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THE ROLE OF EXEMPLAR ACCESSIBILITY AND EXEMPLAR REALISM

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By

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ABSTRACT

MEDIA EXAMPLES AND SOCIAL REALITY CONSTRUCTION:
THE ROLE OF EXEMPLAR ACCESSIBILITY AND EXEMPLAR REALISM

By

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The relationship between media exposure and social judgment is well documented. However, the psychological processes linking the two variables are not well defined or understood. Recently, researchers have begun to investigate the role memory and cognitive heuristics play in the exposure-judgment relationship. This study investigates the relationships among television exposure, accessibility of media examples in memory, and social judgments related to those examples. It also investigates characteristics of media examples which may increase their accessibility.

Respondent (n=206) completed a survey measuring television exposure and viewing characteristics. Approximately six weeks later they performed a computer-assisted, exemplar accessibility task and completed a social judgment questionnaire. The accessibility task measured the speed with which respondents generated a specific example from each of five categories – Shootings, Police Officers, Cheating Spouses, Traffic Accidents, and African-American Medical Doctors. After reporting each example, respondents answered a series of questions about the example's origin, real or fictional nature, perceived realism, severity, and distinctiveness. Either preceding or following the accessibility task, respondents made social judgments estimating the prevalence of the incidents or individuals represented by the five categories.

Results indicated 1) positive relationships between television exposure and four of five social judgments when examples were reported before social judgments, but no

relationship when judgments preceded example recall, 2) statistically insignificant but notable relationships between exemplar accessibility and three social judgments – suggesting more accessible examples may lead to greater estimates, 3) no relationship between television exposure and exemplar accessibility, and 4) a weak positive relationship between perceived realism of fictional examples the speed with which fictional examples were reported.

The study suggests part of the media's influence on social judgments may result from the accessibility in memory information observed in the media, and that the information accessed may be in the form of specific examples. Further, portrayals perceived as more realistic may be more accessible, and therefore, more likely to impact social judgment through an exemplar accessibility heuristic. Results also indicate processing conditions may influence the relationship between media exposure and social judgment.

To my mother, Shirley Busselle, who is the strongest person I know,
and in memory of my father, Frederick Francis Busselle

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CHAPTER 1

Introduction and Review of Literature

Media effects researchers have dedicated considerable energy investigating the relationship between individuals' exposure to real and fictional media and their judgments about people and events in the real world. The influence of the media, specifically television, on real-world judgments has been referred to as *cultivation* (Gerbner & Gross, 1976; Gerbner, Gross, Morgan, & Signorielli, 1994) and *social reality construction* (Hawkins & Pingree, 1982). That television exposure and social judgments are related is well documented (Hawkins, Pingree, & Adler, 1987; Morgan & Shanahan, 1997). However, the theory and methodology used to explain and demonstrate the relationship has been debated (for examples, see Doob & Macdonald, 1979; Gerbner, Gross, Morgan, & Signorielli, 1981; Hirsch, 1980; Hughes, 1980; Potter, 1994), and the nature of the psychological processes responsible for the link has received little attention (Hawkins & Pingree, 1990; Shapiro & Lang, 1991; Shrum & O'Guinn, 1993). Without understanding these psychological processes much research into the media's influence on social judgment is open to criticisms of spuriousness and questions of causal direction (Hawkins, Pingree, & Adler, 1987). Indeed, Hawkins and Pingree have written, " The problem is that without evidence for psychological processes, the cultivation hypothesis stands on a tenuous foundation" (Hawkins & Pingree, 1990, p. 35-36). The purpose of this dissertation is to explore a relationship between one psychological process, the accessibility heuristic – specifically exemplar accessibility, and media consumers' construction of social reality. This study also investigates three characteristics of media portrayals – perceived realism,

distinctiveness, and severity -- that may increase the media's influence on viewers' social judgment.

Only recently have researchers begun to consider (Hawkins & Pingree, 1990; Shapiro & Lang, 1991; Shrum 1996; Tamborini, Zillmann, & Bryant, 1984) and empirically investigate the psychological processes involved in cultivation-type effects. Shrum and O'Guinn (1993) point out that, not including their own research, the literature contains only three separate lines of inquiry in this area. That literature is reviewed here.

Television Exposure and Social Judgment

Hawkins, et al. (1987) hypothesized two processes to explain the influence of television viewing on judgments about the real world. In one process individuals' beliefs about the television world mediate the relationship between television exposure and their beliefs about the real world. Therefore, controlling for television beliefs (e.g. the chances a television character will be involved in violence) should reduce the relationship between viewing and real-world beliefs. Their data did not support this model. Controlling for television beliefs did not influence the relationship between exposure and social judgment. Also, two of four correlations between viewing and beliefs about the television world were negative, rather than positive as predicted. Heavier viewers, not lighter, thought a smaller percentage of police officers on TV were males and a smaller percentage of crimes on TV were violent.

A second model, which was described and tested in the same report (Hawkins, et al., 1987), attempted to link first-order social judgment estimates (e.g. percent of crimes that are violent) to second-order beliefs (e.g. agreement that people are generally untrustworthy). It was hypothesized that viewers infer second-order beliefs from first-

order demographic estimates. Therefore, controlling for first-order demographic estimates should reduce the relationship between viewing and second-order beliefs. It did not. Not only did controlling for demographic estimates leave cultivation relationships unchanged, but no relationship between demographic estimates and second-order beliefs was statistically demonstrated.

Proposing a model to extend that of Hawkins, et al. (1987), Potter (1991) examined three subprocesses of cultivation (see Figure 1). The processes were learning -- the relationship between viewing and perceptions about life on television; construction -- the relationship between perceptions about life on television and perceptions about life in the real world; and generalization -- the relationship between first-order estimates and second-order beliefs in both the real world and the TV world. Potter empirically demonstrated the construction subprocess for first-order estimates: respondents who reported higher estimates of violence on television also reported higher estimates of crime in real life. But among second order beliefs there was no support for the construction subprocess. His data also supported the generalization subprocess; among both television and real world judgments, first-order estimates and second-order beliefs were statistically, positively related. However, there was no support for the learning subprocess. No relationship between viewing and first order beliefs was evident. This meant the two processes thought to underlie cultivation, construction and generalization, were unrelated to television exposure -- the antecedent variable in the cultivation model.

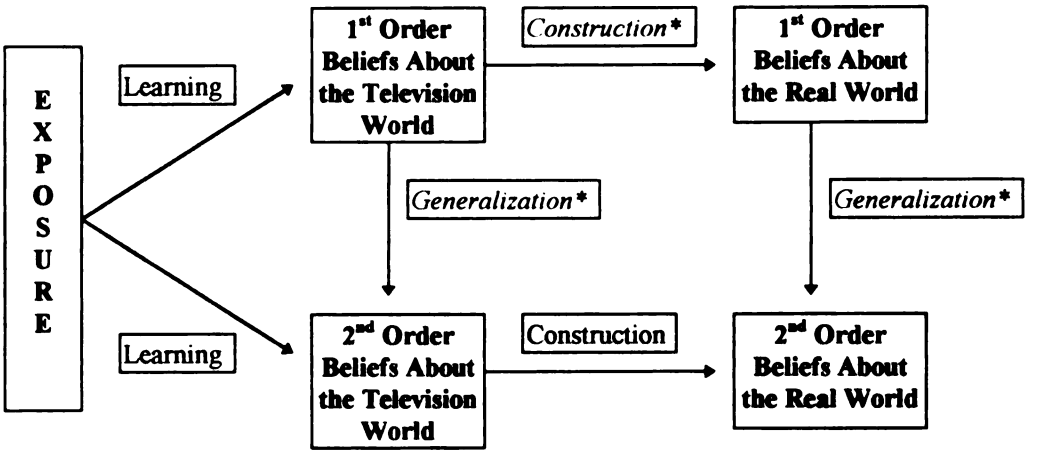

Figure 1. Three Subprocess Model Proposed by Potter (1991).

* Subprocesses in italics with asterisks were supported empirically.

A separate but related model, proposed and tested by Pingree (1983) suggested viewers draw inferences about the world from the television content they view. Pingree hypothesized that young viewers who are better able to draw inferences from programs should be more influenced by media exposure. She assessed children's ability to infer an answer from two temporally separate pieces of information in a television program. Again, the data did not support the model. The results indicated children with lesser inferential ability were more affected by television exposure, rather than less influenced as predicted.

From a social learning perspective Greenberg (1988) has theorized that all television portrayals are not equally important to viewers. Rather, "critical images may contribute more to impression-formation and image-building than does the sheer frequency of television characters and behaviors that are viewed" (p. 100). He proposed instead of counting the raw frequency of individuals and behaviors that appear on

television, media effects researchers might focus on identifying roles that stand out and are more important viewing experiences. This suggests a methodology in which groups of viewers who share critical portrayals are studied. But identifying the critical portrayals is problematic. Ever increasing audience segmentation, varying levels of attention and involvement elicited by programs, and individual differences in viewing motives and behaviors, make difficult the task of identifying viewers who share a critical portrayal. Indeed, Greenberg warned that attempting to separate the critical portrayals from the chaff of television programming may lead to "a hodgepodge of [portrayals] more idiosyncratic than common across viewers..." (p. 99).

An alternative to searching for groups of viewers who share a common viewing experiences is to have viewers identify portrayals that are critical for them, then investigating the common characteristics among those different portrayals. This would leave the researcher with the task of finding similarities in the group of portrayals, a less daunting task. Two independent research efforts have moved in this direction from a cognitive processing perspective.

Memory and Social Judgment

Shapiro (1991) investigated individuals' memories of media portrayals as predictors of social judgment. He proposed that individuals recall event-memories -- memories of events and situations -- from both interpersonal and mediated experiences in order to make social judgments. His model suggested that when individuals are asked to make a social judgment, they recall related event-memories, give them weight according to their source -- direct observation, TV news, TV fiction, etc. -- and then base their judgment on the sum of the weighted event-memories. His study involved measuring

respondents' exposure to four media (fictional television, television news, magazines and newspapers, and books), as well as their perceptions of the prevalence of crime and the distribution of various demographic groups, such as professionals and the elderly. (Scale items were not published.) Then respondents were given six minutes to recall as many examples as they could of crimes, crime victims, law enforcement personnel, elderly people, people between 25 and 45 years of age, and professional workers.

Results indicated exposure to television news and exposure to print media were positively and significantly related to the number of crime examples respondents generated from those sources. Also, exposure to television news, fictional television, and print media were positively related to the number of examples generated of people – elderly, young adults, those in law enforcement, and professionals. Generally, greater exposure to a medium corresponded to more examples from that medium. The second proposition of the model was not supported however. Respondents who generated more event-memories of crime and people were expected to judge society as more crime ridden and more demographically skewed. Instead a negative relationship resulted. Respondents who generated more examples viewed society as less crime ridden and less demographically skewed. Despite lack of support for the proposed model, it is important to note that this study established a link between exposure to a medium and availability of memories from that medium. It also took a step toward measuring exposure to specific portrayals, rather than measuring total exposure to a medium or genre.

Accessibility and Social Judgment

Shrum and O'Guinn (Shrum, 1996; Shrum & O'Guinn, 1993) have also investigated cultivation from a cognitive processing perspective. Their research implicates

memory, though only indirectly. They proposed an accessibility[1] explanation, arguing cultivation can be explained, at least partly, through cognitive heuristics, specifically the accessibility heuristic (Tversky & Kahneman, 1973). Accessibility refers to the ease with which one can recall information from memory. Accessibility heuristic refers to a phenomenon wherein the ease with which one can recall information related to a judgment influences that judgment (for a review, see Sherman & Corty, 1984). For example, one's estimate of the divorce rate in the U.S. may be influenced by the ease with which a divorced friend comes to mind (Fiske & Taylor, 1991). Also referred to as availability bias, the accessibility heuristic has been demonstrated to influence judgments of probability, frequency, and set size (Fiske & Taylor, 1991; Manis, Shedler, Jonides, & Nelson, 1993), which are similar to the first-order estimates studied in cultivation and social reality research.

When accessibility heuristic is applied to the cultivation hypothesis, the logic is as follows: Heavy exposure to television leads to more accessible information related to events and situations that commonly appear in television content, such as violent crimes, sexual activity, or examples of affluence. Greater accessibility of this information in memory should lead to higher estimates of their frequency or higher estimates of the probability they will occur. Therefore, when asked to estimate the frequency or likelihood of events and situations that are commonly portrayed on television, heavier viewers will make higher estimates than lighter viewers because related information will come to mind more easily for heavier viewers.

Two studies investigating this process have shown promise. These studies focused on judgment latency – the amount of time respondents take to answer a social judgment

question – as an indicator of information accessibility.[2] Shrum and O'Guinn (1993) measured respondents' exposure to action/adventure programs, drama programs, and movies, and asked five cultivation questions. The cultivation items asked respondents to estimate their chances of being victimized by crime, the percent of Americans who use cocaine, alcohol, or prostitutes, and the percent of combatants killed in World War II. These judgments were thought to be influenced by the three viewing areas. The researchers also measured the amount of time each respondent took to answer each cultivation item – judgment latency.

The results indicated that media exposure was positively related to social judgments. As the cultivation literature predicts, total television viewing, as well as viewing in specific content areas, was positively related to estimates of the prevalence of crime, use of drugs and prostitution, and war deaths. More important was the relationship found between exposure and judgment latency. Heavier viewers made judgments more quickly than lighter viewers. That is, heavier viewers judged the world to be more violent, war to be more deadly, and Americans to be heavier drug and prostitution users than lighter viewers, and heavier viewers took less time to make those judgments than lighter viewers. The researchers argued this was evidence that the information used to make cultivation-type social judgments is more accessible in the memories of heavier viewers.

Shrum (1996) replicated and extended this study, this time using path analytic techniques to demonstrate that judgment latency mediates the relationship between television viewing, specifically soap opera viewing, and real-world estimates of crime and prevalence of certain professional occupations. He found soap opera viewing influenced judgments of crime and occupational prevalence directly, as well as indirectly through the

latency of those judgments. This model was not supported when respondents made judgments about marital discord (e.g. "What percentage of couples get a divorce?").

The two studies described above (Shrum, 1996; Shrum & O'Guinn, 1993) empirically support the hypothesized relationships between both judgment latency and exposure to television and between judgment latency and social judgments. Further, they place judgment latency in a mediating role between television exposure and social judgment. However, the research thus far leaves open the question of what type of information is being accessed in order to make these first-order social judgments.

Exemplar Accessibility

Shrum and O'Guinn have speculated about precisely what heuristic processes are most likely to influence social judgment latency. There are a number of possibilities. For example the ease with which individuals are able to imagine an event or the ease with which they can retrieve a prior judgment has been shown to influence subsequent judgments (Shrum, 1996, pp. 49-50; also see Fiske & Taylor, 1991, p.392).

In the literature regarding judgments about the traits of individuals (e.g. whether a person is honest or dishonest), there is evidence that both the accessibility of specific examples and the accessibility of abstractions or prototypes influence judgments heuristically. Those studies suggest exemplars are more influential when little information is available. However, as the evaluator gains more knowledge about the object of judgment, prototype accessibility increases (Sherman & Klein, 1994). In order to follow Shapiro's (1991) investigation of example availability and because of suggestions made by Shrum (1996) and Greenberg (1988), the present study specifically investigates the

influence of exemplar accessibility on social judgment, rather than the availability of more abstract forms of information in memory.

An exemplar is defined as a cognitive representation of an object, incident or behavior that is similar to the current target judgment (Smith & Zarate, 1992). For example, when an individual is making a judgment about incidents, such as traffic accidents, the relevant exemplars are representations, or memories, of traffic accidents the individual has experienced personally, interpersonally, or through the media. Exemplar accessibility is the ease with which an example of the judgment at hand is recalled. Accessibility is generally operationalized as the amount of time required to recall an a piece of information. It is hypothesized that exemplar accessibility is negatively related to first-order social judgment estimates – exemplars recalled more quickly will be associated with higher social judgment estimates. Formally stated:

H1: Individuals who retrieve an exemplar more quickly, have greater exemplar accessibility, will make or more extreme social judgments related to that exemplar than individuals who retrieve exemplars more slowly.

The ease with which one can recall and example, exemplar accessibility, should be related to television exposure if examples are prevalent in one's television diet and are not otherwise prevalent in one's experiences. For example, if attorneys are portrayed frequently in some types of television programming, heavy viewers of those types of programming should have more accessible examples of attorneys than lighter viewers or non-viewers of those program types. However, if many examples of attorneys are available both in the real world and on television, one would expect no relationship between viewing and accessibility of attorney exemplars. Primarily when examples appear

frequently on television and rarely in the individual's real world experiences, would one expect a difference in the accessibility of those examples between heavy and light viewers. Therefore, for objects, incidents, and behaviors that occur frequently in the media and infrequently in real life, one would expect heavier media consumers to have more accessible exemplars than lighter consumers. Formally stated:

H2: For objects, incidents, and behaviors that are prevalent on television and rare in the real world, individuals who watch more television will retrieve exemplars more quickly than individuals who watch less television.

If exemplar accessibility is at least partly responsible for the relationship between television exposure and social judgment, then the exposure-judgment relationship must first exist -- the cultivation relationship itself must be demonstrated. Hypothesis Three replicates previous cultivation findings and demonstrates the existence of a relationship between television exposure and social judgment. Formally stated:

H3: Individuals who watch more television within a content area will make more extreme, social judgments related to that content, than individuals who watch less television within a content area.

If exemplar accessibility is responsible for even part of the relationship between exposure and social judgment, controlling for the influence of exemplar accessibility should reduce the strength of the exposure-judgment relationship. Formally stated:

H4: Exemplar accessibility will mediate the relationship between television exposure and social judgment, such that controlling for exemplar accessibility will reduce or eliminate the correlation between viewing and social judgments.

Figure 2 diagrams the relationships among variables in Hypotheses 1, 2, 3, and 4.

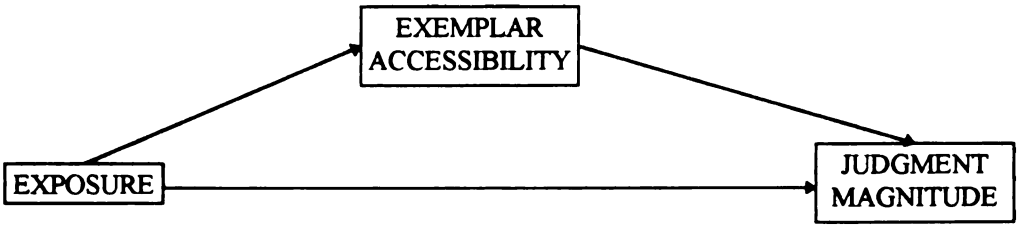

Figure 2. Expected Relationships Among Variables Measured in Hypotheses 1 through 4.

A secondary purpose of the study is to replicate the findings of Shrum and O'Guinn (Shrum 1996; Shrum & O'Guinn, 1993) regarding judgment latency. This requires three additional hypotheses, which are formally stated below.

H5a: Individuals who watch more television will make social judgments more quickly than those who watch less television.

H5b: Individuals who make social judgments more quickly will make greater, or more extreme, social judgments.

H5c: Judgment latency will mediate the relationship between television exposure and social judgments, such that controlling for judgment latency will reduce or eliminate the correlation between exposure and social judgments.

Figure 3 diagrams the relationships among the variables measured in Hypotheses 5a, 5b, and 5c.

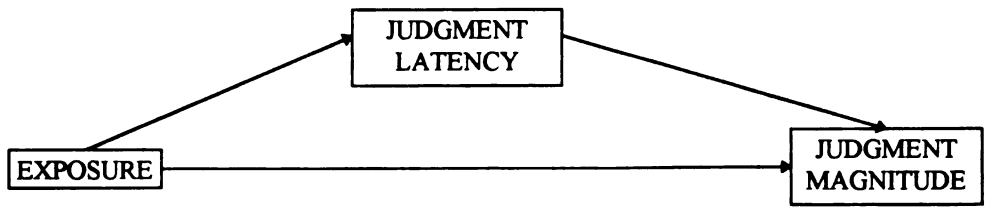

Figure 3. Expected Relationships Among Variables measured in Hypotheses 5a, 5b, and 5c.

Influences on Exemplar Accessibility

The hypotheses posited thus far are intended to extend the accessibility heuristic explanation of cultivation effects by investigating the relationships among television exposure, social judgments and exemplar accessibility. As well as attempting to demonstrate that exemplar accessibility is influenced by television exposure and in-turn influences social judgments, this study investigates five factors that may make media portrayals more memorable and more accessible. Aside from control variables which will be discussed later, there are two groups of variables of interest in this study that may influence exemplar accessibility. The first group of three variables represent characteristics of the portrayal. They are the distinctiveness, severity, and perceived realism of the individual or event as judged when the exemplar is recalled. These exemplar attributes are thought to be stored in long-term memory in association with the exemplar, when the exemplar is experienced (Fazio, 1986). They will be referred to as exemplar characteristic variables.

The second group of exemplar related variables is not directly related to the characteristics of the portrayal. Rather, these variables reflect the temporal proximity of the exemplar's observation or activation relative to the time it is recalled as part of the judgment process. These variables are recency of activation and frequency of activation (for reviews, see Higgins & King, 1981; Sherman & Corty, 1984; Wyer & Srull, 1989). They will be referred to as exemplar activation variables.

In the following section, the exemplar characteristic and exemplar activation variables are defined and their hypothesized relationships to exemplar accessibility are described.

Exemplar Characteristic Variables

The following three variables, distinctiveness, severity, and perceived realism, are considered to be characteristics of the event and subsequent exemplar, and are believed to influence the exemplar's accessibility.

Exemplar Distinctiveness. The distinctiveness of a construct is positively related to its accessibility (Higgins & King, 1981). Distinctiveness is defined as the extent to which a construct's attributes are different from the attributes of other constructs in the same category. Higgins and King use Sesame Street's Big Bird as an example. Among Sesame Street characters, Big Bird's size and bright color make him stand out from other characters. This increases his accessibility among all Sesame Street characters in viewers' memories. The same principle should apply to memories of events. Memories of more distinct events and situations should be more accessible than memories of less distinct events.

How should distinctiveness of media events be defined? A number of attributes can be identified that may apply to an event within a category, and may contribute to that event's distinctiveness. For instance, if the social judgment category is shootings, important attributes could include the identity of the victim or assailant (e.g., a public figure), the number of victims or assailants, or the location of the incident (e.g. across from the White House). Individuals may use other attributes to determine distinctiveness; attributes only they find useful and a researcher cannot anticipate. For example, if an individual believes most victims are shot by someone they know, then for that individual, a shooting in which the victim and assailant are strangers may be distinct. Thus, prior beliefs, such as beliefs about the category, may influence current judgments (Smith & Zarate, 1992). Further, respondents may judge an example distinct without being able to identify what makes it distinct. The purpose here is not to determine what characteristics or attributes render an exemplar distinct, rather it is to measure the extent to which individuals judge the exemplars they report as distinct within the respective category. For this reason, distinctiveness is defined operationally as 'the extent to which an individual judges an exemplar as atypical or unusual relative to other members of the same category.' It is hypothesized that an exemplar's distinctiveness is positively related to its accessibility. Formally stated,

H6: Distinctiveness will be positively related to exemplar accessibility.

Severity. The extent to which an event or situation is perceived as a severe example of a category has been show to influence subsequent judgments related to that example. In one study Gibson and Zillmann (1995) had subjects read a newspaper story about the incidence of carjackings. The story contained information about the proportion

of carjackings resulting in no injuries, minor injuries, severe injuries, and death. The story also contained an example of a carjacking. In the experimental example, a woman was either not harmed, received minor cuts and bruises, broke her arm when she was thrown from the car, or was dragged by the car and killed. Subjects read the story and judged the seriousness of carjacking as a national problem and the percentage of carjackings that end in fatality. The subjects' judgments were significantly higher in the broken arm condition than when the woman's injury was less severe, and significantly greater still when the example carjacking resulted in the victim's death. Also, one week later, judgments of the seriousness of this social phenomenon had increased in a linear fashion, positively related to the severity of the example in the news story. This suggests severity of the exemplar influences subsequent judgment. While it would be good to know whether the more severe carjacking examples were more accessible for subjects, there was no measure of judgment latency. However, the demonstrated influence of exemplar severity on subsequent judgment suggest severity may be important for two reasons. First, its influence on social judgments, if present, should be controlled. Second, severity may be confounded with distinctiveness. This issue is discussed next.

Severity may contribute to an exemplar's distinctiveness, or distinctiveness may result from some other characteristic. For example, a bank robbery may not be severe but may be distinct if, for example, the robbers wear Bob Dole masks. While no one is injured and an unexceptional amount of money is taken, the masks may cause the robbery to stand out in memory within the category of bank robberies. However, severity and distinctiveness also may be confounded. For example, a murder may be portrayed in which one victim is shot twenty times. Here the severity is what makes the event distinct,

and without the severity of the act, the event would not stand apart from other examples in the category. For the purposes of this study severity will be treated as separate from distinctiveness. It is hypothesized that more severe exemplars will be more accessible than less severe exemplars.

H7: Severity will be positively related to exemplar accessibility.

Perceived Realism. Research into accessibility heuristics has not addressed the issue of perceived reality. However, there is reason to believe the perceived realism of information influences its accessibility (Johnson, Hashtroudi, & Lindsay, 1993). Potts, St. Johns & Kirson (1989) found that individuals compartmentalize information they believe to be fictional away from their real-world knowledge. They demonstrated this by having subjects learn information that was ostensibly real or fictional. They then primed half of each group to think about either the experimental information or unrelated, real-world information. Subjects who were in the fictional condition answered questions about the experimental story faster when primed to think about the experimental facts, but subjects in the real information condition answered the same questions faster when primed to think about unrelated, real-world facts, supporting the compartmentalization argument. Potts, et al. suggest separating fictional information from real-world information allows for more efficient cognitive processing because the fictional information is less likely to be retrieved when real-world judgments are required. Thus, we encode information according to its expected future utility. If we expect information to be useful in our everyday lives, we incorporate it into our real-world knowledge. However, if we expect that information applies only to the fictional situation in which it was encountered, we may

compartmentalize it away from our real world knowledge (Potts, et al., 1989; Gerrig & Prentice, 1991).

The exemplars individuals recall when making social judgments may be real or fictional and may come from media portrayals or the real world. If exemplars are observed in the real world, they are true. That is, if someone sees a traffic accident on her way home from work, she undoubtedly believes the accident actually happened. However, if an exemplar originates in the media, it may or may not actually have happened. Some exemplars observed in the media may originate in news programs or documentaries, in which case viewers may assume they are true, and completely accurate portrayals of real-life events. However, when exemplars are believed to be fictional or not completely accurate presentations of real-life, the extent to which viewers perceive events as real may vary, which should influence the event's accessibility.

The perceived realism of a portrayal has many determinants, (for a discussion, see Potter, 1988). One of the most important determinants is the source of the portrayal, or the program in which it was presented. For example, events portrayed in news programs, talk shows, or reality based crime programs, such as Cops or Real Stories of the Highway Patrol, are presented as being real. In fact, reality-based crime programs often begin with an announcement attesting to the authenticity of the events about to be portrayed. Conversely, events portrayed in drama programs like NYPD Blue are presented as fictional (Potter, 1995). Thus, the program itself, or the source of the exemplar, may determine whether viewers perceive the event as real or fictional. This may be referred to as source determined realism. Research indicates information and its source are stored in memory

separately (Pratkanis, Greenwald, Leippe, & Baumgardner, 1988). However, respondents are able to recall the source of examples when asked to do so (Shapiro, 1991).

When the type of program does not imply the realism of a portrayal, individuals are left to judge for themselves the extent to which the event represents the real world. There are individual differences in these judgments. One viewer may perceive events presented in Cops as equal to those presented in a news program in terms of realism, while another may dismiss them as fiction (Busselle, 1991, National Social Trust, 1997). Further, one viewer may perceive an event in a fictional program, like NYPD Blue, as pure fantasy, while another may judge the same event as accurately reflecting the real world, while acknowledging it did not actually occur.

The extent to which individuals perceive television content as real has been shown to vary on as many as six dimensions (Busselle, 1995). This study is concerned with two judgments of perceived realism; the extent to which a viewer believes the exemplar actually occurred in real life and the extent to which the exemplar represents something that could plausibly happen in real life. Both are hypothesized to be related to exemplar accessibility.

Perceived realism is defined as the extent to which respondents believe the exemplar represents the real world. It is expected to be positively related to exemplar accessibility; events perceived as more realistic will be more accessible. Formally stated:

H8: Perceived realism will be positively related to exemplar accessibility.

Exemplar Activation Variables

Recency of Activation. This is amount of time that has elapsed since an individual observed or thought about an exemplar. Information that has been activated more recently has been show to be more accessible than information that has greater temporal

distance (Higgins & King, 1981). The media portray certain categories of events or situations often, such as violent acts (Gerbner & Gross, 1976; Gerbner & Signorielli, 1990), sexual behavior (Greenberg & Busselle, 1994), and certain professional occupations (Greenberg, 1980). So, for heavier viewers, there should be less temporal distance between the retrieval of an exemplar for social judgment purposes and the most frequent prior activation of that exemplar. At least this should be true if the exemplar comes from a category of events frequently portrayed on television. However, when the initial observation occurred is not the only important measure of activation recency. Individuals may activate an exemplar after it is initially observed. An individual may think about or discuss both non-mediated and mediated events after their initial observation, and they may do this more than once. For example, an individual may watch a program, think about it the next day, and talk about it the following evening with friends. In which case the exemplar would have been activated more recently than at its initial observation. It is hypothesized that exemplars activated more recently, either because they were observed more recently or because they were thought about or discussed more recently, will be more accessible that those activated less recently.

H9: There will be a positive relationship between the amount of time since the individual last thought of the exemplar (recency of activation) and the amount of time required for the individual to recall that exemplar (exemplar accessibility).

Frequency of Activation. Information that is activated more frequently has been shown to be more accessible than information that is accessed less frequently (Wyer & Srull, 1980, cf. Higgins & King, 1981), and therefore may be more likely to influence

social judgment. It is hypothesized that this will be true of exemplars. Formally stated:

H10: There will be a negative relationship between the number of times a respondent has thought about or discussed an exemplar (frequency of activation) and the amount of time required for a respondent to recall that exemplar (exemplar accessibility).

Control Variables.

Other variables may be related to social judgments and response latency. These variables will be measured for control purposes. They are grade point average, reading speed, family income, need for cognition, impulsiveness, attention to TV, viewing intention, and perceived reality of television. Each is discussed below.

Grade Point Average. Intelligence may influence mental processing speed, which in-turn may influence response time (Shrum, 1996). Grade point average (GPA) has been used as a surrogate measure of intelligence.

Reading Speed. Heavier viewers may read more slowly than light viewers (Shrum, O'Guinn, & Semenik, 1991). Shrum (1996) points out that if this is so, the slower reading time may attenuate the anticipated difference between the response times of heavy and light viewers, and in-turn attenuate a correlation between viewing and response latency.

Family Income. Socioeconomic status (SES) may be related to experience with a number of social judgment issues, such as crime, violence, domestic discord, and exposure to various social and occupational groups.

Need for Cognition. Need for cognition (NFC; Cacioppo & Petty, 1982) may be important for two reasons. First, it may be related to the amount of cognitive energy individuals put forth in making social judgments, which would influence exemplar accessibility. Individuals with low NFC may give items less consideration and respond

more quickly. Second, NFC has been related to processing strategies. Haugtvedt, Petty, and Cacioppo, (1992) found low NFC individuals are more likely to process heuristically. This too may influence response times.

Impulsiveness. Impulsivity may be related to the amount of consideration individuals give a question before they respond to it. If so, controlling for impulsiveness may eliminate some error variance in the measured relationship between response time and social judgment.

Viewing Characteristics. Three television viewing characteristics or viewing habit variables may also be related to exemplar accessibility or social judgments. They are viewing intention – the extent to which one plans to watch a program or is purposive in one's television consumption; attention when viewing – the amount of cognitive energy one expends when watching television; and perceived realism of television – the extent to which one judges television in general to reflect reality. Viewing intention and attention when viewing have been weakly linked to two social attitudes, faith in others, and life control (Rubin, Perse, & Taylor, 1988), which may in turn be related to social judgment. Also, viewing intention and attention when viewing may influence the kind of information that is attended to and encoded while viewing (Shrum, 1996). One's perceptions of the realism of television also may influence how information is encoded and stored at the time of viewing, which, as discussed earlier may influence the likelihood of that information being retrieved later (Potts, et al., 1989; Gerrig & Prentice, 1991).

These variables are not included in the hypotheses of this dissertation. They are addressed only so that if they do impact on hypothesized relationships, their influence can be assessed.

CHAPTER II

Methodology

Design

This was a survey. There was no manipulation. Data were collected at two points in time, referred to as Time 1 and Time 2 data collections. All respondents first completed a questionnaire measuring television exposure, background variables, viewing characteristics, impulsiveness and need for cognition. Six to eight weeks later respondents completed a one-on-one, computer assisted survey and personal interview. This procedure consisted of a computer administered social judgment questionnaire measuring social judgment and judgment latency, and a computer assisted exemplar accessibility procedure measuring exemplar accessibility and the following exemplar characteristics: exemplar accessibility, source of exemplar, perceived realism of the exemplar, exemplar seriousness, exemplar distinctiveness, recency of the exemplar's activation, and frequency of the exemplar's activation.

Respondents were divided into two groups during the Time 2 data collection. The groups were matched on gender. One group completed the social judgment survey first. The other group performed the exemplar accessibility task and interview first. (See Figure 4). Respondents were divided into these two groups because of a natural confound between judgment latency and exemplar accessibility which introduces a validity threat and prohibits both from being measured within the same respondent. The threat is this: Asking a respondent to make a social judgment (e.g. What percent of Americans have extra-marital affairs?) may prime specific examples of that judgment, which would in-turn artificially increase exemplar accessibility.

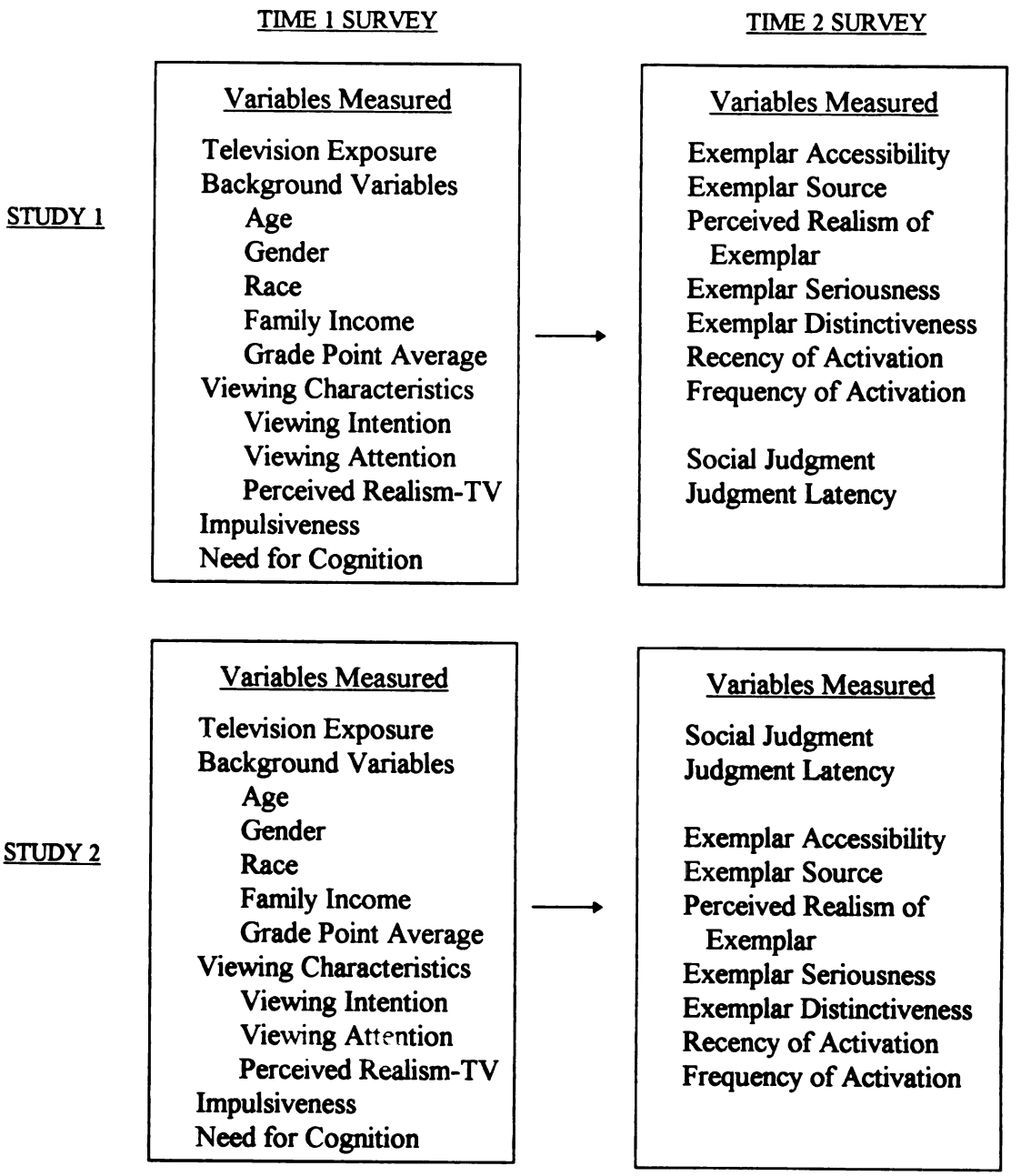

Figure 4. Study Design

Conversely, asking respondents to report an example of a behavior or event (such as an extra-marital affair) may prime the topic, thus influencing judgment latency. Measuring either variable first should influence the variable measured second. Because of this potential priming effect and threat to validity the data are treated as two separate studies. They will be referred to as Studies 1 and 2. Study 1 tests the proposition that television exposure is related to exemplar accessibility, which in turn is related to the social judgment. In Study 1 the exemplar accessibility task was performed before the social judgment questions were given. Study 2, the judgment latency study, tests the proposition that television exposure is related to judgment latency, which in turn is related to social judgment. In Study 2, the social judgment questions were answered before the exemplar accessibility task was performed. Data from the two studies are combined only when analyses involve variables measured in Time 1 exclusively. There were no statistically significant age, grade point average, or income differences between respondents in the two studies.

Pretesting

The purpose of pretesting was to find social judgment categories about which the majority of respondents' knowledge originated in the media, and most examples of which were observed in television programs or movies. The social judgment categories that would be used had to meet four criteria: 1) Examples of the categories had to appear regularly in television programs watched by respondents. 2) Categories had to relate to questions heavier viewers could be expected to answer differently from lighter viewers. 3) Categories had to cover topics with which respondents would have relatively little first-

hand experience. 4) Due to the nature of the exemplar accessibility task, the categories had to be immediately recognizable to the respondents, and should require no clarification.

Selection of Social Judgment Items and Exemplar Categories. The primary goal of the study was to demonstrate relationships among television viewing, the accessibility of media examples, and social judgments related to those examples. These three variables likely are related to each other through common topics or issues. For example, viewing crime should avail the viewer to examples of crime, which in turn may influence judgments about crime. Conversely, one would not expect viewing crime to be related to examples of or judgments about extra-marital affairs. Also, it was expected that the media would have greater influence on judgments related to topics with which respondents have little real-life experience. To identify social issues or events students have experienced in the media, but not in real life, a survey was conducted. Students (N=21) volunteered to take the survey home, complete it, and return it during the next class period. Respondents were given 26 categories (e.g. shootings, female doctors, AIDS), asked to think of one example from each category, and instructed to indicate where they observed the example. Possible responses were "TV," "Movie," "Radio," "Paper," "Book," "Someone else," and "Personal observation." They were also asked to "indicate where you learned most of what you know about" each category. Responses ranged from zero-percent to 100-percent from the media, in 10-percent increments (see Table 1).

Table 1

Origin of First Example & Percent of Information Originating in Media by Category

Judgment Category	Mean*	TV**	Movies	Radio	Paper	Book	Someone Else	Personal Observation
Black Doctors	96%	16	1	0	0	0	0	4
Cross Dressing	81	15	3	0	0	0	1	2
Stabbings	80	10	9	0	2	0	0	0
AIDS	78	16	1	0	2	0	1	1
Cheating Lovers	76	15	2	0	0	2	0	2
Shootings	73	8	10	1	0	0	2	0
War	72	11	6	0	1	2	1	0
Physical Assault	68	14	4	0	1	0	1	0
Traffic Deaths	64	7	3	3	4	0	1	3
Rape	60	10	5	2	1	0	2	1
Doctors	37	9	0	0	0	1	3	8
Female Doctors	91	10	1	0	0	1	1	7
Lawyers	61	12	1	0	0	0	0	7
Cops	56	7	2	1	0	0	0	11
Female Cops	48	8	2	0	0	0	0	10
Heart Attacks	49	12	1	0	0	0	5	3
Homosexuality	65	10	3	0	1	0	3	4
Divorce	57	7	2	0	0	0	8	4
Spousal Abuse	59	14	3	0	1	0	2	1
Burglary	63	8	3	1	3	0	2	4
Alcoholism	57	7	4	0	1	0	6	3
Illegal Drug Use	60	6	3	0	1	0	3	8
Nurses	45	10	1	0	0	0	4	6
Male Nurses	47	13	0	0	0	0	2	6
Strokes	48	8	0	0	1	0	9	3
Rich People	61	9	6	0	0	0	1	5

N = 21

* Mean percent of information about a category learned from media.

** Number of respondents who said the example they thought of came from each communication category.

There were two initial criteria for topic selection. A topic was considered if 1) on average, respondents reported that 60-percent or more of their knowledge about the topic came from the media, rather than interpersonal sources and 2) no more than four respondents reported that their first example of the topic came from an interpersonal source or personal observation. That is, the respondents' examples came from the media, and their knowledge about the categories came from the media. Ten categories met this criteria (bolded in Table 1). Spousal Abuse was added to the list of possible categories even though it was one-percent short of the 60-percent criteria, resulting in eleven categories (Shootings, Stabbings, Physical Assault, Black Doctors, AIDS, Cross Dressing, Spousal Abuse, Rape, War, Traffic Deaths, and Cheating Lovers). The category selection process continued with each category topic being considered individually. A description of that selection process follows.

Stabbings were eliminated because of recent, heavy coverage of the O.J. Simpson Trial.

Physical Assault was eliminated because it was judged too broad a category. It was anticipated that respondents would ask for clarification when presented with the category, rendering their response times invalid.

War was eliminated for the same reason; respondents would likely vary greatly in their assumption of which war the prompt referenced.

Cross-dressing was eliminated because its portrayal is uncommon in the media, except as an occasional talk show topic.

Rape was eliminated because of the abundance of public-health and pro-social information available to students.

AIDS was dropped because it is not yet a common topic in fictional television, statistics about its prevalence are reported regularly in the news media, and the topic did not lend itself to the social judgment questions the researcher had in mind.

This left five categories: Shootings, African-American Doctors, Spousal Abuse, Traffic Deaths, and Cheating Lovers. Two categories not on the original list were added: Medical Emergencies and Fires. The Medical Emergencies category was added as an attempt to match an issue with the program E.R., the most watched fictional drama by students in another pretest. The category, Fires, was added because of the prevalence of news stories about house fires on local newscasts.

Pretest of Exemplar Categories. The seven exemplar categories were pretested with 14 respondents. Except for one category, African-American Doctor, the majority of examples generated by the pretest respondents came from real-life (see Table 2). The procedure took approximately 27 minutes per respondent. It was decided that five examples was the maximum number obtainable in a 20-minutes session.

Table 2
Respondents' Real-life and Fictional Examples Among Pretest Categories.

Exemplar Category	Real-life	Fictional
A BURNING BUILDING	10	2
SOMEONE SHOT WITH A GUN	11	2
AN AFRICAN-AMERICAN DOCTOR	2	11
A TRAFFIC ACCIDENT	12	1
CHEATING ON A SPOUSE OR LOVER	9	3
SPOUSAL ABUSE	12	1
A MEDICAL EMERGENCY.	11	3

* Rows do not equal 14 because all respondents did not report acceptable examples for all categories.

Elimination and Modification of Exemplar Categories. The majority of examples reported were real-life events or real individuals. The category, "A Burning Building" was problematic for two reasons. First, it elicited only two fictional examples. Second, it was not specific enough for the purposes of the study. Respondents reported examples ranging from small kitchen fires to large industrial fires and the Oklahoma City bombing. It would be impossible to relate these varied examples to one or a few social judgment questions. This category was dropped.

The category, "Someone Shot With A Gun" was less problematic because all examples were of shootings related to crime and could be expected to relate to social judgments about crime. This category was retained.

Two real-life "African-American Doctor" examples were reported as responses to that category. They were "Martin Luther King, Jr." and a university administrator who has a Ph.D., rather than medical doctors. This category was changed to "African-American Medical Doctor" and retained.

"A Traffic Accident" was modified to "A Serious Traffic Accident" and retained. It was believed this would reduce the number of minor accidents respondents reported and increase the number of serious accidents respondents would have seen in news reports.

The "Cheating On A Spouse Or Lover" category elicited eight examples of friends or roommates being unfaithful to their boyfriend or girlfriend. It was hoped this category would be related to soap opera viewing. In an attempt to reduce the number of "friend" examples and increase the number of media examples the category was changed to "A Husband Or Wife Having An Affair."

The majority (seven of twelve) respondents reported the O.J. Simpson case as an example of "Spousal Abuse". This category was dropped because it would be impossible to measure media exposure to the Simpson case.

The "Medical Emergency" category was dropped because, as with the "building fire" category, the examples reported were judged too varied. Examples reported by the pretest respondents included a cut finger, a roller-blading accident, a father's heart attack, an allergy attack, and two personal medical emergencies the respective respondents did not feel comfortable discussing.

The pretest resulted in four acceptable categories after modification: "Someone Shot With A Gun," "A Husband Or Wife Having An Affair," "An African-American Medical Doctor," and "A Serious Traffic Accident." A fifth category was added, "A Police Officer." The reason for adding this category was the prevalence of police officer characters on television and the use of social judgment questions about police officers in past media effects research.

To increase the number of fictional media examples respondents would report, a priming stimulus was used in the form of practice example categories. The practice categories were "an actor or actress" and "a high-speed chase." It was thought these practice categories would increase the number of fictional examples reported by respondents.

Respondents

Time 1 Surveys were completed by 463 undergraduate students from four telecommunication classes. Of the 463 respondents, 211 volunteered the for Time 2

Survey procedure. Five of those 211 were dropped from the study because the researcher judged they did not understand the exemplar accessibility task or did not take the task seriously. This resulted in 206 respondents who participated in both phases of data collection.

Of the 206 respondents, 107 were male and 99 were female (see Table 3). Ages ranged from 18 to 32; the average age was 21.2 years; 95-percent of respondents were between 18 and 24 years old. Respondents' race was distributed as follows: 165 were white; 17 African-American; 13 Asian; seven other; and four respondents did not answer the question. Respondents entered the name of the hometown, state, and country in which they "grew up." One-hundred-sixty-four respondents were from within the state of Michigan, 29 were from the U.S. outside Michigan, 10 were from outside the U.S., 3 respondents did not answer the question. The average family income fell between $60 and $70-thousand dollars per year. The mean grade point average was slightly below 3.0 on a 4.0 grading scale. These statistics are presented in greater detail in the Measures Section.

Table 3
Number of Respondents in Studies by Gender and Race

	Males				Females				
Study 1	53				49				
Study 2	54				50				
	Wht	AfrAm	AsAm	Other	Wht	AfrAm	AsAm	Other	Miss.*
Study 1	46	1	6	0	39	4	3	2	1
Study 2	45	5	2	2	35	7	2	3	3

* There were no missing race data for males.

Procedures

Time 1 Data Collection. Students in six sections of four telecommunication classes were given extra credit to take the Time 1 Survey home, complete it, and return it at the next class meeting (Time 1 Survey is in Appendix B). They also were told they would have another opportunity to earn more extra credit if they participated in another, ostensibly separate, study later in the semester. The researcher visited each class twice between February 19 and March 3; one time to handout Survey 1 and a second time to collect the competed instruments. Students who were absent during the researcher's first visit were given the survey during the second visit. Those surveys were completed and given to the respective course instructor during the next class meeting, and were then relayed to the researcher.

Time 2 Data Collection Scheduling. The researcher returned to each class between March 12 and March 26 to recruit students for the Time 2 data collection procedure. Sign-up sheets were circulated allowing interested students to schedule a convenient time to visit the lab. The second data collection took place between March 20 and April 21.

Data collection sessions were scheduled every 20 minutes between 8:20 a.m. and 9:00 p.m. Monday through Thursday and between 8:20 a.m. and 4:40 p.m. on Fridays. The procedure took between 15 and 25 minutes per respondent. If a session ended more than 10 minutes after the next session was scheduled to begin, the later session was canceled and the student was give credit even though she or he did not participate.

Time 2 Data Collection Location and Equipment. Data were collected in a small room containing two chairs at a table. An IBM 386 computer, a 14-inch color monitor,

and an extended keyboard were on the table. The researcher started each program, then gave the respondent the keyboard and told the respondent that she or he would be using only the numbers pad at the right side of the keyboard and to put the keyboard where it was most comfortable.

Exemplar accessibility, social judgment, and social judgment response time data were collected using the student version of MEL LAB 1.6 computer program. (MEL LAB, 1994).

Time 2 Data Collection

Reading Speed Measures. Upon entering the room, respondents were instructed to sit at the computer and to read and sign a consent form (Appendix C). No respondent refused to participate. Respondents were then read the following description of the study:

> *This procedure involves three surveys. They are similar to surveys you've competed before with a pencil and paper, but we'll be using a computer.*
>
> *I will start each program and then give you the keyboard.*
>
> *The first survey is designed to familiarize you with the computer survey process.*
>
> *In all of the surveys be honest and accurate. Speed is less important than honesty and accuracy.*
>
> *We'll begin when you are ready.*
>
> *Do you have any questions?[If no, continue]*
>
> *OK then, as I said, this first part of the study is a brief training exercise designed to familiarize you with the computer survey process.*
>
> *Please, read and follow the instructions on the screen.*

On-screen instructions were as follows:

> Screen 1: YOU WILL BE USING THE NUMBER PAD ON THE RIGHT SIDE OF THE KEYBOARD TO ANSWER SOME SURVEY QUESTIONS. IN ONE SURVEY, YOUR ANSWERS MUST CONTAIN TWO DIGITS. FOR EXAMPLE, IF YOU WANT TO ANSWER 5 YOU MUST TYPE A 0 (ZERO) BEFORE THE 5. PRESS THE 0 KEY TO CONTINUE.

Screen 2: FIRST, THERE ARE SOME PRACTICE QUESTIONS TO FAMILIARIZE YOU WITH THIS COMPUTER-AIDED SURVEY. YOU WILL HAVE TO ENTER TWO DIGITS TO ANSWER ALL OF THESE QUESTIONS.
REMEMBER, IF YOUR ANSWER IS A ONE DIGIT NUMBER, ENTER A ZERO FIRST.

PRESS ANY NUMBER KEY WHEN YOU ARE READY TO BEGIN.

Screen 3: ENTER 3 NOW BY PRESSING 0 THEN 3

Screen 4: PRESS ANY NUMBER KEY TO RECEIVE THE NEXT QUESTION.

Screen 5: ANSWER THE FOLLOWING QUESTION: WHAT IS TWO PLUS TWO?

Screen 6: PRESS ANY NUMBER KEY TO RECEIVE THE NEXT QUESTION.

Screen 7: SOLVE THIS PROBLEM: 2 + 1 = ?

Screen 8: PRESS ANY NUMBER KEY FOR THE NEXT QUESTION.

Screen 9: HOW MANY MONTHS ARE THERE IN ONE YEAR?

Screen 10: PRESS ANY NUMBER KEY FOR THE NEXT QUESTION.

Screen 11: IF YOU HAVE FOUR APPLES AND SOMEONE GIVES YOU FOUR MORE APPLES, HOW MANY APPLES WOULD YOU HAVE?

After completing the training and reading speed exercise, respondents completed either the social judgment survey or the exemplar accessibility task. The social judgment survey is described next.

Instructions and Procedure for Social Judgment Task. Verbal instructions for the social judgment task were as follows:

> *This next survey will ask you to estimate percentages. You may not know the correct answers, but I would like you to estimate the answer as best you can.*
>
> *Remember, speed is not as important as honesty and accuracy.*
>
> *Are you ready?*

On screen instructions for the social judgment task are below. The screen changed each time the researcher pressed the "1" key at the top left of the keyboard. The

researcher changed the screen as soon as the answer to the previous question was entered by the respondent. On screen instructions were:

Screen 1: THE FOLLOWING SURVEY WILL ASK YOU TO ESTIMATE PERCENTAGES.
YOU WILL USE THE NUMBERS PAD TO ANSWER THE QUESTIONS.
EACH ANSWER MUST CONTAIN TWO DIGITS.
YOUR ANSWERS CAN RANGE FROM 00 TO 99.
IF YOU HAVE NO QUESTIONS, TELL THE RESEARCHER YOU ARE READY.

Screen 2: ONE MOMENT PLEASE

Screen 3: WATCH THIS SPACE

Each social judgment question was presented on the computer screen. A "WATCH THIS SPACE" prompt appeared between each question.

Social judgment items were separated into three groups. One third of the respondents received the question groups in order (Group 1, Group 2, Group 3). One third of respondents began with the second group of questions (Group 2, Group 3, Group 1). And one third began with the third group of questions (Group 3, Group 1, Group 2).

Instructions and Procedure for the Exemplar Accessibility Task. The exemplar accessibility task either followed or preceded the social judgment task. The exemplar accessibility verbal instructions were as follows:

> *In this survey I am interested in specific examples of general categories of people and events.*
> *A general category will appear on the screen.*
> *When you see the category, think of a specific example of that category.*
> *For instance, if the category were "Dogs," you should think of a specific dog, such as your own dog, your neighbor's dog, or some other specific dog you know or know of.*
> *You should not think of a dog breed.*
> *Do you understand?*
> *Once you have an example in mind, press the 0 key and describe your example to me.*
> *After each example I will ask you a series of questions.*
> *We'll do this a number of times.*

It is important that you report the first example that comes to you. It is also important that you press the zero key as soon as you have the specific example in mind.

Your example can come from anywhere.

It may be something you saw or know of personally, something someone told you about, or something you observed in the media, such as at a movie or on TV.

Also, your example can be real or fictional, like from the news or from an entertainment program.

The important thing is that you report the first example that comes to mind.

Again, speed is less important than honesty and accuracy, but I do want you to press the zero key as soon as you think of your first example.

Do you understand?

If you have no questions we'll begin with two practice categories.

On screen instructions were as follows:

Screen 1: KEEP YOUR FINGER NEAR THE 0 KEY.

Screen 2: WATCH THIS SPACE FOR THE FIRST CATEGORY

Screen 3: AN ACTOR OR ACTRESS

When the respondent pressed the zero key, indicating they had an example in mind, the next screen would appear:

Screen 4: NOW DESCRIBE YOUR EXAMPLE

Then the researcher had the respondent describe their example. Next the researcher would read Screen 5 aloud and ask if the respondent was ready to continue.

Screen 5: REMEMBER, YOUR EXAMPLE CAN COME FROM THE MEDIA OR THE REAL WORLD, AND IT CAN BE REAL OR FICTIONAL.

Then the second practice category was presented.

Screen 6: TWO CARS IN A HIGH-SPEED CHASE

After the respondent pressed the zero key, they again were asked to describe their second practice example.

After respondents completed the practice tasks successfully, they were told, "Good. You've got the idea. Now here is the first category." There were five categories (Police Officer, Affair, African-American Doctor, Shooting, and Traffic Accident). Categories were presented such the first respondent started with the first category, the second respondent started with the second, and so on. Categories appeared individually, centered on the screen, and worded as shown in Figure 5.

Screen 1:	A POLICE OFFICER
Screen 2:	A HUSBAND OR WIFE HAVING AN AFFAIR
Screen 3:	AN AFRICAN-AMERICAN MEDICAL DOCTOR
Screen 4:	SOMEONE BEING SHOT WITH A GUN
Screen 5:	A SERIOUS TRAFFIC ACCIDENT

Figure 5. Exemplar Prompts

After each category was presented and the respondent's example was reported, the researcher asked the questions contained on the Time 2 Survey (Appendix D). The process was repeated for each of the five categories. The Time 2 questions were introduced with the following statement:

> *Now I'm going to ask you a series of questions about the example you gave me. I'll do this after each example. There will be different questions depending on the example you tell me about.*
>
> *First, I am going to read some statements and I want you to indicate with a number between one and ten how much you agree or disagree. Use this chart [researcher points to wall] where 1 means you strongly disagree and 10 means you strongly agree.*

After respondents completed both the exemplar accessibility task and the social judgment task, they were debriefed and asked not to discuss the study with anyone who was yet to participate.

Measures: Time 1 Survey

Age. Respondents wrote their age in years in a blank space on the Time 1 Survey (Mean = 21.2, SD = 7.96).

Race. Each respondents circled one of the following six race categories that best represented himself or herself: African-American, Asian, Hispanic, Native-American, White, or Other. No respondent reported being Hispanic or Native-American. Race distribution was as follows: 165 White, 17 African-American, 13 Asian, 7 other, and 4 missing.

Grade Point Average. Respondents were asked to "Circle the number that best represents your grade point average." Response choices started at 1.0 and increased in .25 grade increments to 4.0 (Mean = 2.87, SD = .52).

Family Income. Respondents were asked to "Please circle the income range that best represents your parents combined income." Response choices started at "less than $10,000" and increased in $10,000 increments to "More than $100,000" (Mean = $72,000, SD = $27,300, N=194).

Viewing Characteristic Variables

These are measures of the extent to which a respondent plans to watch television (Viewing Intention), attends when watching (Viewing Attention), and perceives what is watched as realistic or representative of the real world (Perceived Realism of Television). Each is described below.

Viewing Intention. Two groups of five items each were used to measure the extent to which viewers plan to watch television programs (Intentional Viewing) and the extent to which they attend when they do watch (Viewing Attention; see Table 4). Respondents were asked, "How often do you do the following?", followed by a list of thoughts or behaviors. Response categories were "Never," "Not Very Often," "Sometimes," "Quite Often," and "Always." Responses were entered as follows; never = 1, not very often = 2, sometimes = 3, quite often = 4, and always = 5. Principal axis factor analysis with varimax rotation supported dividing the 10 items in to two groups as suggested by previous research (Rubin, Perse, & Taylor, 1988). Reliability for the Viewing Intention Scale was Alpha = .86 (Mean = 2.77, SD = .78, N = 206); Viewing Attention was Alpha = .82 (Mean = 3.52, SD = .62, N = 205).

Perceived Realism of Television. The perceived realism of five types of television programs was measured using 24 items (see Table 5). The five program types were *crime-drama, medical-drama, television news, soap operas,* and *evening dramas*. All 24 items were adapted from previous perceived reality research (Dorr, 1983; Elliot, Rudd, & Good, 1983; Hawkins, 1977; Potter 1981). Response categories ranged from -3 to +3, where -3 indicated "disagree very strongly" and +3 indicated "agree very strongly." Responses were coded and entered as '1' through '7', rather than '-3' though '+3', for analysis. Some items were recoded so higher values always reflected perceiving television content as more realistic.

Table 4

Viewing Intention and Viewing Attention Items, Means and Factor Scores

Viewing Intention Items (Alpha = .86)	Mean	Factor 1	Factor 2
1. I plan my time so I do not miss a favorite television program.	2.83	**.862**	.194
2. I cancel other plans to watch television.	1.84	**.524**	.063
3. I look forward to watching a favorite television program.	3.77	**.690**	.198
4. I often make arrangements so I don't miss a favorite television program.	2.52	**.841**	.157
5. I often check the time so I will not miss a favorite television program.	2.85	**.679**	.212
Scale Average	2.77		
Viewing Attention Items (Alpha = .82)			
1. I'm often thinking about something else when I'm watching television. *	3.08	.174	**.584**
2. I often miss what is happening on the program when I watch television. *	3.83	.015	**.614**
3. My mind often wanders when I watch television. *	3.35	.092	**.818**
4. I pay close attention to the program when I watch television.	3.56	.405	**.657**
5. I listen carefully when I watch television.	3.67	.276	**.638**
Scale Average	3.52		

* Item that were recoded for analysis.

** Factor analyses were based 201 cases using listwise deletion of cases with missing values.

*** The range of both scales was 1 to 5, where 1 = never and 5 = always.

Table 5

Perceived Realism of Television Programs Items.*

Genre/Item	Mean	St.Dev.	N
Crime Drama			
1. The crime you see on TV crime shows is very similar to crime in real life.	4.01	1.48	206
2. Police officers on television crime programs are very different from real police officers.**	3.34	1.47	203
3. Criminals in television crime programs are just like criminals in the real world.	3.39	1.46	206
4. The romantic relationships that characters on crime programs are have are no different than those people in the real world are in.	2.86	1.39	205
5. TV crime programs show people what it is like to live in big cities.	3.18	1.46	205
Medical Drama			
6. Medical shows, like ER and Chicago Hope, portray the same illnesses and emergencies that you see in real hospitals.	4.55	1.40	206
7. The doctors and nurses on medical shows handle medical emergencies just like real doctors and nurses.	3.97	1.41	206
8. If I were to go to a hospital, I would not expect it to be like to the hospitals I see on television. **	3.10	1.57	206
9. The romantic relationships of characters on medical shows are no different from the relationships of people in the real world.	3.36	1.30	206
10. Doctors and nurses on medical programs are just like doctors and nurses in the real world.	3.17	1.43	206
Television News			
11. Television news informs me about what the world is really like.	4.51	1.50	206
12. You can not learn much about the real world by watching television news. **	4.87	1.56	206
13. When I see something on a television news program, I can be certain it is true.	3.39	1.60	205
14. I feel I can learn a lot about people from watching television news.	4.26	1.38	205

Table 5 (Cont.)

15. By watching television news, I can learn how to avoid some dangerous situations.	4.76	1.25	206
Soap Operas			
16. Soap operas portray marriages and relationships as they are in real life.	1.76	1.21	205
17. The personal problems characters on soap operas have are not at all like the problems real people have. **	3.08	1.79	206
18. I can learn how to act in relationship situations by watching how people act in soap operas.	1.91	1.29	206
19. The situations soap opera characters find themselves in are similar to the situations most real people find themselves in at sometime in their life.	2.42	1.50	206
Evening Drama			
20. Characters in drama programs, like Beverly Hills 90210 or Melrose Place, are very similar to people in the real world.	2.30	1.34	205
21. The romantic relationships portrayed in drama programs are not at all like romantic relationships in the real world. **	3.33	1.63	206
22. The personal problems characters have in drama programs, like Beverly Hills 90210 or Melrose Place, are very similar to problems real people have.	2.88	1.51	206
23. The issues that come up in drama programs, like Beverly Hills 90210 or Melrose Place, are very similar to issues in the real world.	3.10	1.65	206
24. You can not learn anything about real life by watching prime time drama programs.	3.78	1.63	206

* Five items measuring perceived realism of situation comedies were dropped.
** Item that were reverse coded for analysis.
*** Items responses ranged from 1 to 7, where 1 = "disagree very strongly" and 7 = "agree very strongly."

Two of the 24 items were dropped because of range restriction. The items were "I can learn how to act in relationship situations by watching how people act in soap operas." and "Soap operas portray marriages and relationships as they are in real life." Both items had means of less than two on the 1-7 scale (1.91 and 1.76, respectively). Respondents strongly disagreed with these two statements.

The remaining 22 items were factor analyzed using principal axis factor analysis and varimax rotation (see Table 6 for items and factor loadings). The criteria for inclusion were eigenvalues of 1.0 or greater and factor loadings greater than 4.0. Seven factors resulted from the 198 cases processed. Three factors met the eigenvalue criteria. The fourth factor was retained with an eigenvalue of .99. The resulting scales are described below. Each scale was computed by summing the items on that factor and dividing by the number of items.

Perceived Realism of Evening Dramas. Factor one consisted of four items asking respondents about the realism of issues, characters, character's problems, and romantic relationships on prime-time drama programs like Beverly Hills 90125 and Melrose Place. A fifth item loaded on the first factor, but was dropped because it referred to the extent to which respondents can learn from these programs, rather than the realism of the program's content. The four items had the same reliability (alpha = .78) as the five items scale.

Perceived Realism of Medical Dramas. The second factor consisted of four items asking respondents about the realism of doctors, nurses, and situations on medical drama programs, like E.R. and Chicago Hope (Alpha = .73).

Table 6

Factor Scores for Perceived Realism of Television Programs Items.

Factors:	1	2	3	4	5	6	7
Eigenvalues:	4.46	1.59	1.53	.99	.80	.60	.53
Factor Alpha:	.78	.73	.65	.63	.56**	--	--

Genre Items	Factor Loadings						
Evening Drama							
The issues that come up in drama programs, like Beverly Hills 90210 or Melrose Place, are very similar to issues in the real world.	**.83**	.09	.06	.08	.06	.28	-.03
The personal problems characters have in drama programs, like Beverly Hills 90210 or Melrose Place, are very similar to problems real people have.	**.78**	.12	.07	.08	.20	.02	.05
Characters in drama programs, like Beverly Hills 90210 or Melrose Place, are very similar to people in the real world.	**.66**	.11	.02	.11	.21	.30	-.12
The romantic relationships portrayed in drama programs are not at all like romantic relationships in the real world. *	**.43**	.03	.05	.05	.12	.09	.26
You can not learn anything about real life by watching prime time drama programs.	**.42**	.05	.18	.01	-.02	.03	.22
Medical Drama							
The doctors and nurses on medical shows handle medical emergencies just like real doctors and nurses.	.15	**.88**	.03	.08	.14	.12	.00
Medical shows, like ER and Chicago Hope, portray the same illnesses and emergencies that you see in real hospitals.	.09	**.55**	.19	.10	.01	.00	.06
If I were to go to a hospital, I would not expect it to be like to the hospitals I see on television. *	.01	**.50**	-.07	.11	.14	-.03	.04
Doctors and nurses on medical programs are just like doctors and nurses in the real world.	.14	**.47**	-.03	.19	.46	.03	-.04

Table 6 (Cont.)

Genre Items	Factor Loadings						
News							
Television news informs me about what the world is really like.	.03	.16	**.72**	.14	-.04	.28	-.16
You can <u>not</u> learn much about the real world by watching television news. *	.03	-.05	**.66**	-.15	.11	-.11	.25
I feel I can learn a lot about people from watching television news.	.07	-.06	**.54**	-.00	.05	-.02	.05
By watching television news, I can learn how to avoid some dangerous situations.	.13	.07	**.42**	.12	-.03	-.04	-.02
When I see something on a television news program, I can be certain it is true.	.00	.12	.39	.07	.13	.03	-.04
Crime-drama							
Criminals in television crime programs are just like criminals in the real world.	.13	.04	.14	**.77**	.12	.04	.06
The crime you see on TV crime shows is very similar to crime in real life.	.02	.29	.02	**.53**	.08	.30	.08
TV crime programs show people what it is like to live in big cities.	.18	.29	.18	.38	.06	.15	-.03
Police officers on television crime programs are very different from real police officers. *	.01	.14	-.11	.32	.12	-.08	.18
The romantic relationships of characters on medical shows are no different from the relationships of people in the real world.	.16	.22	.10	.06	**.75**	.06	.04
The romantic relationships that characters on crime programs are have are no different than those people in the real world are in.	.31	.10	.07	.23	**.58**	.17	-.03

* Item that were reverse coded for analysis.
** This scale consists of only two items.

Perceived Realism/Learning from Television News. The third factor consisted of four questions which asked respondents about the informing and educational functions of television news. A fifth item, with a factor loading of .39 was retained (Alpha = .67).

Perceived Realism of Crime Drama. The fourth factor consisted of three items asking respondents about the realism of crime, criminals, and city dangers on crime drama programs (Alpha = .63). One item had a factor loading of .38. However, it was retained to facilitate a three-item scale.

The remainder of the items loaded on weak factors (eigenvalues less than .99) or had factor loadings less than .40, and were dropped from further analysis.

Television Exposure

To determine respondents' television exposure during an average week, two different exposure measures were included in the Time 1 Survey. Only one will be used in these studies. The exposure measures were the respondents' self-reported estimates of their total viewing on an average weekday and weekend day, and their estimates of the number of hours per week they watch different types of programs.[3]

Instructions for the measures asked respondents to estimate their viewing in hours to the nearest one-half-hour. No respondent entered an increment smaller than one-half-hour. However, several respondents entered a range (e.g. "2-3" or "3-4"), in which case the mean number was entered (e.g. 2.5 or 3.5; see Table 7).

Table 7
Television Exposure Measures: Descriptive Statistics.

	Mean	Max.	St. Dev.*
Average Weekday	3.4	27.5	3.16
Average Weekend Day	3.6	15.0	2.59
Day-Time Soap Operas	1.0	10.0	1.80
Situation Comedies	3.0	20.0	2.82
Crime Dramas	.7	15.0	1.36
Reality-Crime Shows	.6	8.0	1.05
Medical Dramas	.7	3.0	.63
Prime-Time Dramas	1.2	5.0	1.20
Local News	1.5	10.0	1.63
National News	1.0	7.0	1.29
News Magazine Shows	.6	6.0	.95
Sports On Television	2.5	20.0	3.52
Talk Shows	1.4	14.0	2.09
Science Fiction Programs	.6	8.0	1.20

* Ns range from 203 to 206

Total Exposure. Two items asked respondents to estimate their overall television viewing: "How many hours would you say you watch TV on an average weekday?" and "How many hours would you say you watch TV on an average weekend day?" These two measures were problematic. The maximum response was 27.5 hours for weekday viewing and 15 hours for weekend day viewing. Six-percent of respondents said they watched eight or more hours of television on both an average weekday and an average weekend day. These responses were extremely high. It appeared a substantial number of respondents reported the number of hours they watch during the entire week and during

the entire weekend, rather than on an average day during the week or weekend. Identifying which respondents reported their daily viewing and which reported a total for the week or weekend would be impossible. Due to this problem, these measure were not used in further analysis. Rather, total viewing was obtained by summing the hours watched among the 12 program types.

Exposure to Program Type. Twelve items were used to measure respondents' weekly exposure to 12 types of television content (see Table 7, above). Each item began with the phrase, "How many hours a week would you say you watch..." and ended with a different program type, (e.g. crime dramas, reality-crime shows). Each program type was accompanied by at least two specific program examples, except "sports on television" which had no example.

According to Potter and Chang (1990), the best predictor of the cultivation effect is a measure of "program type proportion." This is the amount of time spent viewing a program type divided by total viewing hours. For example, if a respondent reports watching five hours per week of situation comedies and a total of 25 hours per week of all types of television, that respondents "sitcom proportion" would be 0.2. The predictive efficacy of Potter's proportion measure was compared to the unweighted exposure measure for each content area. This was done by calculating correlations between each of the five social judgment measures and both the "raw" content exposure measures and the "proportion" content exposure measures. The raw content exposure measure proved a better predictor of social judgments than Potter and Chang's proportion measure, and therefore was used in subsequent analyses. (See Appendix E for a description of this analysis.)

Creation of Exposure Variables

Factor analysis was performed on the 12 exposure measures. The purpose was not to determine which items measured the same theoretical construct, as is the traditional purpose of factor analysis. Rather, the purpose was to identify groups of measures that could be combined into a smaller number of exposure variables. The convention of using factor scores, which are based on inter-item correlations, to group items was followed. However, because exposure is not conceptualized as a theoretical construct, eigenvalues, measures of each factors' ability to predict the construct, were not relevant. Item grouping was based on factor loadings only.

The 12 exposure measures were entered into a principal axis factor analysis with varimax rotation. Data from both studies were included because the items were measured exclusively in the Time 1 Survey.

A four factor solution resulted (see Table 8). Factor 1 contained reality-crime, news magazine, and situation comedy viewing measures. The situation comedy item was dropped because its loading was less than .40 and it loaded equally on two factors. The remaining two items, reality-crime and news magazine viewing, were combined into a variable called *reality viewing*.

The second factor contained four items; soap opera, talk show, evening drama, and science fiction viewing. Science fiction viewing was dropped because its largest factor loading was .25, and it was relatively evenly distributed across three factors. Talk show viewing loaded strongly on both factors 1 and 2. A recent content analysis of talk shows (Greenberg, et al., 1995) suggests their dominant themes deal with relationship issues. This suggests it is more appropriate to combine the talk show viewing measure with soap

opera and evening drama viewing than with the measures on the first factor, which appear more related to crime and current events. The second exposure measure, then, consists of soap opera, evening drama, and talk show viewing, and was named *relationship viewing*.

Factor 3 contained local news, national news, and sports viewing. The later did not produce a factor score greater than .40, and was dropped. Local and national news viewing were combined to form a variable called *news viewing*.

Lastly, the two items on Factor 4, medical drama and crime drama viewing were combined to form a variable called *emergency viewing*, for lack of a better descriptor.

Table 8
Factor Loadings of Nine Measures of Exposure by Program Type

Exposure Measures	Factor 1	Factor 2	Factor 3	Factor 4
Reality Viewing				
Reality-Crime	**.60**	.07	.08	.09
News Magazine	**.44**	-.03	.14	.08
Relationship Viewing				
Soap Operas	.04	**.66**	.01	-.00
Talk Shows	.55	**.56**	.05	.02
Evening Drama	-.23	**.51**	.03	.05
News Viewing				
Local News	.18	.09	**.87**	.09
National News	.32	-.23	**.40**	-.00
Emergency Viewing				
Medical-Drama	-.01	.13	.04	**.68**
Crime-Drama	.23	-.10	.10	**.47**

Items were combined into viewing content variables by averaging the measures within each factor (e.g. reality-crime and news magazine). Finally, a *total viewing* measure was computed by summing the nine viewing measures. Table 9 contains the correlations among the five exposure variables that will be used in subsequent analyses.

Table 9
Correlations Among Exposure Variables[1]

Viewing	Total	Reality	Relat.	News	Emerg.	Mean	St.Dev.
Total	-					3.74	2.53
Reality	.65[2]	-				.61	.81
Relationship	.64[2]	.23[2]	-			1.18	1.29
News	.65[2]	.31[2]	.08	-		1.25	1.17
Emergency	.50[2]	.21[2]	.05	.16[1]	-	.68	.83

* Based on 206 respondents who participated in both studies.
[1] $p \leq .05$, two-tailed.
[2] $p \leq .01$, two-tailed.

Two other variables were measured in the Time 1 Survey. It has been suggested that need for cognition may be related to the amount of time respondents take to answer social judgment questions Shrum (1996). It was also thought that impulsiveness may be related to reaction times. More impulsive respondents may to respond more quickly to any question or request, regardless of its content. Impulsiveness and Need for Cognition were measured to investigate these possibilities.

Impulsiveness. Impulsiveness was measured using a subset of the Junior I_6 Scale (Eysenck, Easting, & Pearson, 1984). Respondents indicated how often each of 22 statements describes them. Response categories were "Never," " Rarely," "Sometimes," and "Often." The unidimensionality of this scale has been established in previous research (Carrillo-de-la Pena, Otero, & Romero, 1993). The scale was not changed for this study. Higher scores indicate greater self-reported tendency to act impulsively. Reliability for the scale with this sample was .79 (see Appendix F).

Need for Cognition. The 18-Item Need for Cognition Scale was used. Its reliability has been established in previous literature (Cacioppo, Petty, & Kao, 1984). Instructions for the scale were, "Indicate how much you agree with each of the following statements." Responses options ranged from '-3,' disagree very strongly and '+3,' agree very strongly. Responses were recoded from 1 to 7. Higher scores represent greater likelihood that a respondent will apply cognitive energy to a task or question. Reliability for the 18-item scale with this sample was .85 (see Appendix G).

Dependent Measures: Time 2 Survey

Social Judgment. Social judgment items, administered via computer, asked respondents to estimate percentages (e.g. "What percent of Americans are police officers?" and "What percent of medical doctors are African-American?") Computer administration of these items allowed for simultaneous measurement of judgment latency. Twenty items appeared individually and centered on the computer screen (see Table 10). Respondents used the numbers pad on the keyboard to enter their responses, which could range from 00 to 99.

The 20 items were divided into two groups of seven items and one group of six. Group order was varied. Item order was not varied within the three groups. One third of the respondents received Group 1 items first, followed by Group 2, then Group 3; one third started with Group 2, followed by Group 3, then Group 1; and one third started with Group 3, followed by Group 1, then Group 2.

For the purposes of this study five social judgment items were analyzed, item numbers 4, 6, 13, 16, and 19 in Table 10. These five are directly related to the exemplar categories used to prompt respondents' examples.

Table 10
Social Judgment Items & Descriptive Statistics

Item	Response				Latency*			
	Mean	SD	Min	Max	Mean	SD	Min	Max
1. What percent of Americans die of heart attacks?	35%	18	1	86	642	361	239	2802
2. What percent of police calls are to domestic violence scenes?	41	21	4	85	619	233	285	1679
3. What percent of Americans are medical doctors?	18	15	1	80	607	246	213	2023
4. Other than in hunting accidents and war, what percent of Americans are shot with a gun in their lifetime?**	**21**	**19**	**0**	**90**	**908**	**294**	**410**	**2307**
5. What percent of American couples have arguments that involve yelling and shouting?	72	23	9	99	675	225	344	2021
6. What percent of Americans are police officers?	**18**	**16**	**1**	**85**	**579**	**244**	**215**	**1591**
7. What percent of women are unfaithful to their boyfriends?	35	20	0	99	639	224	282	1650
8. What percent of drug addicts go to the hospital because of drug overdoses?	36	23	1	90	736	331	261	2489
9. In large cities like Detroit or Chicago, what percent of teen-age males carry guns?	41	21	2	95	736	220	328	1928
10. What percent of wives are struck (slapped or hit) by their husbands?	36	18	4	85	630	254	275	1842
11. What percent of Americans are lawyers?	18	15	1	80	537	240	202	2004
12. What percent of Americans are victims of violent crime each year?	36	23	1	98	699	270	269	2069
13. What percent of married Americans have extra-marital affairs?	**30**	**19**	**3**	**90**	**614**	**209**	**292**	**1414**
14. What percent of men are unfaithful to their girlfriends?	45	22	5	99	566	195	231	1291
15. What percent of American women marry men they do not love?	27	18	2	90	715	307	305	2470
16. What percent of Americans are injured each year in traffic accidents?	**40**	**22**	**2**	**95**	**680**	**275**	**327**	**2219**
17. What percent of American couples have arguments that involve physical violence?	33	19	4	80	683	254	150	1660

Table 10 (Cont.)

Item	Response				Latency*			
	Mean	SD	Min	Max	Mean	SD	Min	Max
18. What percent of police officers draw their guns while on duty each year?	41	28	0	99	674	256	261	2057
19. What percent of medical doctors are African-American?	**18**	**13**	**1**	**75**	**578**	**232**	**253**	**1778**
20. What percent of American homes have guns in them for protection?	42	22	5	95	607	242	278	2043

* Latency was measured in centiseconds. One centisecond = .01 seconds.
** Items in bold were social judgment items used.

Judgment Latency

This is the amount of time required for respondent to answer the social judgment question. The computer recorded the amount of time, in centiseconds, that elapsed between when the a social judgment item appeared on the computer screen and the respondent entered the first digit of her or his response. Reading speed and reaction time were controlled simultaneously. This was accomplished by having respondents answer a series of four questions that appeared at the end of the training exercise designed to familiarized them with the computer survey process. Each question was simple and required very little or no mental processing effort (see Table 11). No judgment was required to answer the questions. The response times of the last three questions were averaged, and the average was subtracted from the response time of each social judgment question as a control for reading speed. This would reduce the variance due to reading speed and reaction time, rendering judgment latency more apparent.

The method of controlling reaction time (and reading speed) by subtracting the reaction time measure from the latency measure, rather than using another method, such

as treating reading speed as a covariant, was used for two reasons. First, subtracting the reading speed measure was judged as the simplest way to enter a constant value to each respondents' judgment latency measure (and exemplar accessibility measure as described below). Second, entering reading speed and response time as a covariant would reduce the statistical power of regression analyses and the flexibility and power of partial correlation analyses.

Table 11
Items Used To Establish Base Reading Speed and Reaction Time

1. ANSWER THE FOLLOWING QUESTION: WHAT IS TWO PLUS TWO?
2. SOLVE THIS PROBLEM: 2 + 1 = ?
3. HOW MANY MONTHS ARE THERE IN ONE YEAR?
4. IF YOU HAVE FOUR APPLES AND SOMEONE GIVES YOU FOUR MORE APPLES, HOW MANY APPLES WOULD YOU HAVE?

Exemplar Accessibility

Respondents were prompted to recall the first example they thought of from each of five categories: Police Officers, Extra-marital Affairs, African-American Medical Doctors, Shootings, and Traffic Accidents. The unit of analysis is the example, rather than the respondent.

Exemplar accessibility -- how accessible examples are in respondents memory -- was operationalized as the amount of time, in centiseconds, that elapsed between the exemplar category appearing on the computer screen and the respondent pressing the zero key to indicate they had thought of an example. Differences in reading speed and reaction time were controlled as they were for the judgment latency measure. The average

response time of three items requiring no cognitive processing was subtracted from each exemplar response time value.

Missing exemplar response times could result in three ways: First, the respondent could have reported an unacceptable example, in which case the example and all related data were discarded. Second, the example may have been acceptable, but the response time invalid because the respondent asked for clarification or was in some way distracted when the category appeared on the screen. In this case the data were retained for other analyses, but the response time was deleted rendering that case missing for all analyses involving exemplar accessibility. Third, exemplar response times greater than 3000 centiseconds (30 seconds) were considered outliers and excluded from analysis. Thirty seconds as the upper limit for outliers is an unconventionally long and conservative amount of time. Greater response times are less likely to be involved in heuristic processes. The result of including slower response times is an increased likelihood of attenuating relationships between exemplar accessibility and other variables. This risk was evaluated against the need to include as many cases as possible in order to maintain the greatest statistical power. Use of this criterion resulted in the removal of eight cases from the shooting category, ten cases from the extra-marital affair category, and one case from the accident category.

After elimination of unacceptable examples, examples with invalid response times, and outliers, there were a total of 921 useable examples (see Table 12). The proportion of real to fictional examples reported varied greatly across categories. Respondents reported more real than fictional examples of police officers (138 real; 54 fictional) and traffic accidents (166 real; 27 fictional), more fictional than real examples of African-American

doctors (48 real; 136 fictional) and shootings (54 real; 121 fictional), and an approximately equal number of real and fictional examples of extra-marital affairs (85 real; 92 fictional).

Table 12
Distribution of Real and Fictional Exemplars

	Study 1			Study 2		
Exemplar Categories	Fictional	Real	Total	Fictional	Real	Total
SOMEONE BEING SHOT WITH A GUN	60	29	89	61	25	86
A POLICE OFFICER	28	69	97	26	69	95
A HUSBAND OR WIFE HAVING AN AFFAIR	45	43	88	47	42	89
A SERIOUS TRAFFIC ACCIDENT	10	84	94	17	82	99
AN AFRICAN-AMERICAN MEDICAL DOCTOR	74	22	96	62	26	88

In both studies real examples were more accessible than fictional examples (Table 13). In Study 1 real examples were recalled in an average of 506 centiseconds (approximately five seconds). Respondents took nearly a second longer to recall fictional examples ($t = -2.04$, $df = 384$, $p < .05$). In Study 2 the difference was nearly two seconds with real examples recalled in 478 centiseconds and fictional examples recalled in 650 centiseconds ($t = -3.41$, $df = 347$, $p < .01$). This trend was evident in four of five exemplar categories. However, only one category in each study produced statistically significant differences. In Study 1 real affairs were recalled more quickly than fictional affairs (real = 598, fictional = 873: $t = -2.00$, $df = 72$, $p < .05$). In Study 2 real police officers were recalled significantly more quickly than fictional police officers (real = 278, fictional 438: $t = -2.38$, $df = 71$, $p < .05$).

The trend of real examples being more accessible than fictional was evident in all categories except where examples of African-American doctors were recalled. In Study 1

respondents took significantly longer to recall real examples (725 cs) from that category than fictional examples (421 cs: $t = 2.45$, $df = 76$, $p < .05$). In Study 2 respondents also took longer to recall real than fictional examples of African-American doctors (ns).

Table 13
Mean Response Times for Real and Fictional Examples in Study 1 and Study 2[1]

	Study 1					Study 2				
	Real		Fictional			Real		Fictional		
Exemplar Category	RT[2]	n	RT	n	p	RT	n	RT	n	p
Shooting	529	20	689	53		601	18	712	47	
Police Officer	307	61	374	20		278	50	438	23	.05[3]
Affair	598	36	873	38	.05[3]	665	28	908	38	
Accident	577	71	742	9		463	61	588	16	
African-Am. M.D.	725	15	421	63	.05[3]	659	19	511	49	
All Examples	506	203	602	183	.05[3]	478	176	650	173	.01[3]

[1] Excluding response times greater than 3000 centiseconds.
[2] In centiseconds. One centisecond = .01 seconds.
[3] Statistical significance of differences between mean real and fictional response times by t-test.

As with the social judgment latency measures, reading speed and response time were controlled in the exemplar reaction time measures by subtracting each respondent's average response time for three "training" items (Table 11) from each of their exemplar reaction times. Descriptive statistics for the resulting adjusted exemplar accessibility measures are in Table 14. Negative numbers are a result of the response time control value being greater than exemplar reaction time value.

Table 14
Mean Adjusted Exemplar Accessibility Time[1]

	Min.[1]		Max.[1]		Mean[1]		Sd.Dev[1]	
	Study		Study		Study		Study	
Exemplar Categories	1	2	1	2	1	2	1	2
SOMEONE BEING SHOT WITH A GUN	-448	-552	2981	2301	364	334	661	552
A POLICE OFFICER	-682	-402	747	937	-36	-35	239	237
A HUSBAND OR WIFE HAVING AN AFFAIR	-582	-259	2733	2956	396	539	624	713
A SERIOUS TRAFFIC ACCIDENT	-679	-379	1480	2507	210	145	478	450
AN AFRICAN-AMERICAN MEDICAL DOCTOR	-412	-267	2391	2959	134	253	415	498

[1] In centiseconds. One centisecond = .01 seconds.

Exemplar Characteristic Variables

The researcher read all exemplar characteristic items to each respondent in the second person (e.g. "The event you told me about could happen in real life."). The response options for these items were one-to-ten scales. A chart was taped to the wall containing the five scales respondents used to answer the exemplar characteristic question. It also contained the response choices for the frequency of activation items (Appendix H).

Exemplar Real/Fictional. A dichotomous variable indicating whether the example reported by the respondent was a real or fictional event or person was recorded. It usually was obvious from the respondents' description whether their example was real or fictional. When it was not, clarification was requested. The five exemplar categories produced the following distribution of real and fictional examples: Police officer – 133 real, 53 fictional; Affair – 84 real, 89 fictional; A-A Medical Doctor – 47 real, 136 fictional; Shooting – 53 real, 120 fictional; and traffic accident – 166 real, 27 fictional (Table 14, above).

Perceived Realism of Exemplar. A four item scale was used to measure respondents perceived realism of fictional examples. These were selected from nine items included in the Phase 2 Survey. Principal axis factor analysis placed these four items on one factor, with factor loadings of .70 or greater. The four items were summed and divided by four to form a scale called Perceived Realism of Exemplar (Mean = 5.8, Alpha = .89; see Table 15 for item statistics).

Table 15
Descriptive Statistics and Factor Loadings for Perceived Realism of Exemplar Items

	Mean	St.Dev.	Factor 1	Factor 2
1. Events like the one you told me about do happen in real life. [People like the person you told me about do exist in real life.]*	6.98	2.84	**.858**	.235
2. Incidents [or people] like the one you told me about are quite common in real life.	4.53	2.66	.777	.406
3. The event [person] you told me about could happen [exist] in real life.	7.28	2.77	**.703**	.257
4. Events like the one you told me about happen in real life ALL OF THE TIME. [People like the person you told me about ARE VERY COMMON.]	4.34	2.77	**.698**	.397
5. The example you gave me is based on a real life event. [The character you told me about is based on a real person.]	3.04	2.56	.271	.073
6. Events like the one you told me about happen in real life, BUT NOT VERY OFTEN. [People like the person you told me about exist, BUT THEY ARE PRETTY RARE]	5.36	2.63	.221	.154
7. If you were to observe an [incident] in real life, it would happen just like the one you told me about. [If you were to meet a person in real life, they would be just like the one you told me about.]	3.97	2.58	.322	.912
8. If you were to actually be involved in an incident, it would be just like the one you told me about.**	2.68	2.26	.237	.685

* Words, phrases, and sentences in brackets were used for examples of Police Officers or African-American Doctors.
** Item not used for examples of Police Officers or African-American Doctors.
*** Responses could range from 1 to 10, where 1 = strongly disagree and 10 = strongly agree.

Exemplar Distinctiveness. This was measured using two items (r = .71): "Compared to events or people like this (in the real world), how unusual is your example?" and "Compared to events or people like this (in the real world), how typical is your example?" Responses could range from 1-10. These two items were averaged to form a scale called exemplar distinctiveness (mean = 5.36; Std.Dev. = 2.49; see Table 16).

Exemplar Seriousness was measured using two items (r = .82). They were "Compared to events or people like this (in the real world), how severe is your example?" and "Compared to events or people like this (in the real world), how serious is your example?" Responses could range from 1-10 (see Table 16). These two items were averaged to form a scale, the mean of which was 7.69; standard deviation was 2.45. Considerable range restriction was a problem with this scale. Its skewness was 1.14, compared to that of the exemplar distinctiveness scale, which was .097. Neither the seriousness or severity item was used with the 'police officer' and 'African-American doctor' examples.

Table 16
Exemplar Distinctiveness and Severity Items

Item	Mean	St.Dev
Compared to most events [people] like this, how typical is the example you gave me?	5.17	2.54
Compared to most events [people] like this, how unusual is the example you gave me?	5.55	2.84
Compared to most events [people] like this, how serious is the example you gave me?	7.80	2.53
Compared to most events [people] like this, how severe is the example you gave me?	7.58	2.56

Recency of Observation was measured with one item: "How long since you observed or learned about this event [person]?" Recency variables -- recency of observation and recency of activation -- were coded in days, one-half days and one-quarter days. If a respondent reported learning of, thinking of, or talking about a person or event less than four hours ago, .25 was coded. Five to ten hours since activation or observation was coded as .5. Yesterday was coded as 1. The number of days was entered up to seven days. Two weeks was coded as 14; three weeks as 21. One month was entered as 30, two months was entered as 60, and so forth up to 11 months. One year was entered as 350 and multiple years were entered as multiples of 350 up to ten years. More than ten years was coded as 4000 days. The average response was 513 days.

Recency of Activation was measured with two items: 1) "How long since you last thought about this event [person]?" and 2) "How long since you last talked about this event [person] with someone?" The most recent of the two responses, or shortest amount of time, was used as the exemplar recency variable. For example, if a respondent reported talking about an event six months ago but thinking about it a week ago, one week was used as that respondent's recency of activation variable value. It was common during data collection for a respondent to report not having thought about an example for several months. But when asked when she or he last discussed the example, the reply would be, "just yesterday," or "last week." The average recency of activation value was 130 days.

Frequency of Activation was measured with two items: 1) "How often do you think about this event [person]?" and 2) "How often do you talk about this event [person]?" Response options ("Very Often," "Somewhat Often," "Not Very Often," "Very Rarely," and "Not Since I First Observed It") were posted on the wall, and

respondents were instructed to select the most appropriate one. Responses were coded as one through five, with very often being coded as five.

Similar to the recency of activation variable, only one of the two responses became the variable value. However, for frequency the highest value, representing greater frequency of activation, was retained. The average frequency of activation value was 2.26.

CHAPTER III

Results

Overview of Analysis

Data analyses were conducted in the following stages. First respondents were eliminated who reported they were raised outside the U.S.[4] or indicated they were members of a minority group.[5] This left 163 respondents in the two studies; 45 males and 38 females in Study 1 and 45 males and 35 females in Study 2.

Second, relationships among the study's primary variables and each of six background variables and three viewing characteristic variables were assessed.

Third, the eleven hypotheses were tested using zero-order correlations. Where warranted, additional analyses were performed in order to clarify observed relationships.

Finally, exploratory analyses were performed in order identify the relative importance of variables thought to predict exemplar accessibility and social judgment.

Analysis of Background Variables

Six variables related to respondents' background or demographic characteristics (gender, age, family income, grade point average, impulsiveness, and need for cognition) were identified in the literature as potentially related to one of the study's four primary variables; television exposure, exemplar accessibility, social judgment latency, and social judgment. None was expected to be related to all four primary variables. For example, impulsiveness may be related to exemplar response time, but there was no reason to expect it would correlate with viewing or social judgment. The following section summarizes relationships suggested by previous research.

Family Income. Zero-order correlations were computed between family income and total viewing, as well as each measure of exposure to specific television content areas. For this analysis data from both studies were combined (n = 163). The correlation between family income and total exposure was r = -.02. There were no significant relationships between income and any specific content area.

Zero-order correlations then were computed between family income and each social judgment. Here the data from Study 1 and Study 2 were analyzed separately. Income was not significantly related to any social judgment measure in either study.

Age. Zero-order correlations were computed between respondents' age and each viewing measure, and between age and each social judgment. The age range was restricted by the college student sample. Not surprisingly, age was unrelated to any exposure measure. The correlation between age and total exposure was zero. Age was not correlated greater than r = -.13 with any social judgment, and no trend suggesting a relationship was evident.

Grade Point Average (GPA). GPA was not significantly related to total exposure (r = -.07). However, it was significantly, negatively correlated with relationship viewing (r = -.21, $p < .01$, n = 161).

GPA also was negatively related to judgments of the percent of the workforce who are police officers (r = -.21, $p < .01$, n = 160), and the percent of people who are injured in traffic accidents (r = -.15, $p < .05$, n = 160).

Gender. Gender was unrelated to total television viewing, with males watching 3.49 hours per week, and females watching 3.84 hours. However, males said they watch significantly more reality programming per week (.67 hours) than females (.43 hours; t = -

1.87, $p < .05$, $df = 161$), while females reported watching significantly more relationship programming (1.72 hours) than males (.76 hours; $t = 5.21$, $p < .001$, $df = 161$). The genders did not differ significantly in their reported viewing of news or emergency programming.

In their social judgments, males and females differed significantly on all items, with females consistently making higher social judgment estimates (Table 17). These differences existed in both Study 1 and Study 2. There were no statistically significant differences between males in Study 1 and males in Study 2, nor between females in Study 1 and females in Study 2.

Table 17
Gender Difference in Social Judgments

Social Judgment Item	Males	Females	t	p	df
Percent Shot	15%	23%	2.86	.01	161
Percent Police Officers	15	22	2.83	.01	160
Percent Affairs	25	35	3.42	.001	160
Percent Accidents	33	46	3.82	.001	160
Percent Doctor who are African-American	17	21	2.10	.05	161

Gender Difference in Social Judgments in Studies 1(EX/SJ) and 2(SJ/EX)[a]

Social Judgment Item	Males		Females	
	Study 1	Study 2	Study 1	Study 2
Percent Shot	16%	14%	21%	25%
Percent Police Officers	17*	12*	22	21
Percent Affairs	24	26	34	35
Percent Accidents	34	32	42**	51**
Percent of Doctor who are African-American	19	15	20	23

* ($p < .11$)
** ($p < .10$)
[a] "EX/SJ" indicates the exemplar accessibility task was performed before the social judgment and "SJ/EX" indicates the social judgment task preceded the exemplar accessibility task.

Impulsiveness. The literature suggests impulsiveness may be related to exemplar response time, with more impulsive respondents reacting more quickly to exemplar prompts or social judgment items. This was not the case for exemplar accessibility. With the two studies combined, impulsiveness was statistically unrelated to any exemplar category. The strongest correlation existed between impulsiveness and examples of extra-marital affairs ($r = .12$). This correlation was statistically insignificant and in the wrong direction, associating impulsiveness with slower response times. When the two studies were analyzed separately, no correlation was statistically significant and no trends were apparent.

No correlation between impulsiveness and the latency of any social judgment was greater than $r = -.10$. However, there was a notable trend, such that all correlations were negative as predicted by the literature. When the two studies were analyzed separately, there were no significant correlations or obvious trends between impulsiveness and the latency of any judgment in Study 1, where the exemplar task preceded the social judgment task. However in Study 2, where social judgments preceded the exemplar accessibility task, impulsiveness was negatively, though insignificantly, related to the latency of judgments regarding African-American doctors ($r = -.19$), shootings ($r = -.17$), affairs ($r = -.14$), police officers ($r = -.11$), and traffic accidents ($r = -.08$). See Table 18.

Table 18

Zero-order Correlations between Impulsiveness and Exemplar Accessibility and Social Judgment Latency.

	Study 1 (EX/SJ)			Study 2 (SJ/EX)		
Exemplar	r	p	n	r	p	n
Shooting	-.01	.91	74	-.07	.55	65
Police Officer	-.17	.14	80	-.07	.58	73
Extra-Marital Affair	-.10	.40	74	.19	.12	67
Accident	-.13	.25	79	.02	.88	77
African-American M.D.	-.01	.90	77	-.01	.92	68
Social Judgment (Latency)						
% Shot	-.08	.52	73	-.17	.19	64
% Police Officers	-.07	.54	72	-.11	.41	62
% Affairs	.03	.82	73	-.14	.29	64
% Accident Injuries	-.01	.95	71	-.08	.52	64
% African-Am. M.D.s	.05	.68	73	-.19	.14	64

Need for Cognition (NFC). The literature suggests NFC may be related to exemplar accessibility or judgment latency. However, it was statistically unrelated to accessibility of exemplars in each category and to the latency of all five social judgments. No trends were apparent in either group of correlations. Analyzing the two studies separately did not reveal any significant relationships or notable trends.

In summary, of the six background variables investigated, there was evidence that three are related to the study's primary variables. This conclusion is based on statistically significant correlations and on groups of correlations that may not be statistically significant but indicate a trend in one direction.

The data suggest GPA is negatively related to at least one type of television exposure, relationship viewing, and two social judgments, those related to police officers and traffic accidents. Impulsiveness is negatively related to the accessibility of exemplars of police officers, extra-marital affairs, and traffic accidents. There also was a trend

suggesting impulsiveness is negatively related to the latency of social judgments. More impulsive individuals appear to access examples and make judgments more quickly. Gender was related to both viewing and social judgments. Males watch more reality programming while females watch more relationship programming. Females consistently made higher social judgment estimates than males.

Analysis of Viewing Characteristic Variables

Viewing Intention. Viewing intention was significantly correlated with total exposure to television ($r = .28$, $p < .01$, $n = 161$). Relationship and emergency program viewing accounted for this relationship. Correlations were $r = .35$, $p < .01$, and $.21$, $p < .01$, respectively. Viewing intention was not related to viewing of reality programs or news programs, both correlations were $r = .06$.

Viewing intention was unrelated to any social judgment. The strongest correlation was $r = .07$.

It is possible those who are more purposive in their viewing, indicated by viewing intention, may also have media examples more accessible in memory. To assess this, correlations between viewing intention and each exemplar accessibility and social judgment latency measure were calculated. There was no statistically significant relationship between viewing intention and the accessibility of any exemplar. Correlations ranged from $r = -.12$ to $r = .15$ in Study 1 and from $r = -.11$ to $r = .09$ in Study 2. No trends were apparent (see Table 19).

Interestingly, in Study 2, where social judgments were made before examples were prompted, viewing intention was unrelated to the latency of any social judgment. But viewing intention was positively related to all five judgment latency measures in Study 1,

where a priming effect may have occurred. In Study 1, viewing intention was correlated with latency of judgments regarding the percent of people shot ($r = .18$), percent of people who are police officers ($r = .13$), percent of people who have affairs ($r = .36$, $p < .01$, $n = 74$), percent of people in injured in accidents ($r = .30$, $p < .05$, $n = 72$), and percent of doctors who are African-American ($r = .33$, $p < .01$, $n = 74$). In Study 2, no correlation was greater than $r = .10$ (see Table 19).

Table 19
Zero-order Correlations between Viewing Intention and Exemplar Accessibility and Social Judgment Latency.

	Study 1 (EX/SJ)			Study 2 (SJ/EX)		
Exemplar	r	p	n	r	p	n
Shooting	.03	.77	75	-.05	.69	65
Police Officer	-.12	.28	81	.09	.46	73
Extra-Marital Affair	.14	.22	75	.02	.87	67
Accident	.15	.19	80	.06	.63	77
African-American M.D.	-.07	.56	78	-.11	.37	68
Social Judgment (Latency)						
% Shot	.18	.12	74	-.09	.48	64
% Police Officers	.13	.29	73	.07	.61	62
% Affairs	.36	.001	74	-.06	.65	64
% Accident Injuries	.30	.01	72	-.09	.48	64
% African-Am. M.D.s	.33	.01	74	-.10	.43	64

Viewing Attention. Attention while viewing was not significantly correlated with total exposure. However, it was significantly correlated with relationship viewing ($r = .18$, $p < .05$, $n = 161$). Correlations between attention and other exposure measures were not statistically significant.

Attention to viewing was unrelated to any social judgment. The strongest correlation was $r = .05$.

The literature suggests viewing attention may be related to exemplar accessibility or social judgment latency. Viewing attention was not related to the accessibility of any

example in Study 1 and no trends were apparent (see Table 20). Correlations ranged from r = -.07 to r = .13. However, in Study 2, a positive relationship was apparent. Viewing attention was positively related to the accessibility of examples of shootings (r = .25, p < .05, n = 65), police officers (r = .28, p < .05, n = 73), and traffic accidents (r = .17, p < ns, n = 77), though the latter correlation is not statistically significant. The two remaining correlations were negligible.

A positive trend also was observed between viewing attention and social judgment latency in Study 1, though the correlations were not statistically significant. Viewing attention was correlated with the latency of judgments regarding shootings (r = .16), affairs (r = .20), and African-American doctors (r = .13). This trend was more notable and statistically significant in Study 2 where viewing attention was positively related to the latency of judgments regarding shootings (r = .24, p < ns, n = 64), police officers (r = .30, p < .05, n = 62), affairs (r = .36, p < .01, n = 64), traffic injuries (r = .21, p < ns, n = 64), and African-American doctors (r = .25, p < .05, n = 64).

Table 20

Zero-order Correlations Between Viewing Attention and Exemplar Accessibility and Social Judgment Latency.

	Study 1 (EX/SJ)			Study 2 (SJ/EX)		
Exemplar	r	p	n	r	p	n
Shooting	.07	.56	75	.22	.08	65
Police Officer	-.07	.55	81	.28	.02	73
Extra-Marital Affair	.04	.74	75	.05	.72	67
Accident	.00	.99	80	.17	.13	77
African-American M.D.	-.01	.95	78	.02	.85	67
Social Judgment (Latency)						
% Shot	.16	.17	74	.24	.06	64
% Police Officers	-.06	.63	73	.30	.02	62
% Affairs	.20	.08	74	.36	.01	64
% Accident Injuries	.09	.48	72	.21	.10	64
% African-Am. M.D.s	.13	.28	74	.25	.05	64

Perceived Realism of Television. Perceived realism was factor analyzed into four dimensions: perceived realism of drama, crime, news, and emergency programming. Only perceived realism of news was correlated with total viewing ($r = .24$, $p < .01$, $n = 161$; see Table 21). Perceived realism of news was correlated with both relationship viewing ($r = .18$, $p < .05$, $n = 160$) and news viewing ($r = .17$, $p < .05$, $n = 161$).

In Study 1, perceived realism of crime programming was positively related to all social judgments; shootings ($r = .38$, $p < .01$, $n = 83$), police officers ($r = .30$, $p < .01$, $n = 82$), affairs ($r = .17$, $p <$ ns, $n = 83$), accident injuries ($r = .34$, $p < .01$, $n = 82$), and African-American doctors ($r = .21$, $p <$ ns, $n = 83$). Also in Study 1, perceived realism of news programming was positively related to accident injuries ($r = .23$, $p < .05$, $n = 82$) and shootings ($r = .20$, $p <$ ns, $n = 83$), though the later correlation was not statistically significant. In Study 2, a trend was evident among perceived realism of drama programs and four of five social judgments. Perceived realism of drama programming was significantly, negatively correlated with estimates of shootings ($r = -.23$, $p < .05$, $n = 80$). That realism variable's relationships with judgments about police officers ($r = -.15$), accident injuries ($r = -.14$), and African-American doctors ($r = -.20$) were similar, though not statistically significant. Also in Study 2, judgments of the prevalence of shootings was negatively related to perceived realism of medical programs ($r = -.27$, $p < .05$, $n = 80$).

For three of the four perceived realism dimensions, there were no significant relationships with any social judgment. However, perceived realism of crime programs was significantly, positively correlated with estimates of the percent of Americans who work as police officers ($r = .22$, $p < .01$, $n = 162$).

There were two trends among the correlations between the four dimensions of perceived realism of television and the accessibility of exemplars. In Study 1 the perceived realism of drama programs was positively correlated with accessibility of examples of shootings ($r = .17$), police officers ($r = .21$), extra-marital affairs ($r = .11$), and African-American doctors ($r = .27$, $p < .05$, $n = 78$). While only the last correlation is statistically significant, the trend is notable. Also in Study 1, perceived realism of medical programs was positively correlated with the accessibility of examples of shootings ($r = .17$), police officers ($r = .11$), traffic accidents ($r = .18$), and African-American doctors ($r = .13$). These results suggest individuals who think the television programs they watch are more realistic take longer to generate related examples.

Only the latency of judgments about African-American doctors was significantly related to any perceived realism of television measure. There were no other statistically significant correlations or notable trends.

Table 21

Zero-order Correlations Between Perceived Realism of Television and Television Exposure, Exemplar Accessibility, Social Judgment Latency, and Social Judgment.

	Perceived Realism of...							
	Drama		Crime		News		Medical	
	r	n	r	n	r	n	r	n
Exposure to								
Total	.13	160	.06	161	.24**	160	-.05	161
Reality Programs	.05	162	.10	163	.11	162	-.10	163
Relationship Prog.	.12	162	.09	163	.18*	162	-.06	163
News Programs	.10	160	-.07	161	.17*	160	-.06	161
Emergency Prog.	-.01	162	.06	163	.11	162	.14	163

	Study 1 (EX/SJ)					Study 2 (SJ/EX)				
	Drama	Crime	News	Med.		Drama	Crime	News	Med.	
Exemplar Accessibility	r	r	r	r	n	r	r	r	r	n
Shooting	.16	-.03	-.01	.17	74-75	-.05	-.03	-.07	-.01	64-65
Police Officer	.21	.07	-.02	.11	80-81	.07	-.12	.05	-.01	72-73
Extra-Marital Affair	.11	-.01	.05	.06	74-75	-.07	.06	-.06	-.11	66-67
Traffic Accident	.06	-.02	-.22	.18	79-80	-.07	.10	-.06	-.04	76-77
African-Am. M.D.	.27*	-.12	-.01	.13	77-78	-.05	.09	.02	-.04	67-68
Social Judgment Latency										
% Shot	.20	.13	-.06	.12	81-82	.08	.10	.01	-.07	78-79
% Police Officers	.08	-.02	.13	-.04	80-81	.15	.10	-.09	-.14	76-77
% Affairs	.00	-.06	.15	.19	80-81	.20	.04	.00	-.03	78-79
% Accident Injuries	.17	-.02	.13	.10	79-80	.18	.10	-.19	-.04	78-79
% African-Am. M.D.s	.21	.02	.23*	.07	81-82	.25*	.16	-.23*	-.01	78-79
Social Judgment										
% Shot	.07	.38**	.20	.06	82-83	-.23*	-.12	-.02	-.27*	79-80
% Police Officers	.13	.30**	.08	-.03	81-82	-.15	.11	.02	-.01	79-80
% Affairs	.01	.17	.01	-.02	81-82	-.06	-.10	.05	.03	79-80
% Accident Injuries	.22	.34**	.23*	.02	81-82	-.14	-.08	.06	-.10	79-80
% African-Am. M.D.s	.01	.21	-.06	.13	82-83	-.20	.04	-.16	-.02	79-80

* ($p < .05$)
** ($p < .01$)

Exemplar Characteristic Variables.

Respondents' average perceived realism judgments for all five exemplar categories were near or above the middle of the 10-point scale (Table 22). African-American doctors appeared most realistic to respondents, with police officers appearing second most realistic. Shootings, affairs and accidents were judged equally realistic.

For the three exemplar categories in which severity was an appropriate measure (shootings, affairs, and accidents), mean values were near the severe end of the scale. A trend among all three exemplar categories suggests fictional examples are judged as more severe than real examples. However this difference was statistically significant only for extra-marital affairs. Real affairs averaged seven on the 10-point scale and fictional examples averaged 7.7 ($t = -1.98$, $df = 134$, $p < .05$).

While fictional affairs were judged more severe, real affairs were judged more distinct (real: 6.2, fictional 3.7; $t = 6.39$, $df = 135$, $p < .01$). Real life police officers also were significantly more distinct than their fictional counterparts ($t = 3.91$, $df = 141$, $p < .01$), as were real accidents ($t = 4.07$, $df = 149$, $p < .01$).

The average frequency of activation response fell between "not very often" and "very rarely" for all example categories. Real examples of police officers, affairs, and accidents were thought of significantly more frequently than fictional examples in the same category (police officer: $t = 3.76$, $df = 141$, $p < .01$; affairs: $t = 2.50$, $df = 135$, $p < .02$; accidents: $t = 3.48$, $df = 151$, $p < .01$).

Respondents had thought of fictional examples of police officers significantly more recently than real examples ($t = 2.04$, $df = 141$, $p < .05$). This trend was evident in three

other categories, shootings, accidents, and African-American doctors. However the differences were not statistically significant.

Finally, respondents reported observing real examples significantly further in the past than the fiction examples. The average number of days since initial observation was 743 for real examples and 203 for fictional examples ($t = 8.87$, $df = 713$, $p < .01$). The difference in time since first observation between real and fictional examples was statistically significant for each exemplar category, with real examples being first observed longer ago in each case.

Table 22
Mean Exemplar Characteristic Values by Example Category.

	Perceived Realism	Severity	Distinct.	Frequency of Activation	Recency of Activation	Recency of Observation
(Range)	(1-10)	(1-10)	(1-10)	(1-5)	(.25-3150)*	(.25-4000)*
Police Officer						
Real (103)	--	--	6.8[2]	2.8[2]	110[1]	733[2]
Fictional (41)	6.0	--	5.1	2.0	41	240
Shooting						
Real (32)	--	8.0	4.6	2.4	149	619[2]
Fictional (98)	5.1	8.3	4.3	2.0	99	223
Affair						
Real (63)	--	7.0[1]	6.2[2]	2.3[1]	138	620[2]
Fictional (75)	5.2	7.7	3.7	1.8	152	300
Accident						
Real (128)	--	7.8	5.6[2]	2.5[2]	178	770[2]
Fictional (25)	4.9	8.2	3.4	1.5	65	89
African-American M.D.						
Real (33)	---	--	6.1	2.2	230	895[2]
Fictional (109)	6.8	--	5.9	2.1	100	132

*Days
[1] $p < .05$
[2] $p < .01$

Table 23 contains zero-order correlations among exemplar characteristic measures within each example category (Table 23). One pair of characteristic variables were highly, positively correlated in all five example categories. They were distinctiveness and perceived realism (police officers: $r = .86$, $p < .01$; shooting:, $r = .75$, $p < .01$; affairs: $r = .70$, $p < .01$; accidents: $r = .88$, $p < .01$; African-American M.D.: $r = .71$, $p < .01$). It is important to note that when perceived realism is one of the correlates the analyses include only fictional examples. There was no perceived realism measure for examples originating in real life.

Perceived realism was significantly related to only one other exemplar characteristic variable, in only one exemplar category. The severity of examples of affairs was significantly related negatively to the perceived realism of those affairs ($r = -.28$, $p < .01$.) Respondents judged more realistic examples of extra-marital infidelity as less severe. One explanation for this relationship is that affairs presented in the media are portrayed as more severe or extraordinary than the infractions that occur in real life.

Severity was negatively related to the distinctiveness of affairs ($r = -.22$, $p < .01$) and accidents ($r = -.24$, $p < .01$). More severe affairs and accidents were judged less distinct.

Frequency of activation was significantly, negatively related to recency of activation in all categories. It seems logical that examples activated more recently may have been observed for the first time more recently, allowing less time for additional activation.

Finally, more distinct accident examples were activated more frequently ($r = .26$, $p < .01$).

Table 23

Zero-order Correlations Among Exemplar Characteristic Variables in Study 1 and 2

	Perceived Realism	Severity	Distinct.	Frequency of Activation	Recency of Activation
Severity					
Police Officer	--*				
Shooting	-.08 (103)				
Affair	-.28[2] (89)				
Accident	.20 (25)				
African-American M.D.	--				
Distinctiveness					
Police Officer	.86[2] (41)	--			
Shooting	.75[2] (103)	-.11 (136)			
Affair	.70[2] (89)	-.22[2] (148)			
Accident	.88[2] (25)	-.24[2] (152)			
African-American M.D.	.71[2] (113)	--			
Frequency of Activation					
Police Officer	.06 (41)	--	.08 (143)		
Shooting	-.10 (102)	.15 (134)	-.10 (135)		
Affair	.06 (89)	.02 (149)	.12 (150)		
Accident	-.16 (25)	-.09 (153)	.26[2] (152)		
African-American M.D.	-.07 (110)		.01 (143)		
Recency of Activation					
Police Officer	-.22 (42)	--	.03 (143)	-.19[1] (142)	
Shooting	-.02 (102)	-.12 (134)	-.02 (135)	-.22[1] (137)	
Affair	.04 (89)	.12 (149)	.07 (150)	-.22[1] (151)	
Accident	.15 (25)	.01 (153)	-.00 (152)	-.25[2] (154)	
African-American M.D.	-.22 (113)	--	-.17 (146)	-.22[1] (144)	

* Cells are empty because measure was inappropriate for exemplar category. For example, police officers cannot be severe.

[1] $p < .05$

[2] $p < .01$

Hypothesis Tests

Each hypothesis proposed a simple relationship, making no predictions with respect to background or viewing characteristic variables. This section presents zero-order correlations used to test the existence of those relationships.

Hypothesis 1: Individuals who retrieve an exemplar more quickly, greater exemplar accessibility, will make more extreme social judgments related to that exemplar than individuals who retrieve exemplars more slowly

Hypothesis 1 predicted a negative relationship between exemplar accessibility and social judgment; individuals who require less time to think of an example of an event or social category should estimate the event occurs more frequently or members of the category are more prevalent than individuals who require more time to think of an example. Because of the potential priming effect described earlier, it was appropriate to use only the data from Study 1 to test this hypothesis. (In Study 1 the exemplar accessibility task preceded the social judgment questions).

The data provide very limited and tentative support for Hypothesis 1. Negative relationships were evident, however none was statistically significant at the 95-percent confidence level (see Table 24). Respondents' estimates of 'the percent of married Americans who have extra-marital affairs' was negatively related to the accessibility of examples of 'a husband or wife having an affair' ($r = -.16$, $p < .08$, $n = 74$). Estimate of 'the percent of Americans who are injured each year in traffic accidents' was negatively related to accessibility of 'serious traffic accident' examples ($r = -.11$, $p < .18$, $n = 79$). Estimates of 'the percent of medical doctors who are African-American' was negatively related to accessibility of examples of 'African-American medical doctors' ($r = -.12$, $p <$

.16, n = 78). No relationships were observed between estimates of the percent of American who are shot with a gun or the percent of the population who are police officers and the accessibility of examples from those categories.

Table 24
Zero Order Correlations Between Exemplar Response Time and Social Judgments in Study 1.

	Study 1 (EX/SJ)				
Exemplar/Judgment	r	n	p	Males	Females
Shooting / % of People Shot	-.04	75	.38	.01	-.12
Police Officer / % of Workers who are Police Officers	.02	80	.42	.05	-.06
Cheating Spouse / % of Americans have Extra-Marital Aff.	-.16	74	.08	.06	-.03
Serious Traffic Accident / % People Injured in...	-.11	79	.18	-.12	-.06
African-Am. M.D. / % M.D.s are African-Am.	-.12	78	.16	.01	-.25*

* $p < .08$

It is possible the small correlations observed are due to spurious relationship in which both variables are driven by impulsiveness. To explore that possibility, partial correlations were computed for the relationships related to affairs, accidents, and African-American doctors. This was not the case, none of the three correlations were significantly different after controlling for impulsiveness. The affair relationship was reduced slightly from r = -.16 to partial r = -.12; accidents did not change significantly (partial r = -.12), and African-American doctors increased marginally.

Because female respondents made larger social judgment estimates than males, it seemed informative to compute correlations between accessibility and social judgments separately for each gender (Table 24). For shootings and African-American doctors it

appears the female respondents were responsible for any trend toward a negative relationship between exemplar accessibility and social judgment.

For three example categories – shootings, extra-marital affairs, and African-American doctors – there was a large enough number of examples originating in the media that these correlations could be computed using only cases in which examples came from the media. When limited in this way, the correlations were relatively unchanged. The correlation between accessibility of shooting examples originating in the media and judgments about shootings was zero ($r = .01$, $n = 62$). The correlation between accessibility of media affairs and related judgments was $r = -.16$ ($n = 40$). The correlation between accessibility of example of African-American doctors from the media and judgments of their prevalence was $r = -.11$ ($n = 65$).

Hypothesis 2: For objects, incidents, and behaviors that are prevalent on television and less frequently experienced in the real world, individuals who watch more television will retrieve exemplars more quickly than individuals who watch less television.

Hypothesis 2 predicted individuals who watch more television will require less time to retrieve examples of social events and categories than individuals who watch less television. Again, only Study 1 data were used to test this hypothesis.

The data provide no support for this hypothesis (Table 25). One correlation, between viewing and accessibility of examples of extra-marital affairs, neared statistical significance ($r = .18$, $p<.06$, $n=75$). However the hypothesis predicted a negative correlation, not positive as resulted.

Table 25
Zero Order Correlations Between Television Exposure and Exemplar Response Time in Study 1 (EX/SJ).

	Total Television Viewing		
Exemplar	r	n	p
Shooting	.03	75	.42
Police Officer	.05	79	.32
Extra-Marital Affair	.18	75	.06
Traffic Accident	.09	78	.22
African-American Medical Doctor	.00	76	.49

A more precise method to test Hypothesis 2 would be to look only at media examples and exposure to specific content, rather than total exposure. It is impossible to conduct this analysis with two of the exemplar categories, police officers and traffic accidents, because of the small number of fictional examples reported. However, this analysis was possible for the remaining three exemplar categories.

There were 62 fictional examples of shootings. Accessibility of those examples was not significantly correlated with any exposure measure. The only correlation that differed noticeably from zero was between accessibility of examples of shooting and exposure to television news, but it was positive ($r = .13$), rather than negative as predicted.

There were 41 examples of extra-marital affairs originating in the media. Accessibility of those examples was positively related to reality viewing ($r = .22$) and news viewing ($r = .38$, $p < .01$, $n = 40$), but unrelated to relationship viewing and emergency viewing. These relationships are not in the direction hypothesized.

There were 65 examples of African-American doctors originating in the media. Accessibility of those examples was unrelated to any viewing measure. The strongest correlation was r = -.11, which was with relationship viewing. This relationship between media examples of African-American doctors and estimates of their prevalence is in the predicted direction. However, its weakness and that it is not part of any similar trend prohibit claiming it as support for Hypothesis 2.

There is no support for the relationship predicted in Hypothesis 2 between television exposure and exemplar accessibility.

Hypothesis 3: Individuals who watch more television within a content area will make higher, or more extreme, social judgments related to that content, than individuals who watch less television within a content area.

Hypothesis 3 is a classic cultivation prediction in which individuals who watch more television should also make greater social judgments related to events or roles portrayed frequently in the media. In Study 1 total television viewing was positively, significantly correlated with four of five social judgments, but not significantly related to any social judgment in Study 2 (Table 26, top). In Study 1, individuals who watch more television also estimated a higher percent of Americans are shot ($r = .30$, $p<.01$, $n = 81$), a higher percent of Americans work as police officers ($r = .23$, $p < .05$, $n = 80$), a higher percent of spouses have extra-marital affairs ($r = .24$, $p < .05$, $n = 80$), and a higher percent of Americans are injured in traffic accidents ($r = .29$, $p < .05$, $n = 80$). These relationships are not surprising and merely replicate results observed in many previous cultivation studies. However, it is curious that these relationships occurred only among respondents who had previously thought of examples of the social judgment they made.

Table 26
Correlations Between Television Exposure and Social Judgments

	Zero Order Correlations			
	Study 1 (EX/SJ)		Study 2 (SJ/EX)	
Judgment	r	n	r	n
% Shot	.30[2]	81	.08	80
% Police Officers	.23[1]	80	-.04	80
% Affairs	.24[1]	80	.16	80
% Injured in Accident	.29[2]	80	.05	80
% Doctors are Afr.-Am.	.03	81	.03	80

	Partial Correlations Controlling for Exemplar Accessibility			
	Study 1 (EX/SJ)		Study 2 (SJ/EX)	
Judgment	r	n	r	n
% Shot	.31[2]	70	.11	62
% Police Officers	.27[1]	75	-.06	70
% Affairs	.29[1]	69	.15	64
% Injured in Accident	.30[2]	74	.05	74
% Doctors are Afr.-Am.	.04	73	-.04	65

[1] $p<.05$ (1-tailed)
[2] $p<.01$ (1-tailed)

Hypothesis 4: Exemplar accessibility will mediate the relationship between television exposure and social judgment, such that controlling for exemplar accessibility will reduce or eliminate the correlation between exposure and social judgment.

This hypothesis was tested by computing partial correlations between social judgments and television exposure -- replicating the correlations from Hypothesis 3 -- while controlling for exemplar accessibility. If exemplar accessibility mediates the relationship between viewing and judgment, controlling for exemplar accessibility should reduce the correlation. This was not the case. No correlation was reduced or changed significantly as a result of the control. This analysis did not support Hypothesis 4 (Table 26, bottom).

Hypothesis 5a: Individuals who watch more television will make social judgments more quickly than those who watch less television.

Hypotheses 5a, b, and c were designed to replicate Shrum's (1996) results. Hypothesis 5a predicted heavier television viewers would make social judgments more quickly than lighter viewers. This hypothesis was not supported (Table 27a). Instead, in Study 1, respondents who reported watching more television made two social judgments, those regarding the prevalence of shootings and African-American doctors, more slowly than lighter viewers ($r = .27$, $p < .01$, $n = 81$ and $r = .19$, $p < .05$, $n = 80$, respectively) Also, there was a notable positive correlation ($r = .17$) between total viewing and the latency of judgments about the percent of American who work as police officers, though it was not statistically significant. In Study 2, total viewing was positively related to the latency of judgments regarding the percent of Americans who work as police officers ($r = .23$, $p<.05$, $n = 77$). These positive correlations are opposite the direction predicted by Hypothesis 5a. The data do not support Hypothesis 5a.

Hypothesis 5b: Individuals who make social judgments more quickly will make greater, or more extreme, social judgments.

Hypothesis 5b predicted negative relationships between social judgment latency and the social judgments themselves. The data do not support this hypothesis. In Study 2 where there could have been no priming, there were no statistically significant negative or positive correlations. In Study 1 the only notable relationship, between judgments about shootings and the latency of those judgments, was not significant at the 95 percent confidence level and was not in the predicted direction.

Table 27a
Correlations Between Television Exposure and Social Judgment Latency

	Study 1 (EX/SJ)		Study 2 (SJ/EX)	
Latency of Judgment	r	n	r	n
% Shot	.27[2]	81	.06	79
% Police Officers	.17	79	.23[1]	77
% Affairs	.07	79	-.12	79
% Injured in Accident	.08	78	-.04	79
% Doctors are Afr.-Am.	.19[1]	80	-.09	79

Table 27b
Correlations Between Social Judgment Latency and Social Judgment

	Study 1 (EX/SJ)		Study 2 (SJ/EX)	
Judgment/ Judgment Latency	r	n	r	n
% Shot	.20	82	.06	79
% Police Officers	.04	81	.13	77
% Affairs	-.13	81	-.08	79
% Injured in Accident	-.02	80	-.06	79
% Doctors are Afr.-Am.	.01	82	.04	79

[1] $p<.05$ (1-tailed)
[2] $p<.01$ (1-tailed)

Hypothesis 5c: Judgment latency will mediate the relationship between television exposure and social judgment, such that controlling for judgment latency will reduce or eliminate the correlation between exposure and social judgment.

Similar to Hypothesis 4, Hypothesis 5c was tested by computing a partial correlation between television exposure and social judgment while controlling for social judgment latency. Also like Hypothesis 4, no correlation was significantly reduced by the control (Table 28). The data did not support Hypothesis 5c, nor do they replicate the findings of Shrum and O'Guinn (Shrum 1996; Shrum & O'Guinn, 1993).

Table 28

Partial Correlations Between Television Exposure and Social Judgment Controlling for Judgment Latency

	Zero Order Correlations*			
	Study 1 (EX/SJ)		Study 2 (SJ/EX)	
Judgment	r	n	r	n
% Shot	.30[2]	81	.08	80
% Police Officers	.23[1]	80	-.04	80
% Affairs	.24[1]	80	.16	80
% Injured in Accident	.29[2]	80	.05	80
% Doctors are Afr.-Am.	.03	81	.03	80

	Partial Correlations Controlling for Social Judgment Latency			
	Study 1 (EX/SJ)		Study 2 (SJ/EX)	
Judgment	r	n	r	n
% Shot	.22[1]	77	.10	76
% Police Officers	.21[1]	76	-.07	74
% Affairs	.27[2]	76	.17	76
% Injured in Accident	.30[2]	75	.09	76
% Doctors are Afr.-Am.	.07	77	.02	76

[1] $p<.05$ (1-tailed)

[2] $p<.01$ (1-tailed)

* These correlations are redundant with those reported in top of Table 23. They are presented here for the reader's convenience.

Hypothesis 6: Exemplar distinctiveness will be negatively related to exemplar accessibility.

Hypothesis 6 predicted more distinct examples would be recalled more quickly, or be more accessible. The data provide very limited support for this prediction (Table 29). More distinct examples of accidents were recalled more quickly in Study 1 ($r = -.25$, $p < .05$, $n = 76$). This also was true of examples of police officers in Study 1 ($r = -.17$) and examples of African-American medical doctors in Study 2 ($r = -.14$), though these two correlations were not statistically significant.

Table 29
Zero Order Correlations Between Exemplar Response Time and Exemplar Distinctiveness

	Study 1		Study 2	
Judgment/Exemplar	r	(n)	r	(n)
Shooting	.02	72	-.04	59
Police Officer	-.17	75	-.05	68
Extra-Marital Affair	.04	74	.05	65
Accident	-.25[1]	76	-.09	75
African-Am. Doctor	-.04	76	-.14	68

[1] $p < .05$.

Hypothesis 7: Exemplar severity will be negatively related to exemplar accessibility.

Hypothesis 7 predicted more severe examples of events would be recalled more quickly than less severe examples. Severity is not a characteristic of doctors and police officers so this analysis applies only to event exemplars.

There was limited support for this hypothesis. A statistically significant, negative correlation resulted between respondents judgment of the severity of their examples of traffic accidents and the accessibility of that exemplar ($r = -.22$, $p<.05$, $n = 75$; Table 30). Insignificant but notable negative correlations were also observed between accessibility and severity of shootings in Study 1 and extra-marital affairs in Study 2 (both $r = -.19$). However, the positive, insignificant correlations between severity and accessibility of examples of affairs in Study 1 and shootings in Study 2 limit the amount of support that can be claimed for this hypothesis.

Table 30
Zero Order Correlations Between Exemplar Response Time and Exemplar Severity

	Study 1		Study 2	
Judgment/Exemplar	r	(n)	r	(n)
Shooting	-.19	72	.11	59
Police Officer	--	--	--	--
Extra-Marital Affair	.13	74	-.19	65
Accident	.08	76	-.22[1]	75
African-Am. Doctor	--	--	--	--

[1] $p < .05$.

Hypothesis 8: Perceived realism of exemplar will be negatively related to exemplar accessibility.

Hypothesis 8 predicted fictional examples perceived as more realistic would be more accessible than fictional examples perceived as less realistic. There was limited support for this hypothesis (Table 31). The negative correlation between the accessibility of shooting examples and their perceived realism was statistically significant in Study 1 ($r = -.23$, $p<.05$, $n = 53$). This trend was also present in correlations between perceived realism and accessibility of shooting examples in Study 2 ($r = -.15$) and African-American medical doctors in both studies (Study 1, $r = -.11$; Study 2, $r = -.13$), though the relationships were not statistically significant. There were only 24 fictional examples of traffic accidents distributed across the two studies. Negative correlations were observed. However, the small number of cases render them of little guidance.

Table 31
Zero Order Correlations Between Exemplar Response Time and Exemplar Realism

	Study 1		Study 2	
Judgment/Exemplar	r	(n)	r	(n)
Shooting	-.23[1]	53	-.15	47
Police Officer	-.06	20	-.06	22
Extra-Marital Affair	.03	40	.16	38
Accident	-.50	9	-.13	15
African-American Doctor	-.11	62	-.13	49

[1] $p < .05$.

The above analysis included only fictional examples. Perceived realism of real-life examples was not measured, though that construct has been identified and described (Weintraub Austin & Dong, 1994). To explore whether real exemplars were more accessible than fictional ones, the mean response time of fictional and real examples were compared. For two categories, examples of police officers and extra-marital affairs, respondents' who reported fictional examples took longer to do so. However, for the African-American doctor category, fictional examples were reported more quickly (see Table 32).

Table 32
Accessibility of Real and Fictional Exemplars.

	Response Time (cs)	t	p	n
Exemplar				
Shooting-Real	257	.780[1]	.44	39
Shooting-Fictional	353			101
Police Officer-Real	-75	1.996[1]	.05	111
Police Officer-Fictional	9			43
Cheating Spouse-Real	300	2.275	.03	65
Cheating Spouse-Fictional	542			77
Traffic Accident-Real	150	.942[1]	.35	132
Traffic Accident-Fictional	262			25
African-Am. M.D.-Real	320	-2.995[1]	.01	34
African-Am. M.D.-Fictional	87			112

[1] Adjusted for unequal variance.

Hypothesis 9: There will be a positive relationship between the amount of time since the individual last thought of the exemplar (recency of activation) and the amount of time required for the individual to recall that exemplar (exemplar accessibility).

This hypothesis predicted that when less time has passed since an example was last recalled, less time will be required to access that example. In Study 1, this was the case for examples of African-American doctors ($r = .22$, $p<.05$, $n = 74$) and extra-marital affairs ($r = .20$, $p<.05$, $n = 77$), but not for the other three examples (Table 33). In fact, the trend was in the opposite direction for shootings ($r = -.15$), though the correlation was not statistically significant. In Study 2, no correlation differed notably from zero.

Table 33
Zero Order Correlations Between Exemplar Response Time and Recency of Exemplar Activation/Observation

	Study 1		Study 2	
Judgment/Exemplar	r	(n)	r	(n)
Shooting	-.15	72	.02	60
Police Officer	.01	76	.00	69
Extra-Marital Aff.	.22[1]	74	.02	66
Accident	.05	77	-.04	76
Afr.Am. M.D.	.20[1]	77	-.01	67

[1] $p < .05$.

Hypothesis 10: There will be a negative relationship between the number of times a respondent has thought about or discussed an exemplar (frequency of activation) and the amount of time required for a respondent to recall that exemplar (exemplar accessibility).

Hypothesis 10 predicted that the more frequently examples are recalled, the less time it will take to access them. The data provide limited support for this hypothesis in three of five instances (Table 34). Significantly large correlations were produced between frequency of activation and accessibility of examples of police officers ($r = -.20$, $p<.05$, $n = 75$), and traffic accidents ($r = -.23$, $p<.05$, $n = 77$) in Study 1, and extra-marital affairs ($r = -.21$, $p<.05$, $n = 66$) in Study 2. The corresponding relationships, in the opposite studies, were also notably large and in the predicted direction for extra-marital affairs ($r = -.14$) in Study 1, and police officers ($r = -.19$) and traffic accidents ($r = -.12$) in Study 2. The correlations between frequency of activation and accessibility of shooting and African-American doctor examples did not differ notably from zero.

Table 34
Zero Order Correlations Between Exemplar Response Time and Frequency of Exemplar Activation

	Study 1		Study 2	
Judgment/Exemplar	r	n	r	n
Shooting	-.06	71	-.02	61
Police Officer	-.20[1]	75	-.19	68
Extra-Marital Aff.	-.14	74	-.21[1]	66
Accident	-.23[1]	77	-.12	76
Afr.Am. M.D.	.04	76	-.01	66

[1] $p < .05$.

Exploratory Analyses

In order to assess the relative contribution of each independent variable on each dependent variable – exemplar accessibility, social judgment latency, and social judgment – a series of regression analyses were performed. One weakness of this study's design is limited statistical power resulting from the small number of cases in each condition. For example, there are 36 females and 39 males available for a regression of viewing onto the accessibility of shooting examples in Study 1. This is especially troublesome given the weak relationships observed in the hypothesis tests. However, weak relationships are not uncommon in media effects research. Further, that the correlations are small does not mean they are not important. To address this limitation examples were treated as the unit of analysis, rather than the individual. This increased the number of cases from approximately 70 per group to 344, resulting in increased statistical power.

Treating examples as the unit of analysis presented two problems. The first is that accessibility measures from one respondent cannot be assumed independent. For example, individuals who respond quickly with examples of shootings may also respond quickly with examples or affairs or accidents. Theoretically this threat has been addressed by subtracting the reaction and reading time measure from exemplar accessibility (described in the methods section), thereby eliminating individual differences in response time.

The second problem is that different exemplars are, on average, differently accessible. For example, in Study 1 the mean accessibility response time for police officers was 343 centiseconds, while it was 826 centiseconds for extra-marital affairs. The result of treating these unstandardized measures as equivalent would be attenuation of correlations between independent variables and exemplar accessibility. To address this

problem accessibility values were separated by exemplar category. Five different variables were created, such as accessibility of shooting examples and accessibility of police officers. Then the separate accessibility variables were converted to z-scores so that all five had equal variance and mean values. The five exemplar accessibility variables then were treated as a single normalized, or standardized, accessibility measure.

Analysis 1: Regression of Predictors on Exemplar Accessibility. A stepwise regression analysis was performed in which the accessibility of all five example categories from Study 1 was the dependent measure (n = 348). The stepwise process sets a minimum criteria for each independent variable to be included ($p < .10$) and retained ($p < .15$) as subsequent independent variables are entered. This procedure selects the strongest predictors of the dependent variable from all independent variables entered. It also reports the partial correlation coefficient for independent variables that are not retained in the model, allowing the relative influence of independent variables excluded from the model to be assessed. Multiple R and adjusted R^2 are presented in each table, though their importance is minimal given that the purpose of the analysis is to identify the strongest predictors, rather than the best model.

The independent variables entered were three background variables found correlated with exemplar accessibility -- gender, GPA, and impulsiveness; viewing characteristic variables -- viewing intention, viewing attention, the four dimensions of perceived realism of television, the four television exposure measures; and three exemplar characteristic variables -- frequency of exemplar activation, recency of exemplar activation, and exemplar distinctiveness. Gender was dummy coded as 0 and 1 (0 = female, 1 = male). Exemplar severity and perceived realism of exemplar were excluded

from this analysis because those variables apply only to a subset of examples or cases. Severity does not apply to police officers or African-American doctors. Perceived realism applies only to fictional examples.

Table 35

Results of Regression Analyses with Exemplar Accessibility as Dependent Measure.

Independent Variable	All n = 344	Media Only 169	Shoot[a] 65	Pol.Off 68	Affair 68	Accident 71	A.A.M.D 68
Gender	*-.03*	*-.04*	*-.16*	**-.25**[1]	**.39**[2]	*.06*	*-.18*
Impulsiveness	*-.06*	*-.09*	*.00*	*-.16*	*-.09*	*-.11*	*.04*
GPA	**.11**[1]	*.07*	*.12*	*.02*	*.16*	**.22**[4]	*-.03*
Viewing Intention	*.02*	*-.02*	*-.03*	**-.23**[1]	*.13*	*.19*	*-.13*
Viewing Attention	*-.03*	*-.01*	*.04*	*-.05*	*.03*	*-.02*	*-.14*
Perceived Realism of...							
Drama	**.15**[2]	**.20**[2]	*.14*	**.30**[2]	*.05*	*-.02*	**.32**[1]
Crime	*-.03*	**-.14**[4]	*-.06*	*.01*	*-.04*	*.03*	*-.12*
Medical	*.05*	*.02*	*.06*	*-.04*	*.09*	*.09*	*.03*
News	*-.04*	*.06*	*.00*	*.03*	*.07*	*-.14*	*-.11*
Exposure to...							
Reality	*-.02*	*.05*	*-.08*	*.07*	*.10*	*.00*	*-.14*
Relationship	*.01*	*.03*	*-.01*	*.02*	**.22**[4]	*.13*	**-.22**[1]
News	**.09**[4]	*.09*	*.06*	*-.02*	*.16*	*.01*	**.25**[1]
Emergency	*.06*	*.05*	*-.07*	**.22**[4]	*.07*	*.08*	*.05*
Exemplar							
Distinctiveness	**-.16**[2]	*-.07*	**-.19**[4]	**-.24**[1]	*.02*	**-.27**[1]	*-.13*
Frequency/Activation	*-.01*	*.00*	*-.01*	*.01*	*-.10*	*-.14*	*.12*
Recency/ Activation	*.03*	*.06*	*-.13*	*.02*	*.11*	*.00*	*.20*
Perceived Realism	—	**-.18**[1]	—	—	—	—	—
Var 1 R (Adjusted R^2)	.15[2] (.02)	.19[2] (.03)	.19 (.04)	.23 (.05)	.31[2] (.08)	.26[1] (.05)	.32[2] (.09)
Var 2 R (Adjusted R^2)	.22[3] (.04)	.25[2] (.05)		.33[1] (.11)	.37[2] (.11)	.34[1] (.09)	.41[2] (.14)
Var 3 R (Adjusted R^2)	.25[3] (.05)	.29[2] (.07)		.40[2] (.16)			.46[2] (.18)
Var 4 R (Adjusted R^2)	.26[3] (.06)			.44[3] (.20)			
Var 5 R (Adjusted R^2)				.49[3] (.24)			

[1] $p < .05$
[2] $p < .01$
[3] $p < .001$
[4] $p < .10$

[a] Criteria were relaxed so that F values must be significant at $p < .15$ for inclusion and $p < .20$ for exclusion for this analysis. More stringent criteria resulted in exclusion of all independent variables.

* Multiple R and Adjusted R^2 after the each retained variable.

** Values in bold are standardized Beta coefficients retained by the stepwise regression process. Values in italics are partial correlation coefficients not retained in the regression process.

When all examples were combined, three independent measures were statistically significant predictors of the exemplar accessibility (Column 1, Table 35). The strongest was exemplar distinctiveness (Beta = -.16, $p < .01$). Respondents who judged their examples as more distinct reported them more quickly, which is consistent with Hypothesis 7. Exemplar distinctiveness was followed by the perceived realism of drama programming (Beta = .15, $p < .01$), indicating individuals who judge drama programming as more realistic take longer to access examples from the five categories. GPA was also a significantly strong predictor of exemplar accessibility (Beta = .11, $p < .05$). Respondents who reported earning better grades took longer to report examples. A fourth independent variable, exposure to television news programming, was retained in the stepwise regression model, though it did not reach statistical significance (Beta = .09, $p < .10$).

Analysis 2: Regression of Predictors on Accessibility of Media Examples. Next all non-media examples were removed from the data set, leaving 169 fictional media examples. Perceived realism of exemplar was added to the list of independent measures. It was expected the Beta coefficients of media related predictors would increase if examples not originating in the media were excluded from the analysis.

Three independent variables were retained (Column 2, Table 35). As when all examples were included, perceived realism of drama programming was a strong predictor of the accessibility of media examples (Beta = .20, $p < .01$). Also, perceived realism of crime programming was retained (Beta = -.14, $p < .07$), though it was not statistically significant. These two predictors have opposite influences on exemplar accessibility. It appears perceiving drama program as more realistic decreased accessibility of media examples, while perceiving crime programming as more realistic increased media

examples' accessibility. Most importantly for this study, perceived realism of media examples was a statistically significant, negative predictor of the accessibility of media exemplars (Beta = -.18, $p < .02$), indicating examples perceived as more realistic are more accessible in memory. This supports Hypothesis 9.

Analysis 3: Regression of Independent Variables on Accessibility of Each Exemplar. Next, the same set of independent variables, excluding perceived realism of exemplar, were regressed on the accessibility of each example separately. That is, first the dependent measure was the accessibility of shooting examples, then police officer examples, and so on (columns 3-7 in Table 35).

Shootings. Even with the criteria relaxed (to $p < .15$ for inclusion and $p < .20$ for exclusion), exemplar distinctiveness was the only predictor retained in the regression model. It was significant only at the 90 percent confidence level (Table 35).

Police Officers. Five independent variables were retained in the regression model predicting accessibility of examples of police officers. The strongest was perceived realism of drama programs (Beta = .30, $p < .01$). Again, greater perceived realism was associated with less accessible examples. Then gender; males had more accessible examples of police officers than female respondents (Beta = -.25, $p < .05$). Exemplar distinctiveness was negatively associated with exemplar accessibility (Beta = -.24, $p < .05$). Viewing intention; respondents who reported greater viewing intention had more accessible examples of police officers (Beta = -.23, $p < .05$). Finally, exposure to emergency programming was also retained, suggesting heavier emergency program viewing lead to less accessible examples, though the Beta coefficient was not statistically significant (Beta = .22, $p < .07$),.

Extra-Marital Affair. Gender was the strongest predictor of accessibility of examples of extra marital affairs (Beta = .39, $p < .01$). Males had less accessible examples of affairs than females. Exposure to relationship programming was a positive predictor of the accessibility of affair examples (Beta = .22, $p < .10$); those who watch more took longer to report an example. The Beta coefficient was not statistically significant, however.

Traffic Accident. The primary predictor of the accessibility of accident examples was the distinctiveness of the accident reported (Beta = -.27, $p < .05$). More distinct example were more accessible. Grade point average also was retained in the model. Higher reported grades were associated with less accessible examples, though its Beta coefficient was not significant (Beta = .22, $p < .06$).

African-American Doctors. The three strongest predictors of accessibility of African-American doctors were perceived realism of drama programs (Beta = .32, $p < .05$), greater perceived realism being associated with less accessibility; exposure to news programming (Beta = .25, $p < .05$), with more news viewing leading to less accessibility; and exposure to relationship programming (Beta = -.22, $p < .05$), with more relationship viewing leading to more accessible examples.

Among the five example categories, exemplar distinctiveness was the most consistent predictor. It was negatively related to the accessibility of shooting, police officer, and accident examples. Perceived realism of drama programs was a predictor of both the accessibility of examples of people, police officers and African-American doctors. In both cases greater perceived realism lead to less accessibility, or at least a slower response time. Exposure to relationship programming was a positive predictor of the

accessibility of extra-marital affair examples – more viewing lead to less accessibility-- but a negative predictor of African-American doctor examples – more viewing lead to more accessible examples. Finally, men had more accessible examples of police officers while women had more accessible examples of affairs.

Analysis 4: Predictors of Social Judgment Latency.

This section describes the results of five stepwise regression analyses in which the same predictors, again excluding perceived realism of exemplar, were regressed onto the latency of each social judgment. Only Study 2 data were analyzed because of potential priming effects of the exemplar accessibility task. These results are in Table 36.

Shootings. The independent variables that most strongly predicted the speed with which respondents made judgments about the percent of people who are shot were viewing intention (Beta = -.28, $p < .05$) and viewing attention (Beta = .36, $p < .01$). Individuals who report planning their viewing more made social judgments more quickly, while those who say they pay more attention when they view, made judgments more slowly. No other independent variables were statistically significant predictors of the latency of this judgment.

Police Officers. The stepwise regression procedure retained gender (Beta = -.20, $p < .10$) and exposure to news programs (Beta = .31, $p < .01$), though the former was not statistically significant. These indicate males answered the question more quickly and heavier news viewers responded more slowly.

Table 36
Results of Regression Analyses with Judgment Latency as Dependent Measure.

Independent Variable	(n)	Shoot (76)	Pol.Off (74)	Affair (76)	Accident (76)	A.A.M.D (76)
Gender		*-.05*	**-.20**[4]	*.04*	*-.10*	*-.06*
Impulsiveness		*-.06*	*-.09*	*-.06*	*-.05*	*-.15*
GPA		*.07*	*.01*	*.06*	*.02*	*-.12*
Viewing Intention		**-.28**[1]	*-.10*	**-.42**[3]	*-.12*	**-.24**[2]
Viewing Attention		**.36**[2]	*.18*	**.47**[3]	**.23**[1]	**.31**[1]
Perceived Realism of...						
Drama		*.11*	*.17*	**-.25**[3]	**.19**[4]	**.33**[2]
Crime		*.09*	*.15*	*.00*	*.06*	*.10*
Medical		*-.06*	*-.12*	*.00*	*-.10*	*.05*
News		*.10*	*-.17*	*.08*	**-.24**[1]	**-.27**[1]
Exposure to...						
Reality		*.08*	*.06*	*-.17*	*.06*	*.07*
Relationship		*-.08*	*.06*	**-.21**[1]	*-.10*	*-.09*
News		*.13*	**.31**[2]	*.13*	*.04*	*.05*
Emergency		*.02*	*-.08*	-.13	*-.11*	*-.08*
Var 1 R (Adjusted R^2)		.21 (.03)	.28[1] (.07)	.26[1] (.06)	.26[1] (.05)	.25[1] (.05)
Var 2 R (Adjusted R^2)		.32[1] (.08)	.34[2] (.09)	.42[3] (.15)	.33[1] (.08)	.39[2] (.13)
Var 3 R (Adjusted R^2)				.48[3] (.19)	.47[2] (.10)	.43[2] (.15)
Var 4 R (Adjusted R^2)				.52[3] (.23)		.49[3] (.19)

[1] $p < .05$
[2] $p < .01$
[3] $p < .001$
[4] $p < .10$
* Multiple R and Adjusted R^2 after the each variable is added. Variables are added starting with the highest standardized Beta coefficient.
** Values in bold are standardized Beta coefficients . Values in italics are partial correlation coefficients.

Extra-Marital Affairs. Four media related variables were statistically significant predictors of the speed with which respondents make judgments about the prevalence of affairs. Those with stronger viewing intentions responded more quickly (Beta = -.42, $p < .01$). Those who pay less attention when viewing answered more quickly (Beta = .47, $p < .001$). Those who perceive drama programs as more realistic answered more quickly

(Beta = -.25, $p < .05$). Finally, those who watch more relationship programs answered more quickly (Beta = -.21, $p < .05$).

Traffic Accidents. Three variables were retained. Those who pay more attention when they view made judgments about traffic accidents more slowly (Beta = .23, $p < .05$). Respondents who perceive drama programming as more realistic responded more slowly (Beta = .19, $p < .10$), though this Beta coefficient was not statistically significant. And those who watch more news programming responded more quickly (Beta = -.24, $p < .05$).

African-American Doctors. Four viewing related variables predicted the speed with which respondents made social judgments about the prevalence of African-American doctors. As with the shooting and affairs categories, viewing intention was negatively related to judgment latency; respondents who plan their viewing to a greater extent responded more quickly (Beta = -.24, $p < .05$). As with three of the four previous judgments, those who pay more attention to what they watch responded more slowly to the question (Beta = .31, $p < .05$). Respondents who perceive drama programming as more realistic took longer to respond (Beta = .33, $p < .01$). Finally, those who perceived news programming as more realistic made judgments about the prevalence of African-American medical doctors more quickly (Beta = -.27, $p < .05$).

The most consistent predictor of judgment latency was viewing attention. For judgments about shootings, affairs, accidents, and African-American doctors, respondents who report paying greater attention when they watch TV answered questions more slowly. The opposite was true of viewing intention. For judgments related to shootings, extra-marital affairs, and African-American doctors, those who plan their viewing to a greater extent answered questions more quickly. Those who perceive drama programs as

more realistic made judgments about accidents more slowly, but judgments about African-American doctors more quickly. Also, those who watched more news made judgments about police officers more slowly, but judgments about accidents more quickly.

Predictors of Social Judgment. The final set of analyses attempted to identify the strongest predictors or social judgment among the independent variables included in this study. Except for exemplar accessibility and social judgment latency, all independent variables were entered in one block. Exemplar accessibility and social judgment latency were entered in a second block so their contributions could be observed independent of the other predictor variables.

The following section identifies which independent variables most strongly predict each social judgment, in the two studies separately (see Table 37).

Results. Recall that in Study 1 the exemplar accessibility task was performed before social judgments were made. In Study 2 exemplar accessibility was measured after social judgments were made, removing the possibility that the exemplar accessibility task influenced respondents' social judgments.

Shootings. In Study 1, where exemplar accessibility preceded the social judgment task, perceived realism of crime programs (Beta = .35, $p < .01$) and exposure to relationship programs (Beta = .20, $p < .10$) were the strongest predictors of respondents' estimates of the prevalence of shootings.

Table 37

Results of Regression Analyses with Social Judgment as Dependent Measure.

	Shooting		Police Officer		Affair		Accident		African-Am. M.D.	
	Study 1	Study 2	Study 1	Study 2	Study 1	Study 2	Study 1	Study 2	Study 1	Study 2
Independent Variable (n)	(68)	(61)	(73)	(67)	(67)	(63)	(71)	(73)	(71)	(65)
Gender	*-.14*	**-.48**[3]	*-.17*	**-.28**[1]	**-.21**[4]	-.11	*-.13*	**-.44**[2]	*-.02*	**-.32**[2]
Impulsiveness	*-.15*	*.11*	*-.16*	*-.07*	*.07*	-.08	*.00*	*.17*	*-.19*	*.01*
GPA	*-.07*	*-.11*	*-.08*	**-.28**[1]	*.04*	.14	*.04*	**-.22**[1]	*.04*	**-.20**[4]
Viewing Intention	*.02*	*-.02*	*.00*	*-.02*	*.10*	*-.18*	*-.02*	*.06*	*.08*	*-.10*
Viewing Attention	*-.06*	*-.04*	*.07*	*-.05*	*.14*	*-.10*	*-.12*	*.03*	*-.07*	*-.02*
Perceived Realism of...										
Drama	*-.08*	*-.02*	*.01*	*-.15*	*-.01*	*-.03*	*.14*	*-.04*	*-.03*	*-.18*
Crime	**.35**[2]	*-.07*	**.35**[1]	*.02*	*.08*	**-.23**[4]	**.34**[2]	*-.09*	**.19**[4]	*.00*
Medical	*.01*	*-.06*	*-.14*	*-.04*	*.12*	*.05*	*-.08*	*-.13*	*.08*	*-.09*
News	*.18*	*.06*	*.09*	*.14*	*-.03*	*-.02*	**.24**[4]	*.12*	*-.07*	*-.16*
Exposure to...										
Reality	*.07*	*.04*	*-.06*	*.07*	**.23**[4]	*-.04*	*-.06*	*-.12*	*-.09*	*-.07*
Relationship	**.20**[4]	**-.32**[2]	*.15*	*-.14*	*.01*	*.17*	*.03*	*-.07*	*.03*	*-.14*
News	*.11*	**.29**[2]	**.22**[1]	*-.04*	*.16*	*.19*	**.26**[1]	**.19**[4]	*.06*	*.10*
Emergency	*.13*	*.17*	*-.06*	*-.05*	.17	*.07*	*.09*	*.17*	*.07*	*.10*
Block 2										
Exemplar Accessibility	.01	**.24**[1]	-.02	-.11	-.08	.01	-.04	.10	-.12	.18
Social Judgment Response	.13	.08	.04	.07	-.15	.03	-.01	-.11	.00	.00
R (Adjusted R^2)	.38[3] (.13)	.35[2] (.12)	.33[2] (.10)	.30[1] (.08)	.28[1] (.06)	.24 (.04)	.35[3] (.10)	.42[3] (.16)	.20 (.03)	.33[2] (.09)
R (Adjusted R^2)	.43[3] (.16)	.44[2] (.20)	.40[2] (.14)	.40[2] (.14)	.34[1] (.09)		.45[3] (.18)	.46[3] (.19)		.38[2] (.12)
R (Adjusted R^2)		.51[3] (.26)					.51[3] (.23)	.50[3] (.21)		
Block 2 R (Adjusted R^2)	.45[2] (.20)	.57 (.33)	.40[1] (.11)	.42[1] (.13)	.39[1] (.09)	.24 (.01)	.51[3] (.21)	.52[3] (.21)	.24 (.01)	.43[1] (.13)

[1] $p < .05$

[2] $p < .01$

[3] $p < .001$

[4] $p < .10$

* Bold values are Beta coefficients retained in the stepwise regression process. Italicized values are partial correlation coefficients of independent variables not retained in the stepwise process.

In Study 2, gender was the strongest predictor of estimates of the prevalence of shootings (Beta = -.48, $p < .001$), with female respondents making higher estimates than males. The two strongest media related variables were exposure to relationship and news programming. Respondents who watch more relationship programming estimated fewer Americans are shot (Beta = -.32, $p < .01$), while heavier viewers of news programs estimated more Americans are shooting victims (Beta = .29, $p < .01$). Exemplar accessibility was also a statistically significant predictor of shooting estimates. However, the relationship was not in the predicted direction; respondents who estimated more Americans are shot also took longer to report a shooting example. It is difficult to interpret the meaning of this relationship for two reasons. First, in Study 2 respondents made social judgments before reporting examples. It is possible the social judgment task threatened the validity of the exemplar accessibility task. Possibly, respondents who took longer to report an example were thinking of the related judgment they had made a few minutes earlier. Second, of the five examples in Study 2 and the five in Study 1 this is the only time exemplar accessibility produced a statistically significant Beta coefficient.

Police Officers. The strongest predictors of estimates of the percent of individuals who work as police officers, in Study 1, were the perceived realism of crime programs (Beta = .35, $p < .05$) and exposure to news programs (Beta = .22, $p < .05$).

In Study 2 the only two statistically significant predictors of estimates of the occupational prevalence of police officers were GPA and Gender, with females estimating a greater percent of Americans work as police officers (Beta = -.28, $p < .05$) and

respondents reporting higher GPAs estimating a lower percent are police officers (Beta = -.28, $p < .05$). No other Beta weights were statistically significant.

Extra-Marital Affairs. In Study 1, gender and exposure to reality programs were the strongest predictors of extra-marital affair judgments. Females estimated more spouses cheat (Beta = -.21, $p < .10$). Respondents who watch more reality programming estimated a greater percent of spouses cheat (Beta = .23, $p < .10$). However, neither Beta coefficient was statistically significant.

In Study 2, the strongest, and only statistically significant, predictor of judgments about extra-marital affairs was perceived realism of crime programs (Beta = -.23, $p < .05$). Those who perceive crime programs as more realistic estimate fewer spouses have affairs.

Traffic Injuries. In Study 1, the strongest predictors of traffic injury estimates were perceived realism of crime programs (Beta = .34, $p < .01$) and exposure to news programming (Beta = .26, $p < .05$). Both relationships were positive.

In Study 2, gender, GPA, and exposure to news programs were the strongest predictors of estimates traffic accident injuries. Females estimated more people are injured in accidents (Beta = -.44, $p < .01$). Respondents reporting higher GPAs estimated fewer people are injured (Beta = -.22, $p < .05$). Heavier viewers of news programming estimated a greater frequency of injuries, though not to a statistically significant degree (Beta = .19, $p < .10$).

African-American Doctors. In Study 1, the only independent variable retained by the model was perceived realism of crime programs (Beta = .19, $p < .10$), though its Beta weight was not statistically significant.

In Study 2, gender and GPA were the strongest predictors of estimates of the percent of medical doctors who are African-American. The Beta coefficient of gender was statistically significant (Beta = -.32, $p < .01$), indicating females judged a greater percent of doctors are African-American. While the Beta weight produced by GPA was not statistically significant (Beta = -.20, $p < .10$), it suggests a negative relationship between reported scholastic performance and the estimate.

In summary, in Study 2, where no priming could have occurred, the most consistent predictor was gender. In four of five cases, judgments of affairs being the exception, females made higher estimates than males. For judgments about police officers, traffic accident injuries, and African-American doctors, GPA was consistently negatively related. Exposure to TV news was positively related to estimates of the prevalence of shootings and traffic accidents. In no case other than shooting, discussed earlier, did exemplar accessibility appear to influence social judgment, and no case did social judgment accessibility influence social judgment.

In Study 1, where the exemplar accessibility task preceded social judgments, the strongest predictors were all related to the media. Perceived realism of crime programs was positively related to judgments about shootings, police officers, traffic accidents, and African-American doctors. Exposure to news programming was a positive predictor of judgments about police officers and traffic accidents. No other trends were evident in the data from either study.

CHAPTER IV

Summary and Discussion

This dissertation was intended to provide insight into the processes that link media exposure and real world perceptions. It attempted to demonstrate that the media influence judgments about social reality by providing media consumers with examples of social roles and events, which in turn affect judgments when those judgments are made heuristically. It was proposed that increased media exposure results in a greater number of examples being available in memory. A greater number of available examples leads to greater accessibility of any one example. Then, increased accessibility of examples leads to higher estimates. This phenomenon would occur when individuals make judgments about social events and social roles that are frequently portrayed in the media. This study also attempted to identified characteristics that make some examples more accessible than others, and therefore more likely to influence social judgments.

This final chapter discusses the results found in the data and the implications of those results. Those relationships are a robust link between exposure and social judgment, a weaker but notable relationship between exemplar accessibility and social judgment, and relationships between exemplar accessibility and the characteristics of the examples reported. This chapter also discusses instances where the data failed to support hypothesized relationships and possible theoretical and methodological explanations for these instances. Methodological and theoretical limitations are identified, suggestions for future research are made, and conclusions are drawn.

Summary of the Literature

Media effects research has demonstrated a relationship between exposure to television and judgments about people and events in the real world. Empirical evidence of this relationship is necessary, but not sufficient, for our understanding of the media's role in society. Researchers have recognized the importance of understanding the processes responsible for this relationship. Theoretical models linking exposure to judgment through learning, inference, and generalization have received limited empirical support. A recent line of research into this process has theoretically and empirically implicated heuristic processing and memory in a more direct fashion.

Shrum and O'Guinn (Shrum, 1996; Shrum & O'Guinn, 1993) produced evidence that an accessibility heuristic process may link exposure to judgment by demonstrating that exposure is related to judgment speed, and judgment speed is related to judgment magnitude. However, the nature of that heuristic process remained undefined. Shapiro (1991) demonstrated that greater consumption of media content results in a greater number of examples from those media being available in memory. But in Shapiro's data the number of available examples was not related to subsequent judgments. The present study investigated the possibility that the heuristic process suggested by the work of Shrum and O'Guinn's is not based on the number of available examples as proposed by Shapiro, but on the accessibility of one example. This is consistent with both Shapiro's finding that exposure increases exemplar availability and Greenberg's (1988) suggestion that critical portrayals are more important than the sheer frequency of portrayals.

If increased accessibility of examples is related to either media consumption or social judgment, or both, it is important to identify factors that may make some examples

more accessible than others. The literature suggests a number of factors that may influence the accessibility of examples. Previous research has demonstrated that temporal distance and activation frequency are related to accessibility; information accessed more recently or more often is more accessible than information accessed rarely or long ago. Also, examples that are more severe or more distinct are more accessible than examples that are less severe and more commonplace. Finally, the literature reviewed earlier suggests the realism of examples may influence their accessibility. Real or more realistic examples should be more accessible than less realistic examples.

Major Finding and Implications

This study was primarily concerned with three relationships. The most important relationship exists between individuals' exposure to television and their social judgments. It was hypothesized that greater television exposure would lead to higher estimates of the prevalence in U.S. society of shootings, police officers, extra-marital affairs, traffic injuries, and African-American doctors. Demonstration of this relationship among these data was prerequisite for further investigation of underlying process.

The relationship between television exposure and social judgments existed in Study 1, but not in the Study 2 data. The difference between the two studies was the order in which respondents performed the exemplar accessibility task and the social judgment task. In Study 1 the exemplar accessibility task was performed first. In Study 2 social judgments were measured before the exemplar accessibility task was performed, and approximately six weeks after respondents completed the exposure questionnaire. Having no manipulation or measurement between the time one exposure instrument and the time two social judgment task meant the first portion of Study 2 was a traditional cultivation

design. The resulting data indicated a cultivation effect only in Study 1, among respondents who completed the accessibility task before making social judgments (Study 1), but no cultivation effect among respondents in the traditional cultivation designed study (Study 2). In other word, these data indicate the activation of an example related to a social judgment facilitated or mediated a cultivation effect. And for four of five social judgments the effect occurred regardless of the real or fictional nature of the example reported. Two of the four correlations were statistically significant (see Table 38).

Table 38
Correlations Between Social Judgments and Television Exposure: Real and Fictional Examples in Study 1.

	Television Exposure			
Judgment	Real Examples	n	Fictional Examples	n
% Shot	.28[1]	59	.44[1]	19
% Police Officers	.46[1]	19	.24[1]	53
% Affairs	.38[1]	35	.20	36
% Accidents	.26[1]	68	.47	9
% of Doctor who are African-American	.25	13	-.01	63

[1] $p < .05$

One explanation for this difference is that the respondents in Study 1 were somehow different from those in Study 2. However, respondents were randomly assigned to the two studies and matched on gender. So that explanation seems unlikely. A second explanation is that the process by which television influences social judgment was activated by the exemplar accessibility task. The nature of that process is unclear. It may be heuristic in nature. Possibly, thinking of an example activated or primed information such as a prototype of a category or a previous judgment. Then the accessibility of the primed information influenced the judgment. Or possibly activating one example caused respondents to think of other examples. Then recalling a group of examples caused

respondents to make greater estimates during the social judgment task. Regardless of its nature, it appears some cognitive phenomenon was activated by the exemplar accessibility task. And it appears that phenomenon allowed or forced heavier television viewers to make more extreme social judgments than lighter viewers.

The second relationship of concern is between the accessibility of examples and social judgment. It was hypothesized that individuals who reported examples more quickly – greater accessibility – would make higher estimates. Three of five social judgments were correlated in the predicted direction with the accessibility of related examples, though the correlations were not statistically significant (Table 22). The following discussion of this relationship is based only on this statistically insignificant trend in the data.

It seems possible that the real examples present in the analysis were responsible for the weak correlations observed, suggesting only the accessibility of real life examples was related to social judgments. Post hoc analyses of the categories containing the largest proportion of fictional examples did not support this. When non-media examples were removed from the affairs and African-American doctor categories, the correlations between accessibility of those examples and related judgments were unchanged. It must be stressed, however, that any conclusions drawn about a relationship between exemplar accessibility and social judgment is solely based on three correlations that while in the predicted direction are not statistically significant. Still, the relationship between exemplar accessibility and social judgment appears to warrant further investigation. If this link can be demonstrated more soundly, it would indicate that the accessibility of fictional media examples may have the same effect on social judgment as examples originating in personal

or interpersonal experience. The relationship between accessibility of non-mediated examples and judgments has been demonstrated in past research (Gabrielcik & Fazio, 1984).

The data provided no evidence of a relationship between television exposure and exemplar accessibility (Table 22). In fact, one relationship – between total exposure and accessibility of examples of extra-marital affairs – was in the opposite direction from that predicted. Heavier viewers had less accessible examples, rather than more accessible examples. Further, in the exploratory regression analysis, no measure of exposure to specific television content -- exposure to reality, relationship, news, or emergency programming -- was a statistically significant, negative predictor of exemplar accessibility as hypothesized. This is the most troubling part of the study because the model's link to television exposure is not directly established.

There are several possible reasons for this lack of observed relationship between exposure and exemplar accessibility. First, it may be that variables related to the television viewing experience and television content are important, rather than the amount of exposure. If the accessibility of one or two critical examples influences judgment, those one or two examples could be observed during a relatively small amount of viewing. An individual who watches one crime program per week may observe a realistically portrayed, severe shooting relatively frequently. Then, that example would be accessible and would influence judgments about shootings irrespective of total exposure. In fact, such a processes could explain the positive relationship observed between total exposure and accessibility of extra-marital affair examples. Lighter viewers may have relatively few examples of affairs in memory, while heavier viewers may have a larger cache of examples.

If so, the search process may be longer for heavier viewers, because they have a larger memory area to search. That is, if one has a single prominent example in memory, it should be easy to retrieve. But if one has a large number of examples in memory, one may face a more laborious memory search, or one may be inclined to evaluate several examples before choosing the appropriate one for the task or judgment at hand.

It is important to note that all the judgments analyzed in this study were first order, rather than second order. First order judgments refer to relatively concrete estimates of frequency, set size or probability, for example, the percentage of people shot in any given year. Second order judgments are more abstract, referring to general beliefs or attitudes, for example agreement with the statement, "Most people can not be trusted." It is possible exemplar accessibility is directly related to second order judgments. However, accessibility may also influence second order judgments through first order judgments. Recall that Potter (1991) demonstrated a link between first and second order social judgments. Future research should investigate the relationship between exemplar accessibility and second order judgments.

While there was no relationship in these data between exposure and exemplar accessibility, there is evidence, albeit weak, indicating that a relationship exists between perceived realism of specific examples observed in the media and the accessibility of those examples. When exemplar categories were analyzed separately, fictional shooting examples perceived as more real were accessed more quickly and the trend toward that relationship was evident in five other statistically insignificant correlations (Table 31). When the categories were combined in the exploratory analyses (Table 35), the relationship between the perceived realism of all fictional examples and their accessibility

was statistically significant. Because of the temporal ordering of the measures – accessibility was measured before perceived realism – statements of causation are tentative. However, it can be argued that viewers judge the perceived realism of media content as they view. So, while the perceived realism items used in this study were retrospective, the items were indicators of judgments made during viewing, which occurred prior to the measurement of exemplar accessibility. The possibility that the causal order is reversed – exemplar accessibility influenced perceived realism of examples – still must be recognized.

A process in which examples perceived as more realistic are more accessible suggests it is not necessarily what one watches, but how real one perceives what one watches, that may influence accessibility. This is important because while accessibility of media examples may not be directly linked to media exposure, it may be indirectly linked to exposure through the perceived realism of examples originating in the media.

In addition to the influence of exemplar realism among fictional examples, there appears to be a difference in accessibility between examples that are fictional and those that are real. Real police officers and real affairs were reported more quickly than their fictional counterparts. The opposite was true of African-American doctor examples; fictional examples were more accessible than real examples in that category. That fictional examples of African-American doctors were more accessible may be a function of the social structure. White college students likely have little opportunity to interact with, or even meet, doctors of African descent. So respondents who reported real examples may have been forced to spend more time searching.

Greater accessibility of real examples is consistent with the findings of Potts, et al. (1989) which indicated real and fictional information is stored separately in memory, or at least is differentially accessible.

A relationship between the realism of examples and the accessibility of those examples has several implications. First, to the extent that more accessible examples influence social judgment, more realistic portrayals or portrayals that are "based in" reality have greater potential for influence. This is true not only where first order social judgments are concerned, as investigate here, but also when individuals use past examples as bases for expectations about people or events they may encounter in the future. For instance, consider an individual who observes two portrayals of Native Americans. One portrayal may be positive but fictional and unrealistic, while the other portrayal is negative but more realistic. The data presented in this study suggest the realistic negative portrayal would be more accessible and therefore more likely to be used as a reference for present or future interactions with, or considerations of, real Native Americans than the positive fictional example.

Failure to Replicate Shrum and O'Guinn. The data presented in this study failed to replicate the mediating influence of social judgment latency on the cultivation relationship found by Shrum and O'Guinn (Shrum, 1996; Shrum and O'Guinn, 1993). Study 2, which was the most exact replication, produced no evidence of a relationship between exposure and social judgment. Therefore, there was no relationship for the judgment latency measure to mediate. Further, in Study 2, judgment latency was not related in the predicted direction to any social judgment.

In Study 1, where a cultivation relationship was present, controlling for judgment latency in a partial correlation had no influence on the exposure-judgment relationship. A possible explanation for this is that respondents had already completed the exemplar accessibility task. It may be that considering their examples prior to the to the social judgment task made the judgments more accessible and reduced or eliminated any meaningful variance in the judgment latency measure. However, in Study 1 the latency measures of two judgments (percent of shootings and percent of doctors who are African-American) were significantly related to television exposure, but in the wrong direction. This suggests there was meaningful variance captured in the latency measure, but the relationship was different than that observed in earlier studies. Further research is required to understand the nature of that relationship.

It is necessary to comment briefly on the relationship between exposure to specific television content and social judgments. Where the cultivation effect was observed, post hoc analysis revealed that different content was related differently to the same social perceptions. In Study 2 there is a statistically significant negative correlation between viewing relationship programs and estimates of the prevalence of shootings. But there was a positive correlation between viewing news programs and the same estimate. Similarly, estimates of severe traffic accidents were positively related to news program viewing, but unrelated to reality and relationship viewing. These results support the notion that differing media diets likely have different influences and require research that is distinct from traditional cultivation analysis (Morgan & Shanahan, 1997).

Other Predictors of Exemplar Accessibility

There was support for a relationship between exemplar distinctiveness and exemplar accessibility. However, the relationships appeared only for categories consisting mostly of real examples: police officers and traffic accidents. (There were 28 fictional examples of police officers and 10 fictional examples of accidents reported in Study 1.) Accessibility of examples in the three remaining categories, which contained a greater number of fictional examples, were unrelated to respondents' judgments of the distinctiveness of the examples they reported.

This is consistent with the literature which suggests exemplar accessibility is related to the distinctiveness of real examples. However, these data indicate the relationship may not exist for fictional examples. Possibly the fact that examples are fictional limits the extent to which they can be distinct or unusual. Or conversely, maybe every example that appears in the media is distinct by definition. That is, maybe no fictional example is terribly distinct because it is "only" fiction. Or maybe all fictional examples are distinct because typical examples do not make good fiction.

There was a lack of consistency in the six relationships between exemplar accessibility and exemplar severity. (Only six of ten relationships could be analyzed because severity does not apply to police officers or doctors.) In Study 1, where priming could not influence accessibility, only the severity of shootings was negatively related to accessibility as predicted, but this relationship was not statistically significant. In Study 2, two of three examples were negative. However, the results of Study 2 could be contaminated by priming. It is plausible all respondents in Study 2 thought of an accident example when they answered the judgment items, but only those who thought of less

severe examples forgot them before the accessibility task was performed. Where a relationship between exemplar severity and accessibility did exist, the results were consistent with the findings of Gibson and Zillmann (1994). They found that subjects who read more severe examples of crimes estimated those crimes occurred more frequently. It is possible that among their subjects the more severe examples were more accessible and thus influenced subsequent judgments.

The data offer limited evidence that both the frequency and recency of exemplar activation influence exemplar accessibility. This is not terribly interesting theoretically. That people can recall information more easily if they learned it more recently, and that people can recall information that has been retrieved previously, is well documented in the cognitive processing literature. However, it is important for this study as an indication of the concurrent validity of the exemplar accessibility measure.

It is interesting that such a large amount of time had passed since respondents first observed the examples they reported. For instance, real police officers were first observed an average of 733 days before data collection and fictional police officers were observed an average of 240 days earlier. Also, real shootings were observed 619 days prior to data collection and fictional shootings were observed 233 days earlier. The fact that respondents reported examples they had observed relatively long ago and, in many cases had not thought of since long ago, has several implications. First, it is possible something in the procedure encouraged respondents to recall examples from the more distant past. While they were instructed to report the first example that came to mind, they were also instructed that 'speed is less important than honesty and accuracy.' Possibly these instructions encouraged them to expend more cognitive energy than they may have

without the instructions. If so, the examples they reported may not be the same examples that would be recalled in a more natural accessibility heuristic decision-making situation. That is, these examples may have been recalled under conditions of relatively greater cognitive energy expenditure. Different examples might have been recalled if respondents were under less cognitively engaging processing conditions. In fact, under more involving processing conditions different exemplar characteristics may be important. For instance, individuals may be influenced by the most distinct or severe example available, rather than the first one that comes to mind.

It also is possible some examples were very important or critical, and remain highly accessible, regardless of when they were first observed. The problem with this explanation lies in the length of time since the last activation. If some critical examples remain highly accessible, why were they not last activated – thought about or talked about – more recently than a month ago on average? Future research should address two questions: Would different instructions, instructions that do not emphasize the importance of the example, lead to more recently observed examples? To what extent can examples that would be accessed during heuristic processing be reported consciously?

Methodological Considerations and Suggestions For Future Research

One must ask why the relationships between exemplar accessibility and social judgments were not stronger. A number of factors may have resulted in their attenuation.

Respondents who use the accessibility of related examples to make judgments may also be influenced by other information. For example, a respondent may be influenced by the accessibility of a shooting example observed in the media – a heuristic processing effect leading to a higher estimate, but also may believe that shootings happen less

frequently than they are portrayed in the media – belief that leads to a lowering of the estimate.

Also, it is possible some respondents thought of examples that were not relevant to the judgments they made. As Smith and Zarate (1992) point out, exemplars that influence perception may not be the same exemplars that are retrieved in a memory task. It is possible that for some respondents the examples recalled were unrelated to the judgments made. For instance, respondents may have thought of an example of a shooting or police officer, but judged that example unrepresentative of, or unrelated to, the judgment made later. If so, any observed relationship between accessibility and judgment is the result of a subset of respondents for whom the example from the accessibility task was linked to the respective judgment or estimate. Future research should attempt to ensure a relationship exists between examples and subsequent judgments. One suggestion for controlling this potential source of error is to include in analyses only cases in which the examples appear closely related to the judgment. One could accomplish this by having respondents recall the example they reported and evaluate the relationship between the example and the category of judgment. For instance, a researcher might drop a case in which a respondent was asked to make a judgment about modern day shootings but gave an example from a 1950s western movie.

A second source of attenuation of the accessibility-judgment relationship is that exemplar accessibility likely is only one of several influences on social judgment. Some respondents may use heuristic methods other than exemplar accessibility as a basis for their estimates. Shapiro (1991) suggested that the number of available examples influences judgment. It is possible some individuals base judgments on the accessibility of

one example, other individuals base judgments on the number of available examples in memory, and others use a combination of the two processes. For instance, one could base a judgment on the accessibility of two or three examples. Another alternative is that some respondents may base their judgments on the accessibility of abstract information, such as a prototype. It is possible that prototypic representations of, for example, shootings or accidents are created through media exposure, and their accessibility is increased by media exposure. If so, exposure may influence judgments via prototype accessibility, rather than or in addition to exemplar accessibility. While new methodologies may be required, future research should investigate the influence on social judgments of the accessibility of multiple examples, as well as the accessibility of prototypes. Future research should also search for relationships between exposure and the development and accessibility of other abstract representations of information.

Finally, some respondents may use non-heuristic decision making processes. For example, a respondent may know or believe she knows the correct answer to the social judgment question, or may be so uninvolved in the task that she merely guesses. The problem of the uninvolved respondent may be minimized by offering an incentive for providing accurate estimates. A small incentive may discourage respondents from providing any response simply to conclude the task.

Regardless of the decision making process used by those making judgments, achieving accurate measurement of exemplar accessibility is problematic. As far as this researcher can determine, this is the first attempt to measure the accessibility of examples of social events or roles observed in the media and relate them to social judgments. While the method used in this study may have weaknesses, it shows promise if a few problems

are addressed in future research. The most significant weakness is that there is no way of knowing how much time passes between a respondents' accessing an example and that respondent pressing a key to indicate she has accessed an example. Despite instruction and training, there is no way of preventing a respondent from pressing the key slightly before they have thought of an example, and there is no way to prevent another respondent from momentarily contemplating an example before pressing the key. Given that accessibility is measured in 100ths of seconds, these inaccuracies may contribute greatly to measurement error.

Two methodological modifications may address this limitation in future research. First, respondents were given only two training trials. More trials may have allowed the researcher to quiz the respondent to find out if they were pressing the indicator key before they had an example in mind or if they were delaying pressing the key while contemplating their example. Possibly more practice and training could have lead to more accurate measurement of exemplar accessibility.

Second, a larger number of respondents should be used. This would allow for the elimination of a greater number of extremely slow and extremely fast responses without compromising statistical power to the extent it would have been compromised in this study. Future research may be well served by excluding slower response times (those greater than 150 or even 100 centiseconds), as well as the quickest response times. While this would result in the elimination of more cases, it may reduce the number of examples reported that would not be used during heuristic processing. This in turn would reduce the amount of error variance in relationships involving exemplar accessibility.

Another methodological issue is related to the reaction time control. The items used in this study to control response time and reading speed may have been too long. The negative adjusted exemplar response times (adjusted exemplar accessibility measures) in Table 14 suggest the reading speed items took longer to respond to than the exemplar prompts. It is not clear how the longer reading speed/reaction time control measures may have influenced the relationships hypothesized in this study. The likely effect is the attenuation of relationships because of unnecessary additional error variance. Future research should either create reaction time control items that more closely match the exemplar prompts or treat response time as a covariant so that its influence can be determined more accurately.

The Nature of the Exemplar Categories

It is curious that real life examples of police officers and affairs were more accessible than fictional examples, but fictional examples of African-American doctors were more accessible than real examples. One explanation for this difference is that the categories are inherently different with respect to the respondents' life experiences. A white college student likely has little opportunity to meet an African-American physician. If the respondent does not have a real-life example, she or he must turn to media examples. However, there are relatively few prominent African-American doctor characters in the media. So if a respondent watches a program with an African-American doctor in the cast, the example should be highly accessible. However, if she does not watch a program containing such a character, providing any example may be difficult, leading to greater latency for that example.

Conversely, opportunities to observe police officers are quite numerous in the life of most college students. Outside the media students may see campus police officers regularly, may meet police officers in some classes, may have relatives in law enforcement, and may even interact with police officers after violating traffic laws or committing other legal infractions. So the process of searching one's memory for an example of a police officer may be one of selecting the most accessible of many available examples. The process of searching one's memory for an example of an African-American doctor may be one of searching for any example where very few if any are available.

The nature of events leading to exposure to different examples may also be quite different. For instance, observing or being involved in a traffic accident or shooting should be quite arousing. However, learning of an affair likely would not cause the same type of arousal, even if a close friend or relative was involved. Examples experienced in high arousal conditions, such as involvement in a traffic accident, may influence judgments differently than examples observe in low arousal, or low involvement, conditions. One could speculate that recalling an example that originated in a highly arousing experience may reduce the likelihood that a related judgment would be made heuristically.

The purpose of pointing out these potential differences among exemplar categories is to acknowledge that it may be naïve to assume the relationships among variables are the same for each judgment and each exemplar category. Further, the appropriateness of combining example categories as was presented in the exploratory section of the results chapter may be questionable. However, the probable result of combining variables related differently to each other is attenuation of observe relationships and increased likelihood of type I error.

Future Research

The results of this study suggest future research is warranted in several areas.

First, the data presented in this study suggest a relationship between exposure and social judgments may exist only under certain conditions, and those conditions can be activated. It seems plausible that media exposure influences social reality only when certain information or certain decision making processes are used. Future research should investigate this possibility by identifying the conditions under which the cultivation correlation appears and the nature of the information or processes present when the correlation does appear.

A methodology is needed to measure the accessibility of several examples for each judgment category. It is possible social judgments are influenced to a greater extent by several highly accessible examples, than by only one. This can only be investigated if a method or design is developed which allows a researcher to measure the accessibility of several examples within the same category.

Demonstrating relationships among the accessibility of media examples, the perceived realism of those examples, and social judgment is not a demonstration of causal direction or the processes that link the variables. Future research should test a causal model in which perceived realism of examples precedes exemplar accessibility, and accessibility drives judgment. Each of these variables was measured in this study. However, the weak relationships between accessibility and other variables limits the utility of such analyses using this data set. Refinement of the accessibility measure, as described previously, in future studies should strengthen these relationships allowing for more rigorous statistical analysis.

If perceived realism is related to exemplar accessibility, research should proceed toward better understanding of the nature of the relationship. There are several possibilities. First, it may be that fictional portrayals are stored separately or 'marked' differently in memory than real portrayals. This suggests more cognitive energy is required to access fictional examples than real examples. Alternatively, real examples may require different search strategies than are required for the retrieval of fiction examples. Experiments using priming stimuli may be lead to better understanding of how media portrayals are stored in and retrieved from memory.

Different storage patterns or search strategies are not the only explanations for the relationship between accessibility and perceived realism of media examples. Perceived realism may influence involvement at the time of viewing, with involvement then driving accessibility. That is, portrayals that are highly involving may be more accessible than less involving portrayals. If so, perceived realism is a predictor of involvement, rather than accessibility.

Investigation of this possibility requires the measurement of involvement. Involvement could be indicated by the number of facts or details associated with a portrayal, measured arousal either at the time of viewing or while recalling a portrayal, or self-reported liking of a program or presentation. Testing the effect of differing levels of involvement on accessibility could be done using exploratory interview techniques, such as those employed in the present study, or more traditional methodologies involving experimental stimuli.

Regardless of methodology, understanding the relationships among perceived realism, involvement, and exemplar accessibility has implications for television

programmers. Television content increasingly contains reality-based shows and made for TV movies that are "base on a true story," or "based on actual events." If perceived realism is directly linked to accessibility, these "true" or "based in reality" presentations have a greater likelihood of influencing social judgments. However, if involvement mediates the relationship, "real" or not, made for TV movies may be no more involving than other programming. In many instances, fiction may be more involving than alleged "true stories."

To continue this discussion only slightly further, it is also important to know who defines a portrayal as realistic: the viewer, the producer or both. That is, what is the relative contribution of the media source indicating an event or individual is real versus the viewer judging an event or individual as realistic? This question suggests research to determine what effect labeling a program as "true" has on the viewer's perception of the program's realism and on the accessibility of events portrayed in the program. Conceivably a viewer could judge a "true" story as real, but unrealistic or unrepresentative of real life, and judge a fictional story as quite realistic or representative.

Another series of question resulting from this study is related to the ability of different media and different genre within a medium to present accessible examples. For instance, can radio news stories, which are void of visual images, present examples that will be highly accessible? Or, is it possible radio listeners might imagine a scene that is more accessible than any scene created in Hollywood or New York? Similarly, are individuals observed regularly in weekly series more accessible than characters observed once in a highly involving theatrical presentation?

More research of an exploratory nature is needed to investigate the extent to which individuals are likely to employ an exemplar accessibility heuristic when making social judgments, and the extent to which that process can be recognized when it occurs. That is, can we ask a person to estimate the frequency of shootings, and then ask them if they thought of a shooting as they formulated their example? If this can be accomplished, we can better utilize qualitative techniques to evaluate the nature of processes linking media portrayals to and social judgments. Two pieces of information would result. First we could eliminate judgments that do not appear to be influenced by media examples, which would lead to investigation of other heuristic and non-heuristic judgment processes. Second, we could learn more about the nature and characteristics of media examples that do influence judgments.

Finally, if specific portrayals influence social perception, we need not limit investigations only to judgments of events that appear regularly in the media. Instead, research should investigate the relationships between infrequent but important or critical portrayals and social judgments. For example, while volcano eruptions are portrayed infrequently in the media, one or two motion pictures, along with associated promotional campaigns, may influence movie-goers' estimates of the probability that an eruption will occur. Future research should continue investigating two propositions: some portrayals are more important than others, and some judgments are more susceptible to media influence than others.

Conclusion

This study set out to demonstrate that exemplar accessibility is partly responsible for the relationship between television exposure and first order social judgments. It did

not do that. No relationship was demonstrated between exposure and exemplar accessibility. Therefore, exemplar accessibility could not mediate the exposure-judgment relationship in this study.

However, this study is not without value. It makes several contributions. First, there are consistent, but statistically insignificant data, to suggest a relationship may exist between accessibility of fictional media examples and social judgments related to those examples. Clearly more research is needed to tease out and define the nature of this relationship. Nonetheless, the results presented here are important because they hint at a role media portrayals may play in heuristic processing leading to social judgment. The data also suggest the media's influence on social judgment may not result from sheer exposure, but rather from the nature of the content and the viewer's interpretation of that content.

Second, this study may have identified a process by which the perceived realism of media portrayals could influence social reality indirectly through information accessibility. It has been established that media portrayals perceived as more realistic have greater impact on viewers than those perceived as less realistic. The results presented in this study suggest the perceived realism of media portrayals could mediate the influence of television exposure on social reality by increasing the accessibility of realistic content.

Third, this study suggests the traditional cultivation effect may exist only under certain processing conditions. Studying the nature of those conditions and the processes that underlie may uncover fertile ground for reexamining the role media play in shaping our social perceptions.

This dissertation attempted to address the call of Hawkins and Pingree (1990) who pointed out that beyond identifying the relationship between television viewing and construction of social reality, we need to understand the psychological processes responsible for the relationship. Hopefully this study took a small step toward our understanding of those processes.

ENDNOTES

[1] Gibson and Zillmann (1994) point out a distinction between availability and accessibility made in the memory literature which will be followed here. "Information, although available in memory, is not equally accessible" (p. 605). In this paper availability will refer to whether an example or piece of information can be retrieved from long term memory. Accessibility will refer to the amount of time or effort required to retrieve an example or piece of information that is available in memory.

[2] The terms "latency" and "accessibility" are both used in this discussion. Accessibility is defined as the amount of effort one must expend in order to retrieve a piece of information. Latency is a measure of accessibility. It is the amount of time required to search for a piece of information. Therefore, greater accessibility corresponds to less latency and greater latency is an indicator of less accessibility.

[3] A third measure was included in the Time 1 Survey in which respondents indicated how many times a week or month they watched each program from a list of 44 programs. This measure was included for possible post hoc analyses.

[4] Nine respondents who reported their hometown was not in the United States were removed from the data. This is justified because social judgment items used in this study asked respondents to make estimates about the frequency of events and individuals in the U.S. Perceptual differences due to cultural may influence respondents' social judgments. To eliminate this potential source of variance, respondents raised outside the U.S. were removed from the data set.

[5] There were 17 African-American and 8 Asian respondents, as well as 6 who checked 'other.' On average the African-Americans reported watching significantly more total television (1.42 hrs./day) than whites (.95 hrs./day), Asians (.79 hrs./day), or those who checked the other category (.94 hrs./day). This was also true of emergency viewing; African-Americans watched more (1.17 hrs./day), compared to whites (.68 hrs./day), Asians (.22 hrs./day) and others (.58 hrs./day). In two other viewing categories, reality and news viewing, African-Americans reported watching more than the other groups, though the differences were as great. In a fifth viewing category, news viewing, African-American respondents reported watching more than the majority of viewers, and were approximately equal to Asians (see Table below).

Exemplar Accessibility. When exemplar accessibility was compared across race, differences also became apparent (see Table below). In some cases respondents of one race took more than twice as long, on average, as members of other groups. This was true of both Asians and African-Americans, depending on the example category.

Social Judgment. There were differences in judgments by respondents of different races. For the same reasons used to justify dropping minority respondents described above (see Exemplar Accessibility immediately above), minority respondents were

APPENDICES

APPENDIX A

Student Number _____ **MASS MEDIA SURVEY**

This survey will help us better understand how students use the mass media.

INSTRUCTIONS: It will take you 20 to 30 minutes to compete this questionnaire. Write your student number on the line at the top of the page. It is needed to report your participation to your instructor. Do not put your name on this survey. All of your answers are confidential. Your instructor will not see your answers. Your instructor will receive a list of student numbers for those who complete this survey. You indicate your voluntary agreement to participate in this study by completing and returning this questionnaire.

Please answer the questions in this survey as carefully and honestly as you can.

Please answer each of the following questions. Write the number of hours you watch in the blank, to the nearest 1/2 hour.

How many hours would you say you watch TV on
an average weekday? ..... _____ (Hours)

How many hours would you say you watch TV on
an average weekend day (Saturday or Sunday)? ..... _____ (Hours)

How many hours a week, on average, would you say you watch
day-time soap operas (e.g., All My Children, Days of Our Lives)? ..... _____ (Hours)

How many hours a week, on average, would you say you watch
situation comedies (e.g., Seinfeld, Frazer, Friends)? ..... _____ (Hours)

How many hours a week, on average, would you say you watch
crime dramas (e.g., Homocide, NYPD Blue, Murder One)? ..... _____ (Hours)

How many hours a week, on average, would you say you watch
reality-crime shows (e.g., Cops, America's Most Wanted)? ..... _____ (Hours)

How many hours a week, on average, would you say you watch
medical dramas (e.g., E.R., Chicago Hope)? ..... _____ (Hours)

How many hours a week, on average, would you say you watch
prime-time dramas (e.g. Beverly Hills 90210, Melrose Place)? ..... _____ (Hours)

How many hours a week, on average, would you say you watch
local news (News from Detroit, Flint, Grand Rapids, or Lansing)? ..... _____ (Hours)

How many hours a week, on average, would you say you watch
national news (e.g., CBS Evening News, NBC Nightly News)? ..... _____ (Hours)

How many hours a week, on average, would you say you watch
news magazine shows (e.g., Dateline NBC, 20/20, Extra, Hard Copy)? _____(Hours)

How many hours a week, on average, would you say you watch
sports on television? ..... _____ (Hours)

How many hours a week, on average, would you say you watch
talk shows (e.g., Oprah, Jenny Jones, Ricki Lake, Rolonda)? ..... _____ (Hours)

How many hours a week, on average, would you say you watch
science fiction programs (e.g., Star Trek, X-Files)? ..... _____ (Hours)

Some of the programs below are on each day, others are on once a week. Write in how many times a week OR how many times a month you watch each of the following programs. Fill in only one space per line.

Bold and Beautiful	___ times per week	___ times per month	___ Don't Watch
Another World	___ times per week	___ times per month	___ Don't Watch
Days of Our Lives	___ times per week	___ times per month	___ Don't Watch
The Young and Restless	___ times per week	___ times per month	___ Don't Watch
General Hospital	___ times per week	___ times per month	___ Don't Watch
All My Children	___ times per week	___ times per month	___ Don't Watch
As the World Turns	___ times per week	___ times per month	___ Don't Watch
One Life to Live	___ times per week	___ times per month	___ Don't Watch
Beverly Hills 90210	___ times per week	___ times per month	___ Don't Watch
Melrose Place	___ times per week	___ times per month	___ Don't Watch
Central Park West	___ times per week	___ times per month	___ Don't Watch
Party of Five	___ times per week	___ times per month	___ Don't Watch
E R	___ times per week	___ times per month	___ Don't Watch
Chicago Hope	___ times per week	___ times per month	___ Don't Watch
Doctor Quinn...	___ times per week	___ times per month	___ Don't Watch
New York Undercover	___ times per week	___ times per month	___ Don't Watch
NYPD Blue	___ times per week	___ times per month	___ Don't Watch
Murder One	___ times per week	___ times per month	___ Don't Watch
Homicide	___ times per week	___ times per month	___ Don't Watch
Court House	___ times per week	___ times per month	___ Don't Watch
Walker: Texas Ranger	___ times per week	___ times per month	___ Don't Watch
Local TV News	___ times per week	___ times per month	___ Don't Watch
National TV News	___ times per week	___ times per month	___ Don't Watch
Morning TV News	___ times per week	___ times per month	___ Don't Watch
20/20	___ times per week	___ times per month	___ Don't Watch
Dateline NBC	___ times per week	___ times per month	___ Don't Watch
Prime Time Live	___ times per week	___ times per month	___ Don't Watch
60 Minutes	___ times per week	___ times per month	___ Don't Watch
48 Hours	___ times per week	___ times per month	___ Don't Watch
Entertainment Tonight	___ times per week	___ times per month	___ Don't Watch
Extra	___ times per week	___ times per month	___ Don't Watch

Hard Copy	___ times per week	___ times per month	___ Don't Watch
First Edition	___ times per week	___ times per month	___ Don't Watch
Real Stories...Patrol	___ times per week	___ times per month	___ Don't Watch
Cops	___ times per week	___ times per month	___ Don't Watch
America's Most Wanted	___ times per week	___ times per month	___ Don't Watch
Jenny Jones	___ times per week	___ times per month	___ Don't Watch
Oprah	___ times per week	___ times per month	___ Don't Watch
Ricki Lake	___ times per week	___ times per month	___ Don't Watch
Rolonda	___ times per week	___ times per month	___ Don't Watch
Geraldo	___ times per week	___ times per month	___ Don't Watch
Leeza	___ times per week	___ times per month	___ Don't Watch
Montel Williams	___ times per week	___ times per month	___ Don't Watch
Gordon Elliot	___ times per week	___ times per month	___ Don't Watch

Some people think television reflects life. Please answer the questions below about television and the real world. Circle the number that indicates how much you disagree or agree with each of the following statements? -3 means you disagree very stronly and +3 means you agree very strongly.

	(Disagree)						(Agree)
The crime you see on TV crime shows is very similar to crime in real life.	-3	-2	-1	0	+1	+2	+3
Police officers on television crime programs are very different from real police officers.	-3	-2	-1	0	+1	+2	+3
Criminals in television crime programs are just like criminals in the real world.	-3	-2	-1	0	+1	+2	+3
The romantic relationships that characters on crime programs are have are no different than those people in the real world are in.	-3	-2	-1	0	+1	+2	+3
TV crime programs show people what it is like to live in big cities.	-3	-2	-1	0	+1	+2	+3
Medical shows, like ER and Chicago Hope, portray the same illnesses and emergencies that you see in real hospitals.	-3	-2	-1	0	+1	+2	+3
The doctors and nurses on medical shows handle medical emergencies just like real doctors and nurses.	-3	-2	-1	0	+1	+2	+3
If I were to go to a hospital, I would not expect it to be like to the hospitals I see on television.	-3	-2	-1	0	+1	+2	+3
The romantic relationships of characters on medical shows are no different from the relationships of people in the real world.	-3	-2	-1	0	+1	+2	+3
Doctors and nurses on medical programs are just like doctors and nurses in the real world.	-3	-2	-1	0	+1	+2	+3

	(Disagree)						(Agree)
Television news informs me about what the world is really like.	-3	-2	-1	0	+1	+2	+3
You can not learn much about the real world by watching television news.	-3	-2	-1	0	+1	+2	+3
When I see something on a television news program, I can be certain it is true.	-3	-2	-1	0	+1	+2	+3
I feel I can learn a lot about people from watching television news.	-3	-2	-1	0	+1	+2	+3
By watching television news, I can learn how to avoid some dangerous situations.	-3	-2	-1	0	+1	+2	+3
Soap operas portray marriages and relationships as they are in real life.	-3	-2	-1	0	+1	+2	+3
The personal problems characters on soap operas have are not at all like the problems real people have.	-3	-2	-1	0	+1	+2	+3
I can learn how to act in relationship situations by watching how people act in soap operas.	-3	-2	-1	0	+1	+2	+3
The situations soap opera characters find themselves in are similar to the situations most real people find themselves in at sometime in their life.	-3	-2	-1	0	+1	+2	+3
The sexual relationships that characters in situation comedies find themselves in are similar to relationships many real people find themselves dealing with.	-3	-2	-1	0	+1	+2	+3
People on situation comedies are just like people in the real world.	-3	-2	-1	0	+1	+2	+3
Characters on situation comedies behave about the same in romantic situations as real people behave.	-3	-2	-1	0	+1	+2	+3
I can learn to handle some real world situations by watching situation comedies.	-3	-2	-1	0	+1	+2	+3
The problems experienced by characters on situation comedies are nothing like the real problems that I face.	-3	-2	-1	0	+1	+2	+3
Characters in drama programs, like Beverly Hills 90210 or Melrose Place, are very similar to people in the real world.	-3	-2	-1	0	+1	+2	+3
The romantic relationships portrayed in drama programs are not at all like romantic relationships in the real world.	-3	-2	-1	0	+1	+2	+3
The personal problems characters have in drama programs, like Beverly Hills 90210 or Melrose Place, are very similar to problems real people have.	-3	-2	-1	0	+1	+2	+3
The issues that come up in drama programs, like Beverly Hills 90210 or Melrose Place, are very similar to issues in the real world.	-3	-2	-1	0	+1	+2	+3
You can not learn anything about real life by watching prime-time drama programs.	-3	-2	-1	0	+1	+2	+3

PLEASE CONTINUE ANSWERING THE QUESTIONS ON THE FOLLOWING PAGES.

How often do you do each of the following things? (Circle one answer)

I plan my time so I do not miss a favorite television program.

Never Not very often Sometimes Quite often Almost Always

I cancel other plans to watch television.

Never Not very often Sometimes Quite often Almost Always

I look forward to watching a favorite television program.

Never Not very often Sometimes Quite often Almost Always

I'm often thinking about something else when I'm watching television.

Never Not very often Sometimes Quite often Almost Always

I often make arrangements so I don't miss a favorite television program.

Never Not very often Sometimes Quite often Almost Always

I often miss what is happening on the program when I watch television.

Never Not very often Sometimes Quite often Almost Always

My mind often wanders when I watch television.

Never Not very often Sometimes Quite often Almost Always

I often check the time so I will not miss a favorite television program.

Never Not very often Sometimes Quite often Almost Always

I pay close attention to the program when I watch television.

Never Not very often Sometimes Quite often Almost Always

I listen carefully when I watch television.

Never Not very often Sometimes Quite often Almost Always

Now Please answer the following questions.

What town or city did you grow up in? _____

What is your age? _____ (years) You are MALE FEMALE (circle one)

Circle your race? African-Am. Asian Hispanic Native-Am. White Other

Circle the number that best represents your Grade Point Average? (Circle only one answer)

1.0 1.5 1.75 2.0 2.25 2.5 2.75 3.0 3.25 3.5 3.75 4.0

Please circle the income range that best represents your parents combined income.

1. Less than $10,000
2. $10,000-$20,000
3. $20,000-$30,000
4. $30,000-$40,000
5. $40,000-$50,000
6. $50,000-$60,000
7. $60,000-$70,000
8. $70,000-$80,000
9. $80,000-$90,000
10. $90,000-$100,000
11. More than $100,000

Please indicate how often each statement describes you. (Circle one answer.)

Do you get so restless that you cannot sit in a chair long?	Never / Rarely / Sometimes / Often
Do you often long for excitement?	Never / Rarely / Sometimes / Often
Do you save money regularly?	Never / Rarely / Sometimes / Often
Do you often buy things on impulse?	Never / Rarely / Sometimes / Often
Do you almost never do and say things without stopping to think?	Never / Rarely / Sometimes / Often
Do you often get into a jam because you do things without thinking?	Never / Rarely / Sometimes / Often
Do you usually work quickly without bothering to check your answers?	Never / Rarely / Sometimes / Often
Do people you are with have a strong influence on your moods?	Never / Rarely / Sometimes / Often
Are you an impulsive person?	Never / Rarely / Sometimes / Often
Do you usually think carefully before doing anything?	Never / Rarely / Sometimes / Often
Do you often do things suddenly without planning ahead?	Never / Rarely / Sometimes / Often
Do you sometimes break rules on the spur of the moment?	Never / Rarely / Sometimes / Often
Do you often speak before thinking things out?	Never / Rarely / Sometimes / Often
Do you often get involved in things you later wish you could get out of?	Never / Rarely / Sometimes / Often
Do you get so "carried away" by new and exciting ideas, that you never think of possible problems?	Never / Rarely / Sometimes / Often
Do you get bored more easily than most people, doing the same old things?	Never / Rarely / Sometimes / Often
Do you think that planning takes the fun out of things?	Never / Rarely / Sometimes / Often
Do you need to use a lot of self control to keep out of trouble?	Never / Rarely / Sometimes / Often
Are you often surprised at people's reactions to what you do or say?	Never / Rarely / Sometimes / Often
Do you get very annoyed if someone keeps you waiting?	Never / Rarely / Sometimes / Often
Do you get very restless if you have to stay around home for any length of time?	Never / Rarely / Sometimes / Often
Do you sometimes put down the first answer that comes into your head, during a test and forget to check it later?	Never / Rarely / Sometimes / Often

Indicate how much you agree with each of the following statements.
Circle "-3" if you disagree very strongly and "+3" if you agree very stronly.

	(Disagree)						(Agree)
I would prefer complex to simple problems.	-3	-2	-1	0	+1	+2	+3
I like to have the responsibility of handling a situation that requires a lot of thinking.	-3	-2	-1	0	+1	+2	+3
Thinking is not my idea of fun.	-3	-2	-1	0	+1	+2	+3
I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.	-3	-2	-1	0	+1	+2	+3
I try to anticipate and avoid situations where there is a likely chance I will have to think in depth about something.	-3	-2	-1	0	+1	+2	+3
I find satisfaction in thinking hard and for long hours.	-3	-2	-1	0	+1	+2	+3
I only think as hard as I have to.	-3	-2	-1	0	+1	+2	+3
I prefer to think about small, daily projects rather than long term ones.	-3	-2	-1	0	+1	+2	+3
I like tasks that require little thought once I've learned them.	-3	-2	-1	0	+1	+2	+3
The idea of relying on thought to make my way to the top appeals to me.	-3	-2	-1	0	+1	+2	+3
I really enjoy a task that involves coming up with new solutions to problems.	-3	-2	-1	0	+1	+2	+3
Learning new ways to think doesn't excite me very much.	-3	-2	-1	0	+1	+2	+3
I prefer my life to be filled with puzzles that I must solve.	-3	-2	-1	0	+1	+2	+3
The notion of thinking abstractly is appealing to me.	-3	-2	-1	0	+1	+2	+3
I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.	-3	-2	-1	0	+1	+2	+3
I feel relief rather than satisfaction after completing a task that requires a lot of mental effort.	-3	-2	-1	0	+1	+2	+3
It's enough for me that something gets the job done; I don't care how or why it works.	-3	-2	-1	0	+1	+2	+3
I usually end up thinking about issues even when they do not affect me personally.	-3	-2	-1	0	+1	+2	+3

THANK YOU FOR COMPLETING THIS SURVEY. RETURN IT TO YOUR INSTRUCTOR TO RECEIVE YOUR EXTRA COURSE CREDIT.

APPENDIX B

Please read the following statement.

While participating in this study, you will be asked to answer a series of questions that will appear on a computer screen or will be asked by a researcher. The questions pertain only to your experiences with the television programs you regularly watch. Your answers are confidential. Only the researcher will know your response to any question. There are no right or wrong answers to these questions and they are not embarrassing in any way. If you wish, you may stop participating and leave at any time during the interview. This study will take less than 45 minutes. You indicate your voluntary agreement to participate in this study by signing your name on one of the lines below.

APPENDIX C

Sub #_____ Session # _____ Student Number_____

	EX1	EX2	EX3	EX4	EX5
Category	_____	_____	_____	_____	_____
Descrip.	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

How do you know about your example, or where did you see it?

1Pers. Obs	1_____	1_____	1_____	1_____	1_____
2InterPer. Obs.	2_____	2_____	2_____	2_____	2_____
3Movie	3_____	3_____	3_____	3_____	3_____
4Ent. TV	4_____	4_____	4_____	4_____	4_____
TV News					
5Local	5_____	5_____	5_____	5_____	5_____
6Nat.	6_____	6_____	6_____	6_____	6_____
7Real/Crime	7_____	7_____	7_____	7_____	7_____
8Talk Show	8_____	8_____	8_____	8_____	8_____
9News Paper	9_____	9_____	9_____	9_____	9_____
10Magazine	10_____	10_____	10_____	10_____	10_____
11Radio	11_____	11_____	11_____	11_____	11_____
12Book	12_____	12_____	12_____	12_____	12_____
13Other	13_____	13_____	13_____	13_____	13_____

Did the example you gave happen in real life? y n y n y n y n y n

Now I am going to read some statements and I want you to indicate with a number between one and ten how much you agree or disagree. Use this chart [point to wall] where 1 means you strongly disagree and 10 means you strongly agree.

The event [person] you told me about could happen [exist] in real life.

_____ _____ _____ _____ _____

Events like the one you told me about do happen in real life.
[People like the person I told you about do exist in real life.]

_____ _____ _____ _____ _____

Events like the one you told me about happen in real life, BUT NOT VERY OFTEN.
[People like the person you told me about exist, BUT THEY ARE PRETTY RARE]

_____ _____ _____ _____ _____

Events like the one you told me about happen in real life ALL OF THE TIME.
[People like the person you told me about ARE VERY COMMON.]

_____ _____ _____ _____ _____

If you were to observe an [incident] in real life, it would happen just like the one you told me about.
[If you were to meet a [person] in real life, they would be just like the one you told me about.]

_____ _____ _____ _____ _____

If you were to actually be involved in a [incident], it would be just like the one you told me about.

_____ _____ _____ _____ _____

Because your example came from the media, it is less real.

	EX1	EX2	EX3	EX4	EX5
The example you gave me is based on a real life event. [The character you told me about is based on a real person.]					
[Incidents or people] like the one you told me about are quite common (in real life).					
Compared to events or people like this (in the real world), how severe is your example? Severe					
Use the next scale down...how serious? Serious					
Unusual					
Typical					
How long since you observed or learned about this event (person)? Hours					
(same day, yesterday is 1 day) Days					
Weeks					
Months					
Years					
How long has it been since you last thought about this Person or Event? 1Hours					
2Days					
3Weeks					
4Months					
5Years					
How often do you think about this person or event? Very often					
Somewhat often					
Not very often					
Very rarely					
Not since saw it					
How long has it been since you last discussed this Person or Event with someone? Hours					
Days					
Weeks					
Months					
Years					
How often do you talk about this person or event? Very often					
Somewhat often					
Not very often					
Very rarely					
Not since saw it					

APPENDIX D

Exposure Measure Comparison

Only Study 2 data were used to determine which exposure measure was a better predictor of social judgments. This is because of the priming of social judgments that may have occurred in Study 1. Also, only nine of the content areas were included in this analysis. Sports, situation comedy, and science fiction were not included.

The nine content areas that were expected to be related to the five social judgments were correlated with those social judgments. This produced 45 possible relationships. Each relationship was evaluated with two correlations, one between each judgment and the amount of time respondents reported watching each program type, and one between each judgment and the proportion of a respondents viewing within the respective content area to his or her total viewing.

Fifteen of the 45 relationships produced statistically significant correlations ($p \leq .05$ or greater; Table 3). In 14 of those 15, the more simple exposure measure was more highly correlated with the respective judgment. In four of those 15 case the proportion measure was not significantly related to the judgment while the simple exposure measure was. There was only one instance in which the proportion measure produced a higher correlation. In that case both correlations were statistically significant. Based on this analysis, the simple exposure measure, hours per week of viewing program types, was used.

Table

Correlations Among Social Judgments and Two Types of Exposure Measures*

	Social Judgment Variables									
	% Shootings		% Police		% Affairs		% Accidents		% A-A M.D.s	
Raw/Prop.	Raw	Prop	Raw	Prop	Raw	Prop	Raw	Prop	Raw	Prop
Exposure...										
Total Exposure	.25[2]		.15		.22[1]		.23[1]		.07	
Soap Operas	.15	-.01	**.19**[1]	.06	.08	-.01	.13	-.02	.15	.09
Crime -Drama	**.24**[2]	.07	.11	-.07	**.26**[2]	.19[1]	**.19**[1]	.01	.07	.00
Realty-Crime	**.28**[2]	.13	**.19**[1]	.10	.15	-.01	.08	.04	-.06	-.07
Med. - Drama	-.07	-.19	-.01	-.07	.00	-.10	-.06	-.18[1]	.14	.04
Prime-Drama	.14	.03	.17[1]	**.23**[1]	.12	-.04	.16	.08	.07	.02
Local News	.13	.03	**.23**[1]	.20[1]	.11	.00	**.23**[1]	.18[1]	.09	.03
National News	.16	.06	.14	.02	**.22**[1]	.09	**.26**[2]	.17[1]	-.02	-.10
News Mag.	.07	-.07	-.04	-.11	.10	.01	-.04	-.14	-.06	-.11
Talk Shows	**.36**[2]	.29[2]	**.23**[1]	.20[1]	**.21**[1]	.18[1]	**.23**[1]	.20[1]	.05	.07

* Study 1 respondents only. Ns range from 98-102

[1] Statistically Significant at $p \leq .05$, one-tailed.

[2] Statistically Significant at $p \leq .01$, one-tailed.

APPENDIX E

Impulsiveness Items (Alpha = .789)

1. Do you get so restless that you cannot sit in a chair long?
2. Do you often long for excitement?
3. Do you save money regularly? *
4. Do you often buy things on impulse?
5. Do you almost never do and say things without stopping to think? *
6. Do you often get into a jam because you do things without thinking?
7. Do you usually work quickly without bothering to check your answers?
8. Do people you are with have a strong influence on your moods?
9. Are you an impulsive person?
10. Do you usually think carefully before doing anything? *
11. Do you often do things suddenly without planning ahead?
12. Do you sometimes break rules on the spur of the moment?
13. Do you often speak before thinking things out?
14. Do you often get involved in things you later wish you could get out of?
15. Do you get so "carried away" by new and exciting ideas, that you never think of possible problems?
16. Do you get bored more easily than most people, doing the same old things?
17. Do you think that planning takes the fun out of things?
18. Do you need to use a lot of self control to keep out of trouble?
19. Are you often surprised at people's reactions to what you do or say?
20. Do you get very annoyed if someone keeps you waiting?
21. Do you get very restless if you have to stay around home for any length of time?
22. Do you sometimes put down the first answer that comes into your head, during a test and forget to check it later?

* Item reverse coded for analysis.

APPENDIX F

Need for Cognition Items

1. I would prefer complex to simple problems.
2. I like to have the responsibility of handling a situation that requires a lot of thinking.
3. Thinking is not my idea of fun. *
4. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities. *
5. I try to anticipate and avoid situations where there is a likely chance I will have to think in depth about something. *
6. I find satisfaction in thinking hard and for long hours.
7. I only think as hard as I have to. *
8. I prefer to think about small, daily projects rather than long term ones. *
9. I like tasks that require little thought once I've learned them. *
10. The idea of relying on thought to make my way to the top appeals to me.
11. I really enjoy a task that involves coming up with new solutions to problems.
12. Learning new ways to think doesn't excite me very much. *
13. I prefer my life to be filled with puzzles that I must solve.
14. The notion of thinking abstractly is appealing to me.
15. I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.
16. I feel relief rather than satisfaction after completing a task that requires a lot of mental effort. *
17. It's enough for me that something gets the job done; I don't care how or why it works. *
18. I usually end up thinking about issues even when they do not affect me personally.

* Item that were reverse coded for analysis.

APPENDIX G

Wall Mounted Exemplar Characteristic Response Options

Strongly Disgree	1	2	3	4	5	6	7	8	9	10	Strongly Agree
Not at all Severe	1	2	3	4	5	6	7	8	9	10	Very Severe
Not at all Serious	1	2	3	4	5	6	7	8	9	10	Very Serious
Not at all Unusual	1	2	3	4	5	6	7	8	9	10	Very Unusual
Not at all Typical	1	2	3	4	5	6	7	8	9	10	Very Typical

****

Very Often

Somewhat Often

Not Very Often

Very Rarely

Not Since I First Observed It

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