) (Column) Gerard L. Wilmont.

Full Text: COPYRIGHT 2000

Just Shoot Me. The title says it all. How can a 22 minute sitcom seem like a century? When you're watching NBC's *Just Shoot Me* featuring David Spade you'll understand. This slow-paced sitcom containing standard and boring characters continues in the vein of sitcoms revolving around the office, but *Just Shoot Me* has no compelling personalities. *Just Shoot Me*'s characters, especially Spade's Dennis Finch, do not connect with the young audience the program is geared toward. For example, Finch's jokes are offensive to most 18 to 25 year olds, and they usually miss their mark. His lines are rarely funny (and often irrelevant to the show), and Spade fails to deliver them with any real talent. *Just Shoot Me* and Spade's Dennis Finch fall flat on their faces.



Will & Grace go home. (Television program review) (Column) *Nia Bakersfield*.

Full Text: COPYRIGHT 2000

Will & Grace has worn out its welcome among viewers and critics alike. The NBC sitcom, now in its second year, has to be the most disappointing program, with the least entertaining characters, on the once sensational network. The show's characters, such as Grace and her receptionist Karen, could have been extremely amusing together. Unfortunately they fail miserably in their attempt to entertain. Grace is unrealistically needy and Karen is way too much for any viewer to handle on a weekly basis. The biggest disappointment though is that Will and Grace fail to penetrate to the emotional core of their relationship. Both characters would be so much more interesting if they would seriously address the relational dynamics between them and forego the laughter. As it is, *Will & Grace* leaves us all terribly bored.

APPENDIX G

MSU comprehensive exam proposal

MICHIGAN STATE UNIVERSITY

Michigan State University's Board of Trustees will soon release a memo to all units on campus stating that the Board is considering a proposal that would require all students (beginning the fall of 2001) to pass a comprehensive exam in order to graduate. This exam would test students' general knowledge, and knowledge specific to their major(s), similar to the Graduate Entrance Exam (GRE). Students who fail this exam would be required to take a capstone course provided by their college to prepare them to take the exam again. Students would have to pay for the three-credit course. Students would not be allowed to graduate if they failed the exam a second time. It is important to note that all MSU seniors would have to take this exam beginning September 2001 in order to graduate.

Reportedly, this proposal is being considered as part of the Michigan State University Board of Trustees' "Serious Student Initiative." Although some students may be concerned by this proposal, the supporters of the proposal feel that requiring students to pass a comprehensive exam in order to graduate would increase MSU students' academic performance, which is currently lower than the performance of other students nationwide. Furthermore, supporters of the proposal expect the comprehensive exam to help prepare MSU students for the "real world" and to encourage more positive attitudes toward learning. Though there are obvious time and monetary costs involved, the initiative is expected to have considerable benefits for the reputation of the University and the value of an MSU degree for students looking for jobs.

APPENDIX H

Arguments used by the confederates during the discussion task

Arguments in support of the comprehensive exam proposal

The comprehensive exam would:

1. improve the reputation of the university
2. increase the value of a degree from the university
3. make sure students have learned/deserve to graduate
4. increase the quality of students/graduates of the university
5. encourage students to care more about learning
6. help students obtain employment
7. help students perform well in their jobs
8. provide another means of evaluating the professors and the educational process of the university
9. earn more money for the university

Arguments in opposition to the comprehensive exam proposal

The comprehensive exam would:

1. decrease enrollment in the university
2. cause students to transfer to other schools
3. incite anger and perhaps aggression in students
4. nullify the importance and purpose of earning grades in courses
5. not accurately assess all individuals' abilities or knowledge
6. be unfair/illegal

7. cost too much money/cause money problems
8. increase the time students would have to spend at the university before they could graduate
9. increase students' stress levels

APPENDIX I

Standard item alphas and items for the sitcom evaluation scales

Scale	Standard Item Alpha
TV Sitcom Items	

Liking/Enjoyment of Sitcom in General

	<i>Friends</i>	.90
	<i>Frasier</i>	.92
	<i>Just Shoot Me</i>	.86
	<i>Will & Grace</i>	.91
1.	I really like watching <i>Friends</i> *.	
2.	<i>Friends</i> is a boring TV program.†	
3.	<i>Monica</i> * on <i>Friends</i> is pretty funny.	
4.	I don't like <i>Phoebe</i> * on <i>Friends</i> .†	
5.	I would like to have friends like the characters on the TV show <i>Friends</i> .	
6.	I can't stand <i>Ross</i> on <i>Friends</i> .†	
7.	The characters on <i>Friends</i> are fun to watch.	

Beliefs about the Realism of Sitcom in General

	<i>Friends</i>	.67
	<i>Frasier</i>	.68
	<i>Just Shoot Me</i>	.64
	<i>Will & Grace</i>	.70
1.	I can identify with the characters on <i>Friends</i> .	
2.	I think <i>Friends</i> is pretty stupid sometimes.†	
3.	<i>Friends</i> is a very realistic TV program.	

Liking/Enjoyment of Sitcom Episode

<i>Friends</i>	.90
<i>Frasier</i>	.93
<i>Just Shoot Me</i>	.90
<i>Will & Grace</i>	.93

1. The episode of *Friends* that I just watched was very funny.
 2. *Joey* was very funny in the episode of *Friends* that I just watched
 3. I really enjoyed the episode of *Friends* that I just saw.
 4. I liked *Rachel* in this episode of *Friends*.
 5. I did not care for the way this episode of *Friends* portrayed the characters.†
 6. I liked the episode of *Friends* that I just watched.
 7. I was bored with the storyline in this episode of *Friends*.†
-

*The names of the sitcoms and sitcom characters change to reflect the given sitcom being evaluated.

† Reverse code

APPENDIX J

Sitcom evaluation descriptive statistics and results of the oneway ANOVA's and *t*-tests
comparing evaluations among TV verbal aggression exposure conditions

	Total Sample Mean (SD)	High VA Mean (SD)	Low VA Mean (SD)	Control Mean (SD)	F df
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Liking/Enjoyment of Sitcom in General

<i>Friends</i>	28.33 (4.88)	28.04 (5.00)	28.58 (4.63)	28.39 (5.10)	0.14 2, 128
<i>Frasier</i>	25.04 (5.81)	24.98 (5.38)	24.98 (6.17)	25.18 (6.03)	0.02 2, 128
<i>Just Shoot Me</i>	24.67 (4.27)	24.49 (4.25)	24.79 (4.38)	24.76 (4.28)	0.07 2, 125
<i>Will & Grace</i>	25.64 (5.05)	26.02 (4.77)	26.10 (5.24)	24.65 (5.17)	1.02 2, 123

Realism of Sitcom in General

<i>Friends</i>	9.81 (2.36)	9.36 (2.27)	10.14 (2.39)	9.98 (2.42)	1.37 2, 128
<i>Frasier</i>	8.58 (2.21)	8.70 (2.29)	8.77 (2.33)	8.23 (1.98)	0.75 2, 128
<i>Just Shoot Me</i>	7.86 (2.00)	7.40 (2.01)	7.86 (2.17)	8.42 (1.67)	2.80 2, 125
<i>Will & Grace</i>	8.42 (2.37)	8.23 (2.30)	8.31 (2.65)	8.78 (2.16)	0.62 2, 123

Notes: Maximum possible score on Liking/Enjoyment of Sitcom in General measure is 35; maximum possible score on Realism of Sitcom in General measure is 15

	Total Sample Mean (SD)	High VA Mean (SD)	Low VA Mean (SD)	t df
<u>Liking/Enjoyment of Sitcom Episode</u>				
<i>Friends</i>	27.23 (4.62)	26.83 (4.86)	27.67 (4.35)	0.87 88
<i>Frasier</i>	24.45 (5.95)	24.30 (5.51)	24.61 (6.44)	0.25 89
<i>Just Shoot Me</i>	25.77 (4.68)	24.94 (4.66)	26.67 (4.59)	1.78 88
<i>Will & Grace</i>	25.69 (5.42)	25.45 (5.36)	25.95 (5.54)	0.44 87

Notes: Maximum possible score on Liking/Enjoyment of Sitcom Episode measure is 35

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