The activation of stereotypical knowledge

Karla A. Lassonde

University of New Hampshire, Durham

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The activation of stereotypical knowledge

Abstract
The effects of stereotypical knowledge on behaviors and beliefs have been widely examined in psychology. Early work examined the conscious, explicit expression of stereotypes. However, it has become increasingly difficult to use explicit tasks to measure stereotypical beliefs because participants often censor their beliefs so that their responses appear socially desirable. Implicit measures that indirectly measure stereotypical knowledge have recently been used as an alternative.

The goal of the experiments presented in this dissertation was to assess the presence of stereotypical knowledge through an implicit measure of reading comprehension that does not reflect social desirability. Across several experiments, participants read passages in which it was likely that stereotypical knowledge would become activated. The goal of Experiments 1 and 3 was to test for activation of stereotypical knowledge. Participants read passages about protagonists described in situations in which stereotypical knowledge was likely to become activated. Following the descriptions, target sentences were presented that were either consistent or inconsistent with stereotypical knowledge assumed to be activated earlier in text. Reading times were slower on target sentences that contained information inconsistent with stereotypes compared to reading times on target sentences that contained information consistent with stereotypes. This suggests that stereotypical knowledge was activated and affected comprehension of inconsistent target sentences.

In Experiments 2 and 4, a qualification sentence was added to the inconsistent elaboration section of the passages used in Experiments 1 and 3, respectively. This qualification served to explain why the protagonist would behave in a manner that was inconsistent with stereotypes. With the addition of the qualification sentence to the passages, the slowed reading times on target sentences found in Experiments 1 and 3 were eliminated. This result demonstrates that activation of stereotypical knowledge can be lessened over time and can generalize to explain how stereotypes change with experience. Results are discussed in terms of a cognitive perspective of knowledge activation in which stereotypical knowledge has no special status and becomes active under the same basic processes that govern any memory structure; that is, stereotypical information is activated due to low-level priming through a resonance process.

Keywords
Psychology, Cognitive
THE ACTIVATION OF STEREOTYPICAL KNOWLEDGE

BY

KARLA A. LASSONDE
B.A., MOUNT UNION COLLEGE, 2003
M.A., UNIVERSITY OF NEW HAMPSHIRE, 2005

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This dissertation has been examined and approved.

Dissertation Director, Edward J. O'Brien, Professor of Psychology

John E. Limber, Associate Professor of Psychology

Ellen S. Cohn, Professor of Psychology

Grant L. Cioffi, Associate Professor of Education

Gail A. Fensom, Assistant Professor of English, UNH-Manchester

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ABSTRACT

THE ACTIVATION OF STEREOTYPICAL KNOWLEDGE

by

Karla A. Lassonde

University of New Hampshire, May, 2008

The effects of stereotypical knowledge on behaviors and beliefs have been widely examined in psychology. Early work examined the conscious, explicit expression of stereotypes. However, it has become increasingly difficult to use explicit tasks to measure stereotypical beliefs because participants often censor their beliefs so that their responses appear socially desirable. Implicit measures that indirectly measure stereotypical knowledge have recently been used as an alternative.

The goal of the experiments presented in this dissertation was to assess the presence of stereotypical knowledge through an implicit measure of reading comprehension that does not reflect social desirability. Across several experiments, participants read passages in which it was likely that stereotypical knowledge would become activated. The goal of Experiments 1 and 3 was to test for activation of stereotypical knowledge. Participants read passages about protagonists described in situations in which stereotypical knowledge was likely to become activated. Following the descriptions, target sentences were presented that were either consistent or inconsistent with stereotypical knowledge assumed to be activated earlier in text. Reading times were slower on target sentences that contained information inconsistent with stereotypes compared to reading times on target sentences that contained information...
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In Experiments 2 and 4, a qualification sentence was added to the inconsistent elaboration section of the passages used in Experiments 1 and 3, respectively. This qualification served to explain why the protagonist would behave in a manner that was inconsistent with stereotypes. With the addition of the qualification sentence to the passages, the slowed reading times on target sentences found in Experiments 1 and 3 were eliminated. This result demonstrates that activation of stereotypical knowledge can be lessened over time and can generalize to explain how stereotypes change with experience. Results are discussed in terms of a cognitive perspective of knowledge activation in which stereotypical knowledge has no special status and becomes active under the same basic processes that govern any memory structure; that is, stereotypical information is activated due to low-level priming through a resonance process.
INTRODUCTION

The process of understanding text requires that readers constantly draw upon their general knowledge about the world. Consider the following story as described in Sanford (1985):

A man and his son were away for a trip. They were driving along the highway when they had a terrible accident. The man was killed outright but the son was alive although badly injured. The son was rushed to the hospital and was to have an emergency operation and said, "I can't do this operation. This boy is my son."

Sanford (1985) found that readers' general world knowledge that surgeons are typically male prohibits them from understanding that the boy can be the surgeon's son. After some consideration, many readers are able to understand that the surgeon is a woman and must be the boy's mother.

The generalization that all surgeons are male is an excellent example of a stereotype. According to the Publication Manual of the American Psychological Association (2001), stereotypes are, "generalizations, sometimes accurate sometimes overgeneralized, about a group of people in which the same characteristics are assigned to all members of a group". Early work on stereotypes originated from research on social attitudes and behaviors and examined the conscious, otherwise known as "explicit" expression of stereotypes (Allport, 1954; Bem, 1970; Brewer, 1988; Crosby, Bromley, & Saxe, 1980; Word, Zanna, & Cooper, 1974). This work focused on testing stereotypes
using explicit tasks such as adjective rating scales and self-report measures.

The first known empirical demonstration of stereotypes was by Katz and Braly (1933). They asked participants to look at pictures of racial and national groups and then use an adjective checklist to mark off specific characteristics they believed belonged to the people in the pictures. Responses indicated that participants were likely to assign popular stereotypes of that time to the racial groups. Results from similar explicit tasks have contributed to our understanding of how stereotypes affect behavior.

In recent years, it has become increasingly difficult to measure stereotypical beliefs with explicit measures. Our perception of those who express biases is generally negative; thus, participants in experimental research often censor their beliefs so that their responses appear socially desirable. Although several investigations on stereotypes have been conducted in the field of social psychology, the measures used are often insensitive to social desirability strategies. This led to the development of implicit measures such as lexical decision, priming, and word/sentence completions, which do not require explicit responses.

The goal of an implicit task is to assess memory without the perceiver having any actual knowledge of what is being assessed. Therefore, implicit strategies are thought to be more appropriate measures because they are often sensitive to individuals' unconscious expression of stereotypes. Using these tools, several researchers have demonstrated the presence of stereotypical knowledge in memory for gender and race (e.g., Banaji & Hardin, 1996; Devine, 1989; Dovidio, Evans, & Tyler, 1986; Gaertner & McLaughlin, 1983; Greenwald, McGhee, & Schwartz, 1998). There are mixed reviews, however, over whether these measures are implicit; participants are often aware of the
nature of the assessment and therefore modify their behavior at the time of the test (e.g., Blair, 2002; Fazio & Olson, 2003). Researchers have attempted to find an implicit measure that avoids responses based on social desirability. One possibility would be to examine how stereotypical knowledge affects reading comprehension.

While reading text, it is common for readers to rely on their general knowledge to “fill in the gaps” or compensate for what is not stated directly. For example, after reading the sentence, "Some felt that the politician's statements were untrue," general knowledge that politicians are liars could be used to infer that the politician was lying. Thus, stereotypical knowledge may become activated while reading text about politicians and affect overall comprehension.

The memory-based view of text processing, which evolved from an attempt to explain how inactive information from text becomes readily available in memory, is exemplary to this process (O'Brien & Myers, 1999). One assumption of this view is that general knowledge becomes activated under a fast-acting, passive resonance process when it is related to written text, independent of whether or not it is relevant to what is currently being read (e.g., Albrecht & O'Brien, 1993; O'Brien, Rizzella, Albrecht, & Halleran 1998).

O'Brien and colleagues have demonstrated this in several studies by using the "inconsistency paradigm." For example, if a woman named Mary is described in text as a vegetarian and then later on in the same passage the reader learns that she orders a cheeseburger at a restaurant, our general world knowledge that vegetarians do not eat meat should become active in memory; because Mary's current eating behavior is inconsistent with our definition of vegetarians, comprehension is disrupted.
Our general world knowledge for stereotypes should become activated under the same basic memory processes. When we read about groups of people (e.g., politicians, surgeons, nurses), stereotypes should become activated (e.g., politicians are liars, surgeons are male, and nurses are female), regardless of their accuracy and relevance to text. If this activated information becomes part of readers' situation model (i.e., representation for what the text is about) it will ultimately affect their overall comprehension.

The goal of this dissertation was to use an implicit task to assess the presence of stereotypical knowledge that does not reflect social desirability. Over a series of experiments, I tested for the presence of stereotypical knowledge with a measure used within the study of reading comprehension called the “inconsistency paradigm” (e.g., Albrecht & O’Brien, 1993; O’Brien, et al., 1998).

In the sections prior to presenting the experiments, I will demonstrate how stereotype activation and formation are related to basic cognitive processes, explain how explicit and implicit methods have been used to measure stereotypes, and finally discuss how stereotypical knowledge can be assessed using a model of reading comprehension. Models of attention and controlled, and automatic processes will be described in chapter 1. An explanation for how information is stored and activated in memory will be presented in chapter 2. Chapter 3 will focus on how basic memory processes can be used to explain activation of stereotypical knowledge. Explicit and implicit memory will be described in chapter 4. Implicit and explicit tests used to measure stereotype activation will be described in chapter 5. Models of text processing will be discussed in chapter 6. Examples of how stereotypical knowledge activation is measured in narrative text will be
The experiments are presented in chapter 8. Under a variety of different experimental conditions, participants were presented with passages that described a protagonist in a scenario in which stereotypical knowledge was likely to become active in memory. At the end of each passage, a target sentence was presented that was either consistent or inconsistent with the stereotype that was assumed to be activated earlier in text. The time it took to read the target sentences was recorded. The experiments were designed to assess the presence of stereotypical knowledge and to determine the influence of this knowledge on comprehension. A general discussion of the results is provided in chapter 9. Results are discussed in terms of a cognitive perspective of knowledge activation in which stereotypical knowledge has no special status and becomes active under the same basic processes that govern any memory structure; that is, stereotypical information is activated due to low-level priming through a resonance process.
ATTENTION AND AUTOMATIC PROCESSING

Tasks are typically judged as being either controlled or automatic, depending on the amount of cognitive effort or attention they require. Early researchers thought of attention as an effortful process and attempted to describe and study attention in terms of allocation of energy demands. Energy resources were measured by describing attention as a filter that could determine what information was being processed (Broadbent, 1958; Deutsch & Deutsch, 1963; Treisman, 1960).

These early models of attention varied in terms of where the filter was placed during information processing. The location of the filter was thought to influence the amount of information that got into the cognitive system, from initial perception to memory storage. According to these models, during information processing, a filter determines what is selected for further processing. Restrictions on what information gets into the cognitive system were defined as a "bottle-neck," a name given to suggest that during the early stage of processing (i.e., pattern recognition) unattended information was processed slowly or even blocked from further processing.

In Broadbent's (1958) early-selection model of attention, the filter was described as occurring early in the perceptual process. He explained that the filter is located at the pattern recognition stage and that it could be tuned or switched from one channel to
another based on sensory characteristics of the incoming message in focus, such as loudness or pitch. Unattended information could only be recognized if the filter switched to that message before it decayed. According to Broadbent (1958), once a channel was selected, attention shifted to that stimuli and no other information could be processed. Therefore, only one message could pass through the filter and be sent forward into short-term memory at a time.

This early-selection model was used to explain allocation of attention; however, it was very impractical in that it could not account for the large amount of sensory information available for processing. Broadbent’s model could easily be discredited by demonstrating that more than one message could be processed at a time. For example, most individuals have experienced what is known as the “cocktail party” phenomenon; that is, they are deeply engaged in conversation, yet are able to hear their name being spoken across the room (Cherry, 1953). This experience provides evidence that unattended information can be processed without listener awareness. Cherry (1953) used a shadowing task to test whether or not unattended information could be attenuated. Results from similar shadowing tasks were able to demonstrate that information from an unattended channel could get in, particularly if it was semantically related to what was being attended to or if it was highly familiar (e.g., Moray, 1959; Treisman, 1960).

Treisman (1960) proposed an early-selection model with a selective filter. Treisman explained that information is attended to as a function of its threshold, described as the minimum intensity needed for a stimuli to be recognized. Words like names have a low threshold and can be recognized even when this information is not in focus.
Deutsch and Deutsch (1963) proposed a late-selection model. Deutsch and Deutsch (1963) referred to this model as a late-selection model because all perceptual features and meaning get in and then selection occurs late in processing; that is, the filter occurs after the pattern recognition stage in which sensory information and features like meaning have already been processed. The assumption of this model, that all information gets in, was difficult to falsify. Proponents of early and late-selection models were not able to agree on the location of the filter; therefore, researchers focused on additional features of information processing to describe attention.

Researchers believed that attention could be described based on the amount of mental energy needed to perform the tasks (i.e., capacity) (Kahneman, 1973; Kahneman & Treisman, 1984). Kahneman (1973) proposed that individuals have a limited amount of energy available for attention, which he referred to as "limited capacity." According to Kahneman, processes are either automatic (effortless and unconscious) or controlled (effortful and conscious). One assumption of Kahneman’s capacity model is that attentional resources are constantly being divided between these two types of processing demands; therefore, capacity is not fixed, but flexible depending on the task.

Several processing models were used to test for differences between automatic and controlled processing (Posner & Snyder, 1975; Schneider & Shiffrin, 1977; Shiffrin & Schneider, 1977). Automatic processing is thought to occur without any conscious awareness. The Stroop task is a classic paradigm for demonstrating automatic processing (Posner & Snyder, 1975). When the words, "red," "blue," and "yellow" were presented in ink colors that were opposite from what one would expect (e.g., "red" was presented in blue ink), participants had a very difficult time naming the color and ignoring the
meaning of the printed words. Posner and Snyder (1975) suggested that the meaning of the words is processed automatically and interferes with response time when the word was presented in an opposing color.

Schneider and Shiffrin (1977) referred to automatic processes as "well-learned" sets of associations developed through repeated exposure. In a series of experiments, Schneider and Shiffrin (1977) provided evidence of two separate attentional processes: automatic and controlled processes. Participants were required to view a series of frames consisting of visual characteristics and to search for the occurrence of any one set of characters from short-term memory in either controlled mapping (CM) or varied mapping (VM) conditions. The time during which the stimulus set was presented (speed) and the number of characters presented in each frame (load) were manipulated. In the CM condition, the target variables were held consistent, and over a series of trials the correct sequence was activated automatically. In other words, when the target sequence remained unchanged (i.e., consistent) participants were able to automatically identify the correct target features. Identification of targets in the CM condition, once the task became automatized, was very difficult to suppress, modify, and ignore and remained unaffected by the variables of stimulus load or presentation speed.

Conversely, in the VM condition, the target variables were switched over the period of several trials. In this condition, participants were never able to automatize their response to target variables because the target variables constantly changed from trial to trial (i.e., varied). The manipulated variables of presentation speed and stimulus load resulted in a significant decrement in performance in the VM condition. Schneider and Shiffrin (1977) interpreted these divergent effects in the consistent and varied mapping
conditions as evidence that the two tasks assessed different processes (i.e., response to
target variables in the CM condition was automatic and response to the target variables in
the VM condition was controlled).

Schneider and Shiffrin (1977) designed a second set of experiments to test the
learning and unlearning of automatic processing. They found that, in CM conditions,
participants, over a series of repetitions, automatically activated the target stimuli. These
learned associations could only be unlearned after a considerable amount of retraining on
a new target feature in which effortful, controlled processing was required. Over time
with sufficient repetition, recognition of the new feature too would become automatic.
Riding a bike and reading are common examples of tasks that, in the initial stages of
learning, require effortful processing. Similar to the effect found with the CM task, over a
period of time and with repeated, practice these tasks become automatic.

Shiffrin and Schneider (1977) described automatic processing of information in a
three-step sequence: First, features are encoded, and over repeated exposure, these
features are learned. Next, these learned features are perceived easily among many other
stimuli in memory. Lastly, there is an overt motor response under which these features
are automatically activated. Attention plays a major role in performing cognitive tasks.
The theoretical understanding of allocation of capacity has contributed to the study of
memory and memory organization. Information about how memory is organized and
activated based on controlled and automatic processes will be presented in chapter 2.
Atkinson and Shiffrin (1968) proposed a theory of memory in which information is processed in three separate storage areas. Originally, information processing was described as the flow of information through these three separate areas: sensory store, short-term memory (STM), and long-term memory (LTM). In the first area, sensory store, information is stored for a few seconds or less, and information that is not attended to is forgotten. In the second area, short-term memory, information passes from sensory store and will be lost in STM after 20-30 seconds unless rehearsed. Capacity limitations restrict what gets processed in STM. Miller (1956) found that individuals are limited in the number of items that can be held in STM by about seven, plus or minus two. STM is described as having limited capacity and durability. Information attended to in STM is transferred to LTM. LTM is described as a limited-capacity storage area. Since the establishment of this original framework, researchers have describe additional features of these memory systems.

Tulving (1972) was one of the first to suggest that long-term memory could be further broken down into two types of memory: episodic memory and semantic memory. Tulving (1972) defined episodic memory as a personal memory system that includes memories that are richly connected to specific personal experiences (i.e., context).
Semantic memory was described as stored facts or general world knowledge (i.e., context independent). Tulving (1972) proposed that semantic and episodic information was stored in separate memory systems. Several researchers (e.g., Hintzman, 1986; McKoon & Ratcliff, 1979; 1986) determined that semantic and episodic memory were part of the same memory structure and argued that any dissociation between types of memory was the result of different retrieval processes. McKoon and Ratcliff (1986) further explained that a variety of retrieval tasks can result in differences within the same memory system.

Semantic memory became the focus of several processing models developed to describe the organization of memory. Semantic information was thought to be organized in associated semantic networks. A number of studies have been conducted to validate the existence and organization of semantic networks (e.g., Collins & Quillian, 1969; 1970; Smith, Shoben, & Rips, 1974; Rosch, 1975). Semantic networks contain a system of interrelated nodes, with each node representing a particular concept (e.g., yellow). Nodes are connected to similar concepts in this related network via a series of links, represented by lines. The closer a concept is related to a particular node in the network, the shorter the link. For example, the concepts “school bus,” “canary,” and “daffodil” may be well integrated in the same semantic network as “yellow.”

Rosch (1975) argued that information is classified into three specific groups, or levels, within a hierarchy: superordinate (e.g., "A canary is a canary"), basic (e.g., "A canary is a bird"), and subordinate (e.g., "A canary is an animal") levels. Rosch (1975) found that participants could easily define concepts (e.g., canary) at the most basic level. Rosch determined that the basic level is used to differentiate features of concepts and therefore are most central to categorization and overall language learning.
Collins and Quillian (1970) tested Rosch's model by asking participants to respond "true" or "false" to sentences designed to target each level of the hierarchy. They found that response time to questions increased as a function of the level in the hierarchy from which the concept was being retrieved. For example, "A canary is a canary," at the superordinate level resulted in a fast "true" response because there was no level change required. However, a "true" response to the statement, "A canary is an animal," at the subordinate level, slowed down reaction time because this response required a two-level change.

In a subsequent study, Rosch (1975) described that, at the most basic level, concepts are organized based on "family resemblance." Concepts that share family resemblance are highly associated in memory, and family resemblance can vary as a function of the degree of association between concepts. Rosch (1975) gave participants a list of category members (e.g., members of the fruit category such as "apples" and "raisins") and asked them to rate, on a scale of one to seven, how well each item fit into that category. Lower scores were defined by Rosch (1975) as having high family resemblance; that is, they shared a number of attributes with other members of the fruit category and higher scores indicated low family resemblance.

In a second experiment, Rosch (1975) found even stronger evidence that related concepts are part of associative networks. Participants were given words (e.g., "red") and then were asked to respond to a target word (e.g., "fire engine" or "sunset"). Responses were facilitated when target concepts were more closely related to the initial word (e.g., "fire engine" was faster than "sunset"); this is evidence of semantic priming. Results of these studies were used to refute the perspective of Collins and Quillian (1970) that...
Collins and Loftus (1975) proposed a process model called "spreading activation" to account for how activation spreads through an integrated network. When a concept is mentioned (e.g., yellow), activation spreads in all possible directions from this node to concepts along paths or links. For example, words like “school bus,” “daffodil,” and “butter” may become active when "yellow" is mentioned. Activation of related concepts will activate, to a lesser degree, other related concepts (e.g., “canary” and “submarines”). As activation spreads further out from the concept "yellow" the signal divides, loses strength, and eventually decays.

Semantic priming, the process in which one word activates another in memory, has been studied extensively in cognitive psychology (Balota, 1983; Balota & Lorch, 1986; Lorch, Balota, & Stamm, 1986; Meyer & Schvaneveldt, 1971; Neely, 1977; Ratcliff & McKoon, 1988). To study priming, Meyer and Schvaneveldt (1971) used an experimental paradigm called the lexical decision task, a procedure in which participants were asked to decide whether various letter strings were words or not. In this task, participants were shown a word (e.g., "bread"), called a prime, which was then followed by a second word (e.g., "butter"), called a target. Following presentation of a prime-target word pair, participants were required to decide whether "butter" was a word or not. Response time on the lexical decision task was facilitated for target words that were preceded by a semantically related word (e.g., “bread-butter”) than target words that were preceded by an unrelated word (e.g., “nurse-butter”). This procedure became a common method to test word association in memory.
Neely (1977) used a single word priming procedure to test for automatic and controlled processing. Participants were presented with word pairs and were instructed to indicate whether the second word, the target, was a word. Participants were presented with a prime (e.g., “bird”), followed by a target word from the prime’s category (e.g., “robin”). These associations were believed to be automatic; that is, the word “bird” was likely to activate many types of birds. Participants were also instructed to think of body parts when the category "building" was presented. In this case, participants were presented with a prime (e.g., “door”), followed by an unrelated target word (e.g., “arm”). This condition was designed to represent a controlled process; that is, participants had to shift their expectation of the appropriate category exemplar to something unrelated. For each prime-target pair, stimulus onset asynchrony (SOA) for the target word was manipulated at 250 milliseconds (ms), 700-ms, or 2000-ms.

Neely (1977) found that response times to associated prime-target pairs (e.g., “bird-robin”) were facilitated across all manipulations of SOA, indicating automatic spread of activation. In the unrelated prime-target condition (e.g., “door-arm”), he found facilitation for responses at the SOA of 700-ms, but not at the shorter SOA of 250-ms. This finding indicated that spread of activation did occur, initially, from building parts to semantic associates (e.g., “door-window”), and then, with a longer delay, participants used controlled mechanisms to consciously redirect attention toward the unrelated association (e.g., “door-arm”). These results demonstrate a dissociation between automatic priming and priming from controlled strategies. The main assumption from work on semantic organization and spreading activation is that activation of a concept results in activation of additional concepts along the same network. The basic cognitive
models discussed in this chapter can be applied to the organization of stereotypical knowledge in memory. In chapter 3, these models will be used to explain how stereotypical knowledge is organized and activated.
CHAPTER III

ACTIVATION OF STEREOTYPICAL KNOWLEDGE

Stereotypes have been extensively studied in both social psychology and cognitive psychology and described in a variety of ways. In many of these descriptions stereotypes are viewed as beliefs of characteristics and behaviors of groups. Research in each of these areas of psychology has been dominated by either the social-cognitive perspective (e.g., Fiske & Taylor, 1991, 2008) or the cognitive perspective. Fiske and Taylor (1991) attributed the learning of stereotypes to experiences that one would have in her/his environment. According to this perspective, an individual’s exposure to social groups and social interactions would ultimately influence the formation of stereotypes; that is, social constructs determine mental constructs.

Fiske and Taylor (2008) further described the social-cognitive perspective by explaining that social psychology is grounded in theories of cognitive processes. Fiske and Taylor (2008) suggested that, even though our experiences affect our thinking, social behavior is best understood as a function of perception. Fiske and Taylor (2008) explained that understanding thought processes leads to an understanding of behavior. Much of the work on stereotypes in social psychology has focused on the social consequences of stereotypical beliefs. The social-cognitive perspective as described by Fiske and Taylor (1991; 2008) relies on the same basic mental processes that govern the
cognitive perspective.

Research within the cognitive perspective has been used to emphasize understanding how stereotypes are represented and organized in memory. In this dissertation, the definition of a stereotype will be constrained to a cognitive perspective. Within this definition, stereotypes should operate in a manner like other knowledge structures (e.g., schemas, exemplars, prototypes) (see original work from Bartlett, 1932; Posner & Keele 1968; Rosch, 1975, for information on these knowledge structures). Activation of stereotypical knowledge should be influenced by basic memory processes. Stereotypical knowledge, like other knowledge structures (e.g., schemas, exemplars, prototypes), consolidates information into categories to reduce cognitive effort.

Bruner, Goodnow, and Austin (1956) proposed several benefits of using categories to organize our environment. One benefit is that categories help reduce the complexity of our environment. Information in our environment is commonly identified by category labels. For example, if a person walks into a room and sees a piece of wood with four legs, he/she is likely to call the object a table. Another benefit to categories is that they reduce the need for constant learning. If a person encounters a new object that is sweet and juicy and can be eaten for breakfast, she/he is likely to call the object a fruit and can be less concerned about naming the item. Stereotypes are categories formed using the same knowledge structures that organize information about types of furniture and pieces of fruit.

Children begin forming categories to reduce the complexity of their environment at a very young age. For example, gender associations begin forming in the first several months as infants use perceptual information (e.g., visual stimuli, auditory information)
to distinguish male and female faces and develop a preference for their mother's voice (e.g., Leinbach & Fagot, 1993; Miller & Barg, 1983). Additionally, children as young as three can describe gender appropriate activities for men and women (e.g., Kuhn, Nash & Brucken, 1978; O'Brien, Huston & Risley, 1983). These associations develop with experience through socialization with parents and peers, observational learning, and reinforcement for gender appropriate behaviors (Poulin-Dubois, Serbin, Eichstedt, Sen, & Beissel, 2002).

Rothbart's "Bookkeeping Model" (1981) describes the process of learning and updating stereotypes in memory as a type of record keeping. According to Rothbart (1981), stereotypes are continually being updated in memory with each related experience. Stereotypes can change with experience. Information consistent with a stereotype would reinforce the stereotype and inconsistent information would result in stereotype change. According to Weber and Crocker (1983) stereotype change can occur with multiple observations of individuals who behave in counterstereotypical ways. Like other general world knowledge, stereotypes are continually influenced by experience.

Assumptions of basic models of attention can be used to explain stereotype activation (e.g., Posner & Snyder, 1975; Schneider & Shiffrin, 1977; Shiffrin, & Schneider, 1977). The mental effort required for a particular task during testing will determine whether or not the stereotype is accessed using controlled or automatic processing; that is, tasks that require little mental effort are believed to be tapping into automatic processes and those that require conscious effort are thought to be controlled. Automatic and controlled activation of stereotypical knowledge have been studied using both explicit and implicit measures.
Explicit tests are generally believed to measure the controlled processing of stereotypes. Participants are aware that their beliefs are being assessed and their responses may be controlled to reflect social desirability. Conversely, implicit tests are designed to target the automatic activation of stereotypical information. A test is implicit when participants are unaware that knowledge is being assessed. Within these circumstances, responses cannot be manipulated.

Researchers have designed experiments to test the boundaries between controlled and automatic activation of stereotypes (Brewer, 1988; Fiske & Neuberg, 1990). There is general agreement that stereotypes are activated automatically. However, automaticity can be affected by at least two factors. If participants are aware of the underlying assumptions of the experiment, they are likely to respond using social desirability strategies (i.e., an effortful and controlled response). Also, task demands can interfere with the capacity resources necessary for the task to remain automatic. Researchers who have studied arousal and cognitive capacity (e.g., Broadbent, 1971; Mandler, 1984) have demonstrated that too much arousal can decrease cognitive capacity available for information processing. Stereotypes that are automatically activated under conditions of high cognitive load are likely to affect behaviors and beliefs because there is little or no attention available to control the response. Therefore, the activation of stereotypical knowledge is likely automatic, but the application of these beliefs for decision-making can be either automatic or controlled, depending on the task.

In an attempt to demonstrate the differences between automatic and controlled activation of stereotypes, Blair and Banaji (1996) tested participants' knowledge of male and female personality traits using an implicit priming procedure. They used the semantic
priming paradigm adopted from Meyer and Schvaneveldt (1971). Word pairs were created with trait adjectives as primes and male and female proper names as targets. Pairs were either consistent with gender stereotypes (e.g., dependent-Jane/hostile-David), such that stereotypical characteristics were paired with male and female names, or were inconsistent (e.g., dependent-David/hostile-Jane); that is, characteristics not commonly associated with males and females were paired together. Following the presentation of either type of prime-target pair, participants were asked to determine whether the name was male or female.

Participants were faster to respond to targets when combined with primes that were consistent with gender stereotypes (e.g., hostile-David) than when combined with primes that were inconsistent with gender stereotypes (e.g., hostile-Jane). Stereotypically consistent primes facilitated activation for gender appropriate names. This demonstrates the existence of gender stereotypes in memory.

In a series of experiments, Devine (1989) found that high and low scoring participants on a prejudice scale automatically activated cultural stereotypes. However, participants who scored lower on the prejudice scale were able to inhibit activated stereotype-congruent thoughts by replacing them with thoughts that negated the stereotypes, whereas participants who scored higher on the prejudice scale were unable to do so. This demonstrates that activated stereotypical knowledge can be controlled using social desirability strategies. Although stereotypes can be automatically activated in memory, individuals with sufficient general knowledge about the consequences, and/or those who have more cognitive resources available, can control their response.

Under certain situations (e.g., when participants are aware of experimental
assumptions or when capacity is affected by high task demands), processes that are normally automatic become effortful. Gilbert and Hixon (1991) tested whether or not high cognitive load (i.e., high cognitive constraint) would affect activation and application of stereotypes. In a series of experiments, participants were presented with a short video of an Asian woman and then asked to do a word-fragment completion task. They found that participants who were exposed to the video of the Asian woman automatically activated racial stereotypes during the implicit word-fragment completion task.

In a second experiment, while watching the same video tape used in Experiment 1, participants were asked to rehearse an eight-digit number. These participants gave fewer stereotype consistent responses than participants from the first experiment. Gilbert and Hixon (1991) concluded that an increase in cognitive load inhibited ability to automatically activate stereotypes.

Blair and Banaji (1996) also found support that tasks demands affect automatic activation of stereotypical knowledge. Using the priming procedure from Meyer and Schvaneveldt (1971), they found that both cognitive constraint and participant intention can moderate stereotype activation. Cognitive constraint was tested by manipulating the onset of the stimulus prime (SOA) to either 350-ms (i.e., high cognitive constraint) or 2,000-ms (i.e., low cognitive constraint). Intention was manipulated by changing the expectation of what target should follow a prime. For example, participants were told that following a prime, they should expect targets that were either matched (e.g., a male name following a male stereotyped prime) or unmatched (e.g., a female name following a male stereotyped prime). When intention was changed so that participants expected
counterstereotype pairs (e.g., "gentle-Eric"), priming occurred between unmatched primes and targets in longer SOA conditions but not for shorter SOA's. This result demonstrates that responses could be controlled given longer processing time and participant intention.

Blair (2002) discussed the flexibility of automatic processing on stereotype activation by describing four variables under which stereotype activation can be moderated: self and social motives, specific strategies, perceiver's focus of attention, and configuration of stimulus cues. These examples require strategic processing (e.g., controlled skill, motivation, cognitive resources). With more processing time and instruction on an implicit task, similar to explicit measures, participants gain control over their responses, a term that Blair and Banaji (1996) describe as "stereotype correction."

Under these conditions, participants are capable of masking their true beliefs. Even under well controlled procedures, it is difficult to know whether or not a task elicits controlled or automatic processes. It follows that it is important to differentiate whether a task is designed to assess automatic (e.g., implicit) or controlled (e.g., explicit) aspects of stereotype processing. In chapter 4, implicit and explicit memory and tasks that assess controlled and automatic processes will be described. In chapter 5, research will be presented that has used implicit and explicit tests to measure stereotype activation.
A brief history of the explicit and implicit tests that have been used to measure how information is activated in memory will be presented in this chapter. A discussion of the differences between explicit and implicit tests will add to the understanding of why it is important to use an implicit measure to test for activation of stereotypical knowledge.

Early memory researchers relied on demonstrations of previously learned information, known as explicit memory, to better understand memory processes. Tasks measuring explicit memory performance generally required participants to recall or recognize information related to specific, previously-learned events. Explicit memory is typically assessed using conceptually driven processing (e.g., Jacoby, 1983; Roediger, Weldon, & Challis, 1989). Conceptually driven processing strategies improve recall and recognition. Levels of processing strategies, elaborative encoding, and meaningful encoding are just a few examples (e.g., Graf & Ryan, 1990; Jacoby & Dallas, 1981).

In the early 1980's psychologists recognized aspects of memory that were not affected by conceptual processing strategies. This type of memory is described as implicit memory; implicit memory is evaluated without perceiver awareness that any prior knowledge is being assessed. Graf and Schacter (1985) recognized implicit memory when participants’ performance on a task was facilitated by a previous task without
conscious awareness. Processing for implicit memory has been referred to as data driven; that is, perceptual information rather than contextual information is most influential on retention. For both implicit and explicit memory, prior knowledge can affect current information processing; however, implicit memory is affected by prior knowledge with no awareness of the influence.

Much of the implicit memory research has been conducted using priming mechanisms. Priming tests, such as lexical decision tasks, word identification, and word-fragment completion tasks, have been conducted to measure the effects of previous experience on knowledge activation. Within these priming tasks, prior exposure to test information leads to facilitation in word recognition. Benefits in retrieval from priming occur outside of awareness. With respect to stereotype information, these sorts of tasks can assess knowledge outside of participant awareness; thus, participants are usually unable to employ social desirability strategies.

Researchers have used a variety of different tasks to test for explicit and implicit memory. Many tests have focused on finding dissociations between explicit and implicit memory systems (e.g., Bowers & Schacter, 1990; Graf & Ryan, 1990; Schacter & Graf, 1986). Tasks that involved meaningful encoding have been shown to enhance performance on memory tasks such as cued recall, free recall, and recognition (e.g., explicit tasks) (Bradshaw & Anderson, 1982; Craik & Tulving, 1975; Fisher & Craik, 1980; Stevenson, 1981). Levels-of-processing tasks, in particular those that involve processing semantic information, have demonstrated enhanced performance on explicit tasks without impacting performance on implicit tasks (Jacoby & Dallas, 1981). It is also well documented that the process of actively generating words or sentences during
encoding improves recognition and recall performance, while implicit memory remains unaffected (Jacoby, 1983; Slamecka & Graf, 1978; Toth & Hunt, 1990).

Schacter and Graf (1986) conducted a study to examine the impact of elaborative encoding on implicit and explicit memory. Over four different experiments, Schacter and Graf (1986) varied the amount of elaboration used to learn word pairs. For example, in one experiment, participants were presented with word pairs and were required to use the two words in a sentence or to come up with a word that the two words had in common. Although both tasks involved generating new information, generating sentences required more elaborative encoding than generating words.

Schacter and Graf (1986) found that performance on a word-stem completion task, in which participants were to finish the stem with the first word that came to mind (i.e., an implicit measure), was not affected by elaborative encoding. In contrast, for a word-stem completion task in which participants received instructions to think of a word from the study period (e.g., generating words or sentences during encoding), participants performed better in the sentence generation condition. In summary, the elaborative encoding used during sentence generation positively influenced performance on an explicit task, but had no effect on an implicit task; this result has been described as the generation effect (Jacoby, 1978).

Jacoby (1983) compared the dissociative properties of implicit and explicit memory by varying retrieval situations. Participants were asked to read a target word (e.g., "cold") after being presented with another word in one of three conditions: a no context condition in which a non-word preceded the target word (e.g., “xxx-cold”), a meaningful context condition in which a related word preceded the target word (e.g.,
"hot-COLD"), or a self-generated context condition in which the word that preceded the target word was generated by the participant (e.g., "???-hot").

Following the presentation of word-target pairs across the three conditions, participants were given a task that was designed to activate either perceptual information (e.g., implicit memory) or conceptual information (e.g., explicit memory). During the implicit task, participants were asked to decide if a visually presented stimulus was a word or not, and during the explicit task, participants were asked to determine whether or not they had seen the word during the study period. In the explicit recognition task, participant-generated words were better remembered, and on the perceptual, implicit task words presented without additional context were better remembered. Performance was facilitated for the implicit task when perceptual information remained intact at study and test, whereas, participants better remembered words presented at test that were self-generated during the learning period. The results of this study demonstrated a concept called transfer appropriate processing.

Transfer appropriate processing, also referred to as the encoding specificity principle, refers to paying specific attention to the learning strategy in terms of what is being stored in memory; that is, the learning situation should match the retrieval situation (Tulving & Thompson, 1973). Morris, Bransford, and Franks (1977) found that if a semantically encoded word and a word encoded by rhyming information were both recalled with a rhyming cue, the rhyme targets were better recalled than the semantically encoded words. Fisher and Craik (1977) also found support for transfer appropriate processing; participants had better recall for phonetically encoded words in the presence of phonetic cues at test, and semantically encoded words were better retrieved with
semantic cues at test. These studies demonstrate that memory will be enhanced when the 
retrieval environment matches features of the encoding environment.

Research on cognitive load has provided evidence for a dissociation between 
implicit and explicit memory. This has been demonstrated in tests where increased task 
demands on attention have negative effects on explicit, but not on implicit, tasks 
(Mulligan, 1997; Parkin, Reid, & Russo, 1990). For example, Mulligan (1997) varied the 
amount of information held in working memory while participants were learning lists of 
words. Before the presentation of a target word, participants were presented with a 
number that consisted of three, five, or seven digits. In the control condition, no number 
was presented. Participants were instructed to remember both the target word and the 
digits. After this study phase, participants either performed an explicit task (e.g., cued 
recall) or an implicit task (e.g., word-fragment completion). Mulligan (1997) found that 
attentional load reduced cued recall performance, but did not influence performance on 
the word-fragment completion task. These studies indicate that attention plays an 
important role in processing during explicit tasks because they often require controlled 
processes. However, attention is not as important for implicit tasks, as they commonly 
tap into automatic processes outside of awareness.

The implicit-explicit memory distinction has been supported by studies of 
amnesics syndrome. Amnesia is often caused by lesions to the medial temporal lobe and 
is characterized by normal perceptual and intellectual functioning with an inability to 
consciously remember recent events or new information (Schacter, 1987). In amnesiacs, 
some brain injury has resulted in loss of a particular aspect of memory (i.e., typically 
impairment on explicit tasks like recall and recognition), while other cognitive functions
remain intact (i.e., typically implicit memory). Many studies have revealed that, although
these individuals are impaired on standard tests of explicit memory, they demonstrate
learning through implicit tasks, including stem completion, word identification, and free
association (e.g., Graf & Schacter, 1985; Graf, Squire, & Mandler, 1984; Warrington &
Weiskrantz, 1970). One principle of implicit tasks, that they elicit memory outside of
awareness, can be used to explain this dissociation. Amnesiacs perform implicit tasks
like unimpaired participants because they are unaware that memory is being assessed.

Various theories were developed in an attempt to account for the dissociation
between implicit and explicit memory tasks. Two main views have been presented, the
multiple memory systems view and the processing view. Under assumptions of the
multiple memory systems view, implicit and explicit memory are assessed differently
because they are thought to be two separate memory systems (e.g., Squire, Cohen, &
Zouzounis, 1984; Tulving & Thomson, 1973). The processing view is based on the
assumption that differences in assessment occur due to the nature of encoding and
retrieval processes. Under this assumption, it is more likely that there are multiple tasks
that test implicit memory, explicit memory, or both (e.g., Roediger, 1990; Schacter,
1987). Researchers have studied this dissociation by conducting tests that require
different memory processes with the goal that different tasks could further describe
memory.

There has been great debate over the best method for describing memory, the
separate systems view or the processing strategies view. Because there are well
documented dissociations both between and within implicit and explicit memory, it is
perhaps best to think of memory as a unified system that can be accessed differently
using specific retrieval strategies. Chapter 5 will describe how implicit and explicit memory tasks have been used to test for stereotypical knowledge.
The effects of stereotypical beliefs on behavior were first measured by Katz and Braly (1933). Participants used a self-report scale to decide which characteristics belonged to specific groups of people. Katz and Braly (1933) found that participants were likely to assign popular stereotypes of that time to the racial groups. This direct reporting of beliefs by participants is an example of an explicit task. Much of the work on stereotypes involved similar self-report measures, which, up until the last few decades, were successfully used to measure attitudes and beliefs (e.g., Allport, 1954; Bem, 1970; Brewer, 1988; Crosby, et al., 1980; Word, et al., 1974).

In recent years it has become increasingly difficult to measure stereotypes with explicit measures. Our perception of those who express biases is generally negative; thus, participants often censor their beliefs so that their responses appear socially desirable. Although several investigations on stereotypes have been conducted in the field of social psychology, the measures used are often insensitive to social desirability strategies. An alternative has been to replace explicit tasks with implicit measures such as lexical decision, priming, and word/sentence completions. Implicit tasks, in which no explicit response is required, are believed to measure stereotypical beliefs without the effects of social desirability (see Fazio & Olson, 2003 for a review). Within these circumstances,
participants should be unable to manipulate their responses because they are not under their control.

In the last several years, social and cognitive psychologists have relied on priming tasks to measure implicit knowledge. Several researchers have found that priming of negative and often stereotypical attitudes and beliefs can affect behavior on a subsequent task (e.g., Dovidio et al., 1997; Fazio, Jackson, Dunton, 1995; Jackson, Leidandowski & Ingram, 1997). Dovidio et al. (1997) found that participants with negative feelings toward blacks blinked their eyes more frequently, and had less eye contact with a black interviewer, as opposed to a white interviewer. Similarly, Jackson et al. (1997) examined implicit negative attitudes and discovered that participants revealed negative implicit attitudes towards blacks by judging a black undergraduate's written essay as less favorable. Fazio et al. (1995) primed participants with pictures of black and white undergraduates and then asked them to rate an adjective as either "pleasant" or "unpleasant." Participants were told that the pictures were a distraction and that they should be able to judge the adjective without focusing on the pictures. However, when participants were presented with black faces, they quickly judged adjectives as more negative, and were slower when responding to positive adjectives. Fazio et al. (1995) concluded that negative attributes were automatically activated by the black faces.

One of the most well known implicit measures in social psychology is the Implicit Association Test (IAT) (Greenwald, et al., 1998). The IAT was developed to measure the unconscious association among certain groups of interest (e.g., race, gender, and ethnicity) and positive and negative attributes. The IAT is used to measure implicit attitudes and can be directly compared to cognitive priming procedures. In Greenwald's
et al. (1998) original experiment, participants were shown word pairs in which objects from categories judged as either positive (e.g., flowers) or negative (e.g., insects) were combined with attributes judged as either positive (e.g., pleasant) or negative (e.g., unpleasant) in four possible conditions: positive category/positive attribute (e.g., flower/pleasant), positive category/negative attribute (e.g., flower/unpleasant), negative category/negative attribute (e.g., insect/unpleasant), and negative category/positive attribute (e.g., insect/pleasant). Participants were asked to press one of two possible response keys. One key was pressed when word pairs were consistent with perceived features of the target category (e.g., flower/pleasant, insect/unpleasant) and another key was pressed when word pairs were inconsistent with perceived features of the target category (e.g., flower/unpleasant, insect/pleasant).

Researchers expected that participants would have faster reactions to response keys when the paired words were consistent with judged assumptions (e.g., flower/pleasant, insect/unpleasant) and would have slower reaction times to word pairs that were inconsistent with implicit assumptions (e.g., flower/unpleasant, insect/pleasant). Response times were consistent with this expectation. Greenwald et al. (1998) believed that these results demonstrated the strength of association between words in memory; that is, because participants have more positive attitudes toward flowers than insects, there is a stronger association between flowers and pleasant words than between insects and pleasant words.

Based on the IAT's ability to measure implicit attitudes for positive and negative words, Greenwald and colleagues believed that the IAT could be used to study implicit attitudes for specific categories of interest (e.g., race and gender). Participants were asked
to associate two categories: names that were coded as either typical black names, versus
typical white names with attributes that were previously judged to be either positive (e.g.,
gift) or negative (e.g., poison). Participants pressed a response key in one trial to indicate
when either black/pleasant or white/unpleasant words were presented, and in a second
trial when either black/unpleasant or white/pleasant words were presented.

Responses when black names were paired with unpleasant words were facilitated
compared to responses to black names paired with pleasant words. These results have
been used to suggest that the IAT is an adequate test of implicit attitudes often associated
with stereotypes. The IAT is known to produce reliable effects and appears to be a strong
implicit measure. For example, in Greenwald et al. (1998), after taking the IAT,
participants were explicitly asked to report whether or not they understood what the test
was designed to measure. They reported being naive to the test’s purpose. If the IAT is a
pure implicit measure than participants should not be aware of what it is designed to
assess. If this is the case with the IAT, then participants should be unable to modify their
responses. Using the IAT, Greenwald and colleagues have successfully created an
implicit measure that measures affective bias; that is, positive and negative associations
for categories of information without the responses being affected by social desirability.
However, a criticism of the IAT is that it is unclear how this test would match up with
everyday memory processes and decision making.

Several researchers have assessed activation of gender information at the word
level to understand the automatic processes of stereotypes on judgment (Banaji &
Hardin, 1996; Oakhill, Garnham, & Reynolds, 2005). Banaji et al. (1996) tested whether
words related to gender (e.g., mother, father, nurse, doctor) would prime gender-related
pronouns (e.g. he, she). They assumed that after presenting words like "engineer" and "secretary," readers would be faster to judge male pronouns after male stereotyped roles and female pronouns after female stereotyped roles. Responses were facilitated for pronouns that were consistent with gender stereotypes, compared to pronouns that were inconsistent with gender stereotypes. Presenting occupational titles like "doctor" and "nurse" activated the pronoun that was consistent with gender stereotypes for occupations; that is, when reading the word "doctor," the association in memory that doctors are male was activated and readers were quicker to respond to the word “he” than “she.” Although the implicit tests described in this chapter have been useful for measuring stereotypical knowledge, tests that assess stereotypes in sentences and longer texts may be more consistent with how stereotypical knowledge affects everyday memory processes and decision-making. Chapter 6 will provide background on how memory combines with information in text for comprehension. This chapter will provide a framework that will be used to describe how stereotypical knowledge can be assessed within written text.
CHAPTER VI

TEXT PROCESSING

In most theories of reading comprehension, it has been well established that a reader's representation of text is made up of two components: a representation of the explicit written text (e.g., Kintsch, 1998; Kintsch & van Dijk, 1978) and a representation for what the text is about (e.g., Bransford, Barclay, & Franks, 1972; Johnson-Laird, 1983; Just & Carpenter, 1987), which is referred to as a situation model. A situation model is a general representation for what the text is about that contains information from the written text and a reader's general world knowledge (e.g., Myers & O'Brien, 1998; Rizzella & O'Brien, 2002). Johnson-Laird and Garnham (1980) have described a situation model as a mental object that organizes knowledge for discourse; the situation model contains information from prior text supplemented by general and specific knowledge.

As readers integrate text-based information with their general world knowledge, successful comprehension depends upon the coherence of the situation model. It has been well established that the construction of a coherent situation model requires coherence at both the local and global level (e.g., Albrecht & O'Brien, 1993; Bower & Morrow, 1990; Glenberg, Meyer, & Lindhem, 1987; Graesser, Singer, & Trabasso, 1994; Singer, Graesser, & Trabasso, 1994; van Dijk & Kintsch, 1983).
The maintenance of local coherence requires that the reader map incoming information onto the immediately preceding context (i.e., information in working memory, generally from the previous one to three sentences). Maintenance of global coherence requires that the reader map information already stored in memory onto the current text. This process often involves the reactivation of backgrounded portions of a text that are either necessary to maintain coherence or related to the information currently in active memory. Related information from general world knowledge also becomes available to fill in details not explicitly stated in the text.

Two competing views, the minimalist view and the constructionist view, were developed to explain how information from memory (e.g., general world knowledge) combines with text for comprehension. An assumption of the minimalist view of text processing, originally established by McKoon and Ratcliff (1992), is that information from what is currently being read is integrated with the immediately proceeding text, along with information that is "readily available." According to proponents of the view, this process occurs automatically without any special goals or strategies (i.e., controlled processes) on the part of the reader. A major assumption of the minimalist view is that information is available for integration into current text based on automatic, bottom-up processes; that is, text comprehension is dependent upon the same memory processes that govern semantic priming.

In contrast to the minimalist view, proponents of the constructionist view (e.g., Singer et al., 1994; Trabasso, van den Broek, & Suh, 1989) claim that readers are active processors of text and are goal directed to understand text via the "need to know node." Under the assumptions of the constructionist view, which is also referred to as the
explanation-based view, the reader is guided by the principle of "search after meaning."

A major assumption of this view is that readers engage in strategic, top-down processing; that is, readers continually search memory to assess goals, maintain coherence, and provide explanations for actions and events in text (Graesser, et al., 1994).

The memory-based view of text processing (e.g., Gerrig & McKoon, 1998; McKoon, Gerrig, & Green, 1986; Myers & O'Brien, 1998; O'Brien & Myers, 1999) evolved from the minimalist perspective (McKoon & Ratcliff, 1992; 1995). Under the assumptions of this view, information from all of memory can affect reading comprehension; that is, current text, knowledge from distant portions of text and reader's general world knowledge can become active as a function of the number of features shared with the current situation model. The major assumption of the memory-based view is that the processes that readers bring to bear do not include any special strategies.

The memory-based view is based on assumptions of global models of memory that have been used to explain how information is activated in memory (e.g., Gillund & Shiffrin, 1984; Hintzman, 1986; Ratcliff, 1978). Ratcliff (1978) explains that the more a concept in memory resonates with a current idea in text, the greater the likelihood that this concept will become active in memory. Activation increases as a function of the number of features in common between the text and concepts in memory. Concepts that share more features with the original signal will receive greater activation. The basic structure of this and other global models of memory have all, in part, contributed to the assumptions of the resonance model, a key component of the memory-based view (Myers & O'Brien, 1998; O'Brien & Myers, 1999).

The resonance model is one example of a more global model of memory that has
been used to describe what information is made available during reading. This model is based on the assumption that incoming text, as well as information in working memory, serves as a signal to all of memory, including previous portions of text and all of general world knowledge. The signal is described as passive, dumb, and unrestricted. The signal is passive because it does not require effort on the part of the reader. The signal is unrestricted in that concepts from active memory, as well as any and all information in general world knowledge, will resonate in response to the original signal. The signal is dumb in that concepts will resonate in response to the signal as a function of the degree of match to the input, regardless of appropriateness to the current text. Any and all related information will resonate as a function of the degree of match to the signal. The match depends on the overlap of both semantic and contextual features between concepts. Information in memory that is activated by the initial signal in turn signals other elements, just as activation spreads from one concept to related concepts in a semantic network. Activation builds until the process stabilizes and the most active elements enter working memory.

Under the assumptions of the explanation-based view, reactivation of backgrounded information can occur by active and passive processes; however, in both cases this information becomes available based on goal-directed strategies. Readers, motivated by specific goals and strategies, will only seek information that is relevant and, in most cases, because what is activated is in line with reader goals, activated information will facilitate comprehension (e.g., Singer et al., 1994). In contrast, within memory-based theories, the reactivation process is not goal-directed; activation of backgrounded information occurs only through a passive resonance process that is dumb and
unrestricted (e.g., Myers & O'Brien, 1998). As a result, any information that is related to the current contents of working memory has the potential to be activated, independent of whether it is relevant or not and independent of whether it facilitates or interferes with comprehension.

O'Brien and colleagues, using the "inconsistency paradigm," have demonstrated that activation of information during reading occurs through a passive process; that is, through a resonance process information can be made accessible that is inconsistent with current text and, in some cases, interferes with comprehension (e.g., Albrecht & O'Brien, 1993; Cook, Halleran & O'Brien, 1998; O'Brien et al., 1998; Rizzella & O'Brien, 2002). Albrecht and O'Brien (1993) demonstrated that even when text is locally coherent, readers have access to inactive portions of the discourse model. They presented participants with passages that contained a particular description of a protagonist. Following several sentences that served to background that characteristic, a target sentence was presented that fit well within the immediate context (i.e., was locally coherent) but was either consistent (i.e., globally coherent) or inconsistent (i.e., globally incoherent) with the earlier described characteristic.

For example, in one passage, a protagonist named Mary was described as either a vegetarian or as someone who loved to eat junk food. The next several sentences shifted the topic and served to background this information. Participants then read a target sentence (e.g., "Mary ordered a cheeseburger and fries") and reading times were recorded. This action was consistent with the description of Mary as someone who likes fast food, but inconsistent with the description of Mary as a vegetarian. According to the resonance process, in the consistent version, when the target sentence is read, information
about Mary eating junk food will become active in memory and readers should have no problem understanding the target sentence. When the target sentence is read in the inconsistent version, information about Mary's eating habits from earlier in text, that she is a vegetarian and health nut, should become active; this is inconsistent with the target sentence and readers should have difficulty, marked by slower reading time.

This is exactly what Albrecht and O'Brien (1993) found. Reading times on the target sentence were significantly longer when the target sentence was inconsistent with how Mary was described earlier in text. They interpreted these results as evidence that the target sentence served to reactivate the backgrounded characteristic (e.g., information about Mary's food preferences), which caused comprehension difficulty when the characteristic was inconsistent with the target sentence. This finding demonstrates that information that is no longer part of the discourse model becomes available to the reader and interferes with comprehension even when the text fits in with the current text (i.e., is locally coherent).

In a series of experiments, O'Brien et al. (1998) used the consistent and inconsistent conditions from Albrecht and O'Brien (1993) and re-wrote passages to include a "qualified elaboration condition." In the qualified elaboration condition, it was made clear to the reader that the critical characteristic of the protagonist was no longer true (e.g., Mary was no longer a vegetarian). Over a series of five experiments, this qualification was varied in strength from a weak qualification (e.g., Mary was no longer a vegetarian) to a stronger qualification (e.g., Mary had never been a vegetarian). These characteristics that described the protagonist were backgrounded, and then participants read the target sentence (e.g., "Mary ordered a cheeseburger and fries").
Despite the addition of qualification information, readers continually experienced comprehension difficulty marked by slower reading times on the target sentence; that is, unrelated and untrue information about Mary’s eating habits became activated and affected comprehension. This result fits nicely within an assumption of the memory-based view that the reactivation of backgrounded information occurs through a dumb resonance process. When participants read the target sentence (e.g., “Mary ordered a cheeseburger and fries”), a signal was sent out to all of memory and any information related to the target sentence resonated (e.g., information about Mary’s eating habits) independent of its relevance to current text. For example, information about vegetarians, even though it was qualified as no longer or never being related to Mary’s eating habits, became part of the discourse model due to semantic and feature overlap with text currently in focus.

These results are difficult to explain using the explanation-based view. An assumption of this view is that readers maintain a continually updated model of the situation described in text. Within the context of this model, when readers encounter qualified versions of the text that described Mary as not being a vegetarian, they should update their situation model so that the information it contains about Mary only describes her most current eating habits (e.g., Mary used to be a vegetarian but isn’t anymore). If readers are capable of updating their situation model so that information about Mary’s past eating habits does not interfere with comprehension, then readers would not slow down while reading the target sentence (e.g., “Mary ordered a cheeseburger and fries”).

While it is unlikely that readers can update their representation so that it contains only the most recent and accurate information, both passive and active processes are
necessary during comprehension. Proponents of the memory-based view have focused on passive processes that are data-driven and occur outside of the reader’s awareness, whereas explanation-based theorists have emphasized higher order or top-down processes that are reader motivated and goal directed. These two views can be combined into maintaining coherence through a two-stage process (see Cook & Myers, 2004 for a complete description of this process).

In the first stage, information from anywhere in text and related general world knowledge is accessible through a passive resonance process. The reader can focus on this available information; however, in some cases, what is made available may be insufficient and the reader may attempt to engage in more active processes to maintain coherence. This assumption was part of the original constraints of the resonance model (O’Brien & Myers, 1999). O’Brien and Myers (1999) suggested that when resonance fails to reactive sufficient information for comprehension that readers may refocus on other information made available in active memory and thus “reboot” the resonance process. If no further information is gained from passive resonance, then the reader may engage in active problem-solving strategies. Chapter 7 will describe how basic memory processes can be used to explain the availability of stereotype information during reading comprehension.
CHAPTER VII

ACTIVATION OF STEREOTYPICAL KNOWLEDGE IN TEXT

The research by O'Brien and colleagues supports the assumption that protagonists' traits, combined with information in general world knowledge, can become part of readers' situation model (e.g., Albrecht & O'Brien, 1995; Myers, O'Brien, Albrecht, & Mason, 1994; O'Brien, et al., 1998), and this information becomes active, independent of the goals of the reader. Stereotypes are a type of general world knowledge that has received considerable attention in both social and cognitive psychology. Stereotypes are generalizations that are used often to characterize features about groups and individuals, both positive and negative, but generally extreme. Because the outcome of this type of description has often resulted in bias or prejudice, and even change in behavior among individuals, stereotypes have been given a special status over other types of general knowledge. In this dissertation, the definition of a stereotype has been constrained to a cognitive perspective. Within this definition, it is assumed that stereotypes should operate like general knowledge while reading text; that is, stereotypical knowledge is activated and can be encoded into the text representations and may affect comprehension.

Stereotypical knowledge is activated through a passive resonance process, independent of whether or not it is relevant to the current text in the same way that general knowledge about vegetarians is activated when a reader learns that Mary the
vegetarian orders a cheeseburger. For example, when we read about groups of people (e.g., politicians, surgeons, nurses), stereotypical knowledge should be automatically activated (e.g., politicians are liars, surgeons are male, and nurses are female) regardless of relevance to the text or whether or not it facilitates or interferes with comprehension.

Ganske and Hebl (2001) demonstrated that readers typically incorporate stereotypical information into their ongoing representations for text. Participants were asked to read a story that contained several traits about a male or female protagonist that were either consistent (e.g., Jane baked cookies/John played video games) or inconsistent (e.g., Jane played video games/John baked cookies) with gender stereotypes. After reading the story, participants were asked to retell it in as close detail as possible. The researchers found that participants almost always mentioned information that was consistent with gender stereotypes when retelling the story, and typically omitted information from the story that was inconsistent. Participants also added new information when retelling the story that was consistent with gender stereotypes. Information that was consistent with gender stereotypes in text was likely supported by activated stereotypical knowledge. It could be that participants better remembered this consistent information because it was more salient in their situation models than inconsistent text.

Several researchers have relied on short sentences of written text to test for stereotype activation (e.g., Carreiras, Garnham, Oakhill, & Cain, 1996; Duffy & Keir, 2004; Dunning & Sherman, 1997). Carreiras et al. (1996) found support that gender stereotypes are automatically incorporated into situation models. Carreiras et al. (1996) presented sentences that contained information about a stereotypically male, female, or neutral participant (e.g., doctor, nurse, and singer). They found that general world
knowledge for occupations influences comprehension. They presented participants with two sentences. The first sentence described an occupation that was stereotypically male or female (e.g., baby-sitter), and the second sentence contained a pronoun that revealed if the job belonged to a man or a woman. In the second sentence, the pronoun was either consistent or inconsistent with gender stereotypes for that particular occupation. Consider the following sentences:

1. The baby-sitter settled down to watch a video.
2. Then he/she heard the baby crying.

Reading times for sentences that contained a pronoun that referred back to the stereotyped role were longer when the pronoun was inconsistent with the occupational stereotype (e.g., babysitter/he). In the above example, the stereotype is that women are babysitters and men are not. These results indicate that our general knowledge for certain occupations can disrupt comprehension when text is inconsistent with the stereotype.

In a similar study, Duffy and Keir (2004) tested whether or not violations to common role-biased jobs would cause disruptions in the reading process. They monitored readers' eye movements while they read short texts in which a protagonist's occupation was either consistent or inconsistent with gender stereotypes (e.g., "The electrician taught himself/herself a whole lot while fixing the problem"). Because electricians are stereotypically male, they believed that readers would have difficulty processing the pronoun "herself" in the inconsistent condition. Duffy and Keir (2004) found that readers fixated longer on the pronoun, and made more regressions back to it, when the gender of the pronoun was inconsistent with the gender stereotype.

In a second study, readers were presented with sentences in which the gender of
the character holding a specific job title was established before the pronoun referent was mentioned. Consider the following example from Duffy and Keir (2004): "The electrician was a cautious woman/man who carefully secured her/his ladder to the side of the house before checking the roof." This disambiguating context was enough to override the gender stereotype for the occupation, and the longer reading times found in the first experiment were eliminated. For example, when readers encountered the pronoun "her" in the second sentence, the gender of the electrician (e.g., woman) was already integrated into the reader's representation for that job title. There are conflicting results, however, as to whether or not gender stereotypes can be completely overridden with sufficient narrative context (see, for example, Carreiras, et al., 1996; Cook, Myers, Duffy, Keir, & Pranata, 2003; Oakhill, et al., 2005).

Kennison and Trofe (2003) examined the effects of general world knowledge for occupations commonly associated with gender stereotypes. In a norming study, they separated 405 nouns and noun compounds into two groups. One group included jobs/activities that were judged as being exclusive to males (e.g., executive, sheriff, hunter), and a second group consisted of jobs/activities that were believed to be exclusive to females (e.g., secretary, florist, cheerleader).

In a second experiment, 32 of the normed nouns were used as subjects in sentences (e.g., "The deputy/exotic dancer walked up the street toward the nightclub"). In a second sentence, the anaphors "he/she" were used to refer to the antecedent (e.g., "He/She didn't make eye contact with anyone passing by"). Kennison et al. (2003) found that reading times were slower for the second sentence when the pronoun mismatched the gender stereotype (e.g., "The deputy walked up the street to the nightclub. She didn't..."
make eye contact with anyone passing by") than when the gender of the anaphor and the antecedent matched (e.g., "The deputy walked up the street toward the nightclub. He didn't make eye contact with anyone passing by"). Kennison et al. (2003) explained the slowdown in reading as evidence that gender stereotypes are automatically activated for occupations that are gender-biased.

Reynolds, Garnham, and Oakhill (2006) tested whether stereotypical gender information is activated and immediately encoded and if this integration of information in memory affects reader comprehension. They presented participants with a passage from Sanford (1985) that describes a surgeon who is about to operate on a young boy. The passage tells the story of a young boy and his father who get into a fatal car accident. The father dies and the boy is rushed to the emergency room, where a surgeon meets the patient on the operating floor. Readers are then presented with the following statement, "I cannot do this operation. This boy is my son." Sanford (1985) found that readers' general world knowledge that surgeons are typically male prohibits them from understanding that the boy can be the surgeon's son. Reynolds et al. (2006) used this passage in several different conditions (e.g., text that was either consistent or inconsistent with the gender stereotype that all surgeons are male) and believed that the results from this one passage would generalize to all types of gender stereotypes.

Following each version of the passage, an offline recognition measure was used to question specific aspects of the readers' comprehension difficulty (e.g., "Did you have difficulty making sense of the story?" and, "At what point did you realize that the surgeon was the boy's mother?"). Results revealed that participants were not aware of their mistake (e.g., generalizing that all surgeons are male) until they were questioned
directly about the passage. In some cases they were unaware of the problem until a question on the measure on the recognition directly stated that the surgeon was the boy's mother. These results demonstrated that gender stereotypical knowledge was activated and encoded when participants read the passage. In a second experiment, online measures confirmed that readers were slower to read the final clause of the passage (e.g., that the boy is the surgeon's son). Reynolds et al. (2006) explained that gender stereotypical knowledge was automatically activated and had immediate affects on text comprehension.

Krueger and Rothbart (1988) wanted to test how text would combine with general world knowledge of gender stereotypes; more specifically, whether or not text about specific behaviors of men and women would override gender stereotyped traits (e.g., aggression, emotion). Participants were presented with four short character sketches. Characters were described as having either traditionally masculine or feminine occupations (e.g., construction worker/housewife) and different levels of aggression (i.e., neutral, moderate, or high). After reading the sketches, participants were asked to rate the expected frequency and intensity of the character's future aggressive behavior. Both men and women were perceived to be aggressive in the future when they were described in the sketch as moderately or highly aggressive. However, men were perceived to be more frequently aggressive, regardless of the level of aggressive behavior described in text. These results demonstrate that gender stereotypes can override explicit text.

In a second experiment, sketches described characters as either engaging in consistent acts of aggression (e.g., consistently beating children or yelling at a spouse) or behaving non-aggressively. Participants rated men and women as more aggressive when
they were described as aggressive in text; that is, the effect of gender stereotypes on ratings of aggression found in Experiment 1 was eliminated. Results demonstrated that explicit text, with sufficient context, could override or suppress the activation of general knowledge that men are more aggressive than women.

Dunning and Sherman (1997) tested for the presence of stereotypical knowledge for common social roles by presenting participants with sentences (e.g., "The nun/rock musician was unhappy about the amount of liquor being served at the party"). Afterward, participants were given a set of sentences and were asked to judge whether or not they had seen them before. Participants falsely recalled sentences that altered the original information so that it was consistent with stereotypes (e.g., "The nun/rock musician was unhappy about the large amount/small amount of liquor being served at the party"). They explained that stereotypical information is so salient in memory that people mistakenly believe that those inferences were not inferences at all, but rather information presented in the original description.

A limitation of Dunning and Sherman (1997) is that there is no guarantee that stereotypical inferences were made when participants read the sentence or later during the recognition task. Also prior to reading the sentences, participants were instructed to "form immediate impressions" about the people described in the sentences. This additional instruction required the participants to use special strategies during reading, and the results from the task may not generalize to everyday reading. Without an implicit measure at test, it is unknown whether the results were affected by social desirability strategies.

Stereotypical knowledge has been examined using a variety of explicit and
implicit measures. Researchers in most cases are unable to rely on explicit tests as valid measures of stereotypes because of participant social desirability strategies. Furthermore, many implicit tests are flawed in that they are not accurately testing beliefs because participants at some level might be aware of the assessment.

There are benefits to using the reading process to evaluate stereotypical knowledge. By using passages of text instead of a few short sentences, researchers can assess how written text interacts with stereotypical knowledge. Reading comprehension may be a more sensitive measure to test activation of stereotypes and their influence on behavior. Additionally, testing for activation of stereotypical knowledge within narrative text should be a direct implicit test; that is, it is one that does not require a response, and therefore should not be affected by social desirability. In chapter 8, a series of experiments will test this assumption.
The goal of the experiments was to use an implicit measure of stereotype activation that would provide a direct measure of stereotypical knowledge that does not reflect social desirability. The inconsistency paradigm was used in a series of experiments to examine what happens to comprehension when text contains information that is inconsistent with stereotypes. Readers’ general knowledge of stereotypes should become active under the assumptions of the memory-based view; that is, information related to text will be activated due to a “dumb” resonance process, independent of whether or not it is relevant.

In a series of experiments, participants read target sentences designed to be inconsistent with stereotypes. Reading times on target sentences were recorded to test for stereotypical knowledge activation. It is likely that when participants read target sentences that were inconsistent with stereotypical knowledge they experienced comprehension difficulty, marked by slowed reading times. In contrast, reading times should have been facilitated when target sentences were consistent with activated stereotypes. Experiment 1 was conducted to measure activation of gender stereotypes. A control study was conducted to norm the passages used in Experiment 1. In Experiment 2, a qualification statement was added to the passages from Experiment 1 to provide a
stronger test to measure how general world knowledge for gender stereotypes combines with text. Experiment 3 was conducted to measure activation of general stereotypes. A control study was conducted to norm the passages used in Experiment 3. In Experiment 4, a qualification statement was added to the passages used in Experiments 3 to provide a stronger test to measure how general world knowledge for stereotypes combines with text.

**Experiment 1**

The goal of Experiment 1 was to test for activation of gender stereotypes related to typical male and female behaviors. In Experiment 1, participants were asked to read a series of passages in each of four conditions. Consider the example passage in Table 1. In each passage, either a male or female protagonist was introduced and described participating in four specific activities. Three of the mentioned activities were gender neutral (e.g., playing basketball, tennis, and volleyball) and one of the activities was either consistent with male stereotypes and inconsistent with typical female behaviors (e.g., wrestling) or was consistent with female stereotypes and was inconsistent with typical male behaviors (e.g., cheerleading). Following a backgrounding section that shifted the focus away from the protagonist, participants read a target sentence that was either consistent or inconsistent with gender stereotypes. Reading times on the target sentence were recorded. The readings times were used to make inferences about how information for gender stereotypes in memory combines with explicit text that is either consistent or inconsistent.
Table 1.

Sample Passage For Experiments 1 & 2.

Introduction
Will was recently honored by his high school graduating class as most athletic student and was going to receive an award. Ever since he was a child, he was encouraged to play sports and activities outside. His parents both excelled in sports when they were younger and participated in various sporting activities with their son. Will seemed to be born to play sports because he had excellent hand-eye coordination and motor skills.

Consistent Elaboration
Will was a member of the basketball, tennis, and volleyball teams, but he was especially known for his performance on the wrestling team. Tonight he was going to his high school athletic awards banquet and there was a good chance he would receive more recognition.

Inconsistent Elaboration
Will was a member of the basketball, tennis, and volleyball teams, but he was especially known for his performance on the cheerleading team. Tonight he was going to his high school athletic awards banquet and there was a good chance he would receive more recognition. **Qualification Sentence (Experiment 2 Only): Will’s parents thought that participating on the cheerleading team would improve his overall flexibility.**

Background
Will arrived at the banquet and decided to sit with a group of close friends and their parents. Will’s parents were unable to attend because they were out of town on business. He was happy, though, because he got to sit next to his best friend’s father.

Reinstatement Sentence
The father asked which sport he enjoyed most.

Consistent Target Sentence 1
Will told him about his time spent wrestling.

Inconsistent Target Sentence 1
Will told him about his time spent cheerleading.

Target Sentence 2
Will mentioned that he would miss high school.

Closing
Will asked his friend’s father if he planned to come to his graduation party.

Comprehension Question
Were Will’s parents good at sports?
Method

Participants.

Participants were 40 University of New Hampshire undergraduates who received partial course credit for their participation in the experiment.

Materials.

Participants read 32 passages in each of four conditions: male consistent, male inconsistent, female consistent, female inconsistent. Each passage began with a four-sentence section that introduced either a male or female protagonist and established a general theme for the story (e.g., “Will was recently honored by his high school graduating class as most athletic student and was going to receive an award”). Across passages, the mean length of the introduction section was 73 words, with a range of 70-75 words. This was followed by a three-sentence elaboration section that described the protagonist participating in four specific activities. Across passages, the mean length of the elaboration section was 42 words, with a range of 40-45 words. Three of the mentioned activities were gender neutral (e.g., playing basketball, tennis, and volleyball) and one of the activities was either consistent (e.g., wrestling) or inconsistent (e.g., cheerleading) with stereotypical male and female behaviors.

After reading the elaboration section, participants were presented with a four-sentence backgrounding section that shifted the focus away from the protagonist. Across passages, the mean length of the backgrounding section was 58 words, with a range of 55-60 words. The last sentence of the backgrounding section was a reinstatement sentence in which the protagonist was brought back into focus. Across passages, the mean length of the reinstatement sentence was 46 characters, with a range of 44-49
characters. After the reinstatement sentence, two target sentences were presented. Target Sentence 1 contained information that was either consistent (e.g., “Will told him about his time spent wrestling”) or inconsistent (e.g., “Will told him about his time spent cheerleading”) with gender stereotypes. Target Sentence 2 directly followed, contained information unrelated to Target Sentence 1, and was used to measure any spillover effects. Across passages, the target sentences were between 45-47 characters. In the male consistent version, Target Sentence 1 reinstated the activity mentioned in the elaboration section that was consistent with gender stereotypes (e.g., “Will talked about his time spent wrestling”). In the male inconsistent version, Target Sentence 1 reinstated the gender inconsistent activity (e.g., “Will talked about his time spent cheerleading”). The female consistent and female inconsistent versions followed this same pattern, with only the gender of the protagonist differing in the text. A one-sentence closing followed the target sentences. Across passages, the mean length of the closing section was 15 words, with a range of 14-16 words.

A short comprehension question followed each passage to ensure that participants were reading the passages carefully. The questions focused on details in the passage that were not directly related to the stereotypical information in text. There was an equal number of "yes" and "no" comprehension questions. Passages were randomly assigned to conditions, with the restriction that each experimental passage appeared only once in each of the four conditions. Across material sets, each passage appeared only once in each condition.

Control Study

A norming study was conducted to validate the materials used in Experiment 1.
Method

Participants.

Participants were 40 University of New Hampshire undergraduates who received partial course credit for their participation in the experiment.

Materials.

Participants read 40 passages (see Table 2 for a sample passage). These passages were the same passages used in Experiment 1, except they did not include the target sentences, the closing sentence, and comprehension question. Participants read only the introductory information, elaboration, and backgrounding section. After reading each passage, participants were asked to rate the plausibility of a specific target activity described in text.

Procedure.

Participants were randomly assigned to one of the four material sets. The experiment was conducted with several small groups of participants in a classroom setting. All participants were given a material set of 40 passages, one per page. Participants were instructed to read each passage, and then for each individual passage, they were asked to rate the plausibility of a specific target activity by circling a number from one to seven; the rating of one was reserved for the rating “highly implausible” and the rating of seven was reserved for the rating “highly plausible.” The target activities were either consistent or inconsistent with gender stereotypes. For example, after the participants were presented with a passage, on a separate page they were asked to judge the likelihood of the gender stereotype target activity for that passage (e.g., “How likely is it that Jill is a member of the wrestling team?”).
Table 2.

Sample Passage for Experiment 1 Control Study

Introduction
Jill was recently honored by her high school graduating class as most athletic student and was going to receive an award. Ever since she was a child, she was encouraged to play sports and activities outside. Her parents both excelled in sports when they were younger and participated in various sporting activities with their daughter. Jill seemed to be born to play sports because she had excellent hand-eye coordination and motor skills.

Elaboration
Jill was a member of the basketball, tennis, and volleyball teams, but was especially known for her performance on the cheerleading team/wrestling team. Tonight she was going to her high school athletic awards banquet and there was a good chance she would receive more recognition.

Background
Jill arrived at the banquet and decided to sit with a group of close friends and their parents. Jill's parents were unable to attend because they were out of town on business. She was happy, though, because she got to sit next to her best friend's father. The father asked which sport she enjoyed best.

Plausibility Question
How likely is it that Jill is a member of the cheerleading team/wrestling team?

<table>
<thead>
<tr>
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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Highly Implausible</td>
<td>Implausible</td>
<td>Neutral</td>
<td>Plausible</td>
<td>Highly Plausible</td>
<td>Plausible</td>
<td>Plausible</td>
</tr>
</tbody>
</table>

58
Participants completed a plausibility rating for each of the 40 passages.

Results and Discussion

Despite the explicit mention in text that the protagonists participated in the target activity, participants' general knowledge of gender stereotypes affected their plausibility ratings. When passages contained target activities that were consistent with gender stereotypes (e.g., males wrestle and females cheerlead) participants rated these target activities as more plausible. When passages contained target activities that were inconsistent with gender stereotypes (e.g., females wrestle and males cheerlead), participants rated these target activities as less plausible. Passages that received ratings that were most consistent with gender stereotypes were used in Experiment 1.

Procedure.

Participants were randomly assigned to one of the four materials sets. Each participant took part in an individual session that lasted approximately 45 minutes. All materials were presented on a monitor controlled by a Dell 386 microcomputer. Participants were instructed to rest their right thumb on a line-advance key, their right index finger on a "yes" key, and their left index finger on a "no" key. Each trial began with the word "READY" in the middle of the screen. When participants were ready to read a passage, they pressed the line-advance key. Each press of the key erased the current line and presented the next line. Comprehension time was measured as the time between key presses. Each participant was instructed to read at a comfortable, normal reading pace. After the last line of the passage disappeared from the screen, the cue, "QUESTIONS" appeared in the middle of the screen for 2000 ms, followed by the comprehension question. Participants were instructed to respond to the comprehension
question by pressing either the "yes" or the "no" key. On the trials in which participants made errors on the comprehension question, the word, "ERROR" appeared in the middle of the screen for 750 ms. Before beginning the experimental passages, participants read three practice passages with the experimenter present to ensure that they were thoroughly familiarized with and understood the procedure.

Results and Discussion

In all experiments reported, naming times that were 2.5 standard deviations beyond the mean for a participant were eliminated. Across all experiments, this resulted in the loss of less than 1% of the data. In all analyses reported, $F_1$ always refers to tests against error terms based on participant variability, and $F_2$ always refers to tests against error terms based on item variability. All analyses were significant at the standard alpha level of .05, unless otherwise indicated.

The mean reading times for Target Sentence 1 are presented in Table 3. Participants read Target Sentence 1 significantly faster when it was consistent with gender stereotypes than when it was inconsistent with gender stereotypes, $F_1 (1, 36) = 15.08, MSe = 46,837.87; F_2 (1, 28) = 15.06, MSe = 45,852.20$. Planned comparisons revealed that reading times were slower for Target Sentence 1 when it was inconsistent with gender stereotypes than when it was consistent with gender stereotypes for passages about male protagonists, $F_1 (1, 36) = 8.02, MSe = 108,903.69; F_2 (1, 28) = 4.41, MSe = 191,928.78$ and female protagonists, $F_1 (1, 36) = 11.29, MSe = 49,288.93; F_2 (1, 28) = 6.30, MSe = 87,474.48$. Reading times on Target Sentence 2 did not differ as a function of sentence condition (inconsistent or consistent), $F$s <1.
Table 3.

Mean Reading Times (in milliseconds) for Target Sentence 1 as a Function of Consistency for Experiment 1.

<table>
<thead>
<tr>
<th>Consistency</th>
<th>Consistent</th>
<th>Inconsistent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Protagonist</td>
<td>2059</td>
<td>2207</td>
</tr>
<tr>
<td>Female Protagonist</td>
<td>2126</td>
<td>2244</td>
</tr>
</tbody>
</table>
These results demonstrate that gender stereotypes became available in memory when protagonists were described in text participating in activities that are inconsistent with stereotypical male and female behaviors. Slowed reading times when Target Sentence 1 was inconsistent with gender stereotypes is evidence that activated gender stereotypes became part of readers’ situation model and affected comprehension. Thus, even though it was explicitly mentioned in text that protagonists participated in stereotypically inconsistent behaviors, gender stereotypes were activated. This result is consistent with the results of O’Brien and colleagues (e.g., Albrecht & O’Brien, 1993; Cook, Guéraud, Was, & O’Brien, 2007; Guéraud, Harmon, & Peracchi, 2005; O’Brien, Rizzella, Albrecht, & Halleran, 1998); information that is related, regardless of its relevance to text, becomes activated and can affect overall comprehension. It is likely that gender stereotypes, like other general world knowledge, resonate and become available in memory independent of whether they interfere or facilitate comprehension. This is consistent with one of the critical characteristics of the resonance process; that is, the reactivation process is "dumb," in that it does not distinguish between information that is relevant to the current discourse model and information that is inappropriate. Information is activated based solely on its overlap with information currently in working memory.

**Experiment 2**

The goal of Experiment 2 was to further test how gender stereotypes are incorporated into a reader's memory for text. In Experiment 2, a qualification sentence was added to the inconsistent elaboration section of the passages written for Experiment 1. This information served to further explain why the protagonist would participate in a
gender inconsistent behavior, thus qualifying the behavior.

Method

Participants.

Participants were 90 University of New Hampshire undergraduates who received partial course credit for their participation in the experiment.

Materials.

Participants read 30 passages in each of six conditions: male consistent, male inconsistent, male qualified, female consistent, female inconsistent, female qualified. The only difference in materials between Experiments 1 and 2 was the addition of a one-sentence qualification to the inconsistent elaboration to create a qualified elaboration for Experiment 2 (e.g., “Will's parents thought that participating on the cheerleading team would improve his overall flexibility”) (see Table 1 for example passage). Qualification sentences provided an explanation for why male and female protagonists would participate in activities that are inconsistent with gender stereotypes. Across passages, the mean length of the qualification sentences was 15 words, with a range of 13-17 words.

Procedure.

The procedure was the same as in Experiment 1.

Results and Discussion

The mean reading times for Target Sentence 1 are presented in Table 4. Participants read Target Sentence 1 significantly faster following the consistent and qualified elaborations than following the inconsistent elaboration $F_1 (2, 168) = 14.88$, $MSe = 127,374.58; F_2 (2, 48) = 15.74$, $MSe = 35,426.94$. 
Table 4.

Mean Reading Times (in milliseconds) for Target Sentence 1 as a Function of Consistency for Experiment 2.

<table>
<thead>
<tr>
<th>Consistency</th>
<th>Consistent</th>
<th>Inconsistent</th>
<th>Qualified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Protagonist</td>
<td>2277</td>
<td>2390</td>
<td>2244</td>
</tr>
<tr>
<td>Female Protagonist</td>
<td>2317</td>
<td>2541</td>
<td>2316</td>
</tr>
</tbody>
</table>
Planned comparisons revealed that reading times for Target Sentence 1 were slower following the inconsistent elaboration than following the consistent elaboration for passages about male protagonists, $F_1(1, 84) = 8.07, MSe = 143,869.31; F_2(1, 24) = 5.04 MSe = 86,553.40$ and female protagonists, $F_1(1, 84) = 12.90, MSe = 349,662.57; F_2(1, 24) = 12.35, MSe = 110465.52$. Reading times for Target Sentence 1 were also slower following the inconsistent elaboration than following the qualified elaboration for passages about male protagonists, $F_1(1, 84) = 9.78, MSe = 196,248.40; F_2(1, 24) = 20.27, MSe = 41,893.16$ and female protagonists, $F_1(1, 84) = 10.45, MSe = 435,969.54; F_2(1, 24) = 12.60, MSe = 65,476.55$. Reading times on Target Sentence 2 did not differ as a function of sentence condition (consistent, inconsistent, or qualified), $F_5 < 1$.

These results demonstrate that the qualification sentence added to the explicit text influenced activation of gender stereotypes. The likely interpretation is that the qualified information served to compete with any activated gender stereotypes. This additional text may have strengthened episodic memory for the text and dampened contributions of gender stereotypes to the readers’ situation model. With this additional information added (e.g., an explanation for why a male might be on the cheerleading team or why a female would choose to wrestle) to the inconsistent elaboration to create a qualified elaboration, the slow down readers experienced on Target Sentence 1 following inconsistent elaborations in Experiment 1 was eliminated. Reading times for Target Sentence 1 following the qualified elaboration was similar to reading times for Target Sentence 1 following the consistent elaboration.
Experiment 3

The goal of Experiment 3 was to test for activation of general stereotypes. Participants read 32 passages in each of four conditions (see Table 5 for example passage). The passages describe one of two potential protagonists (e.g., nuns/rock stars) in a scenario where stereotypes are likely to become activated (e.g., “A group of nuns decided to come to the party in support of the cause. The nuns were unhappy about the amount of alcohol being served at the party”). Following a backgrounding section that shifted the focus away from the protagonist, participants read a target sentence that was either consistent or inconsistent with the stereotype that was assumed to be activated about the protagonist earlier in text. Reading times on the target sentence were recorded. If readers automatically activate stereotypical information (e.g., nuns tend not to drink alcohol), then they will be slower when reading information that is inconsistent (e.g., “The nuns thought that there was not enough alcohol”). The readings times were used to make inferences about how stereotypical information in memory combined with explicit text that was either consistent or inconsistent with the perceived stereotypes.

Method

Participants.

Participants were 40 University of New Hampshire undergraduates who received partial course credit for their participation in the experiment.

Materials.

In Experiment 3, participants were asked to read 32 experimental passages in four conditions: protagonist 1 consistent, protagonist 1 inconsistent, protagonist 2 consistent, protagonist 2 inconsistent.
Table 5.

Sample Passage For Experiments 3 & 4.

---

**Introduction**
The local volunteer network was holding a charity event to support cancer research. This year the event was around Thanksgiving so they decided to prepare a traditional dinner as the focus of the party. This was a great event because it brought all sorts of members of the community together to support an important cause.

**Elaboration**
The organization had been planning for months and volunteers were prepared to host a unique and diverse crowd at the event. A group of nuns/rock stars decided to come to the party in support of the cause. The nuns/rock stars were unhappy about the amount of alcohol being served at the party.

**Qualification**

**Protagonist 1:** The nuns enjoyed drinking alcohol when they went to a party.  
**Protagonist 2:** The rock stars avoided drinking alcohol when they went to a party.

**Background**
However, everyone at the event thought the food was fabulous. After the main course there were several desserts offered. They all agreed that it was nice having a Thanksgiving meal without having to worry about all of the cooking.

**Reinstatement Sentence**
The nuns were unsure about making the donation.  
The rockstars were unsure about making a donation.

**Consistent Target Sentence 1**
The nuns said there was too much alcohol.  
The rockers said there was not enough alcohol.

**Inconsistent Target Sentence 1**
The nuns said there was not enough alcohol.  
The rockers said there was too much alcohol.

**Target Sentence 2**
They talked to the organizers and then left.

**Closing**
The event organizers were pleased with the turn out and how much money was raised overall.

**Comprehension Question**
Was the dinner being held around Christmas time?
Sixteen sentences from Dunning and Sherman (1997) that were found to evoke stereotypes about specific groups of people (e.g., "The nun/rock musician was unhappy about the amount of liquor being served at the party"), along with 16 original sentences written to evoke stereotypes about groups of people, were embedded into longer text to create the 32 experimental passages. Each passage began with a three-sentence introduction section that established a general theme for the story (e.g., “The local volunteer network was holding a charity event in town to help support cancer research”). Across passages, the mean length of the introduction section was 53 words, with a range of 50-55 words. This was followed by a three-sentence elaboration section that described either one of two potential protagonists (e.g., protagonist 1 nuns/protagonist 2 rock stars) in a scenario where it was likely that stereotypes about the protagonist became activated. For example, the elaboration section in the example passage in Table 5 presents information that describes either nuns or rocks stars at a party who are unhappy about the amount of alcohol being served. If stereotypes are activated in memory while reading the elaboration section (e.g., nuns are conservative and do not drink, whereas rock stars are heavy drinkers), then it is likely that this information will be used to create two very different explanations as to why protagonist 1 (e.g., nuns) and protagonist 2 (e.g., rock stars) are unhappy; nuns think there is too much alcohol and rock stars think there is not enough alcohol. Across passages, the mean length of the elaboration section was 48 words, with a range of 45-50 words.

After reading the elaboration section, participants were presented with a four sentence backgrounding section that shifted the focus away from the protagonist. Across passages, the mean length of the backgrounding section was 48 words, with a range of
45-50 words. The last sentence of the backgrounding section was a reinstatement sentence in which the protagonist was brought back into focus. Across passages, the mean length of the reinstatement sentence was 48 characters, with a range of 45-50 characters. After the reinstatement sentence, two target sentences were presented. Target Sentence 1 contained information that was either consistent (e.g., “The nuns said there was too much alcohol/The rockers said there was not enough alcohol”) or inconsistent (e.g., “The nuns said there was not enough alcohol/The rockers said there was too much alcohol”) with stereotypes. Target Sentence 2 directly followed and contained information unrelated to Target Sentence 1 and was used to measure any spillover effects. Across passages, the target sentences were between 40-45 characters. A one-sentence closing followed the target sentences. Across passages, the mean length of the closing section was 13 words, with a range of 8-18 words. A short comprehension question followed each passage to ensure that participants were reading the passages carefully. The questions focused on details in the passage that were not directly related to the stereotypical information. There were an equal number of "yes" and "no" comprehension questions. Passages were randomly assigned to conditions, with the restriction that each experimental passage appeared only once in each of the four conditions. Across material sets, each passage appeared only once in each condition.

Control Study

A norming study was conducted to validate the materials used in Experiment 3.

Method

Participants.

Participants were 40 University of New Hampshire undergraduates who received
Table 6.

Sample Passage For Experiment 2 Control Study.

Introduction
The local volunteer network was holding a charity event to support cancer research. This year the event was around Thanksgiving so they decided to prepare a traditional dinner as the focus of the party. This was a great event because it brought all sorts of members of the community together to support an important cause.

Elaboration
The organization had been planning for months and volunteers were prepared to host a unique and diverse crowd at the event. A group of nuns/rock stars decided to come to the party in support of the cause. The nuns/rock stars were unhappy about the amount of alcohol being served at the party.

Background
However, everyone at the event thought the food was fabulous. After the main course there were several desserts offered. They all agreed that it was nice having a Thanksgiving meal without having to worry about all of the cooking.

Reinstatement Sentence
The nuns were unsure about making the donation. The rock stars were unsure about making a donation.

Plausibility Question
How likely is it that the nuns/rock stars thought there was not enough alcohol/too much alcohol at the party?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Highly Implausible</td>
<td>Implausible</td>
<td>Neutral</td>
<td>Plausible</td>
<td>Highly Plausible</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
partial course credit for their participation in the experiment.

Materials.

Participants read 40 passages (see Table 6 for a sample passage). These passages were the same passages used in Experiment 3 except they did not include the target sentences, the closing sentence, and comprehension question. Participants only read the introductory information, elaboration, and backgrounding section. After reading each passage, participants were asked to rate the plausibility of a specific target statement related to stereotypes for the protagonists described in text.

Procedure.

Participants were randomly assigned to one of the four material sets. The experiment was conducted with several small groups of participants in a classroom setting. All participants were given a material set of 40 passages, one per page. Participants were instructed to read each passage, and then for each individual passage they were asked to rate the plausibility of a specific target statement by circling a number from one to seven; the rating of one was reserved for the rating “highly implausible,” and the rating of seven was reserved for the rating “highly plausible.” The target statements directly referenced the prior text while including additional information that was thought to be either consistent or inconsistent with stereotypes.

In the example in Table 6, the nuns are described as being unhappy at the party because of the amount of alcohol being served. If stereotypes that nuns are socially conservative and do not drink become available while reading, participants may infer that the nuns are unhappy because there is “too” much alcohol. After the participants were presented with a passage, on a separate page they were asked to judge the likelihood of
the target statement for that passage that was either consistent with stereotypes (e.g., “How likely is it that the nuns were unhappy because there was too much alcohol being served at the party?”) or inconsistent with stereotypes (e.g., “How likely is it that the nuns were unhappy because there was not enough alcohol being served at the party?”). If stereotypes are activated while reading the passages, then participants were likely to rate consistent target statements as more plausible than inconsistent target statements. Participants completed plausibility ratings for each of the 40 passages.

Results and Discussion

Participants rated target statements as more plausible when they were consistent with stereotypes than when they were inconsistent with stereotypes. Stereotypes (e.g., nuns are socially conservative and do not drink) may have become available earlier in the passages (prior to the plausibility ratings) and affected comprehension on subsequent text. Target statements that were consistent with these stereotypes (e.g., “How likely is it that the nuns were unhappy because there was too much alcohol being served at the party?”) were rated as more plausible than target statements that were inconsistent with stereotypes (e.g., “How likely is it that the nuns were unhappy because there was not enough alcohol being served at the party?”). Passages that received ratings that were most consistent with expectations based on stereotypes were used in Experiment 3.

Procedure.

The procedure was the same as in Experiments 1 & 2.

Results and Discussion

The mean reading times for Target Sentence 1 are presented in Table 7. Participants read Target Sentence 1 significantly faster when it was consistent with
Table 7.

Mean Reading Times (in milliseconds) for Target Sentence 1 as a Function of Consistency in Experiment 3.

<table>
<thead>
<tr>
<th>Consistency</th>
<th>Consistent</th>
<th>Inconsistent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protagonist 1</td>
<td>2593</td>
<td>2834</td>
</tr>
<tr>
<td>Protagonist 2</td>
<td>2641</td>
<td>2822</td>
</tr>
</tbody>
</table>
stereotypes than when it was inconsistent with stereotypes, \( F_1 (1, 36) = 39.19, MSe = 45,526.20; F_2 (1, 28) = 14.38, MSe = 130,596.86 \). Planned comparisons revealed that reading times were slower for Target Sentence 1 when it was inconsistent with stereotypes than when it was consistent with stereotypes for protagonist 1, \( F_1 (1, 36) = 18.75, MSe = 124,750.68; F_2 (1, 28) = 6.18, MSe = 418,681.25 \) and protagonist 2, \( F_1 (1, 36) = 10.43, MSe = 125,176.94; F_2 (1, 28) = 8.53, MSe = 150,278.76 \). Reading times on Target Sentence 2 did not differ as a function of sentence condition (inconsistent or consistent), \( Fs < 1 \).

These results demonstrate that stereotypes became available for protagonists described in text and this available information affected comprehension on inconsistent target sentences. Several experiments have supported the finding that general world knowledge becomes activated and combines with traits of a protagonist to form a situation model for text, independent of the goals of the reader (e.g., Albrecht & O'Brien, 1995; Myers, O'Brien, Albrecht, & Mason, 1994; O'Brien, et al., 1998; Peracchi & O’Brien, 2004). In the present experiment, stereotypes, as a form of general world knowledge, may have been used to fill in the gaps; that is, to make predictions about information presented at the end of the elaboration section (e.g., “The nuns/rock stars were unhappy about the amount of alcohol being served at the party”). After reading the elaboration section, it is likely that participants used activated stereotypical information to make inferences about subsequent text. For example, while reading elaboration sections for protagonist 1 (e.g., nuns being unhappy about the amount of alcohol) and protagonist 2 (e.g., rock stars being unhappy about the amount of alcohol), it is possible that activated stereotypes (e.g., nuns do not like to drink alcohol and rock stars are heavy
drinkers) provided additional information that was used to explain the protagonist’s unhappiness (e.g., nuns thought there was too much alcohol and rock starts thought there was not enough alcohol). When Target Sentence 1 was inconsistent with this information (i.e., readers’ situation model for the text), reading times were slowed.

**Experiment 4**

The goal of Experiment 4 was to further test how general stereotypes are incorporated into a reader’s memory for text. In Experiment 4, a qualification sentence was added to the elaboration section of the passages written for Experiment 3. This qualification sentence was inconsistent with stereotypes and served to explain why the protagonist would behave in a manner that is inconsistent with stereotypes.

**Method**

**Participants.**

Participants were 60 University of New Hampshire undergraduates who received partial course credit for their participation in the experiment.

**Materials.**

Participants read 30 passages in each of six conditions: protagonist 1 consistent, protagonist 1 inconsistent, and protagonist 1 qualified, protagonist 2 consistent, protagonist 2 inconsistent, and protagonist 2 qualified. The only difference in materials between Experiments 3 and 4 was the addition of a one-sentence qualification to the elaboration to create a qualified elaboration (e.g., “The nuns enjoyed drinking alcohol when they went to a party”) (see Table 5 for example passage). Qualification sentences were inconsistent with stereotypes about the protagonist and could be used to explain why the protagonist would behave in a manner that is inconsistent with stereotypes.
Across passages, the mean length of the qualification sentences was 12 words, with a range of 10-14 words.

Procedure.

The procedure was the same as in Experiments 1, 2, and 3.

Results and Discussion

The mean reading times for Target Sentence 1 are presented in Table 8. Participants were significantly faster to read Target Sentence 1 for the consistent and qualified conditions than for the inconsistent condition $F_1 (2, 108) = 24.21, MSe = 84,876.28; F_2 (2, 48) = 11.33, MSe = 97,440.11$. Planned comparisons revealed that reading times were slower on Target Sentence 1 for the inconsistent condition than for the consistent condition for passages about protagonist 1, $F_1 (1, 54) = 19.07, MSe = 172,826.36; F_2 (1, 24) = 4.56 MSe = 466,416.12$ and protagonist 2, $F_1 (1, 54) = 14.53, MSe = 194,699.05; F_2 (1, 24) = 8.84, MSe = 148,808.59$. Reading times were also slower for the inconsistent condition than for the qualified condition for passages about protagonist 1, $F_1 (1, 54) = 19.04, MSe = 205,798.64; F_2 (1, 24) = 8.81, MSe = 253,236.80$ and protagonist 2, $F_1 (1,54) = 16.46, MSe = 145,021.48; F_2 (1, 24) = 7.36, MSe = 148,702.17$. Reading times on Target Sentence 2 did not differ as a function of sentence condition (consistent, inconsistent, or qualified), $F$s <1.

These results demonstrate that the qualification sentence added to the explicit text and influenced activation of general stereotypes. The likely interpretation is that the qualified information served to compete with any activated stereotypes. This additional text may have strengthened episodic memory for the text and dampened contributions of stereotypes to the readers’ situation model.
Table 8.

Mean Reading Times (in milliseconds) for Target Sentence 1 as a Function of Consistency in Experiment 4.

<table>
<thead>
<tr>
<th>Consistency</th>
<th>Consistent</th>
<th>Inconsistent</th>
<th>Qualified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protagonist 1</td>
<td>2375</td>
<td>2609</td>
<td>2354</td>
</tr>
<tr>
<td>Protagonist 2</td>
<td>2326</td>
<td>2543</td>
<td>2343</td>
</tr>
</tbody>
</table>
With this additional information added (e.g., an explanation for why nuns/rock stars were unhappy about the amount of alcohol) to the elaboration to create a qualified condition, the slow down readers experienced on Target Sentence 1 for the inconsistent condition in Experiment 3 was eliminated. Reading times for Target Sentence 1 following the qualified condition were similar to reading times for Target Sentence 1 following the consistent condition.
The goal of the experiments presented in this dissertation was to assess the presence of stereotypical knowledge through an implicit measure of reading comprehension, specifically, an implicit measure that does not reflect social desirability. Stereotypes have been described in a variety of ways. In many of these descriptions stereotypes are viewed as beliefs about characteristics and behaviors of groups. In this dissertation, the definition of a stereotype has been constrained to a cognitive perspective. Within this definition, stereotypes should operate in a manner like other knowledge structures (e.g., schemas, exemplars, prototypes) (see Fisk & Taylor, 1991; 1998 and Hilton & Hippel, 1996 for a review). Stereotypical information differs only in that it is often connected to attitudes and beliefs about groups of individuals.

Across several experiments, participants read passages that described protagonists in situations where it was likely that stereotypical knowledge would become activated. One basic assumption was that stereotypical information has no special status; it is not different than any other general knowledge and would become active under the same basic processes that govern any memory structure. Under this assumption, stereotypical information would be activated due to low-level priming through a resonance process.

The goal of Experiment 1 was to test for activation of knowledge for gender
stereotypes related to typical male and female behaviors. Participants read passages in which male and female protagonists were described participating in activities that were either consistent or inconsistent with gender stereotypes. After reading these descriptions, participants were presented with a target sentence that referenced either the consistent or inconsistent activity elaborated on earlier in text. Reading times were slower on target sentences that contained information about activities that was inconsistent with gender stereotypes compared to reading times on target sentences that contained information that was consistent with gender stereotypes. It is likely that knowledge for gender stereotypes, specifically knowledge for appropriate or inappropriate behaviors, was activated in memory when participants read that protagonists participated in gender inconsistent activities. This activated knowledge for gender stereotypes became part of the text representation, and comprehension was disrupted when target sentences contained inconsistent information.

The goal of Experiment 2 was to further test how knowledge for gender stereotypes is incorporated into memory for text. In Experiment 2, a qualification sentence was added to the inconsistent elaboration section of the passages written for Experiment 1. This information served to further explain why the protagonist would participate in a gender inconsistent behavior, thus qualifying the behavior. When participants read inconsistent target sentences in the qualified condition, a signal was sent out to all of memory. The addition of the qualification increased the proportion of information activated from the episodic memory trace in response to the signal (i.e., the elaboration plus qualification). This by definition reduced activation of information from general world knowledge (e.g., gender stereotypes) in response to the signal. Thus, the
majority of information activated in memory was consistent with the target sentence (e.g., the qualification explaining why protagonists participated in activities inconsistent with gender stereotypes) and the slow down experienced on inconsistent target sentences in Experiment 1 was eliminated.

The goal of Experiment 3 was to test for activation of knowledge for general stereotypes. Participants read passages in which two potential protagonists were described in a scenario where stereotypical knowledge was likely to become activated. After reading these descriptions, participants read target sentences that were either consistent or inconsistent with the stereotypical knowledge that was assumed to be activated earlier in text. Reading times were slower on the target sentences that contained information that was inconsistent with stereotypes compared to reading times on target sentences that contained information that was consistent with stereotypes.

This suggests that stereotypical knowledge became available for protagonists described in text and affected comprehension on inconsistent target sentences. It is possible that, while reading descriptions about the protagonists, activated stereotypical knowledge was used to draw inferences about subsequent text. It is well established in the area of reading comprehension that activated general world knowledge is used to make inferences about what will happen next in text. Comprehension was disrupted when target sentences contained information inconsistent with these inferences.

The goal of Experiment 4 was to test further how knowledge for general stereotypes are incorporated into memory for text. In Experiment 4, a qualification sentence was added to the elaboration section of the passages written for Experiment 3. This qualification served to explain why the protagonist would behave in a manner that is
inconsistent with stereotypes. With this additional information added, the slow down on reading time experienced on target sentences for the inconsistent condition in Experiment 3 was eliminated. Reading times for inconsistent target sentences following passages in the qualified condition were similar to reading times for target sentences following passages in the consistent condition.

The results of the qualified conditions in Experiments 2 and 4 demonstrated that activation of stereotypical knowledge can be lessened over time. When readers encountered information that explained a behavior, activation of stereotypical knowledge decreased. This occurred because other information (i.e., episodic information) competed with stereotypical knowledge and, because the stereotypical information was less relevant to the immediate context, it did not get activated. This dampening of activation of stereotypical knowledge in text can be generalized to the activation of stereotypes in our social worlds. Repeated exposure to inconsistent information that runs counter to a stereotype will result in a change in knowledge structure such that the stereotype information becomes increasingly less active. The result of this is that the original stereotype is no longer appropriate.

In this dissertation I have demonstrated activation of stereotypical knowledge using a direct implicit task. Examining the subtle influences of stereotypical knowledge on reading comprehension is beneficial because the reading process is not at all modified by social desirability; in fact, reading processes do not require readers to give any explicit response. Measuring reading time eliminates problems associated with implicit tasks that would require a response. Tasks that require a response may lead to problems with social desirability; this is especially true with explicit tasks.
Stereotypical knowledge operates like other general knowledge structures; however, it may be possible to apply a special status to this information. One unique feature of stereotypical general knowledge that separates it from other general knowledge is that it is used to describe people. The cognitive processes that govern stereotype formation as a knowledge structure are no different than other knowledge structures (e.g., categories used to generalize objects), however, because stereotypes are applied to people, the content of stereotypical knowledge structures may differ. Schneider (2004) suggested that stereotypical generalizations are more complex than other categorical information because people are inherently more complex than objects. Schneider (1996) noted that differences may occur because people are less predictable than objects and less stable over time. Additionally, there are social consequences to stereotypical knowledge because using them can result in bias and prejudice.

Although stereotypes can be positive or negative, generally, stereotypical knowledge describes extreme negative characteristics of a group. The influence of such extremes on behavior and beliefs can be very negative. Schneider (2004) suggested that negative traits are more extreme and may be seen as more diagnostic, or they may be less common and thus provide more information. However, it is also possible for stereotypes to contain information for positive associations of a group. For example, people do not seem to mind when they are told that wearing glasses is a feature of intelligence or having blond hair makes them somehow more attractive. However, these same people may not be too happy when these traits are used to label them as a nerd or a dumb blond.

The role of affect in stereotyping has been tested in social and cognitive psychology. A question I am interested in answering is whether negativity is an
important aspect of stereotypical knowledge; that is, I want to explore whether or not negative generalizations involve different cognitive processes than positive generalizations. To test this, I intend on writing passages that describe protagonists using features associated with stereotypes (e.g., glasses, blond hair, athletic) and elaborate upon either a positive feature or a negative feature of that stereotype. Using the inconsistency paradigm, I hope to examine differences in knowledge activation between positive and negative stereotypes.

In this dissertation I have demonstrated activation of stereotypical knowledge for gender and general stereotypes. I purposefully avoided testing stereotypes for race and culture because these stereotypes, when applied to behavior and beliefs, seem to have bigger social consequences; that is, the influence of certain stereotypes on behavior in our social worlds has a greater impact (e.g., prejudice and discrimination). Now that I have achieved my goal of activating stereotypical knowledge, in future studies I will test activation of stereotypical knowledge for race and culture using the inconsistency paradigm. I hope to demonstrate whether or not activation of stereotypical knowledge for more “extreme stereotypes” involves different cognitive processes.
LIST OF REFERENCES


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APPENDIX A

The passages used in Experiment 1 and 2 are presented in this Appendix. The passages were exactly the same for each experiment except where it is noted, "Qualification." Qualification sentences were used in Experiment 2 Only. Each participant only saw one of the versions (four possible versions in Experiment 1 and six possible versions in Experiment 2) of each passage.
Introduction
John had received a letter in the mail notifying him that he had lost the Texas State Achievement in Math Competition. He had wanted to win and was unhappy with the results. He had been the best student in his math class last year and he spent a good deal of the semester studying for the contest. Losing really hurt his self-esteem and he decided that he should try to cheer himself up.

Consistent Elaboration
To make himself feel better he ate ice cream, yelled at his brother, took a long nap, and watched The Dukes of Hazard. After that, his mom asked him to go to the grocery store to pick up some things for lunch tomorrow.

Inconsistent Elaboration
To make himself feel better he ate ice cream, yelled at his brother, took a long nap, and watched The Princess Bride. After that, his mom asked him to go to the grocery store to pick up some things for lunch tomorrow.
Qualification: John had a crush on the young princess and enjoyed watching this movie.

Background
His mother had given him a list of items to buy at the store. John efficiently made his way through the aisles of the store. As John approached the checkout to pay for his groceries, he said hello to a friend he knew from school. When John went home his mom asked about his day.

Consistent Target Sentence 1
He told her about watching The Dukes of Hazard.

Inconsistent Target Sentence 1
He told her about watching The Princess Bride.

Target Sentence 2
His mom asked John to help with the groceries.

Closing
As they put away the groceries they talked to each other about their plans for tomorrow.

Comprehension Question
Did Joan's mom go to the grocery store?
Introduction
Joan had received a letter in the mail notifying her that she had lost the Texas State Achievement in Math Competition. She had wanted to win and was unhappy with the results. She had been the best student in her math class last year and she spent a good deal of the semester studying for the contest. Losing really hurt her self-esteem and she decided that she should try to cheer herself up.

Consistent Elaboration
To make herself feel better she ate ice cream, yelled at her brother, took a long nap, and watched The Princess Bride. After that, her mom asked her to go to the grocery store to pick up some things for lunch tomorrow.

Inconsistent Elaboration
To make herself feel better she ate ice cream, yelled at her brother, took a long nap, and watched The Dukes of Hazard. After that, her mom asked her to go to the grocery store to pick up some things for lunch tomorrow.

Qualification: Emily's parents taught her to fish and she enjoyed going whenever she had the chance.

Background
Her mother had given her a list of items to buy at the store. Joan efficiently made her way through the aisles of the store. As Joan approached the checkout to pay for her groceries, she said hello to a friend she knew from school.

Reinstatement Sentence
When Joan went home her mom asked about her day.

Consistent Target Sentence 1
She told her about watching The Princess Bride.

Inconsistent Target Sentence 1
She told her about watching The Dukes of Hazard.

Target Sentence 2
Her mom asked Joan to help with the groceries.

Closing
As they put away the groceries they talked to each other about their plans for tomorrow.

Comprehension Question
Did Joan's mom go to the grocery store?
Introduction
Emily was looking forward to the weekend but first she had to get through one last day at work. She had planned to go camping up north with some friends from the office. Today work was packed full of meetings and projects that she had to complete. She was finishing up last minute details on a sales report when her boss walked by and told her that she could go home early.

Consistent Elaboration
As soon as Emily arrived home she packed up her tent, made sandwiches to take for her friends, rolled up her sleeping bag, and grabbed her cosmetic case. Soon after, she loaded up the car and went to the gas station.

Inconsistent Elaboration
As soon as Emily arrived home she packed up her tent, made sandwiches to take for her friends, rolled up her sleeping bag, and grabbed her fishing pole. Soon after, she loaded up the car and went to the gas station.
Qualification: Emily's parents taught her to fish and she enjoyed going whenever she had the chance.

Background
After Emily pumped the gas, she went inside to pick up a few things. She grabbed a candy bar and soda and also thought that it was a good idea to pick up a detailed map. She said hello to the clerk and paid for her purchases.
Reinstatement Sentence
The clerk asked Emily if she was going camping.

Consistent Target Sentence 1
Emily told her that she packed a cosmetic case.

Inconsistent Target Sentence 1
Emily told her that she packed a fishing pole.

Target Sentence 2
The clerk smiled and wished Emily safe travels.

Closing
Emily hurried to the car so she could beat the rush hour of traffic.

Comprehension Question
Did Emily's boss let her go home early?
Introduction
Henry was looking forward to the weekend but first he had to get through one last day at work. He had planned to go camping up north with some friends from the office. Today work was packed full of meetings and projects that he had to complete. He was finishing up last minute details on a sales report when his boss walked by and told him that he could go home early.

Consistent Elaboration
As soon as Henry arrived home he packed up his tent, made sandwiches to take for his friends, rolled up his sleeping bag, and grabbed his fishing pole. Soon after, he loaded up the car and went to the gas station.

Inconsistent Elaboration
As soon as Henry arrived home he packed up his tent, made sandwiches to take for his friends, rolled up his sleeping bag, and grabbed his cosmetic case. Soon after, he loaded up the car and went to the gas station.
Qualification: Henry got the cosmetic case from his parents and used it to carry his toothbrush and shaver.

Background
After Henry pumped the gas, he went inside to pick up a few things. He grabbed a candy bar and soda and also thought that it was a good idea to pick up a detailed map. He said hello to the clerk and paid for his purchases.
Reinstatement Sentence
The clerk asked Henry if he was going camping.

Consistent Target Sentence 1
Henry told her that he packed a fishing pole.

Inconsistent Target Sentence 1
Henry told her that he packed a cosmetic case.

Target Sentence 2
The clerk smiled and wished Henry safe travels.

Closing
Henry hurried to the car so he could beat the rush hour of traffic.

Comprehension Question
Did Henry's boss let him go home early?
Introduction
Will was recently honored by his high school graduating class as most athletic student and was going to receive an award. Ever since he was a child he was encouraged to play sports and activities outside. His parents both excelled in sports when they were younger and participated in various sporting activities with their son. Will seemed to be born to play sports because he had excellent hand-eye coordination and motor skills.

Consistent Elaboration
Will was a member of the basketball, tennis, and volleyball teams but he was especially known for his performance on the wrestling team. Tonight he was going to his high school athletic awards banquet and there was a good chance he would receive more recognition.

Inconsistent Elaboration
Will was a member of the basketball, tennis, and volleyball teams but he was especially known for his performance on the cheerleading team. Tonight he was going to his high school athletic awards banquet and there was a good chance he would receive more recognition.

Qualification: Will's parents thought that participating on the cheerleading team would improve his overall flexibility.

Background
Will arrived at the banquet and decided to sit with a group of close friends and their parents. Will's parents were unable to attend because they were out of town on business. He was happy though because he got to sit next to his best friend's father.

Reinstatement Sentence
The father asked which sport he enjoyed most.

Consistent Target Sentence 1
Will told him about his time spent wrestling.

Inconsistent Target Sentence 1
Will told him about his time spent cheerleading.

Target Sentence 2
Will mentioned that he would miss high school.

Closing
Will asked his friend's father if he planned to come to his graduation party.

Comprehension Question
Were Will's parents good at sports?
Introduction
Jill was recently honored by her high school graduating class as most athletic student and was going to receive an award. Ever since she was a child she was encouraged to play sports and activities outside. Her parents both excelled in sports when they were younger and participated in various sporting activities with their daughter. Jill seemed to be born to play sports because she had excellent hand-eye coordination and motor skills.

Consistent Elaboration
Jill was a member of the basketball, tennis, and volleyball teams but she was especially known for her performance on the cheerleading team. Tonight she was going to her high school athletic awards banquet and there was a good chance she would receive more recognition.

Inconsistent Elaboration
Jill was a member of the basketball, tennis, and volleyball teams but she was especially known for her performance on the wrestling team. Tonight she was going to her high school athletic awards banquet and there was a good chance she would receive more recognition.

Qualification: Jill's parents thought that participating on the wrestling team would improve her overall strength.

Background
Jill arrived at the banquet and decided to sit with a group of close friends and their parents. Jill's parents were unable to attend because they were out of town on business. She was happy though because she got to sit next to her best friend's father.

Reinstatement Sentence
The father asked which sport she enjoyed most.

Consistent Target Sentence 1
Jill talked about her time spent cheerleading.

Inconsistent Target Sentence 1
Jill told him about her time spent wrestling.

Target Sentence 2
Jill mentioned that she would miss high school.

Closing
Jill asked his friend's father if he planned to come to her graduation party.

Comprehension Question
Were Jill's parents good at sports?
Introduction
Megan was having financial problems and had recently put her house up for sale. She had considered moving closer to her family for quite some time now and felt even more compelled to move when she learned that her mother was ill. Her house was in good shape aside from a few small repairs. Megan had devised a time line in order to fix things before the realtor showed the house.

Consistent Elaboration
Megan would first repaint the walls, clean the carpets, and landscape the lawn but most importantly she wanted to hang new curtains in the rooms. She knew that completing these tasks would improve the house's appearance and make it more marketable.

Inconsistent Elaboration
Megan would first repaint the walls, clean the carpets, and landscape the lawn but most importantly she wanted to repair holes in the roof. She knew that completing these tasks would improve the house's appearance and make it more marketable.

Qualification: Megan's grandparents were roofers and taught her how to make small repairs on her own.

Background
Megan gave herself an entire week to finish all of the repairs. She had asked her boss in advance for the week off from work so she would be free from distraction. Megan worked long hours but when Sunday came she was actually able to relax.

Reinstatement Sentence
The realtor called and asked about the house.

Consistent Target Sentence 1
Megan talked to her about hanging the curtains.

Inconsistent Target Sentence 1
Megan talked to her about repairing the roof.

Target Sentence 2
The realtor made plans to reevaluate the house.

Closing
They set up one last appointment before the house would go on the market.

Comprehension Question
Did Megan recently come into extra money?
Introduction
Gavin was having financial problems and had recently put his house up for sale. He had considered moving closer to his family for quite some time now and felt even more compelled to move when he learned that his mother was ill. His house was in good shape aside from a few small repairs. Gavin had devised a time line in order to fix things before the realtor showed the house.

Consistent Elaboration
Gavin would first repaint the walls, clean the carpets, and landscape the lawn but most importantly he wanted to repair holes in the roof. He knew that completing these tasks would improve the house's appearance and make it more marketable.

Inconsistent Elaboration
Gavin would first repaint the walls, clean the carpets, and landscape the lawn but most importantly he wanted to repair holes in the roof/hang new curtains in the rooms. He knew that completing these tasks would improve the house's appearance and make it more marketable.
Qualification: Gavin's grandparents owned a sewing shop and taught him to appreciate beautiful curtains.

Background
Gavin gave himself an entire week to finish all of the repairs. He had asked his boss in advance for the week off from work so he would be free from distraction. Gavin worked long hours but when Sunday came he was actually able to relax.

Reinstatement Sentence
The realtor called and asked about the house.

Consistent Target Sentence 1
Gavin talked to her about repairing the roof.

Inconsistent Target Sentence 1
Gavin talked to her about hanging the curtains.

Target Sentence 2
The realtor made plans to reevaluate the house.

Closing
They set up one last appointment before the house would go on the market.

Comprehension Question
Did Gavin recently come into extra money?
Introduction
Jeff was in his sophomore year of high school and would soon start thinking about where he would want to go to college. While he liked many subjects in school, he knew very little about what he wanted to study in college. Jeff heard that his school was having a college resource fair. He thought that attending would be the perfect opportunity to learn more about a potential college major.

Consistent Elaboration
At the fair, Jeff picked up information on programs in history, biology, and exercise science but he was especially interested in the engineering program. There were school representatives at the fair from several regional colleges who were looking to recruit students for their programs.

Inconsistent Elaboration
At the fair, Jeff picked up information on programs in history, biology, and exercise science but he was especially interested in the nursing program. There were school representatives at the fair from several regional colleges who were looking to recruit students for their programs.

Qualification: Jeff could become a nursing major to build upon skills he learned in emergency medical training.

Background
Jeff found the brochures from many of the schools very helpful. However, he thought that it was most useful to talk to student representatives about their experiences in a specific area of study. Jeff was pleased that his high school was so helpful in the college search.

Reinstatement Sentence
hat night, his parents asked him about school.

Consistent Target Sentence 1
He talked to them about an engineering program.

Inconsistent Target Sentence 1
He told his parents about the nursing program.

Target Sentence 2
They suggested visiting the schools Jeff liked.

Closing
Jeff put together a list of all of the schools that he wanted to visit.

Comprehension Question
Was Jeff enrolled in his first year of college?
**Introduction**
Jenn was in her sophomore year of high school and would soon start thinking about where she would want to go to college. While she liked many subjects in school, she knew very little about what she wanted to study in college. Jenn heard that her school was having a college resource fair. She thought that attending would be the perfect opportunity to learn more about a potential college major.

**Consistent Elaboration**
At the fair, Jenn picked up information on programs in history, biology, and exercise science but she was especially interested in the nursing program. There were school representatives at the fair from several regional colleges who were looking to recruit students for their programs.

**Inconsistent Elaboration**
At the fair, Jenn picked up information on programs in history, biology, and exercise science but she was especially interested in the engineering program. There were school representatives at the fair from several regional colleges who were looking to recruit students for their programs.

**Qualification**: Jenn could become an engineering major to develop her fascination for how things are put together.

**Background**
Jenn found the brochures from many of the schools very helpful. However, she thought that it was most useful to talk to student representatives about their experiences in a specific area of study. Jenn was pleased that her high school was so helpful in the college search.

**Reinstatement Sentence**
That night, her parents asked her about school.

**Consistent Target Sentence 1**
She told her parents about the nursing program.

**Inconsistent Target Sentence 2**
She told them all about an engineering program.

**Target Sentence 2**
They suggested visiting the schools Jenn liked.

**Closing**
Jenn put together a list of all of the schools that she wanted to visit.

**Comprehension Question**
Was Jenn enrolled in her first year of college?
Introduction
It was a hot and humid Monday afternoon and Jane was stuck in school. She was easily distracted these days by the thought of summer vacation. Jane knew that her teacher was going over important equations for her math final but she couldn't help but day-dream out the window. As she looked out into the playground and the school yard she was reminded of going to summer camp last year.

Consistent Elaboration
Jane grew overly excited as she thought of the time she spent at summer camp learning how to swim and paint, playing kickball games, and making bead bracelets. She was also happy that she would be able to reunite with all of her camp friends.

Inconsistent Elaboration
Jane grew overly excited as she thought of the time she spent at summer camp learning how to swim and paint, playing kickball games, and building birdhouses. She was also happy that she would be able to reunite with all of her camp friends.

Background
Suddenly, Jane's attention was diverted to a squirrel walking on the window ledge. This startled her and she quickly turned her head back to the front of the classroom. Her teacher noticed that Jane wasn't paying attention and came over to her desk to see what was wrong. 
Reinstatement Sentence
The teacher asked Jane if she was day-dreaming.

Consistent Target Sentence 1
Jane told her about making the bead bracelets.

Inconsistent Target Sentence 1
Jane told her about building the bird houses.

Target Sentence 2
The teacher told Jane to try to pay attention.

Closing
Jane asked if she could stay after class to see what information she missed.

Comprehension Question
Was the teacher preparing for a math test?
Introduction
It was a hot and humid Monday afternoon and Mike was stuck in school. He was easily distracted these days by the thought of summer vacation. Mike knew that his teacher was going over important equations for his math final but he couldn't help but day-dream out the window. As he looked out into the play ground and the school yard he was reminded of going to summer camp last year.

Consistent Elaboration
Mike grew overly excited as he thought of the time he spent at summer camp learning how to swim and paint, playing kickball games, and building birdhouses. He was also happy that he would be able to reunite with all of his camp friends.

Inconsistent Elaboration
Mike grew overly excited as he thought of the time he spent at summer camp learning how to swim and paint, playing kickball games, and making bead bracelets. He was also happy that he would be able to reunite with all of his camp friends.

Background
Suddenly, Mike's attention was diverted to a squirrel walking on the window ledge. This startled him and he quickly turned his head back to the front of the classroom. His teacher noticed that Mike wasn't paying attention and came over to his desk to see what was wrong.

Reinstatement Sentence
The teacher asked Mike if he was day-dreaming.

Consistent Target Sentence 1
Mike told her about building the bird houses.

Inconsistent Target Sentence 1
Mike told her about making the bead bracelets.

Target Sentence 2
The teacher told Mike to try to pay attention.

Closing
Mike asked if he could stay after class to see what information he missed.

Comprehension Question
Was the teacher preparing for a math test?
Introduction
Ron and Kathy had recently married and moved into their first new home. Kathy was very neat and tidy and was used to cleaning the house on a weekly basis. Kathy knew that Ron was not a neat freak by far and in fact was less concerned with the appearance of his home. Ron was trying to compensate for his previous behavior and decided to help out around the house.

Consistent Elaboration
Ron woke up early on Saturday morning to vacuum, wash dishes, organize the office, and to mow the lawn. Later that afternoon, Ron decided to take a break so he sat down and enjoyed a glass of fresh lemonade as a reward for his accomplishments.

Inconsistent Elaboration
Ron woke up early on Saturday morning to vacuum, wash dishes, organize the office, and to polish the silver. Later that afternoon, Ron decided to take a break so he sat down and enjoyed a glass of fresh lemonade as a reward for his accomplishments.

Qualification: Ron's parents gave him an expensive t-set and he took pride in polishing it.

Background
In the mean time, Kathy had taken the entire morning to run some errands and go to the grocery store. Kathy had a long shopping list because they were planning on having a family picnic the next day. When Kathy arrived home she saw Ron sitting in the yard.

Reinstatement Sentence
She asked him what he had been doing all day.

Consistent Target 1
Ron talked to her about how he mowed the lawn.

Inconsistent Target 1
Ron talked to her about polishing the silver.

Target Sentence 2
Kathy was grateful for all of Ron's hard work.

Closing
Ron suggested that Kathy join him in the back yard to rest and relax.

Comprehension Question
Were Ron and Kathy celebrating an anniversary?
Introduction
Bev and Peter had recently married and moved into their first new home. Peter was very neat and tidy and was used to cleaning the house on a weekly basis. Peter knew that Bev was not a neat freak by far and in fact was less concerned with the appearance of her home. Bev was trying to compensate for her previous behavior and decided to help out around the house.

Consistent Elaboration
Bev woke up early on Saturday morning to vacuum, wash dishes, organize the office, and to polish the silver. Later that afternoon, Bev decided to take a break so she sat down and enjoyed a glass of fresh lemonade as a reward for her accomplishments.

Inconsistent Elaboration
Bev woke up early on Saturday morning to vacuum, wash dishes, organize the office, and to mow the lawn. Later that afternoon, Bev decided to take a break so she sat down and enjoyed a glass of fresh lemonade as a reward for her accomplishments.
Qualification: Bev liked mowing because she was able to enjoy the outdoors and get some exercise

Background
In the mean time, Peter had taken the entire morning to run some errands and go to the grocery store. Peter had a long shopping list because they were planning on having a family picnic the next day. When Peter arrived home he saw Bev sitting in the yard.
Reinstatement Sentence
He asked her what she had been doing all day.

Consistent Target Sentence 1
Bev talked to him about polishing the silver.

Inconsistent Target Sentence 1
Bev talked to him about how she mowed the lawn.

Target Sentence 2
Peter was grateful for all of Bev's hard work.

Closing
Bev suggested that Peter join her in the back yard to rest and relax.

Comprehension Question
Were Peter and Bev celebrating an anniversary?
Introduction
Ever since Bridget was a young girl she had spent her summer vacations on her grandmother's farm. Even though she was all grown up now and in college she still looked forward to her summer trips. Bridget had just finished her last exam and started preparing to make the drive out to her grandmothers. After she finished packing she made sure to say goodbye to all her friends for the summer.

Consistent Elaboration
After she started her trip, Bridget thought of how much she would look forward to sitting with her grandma on the porch, taking long walks, gardening, and baking cupcakes. Bridget was glad that she wasn't in a hurry because of all the traffic.

Inconsistent Elaboration
After she started her trip, Bridget thought of how much she would look forward to sitting with her grandma on the porch, taking long walks, gardening, and riding the tractor. Bridget was glad that she wasn't in a hurry because of all the traffic.
Qualification: Bridget loved exploring the farm on the tractor and rode it since she was young.

Background
Bridget typically got very frustrated sitting in a traffic jam. Today it didn't seem to bother her because now that exams were over she was under less stress. After a few hours of driving, Bridget decided that she should call her grandmother to tell her that she would be late.

Reinstatement Sentence
She asked what Bridget was looking forward to.

Consistent Target Sentence 1
Bridget reminded her about baking the cupcakes.

Inconsistent Target Sentence 1
Bridget reminded her about riding the tractor.

Target Sentence 2
Her grandma laughed at all of their memories.

Closing
She told Bridget that she was cooking dinner and they could eat together when she arrived.

Comprehension Question
Was Bridget visiting her uncle's farm?
Introduction
Ever since Matthew was a young boy he had spent his summer vacations on his grandmother's farm. Even though he was all grown up now and in college he still looked forward to his summer trips. Matthew had just finished his last exam and started preparing to make the drive out to his grandmothers. After he finished packing he made sure to say goodbye to all his friends for the summer.

Consistent Elaboration
After he started his trip, Matthew thought of how much he would look forward to sitting with his grandma on the porch, taking long walks, gardening, and riding the tractor. Matthew was glad that he wasn't in a hurry because of all the traffic.

Inconsistent Elaboration
After he started his trip, Matthew thought of how much he would look forward to sitting with his grandma on the porch, taking long walks, gardening, and baking cupcakes. Matthew was glad that he wasn't in a hurry because of all the traffic.

Qualification: Matthew's grandparents taught him to bake and he had been doing it since he was a child.

Background
Matthew typically got very frustrated sitting in a traffic jam. Today it didn't seem to bother him because now that exams were over he was under less stress. After a few hours of driving, Matthew decided that he should call his grandmother to tell her that he would be late.

Reinstatement Sentence
She asked Matthew what he was looking forward to.

Consistent Target Sentence 1
Matthew reminded her about riding the tractor.

Inconsistent Target Sentence 1
Matthew reminded her about baking the cupcakes.

Target Sentence 2
His grandma laughed at all of their memories.

Closing
She told Matthew that she was cooking dinner and they could eat dinner together when he arrived.

Comprehension Question
Was Matthew visiting his uncle's farm?
**Introduction**
Although Chris did not have a formal education, because he read a lot, he believed that he was able to learn a lot about many different subjects. Chris only had a part time job so he had a lot of spare time. Instead of going out on nights and weekends, Chris spent most of his extra time reading books at the public library. It was not uncommon for Chris to read ten books each week.

**Consistent Elaboration**
Chris most often checked out nonfiction books, science fiction, and biographies, but he especially liked books on famous battles. Today he was returning several books that he took out over the weekend and he hoped to find some new books to read during the week.

**Inconsistent Elaboration**
Chris most often checked out nonfiction books, science fiction, and biographies, but he especially liked romance novels. Today he was returning several books that he took out over the weekend and he hoped to find some new books to read during the week.

**Qualification:** Chris thought that he could learn more about women and relationships by reading romance novels.

**Background**
On the way to the library, Chris ran into his old high school friend David. It had been a whole year since they had seen each other, so they spent a few minutes catching up. David saw that Chris was carrying a small box and asked what was in it.

**Reinstatement Sentence**
Chris showed him inside the box of books.

**Consistent Target Sentence 1**
He told him about reading books about battles.

**Inconsistent Target Sentence 1**
He told him about reading the romance novels.

**Target Sentence 2**
Chris asked David if he wanted to grab lunch.

**Closing**
They decided to stop by a new restaurant that supposedly had great burgers and fries.

**Comprehension Question**
Did Chris read about ten books a week?
Introduction
Although Staci did not have a formal education, because she read a lot, she believed that she was able to learn a lot about many different subjects. Staci only had a part time job so she had a lot of spare time. Instead of going out on nights and weekends, Staci spent most of her extra time reading books at the public library. It was not uncommon for Staci to read ten books each week.

Consistent Elaboration
Staci most often checked out nonfiction books, science fiction, and biographies, but she especially liked romance novels. Today she was returning several books that she took out over the weekend and she hoped to find some new books to read during the week.

Inconsistent Elaboration
Staci most often checked out nonfiction books, science fiction, and biographies, but she especially liked books on famous battles. Today she was returning several books that she took out over the weekend and she hoped to find some new books to read during the week.

Qualification: Staci read battle books to learn about US history because her friends were civil war buffs.

Background
On the way to the library, Staci ran into her old high school friend David. It had been a whole year since they had seen each other, so they spent a few minutes catching up. David saw that Staci was carrying a small box and asked what was in it.

Reinstatement Sentence
Staci showed her inside the box of books.

Consistent Target Sentence 1
She told him about reading the romance novels.

Inconsistent Target Sentence 1
She told him about reading books about battles.

Target Sentence 2
Staci asked David if he wanted to grab lunch.

Closing
They decided to stop by a new restaurant that supposedly had great burgers and fries.

Comprehension Question
Did Staci read about 10 books a week?
Introduction
Heather was a first-year student at a large state university and she was living far away from home. She knew how important it was to make friends during her first year so she was interested in getting involved in extra curricular activities. During the first two weeks of school many organizations set up tables in the campus center. Heather talked to student representatives and decided to sign up for several different groups.

Consistent Elaboration
Heather attended introductory meetings for a volunteer service organization, adventure club, student government, and the ice skating club. She already knew her strategy was a success because she got to talk to several students and made some new friends at the meetings.

Inconsistent Elaboration
Heather attended introductory meetings for a volunteer service organization, adventure club, student government, and the archery club. She already knew her strategy was a success because she got to talk to several students and made some new friends at the meetings.

Qualification: Heather's parents told her that archery would improve her concentration and teach patience.

Background
Heather's roommate was very shy and unlike Heather she felt reluctant to join any organizations. She was not the type of person that could go up to someone new and start a conversation. One night she decided to ask Heather if she could join her at one of the organizational meetings.

Reinstatement Sentence
Heather was about to leave to attend a meeting.

Consistent Target Sentence 1
Heather asked her to come to ice skating club.

Inconsistent Target Sentence 1
Heather asked her to come to the archery club.

Target Sentence 2
Her roommate agreed that this was a great idea.

Closing
Heather thought that spending some time with her roommate would bring them closer together.

Comprehension Question
Was Heather attending a large state university?
Introduction
Patrick was a first-year student at a large state university and he was living far away from home. He knew how important it was to make friends during his first year so he was interested in getting involved in extra curricular activities. During the first two weeks of school many organizations set up tables in the campus center. Patrick talked to student representatives and decided to sign up for several different groups.

Consistent Elaboration
Patrick attended introductory meetings for a volunteer service organization, adventure club, student government, and the archery club/ice skating club. He already knew his strategy was a success because he got to talk to several students and made some new friends at the meetings.

Inconsistent Elaboration
Patrick attended introductory meetings for a volunteer service organization, adventure club, student government, and the ice skating club. He already knew his strategy was a success because he got to talk to several students and made some new friends at the meetings.

Qualification: Patrick thought that developing ice skating skills would improve his chances of making the hockey team.

Background
Patrick’s roommate was very shy and unlike Patrick he felt reluctant to join any organizations. He was not the type of person that could go up to someone new and start a conversation. One night he decided to ask Patrick if he could join him at one of the organizational meetings.

Reinstatement Sentence
Patrick was about to leave to attend a meeting.

Consistent Target Sentence 1
Patrick asked him to come to ice skating club.

Inconsistent Target Sentence 1
Patrick asked him to come to the archery club.

Target Sentence 2
His roommate agreed that this was a great idea.

Closing
Patrick thought that spending some time with his roommate would bring them closer together.

Comprehension Sentence
Was Patrick attending a large state university?
Introduction
Jared was upset because his parents were going out for the evening. This meant that his older brother Tim would be in charge of taking care of him. Jared didn't like being bossed around and Tim always made him do what he wanted. Before their parents left for the night, they told them not to stay up late and asked Tim to be sure to pay attention to his brother.

Consistent Elaboration
Tim told Jared that they would go outside to play Frisbee and tag and then they would come inside to play monopoly and watch wrestle mania. Jared was a bit frustrated by this but glad that his brother had included him in some activities.

Inconsistent Elaboration
Tim told Jared that they would go outside to play Frisbee and tag and then they would come inside to play monopoly and watch the dating game. Jared was a bit frustrated by this but glad that his brother had included him in some activities.

Qualification: Jared liked looking at all of the cute girls that were contestants on the dating game.

Background
Meanwhile, their parents had decided to go out to dinner and see a movie. It had been a few weeks since they had some alone time away from their children. They arrived home shortly after midnight only to find their two children watching T.V. together on the couch.

Reinstatement Sentence
They asked Jared what he did with his brother.

Consistent Target Sentence 1
Jared talked to them about watching wrestling.

Inconsistent Target Sentence 1
Jared told them about watching the dating game.

Target Sentence 2
Their parents said that they better get to bed.

Closing
Jared and Tim were too tired to put up a fight and they went to bed.

Comprehension Question
Were Jared's parents going to a funeral?
Introduction
Karen was upset because her parents were going out for the evening. This meant that her
ger sister Peg would be in charge of taking care of her. Karen didn't like being bossed
around and Peg always made her do what she wanted. Before their parents left for the
night, they told them not to stay up late and asked Peg to be sure to pay attention to her
sister.

Consistent Elaboration
Peg told Karen that they would go outside to play Frisbee and tag and then they would
come inside to play monopoly and watch the dating game. Karen was a bit frustrated by
this but glad that her sister had included her in some activities.

Inconsistent Elaboration
Peg told Karen that they would go outside to play Frisbee and tag and then they would
come inside to play monopoly and watch wrestle mania. Karen was a bit frustrated by
this but glad that her sister had included her in some activities.

Qualification: Karen liked looking at the physiques of all the athletes on wrestle mania.

Background
Meanwhile, their parents had decided to go out to dinner and see a movie. It had been a
few weeks since they had some alone time away from their children. They arrived home
shortly after midnight only to find their two children watching TV together on the couch.

Reinstatement Sentence
They asked Karen what she did with her sister.

Consistent Target Sentence 1
Karen told them about watching the dating game.

Inconsistent Target Sentence 1
Karen talked to them about watching wrestling.

Target Sentence 2
Their parents said that they better get to bed.

Closing
Karen and Peg were too tired to put up a fight and went to bed.

Comprehension Question
Were Karen's parents going to a funeral?
Introduction
Nick had just finished up a long day of working in the hot sun. He recently started a job installing swimming pools and wasn't used to how exhausting outside work could be. Nick thought that he would rent several videos at the store and then watch them in the comfort of his air-conditioned living room. He couldn't think of a better way to relax then to watch T.V. all night.

Consistent Elaboration
Nick walked up and down the aisles of the video store to find a few videos and selected Happy Gilmore, Scream, Austin Powers, and The Godfather. As he approached the counter he grabbed some candy and popcorn to enjoy at home.

Inconsistent Elaboration
Nick walked up and down the aisles of the video store to find a few videos and selected Happy Gilmore, Scream, Austin Powers, and Dirty Dancing. As he approached the counter he grabbed some candy and popcorn to enjoy at home.

Qualification: Nick wanted to impress his friends by learning the dance moves that were showcased in Dirty Dancing.

Background
Nick got into his car and saw his friend Steve pulling into the parking lot. Steve got out of the car and came over to Nick's window to say hello. Nick explained that he was going home to relax and asked Steve if he would like to come over to visit.

Reinstatement Sentence
Steve asked if the store had any good movies.

Consistent Target Sentence 1
Nick talked to him about renting The Godfather.

Inconsistent Target Sentence 1
Nick talked to him about renting Dirty Dancing.

Target Sentence 2
Steve said that he would get soda and popcorn.

Closing
They were really hungry so they also ordered pizza to enjoy while watching the movies.

Comprehension Question
Did Nick work in the landscaping business?
Introduction
Jess had just finished up a long day of working in the hot sun. She recently started a job installing swimming pools and wasn't used to how exhausting outside work could be. Jess thought that she would rent several videos at the store and then watch them in the comfort of her air-conditioned living room. She couldn't think of a better way to relax then to watch T.V. all night.

Consistent Elaboration
Jess walked up and down the aisles of the video store to find a few videos and selected Happy Gilmore, Scream, Austin Powers, and Dirty Dancing. As she approached the counter she grabbed some candy and popcorn to enjoy at home.

Inconsistent Elaboration
Jess walked up and down the aisles of the video store to find a few videos and selected Happy Gilmore, Scream, Austin Powers, and The Godfather. As she approached the counter she grabbed some candy and popcorn to enjoy at home.
Qualification: Jess rented The Godfather because it was the second most popular movie of all time.

Background
Jess got into her car and saw her friend Steve pulling into the parking lot. Steve got out of the car and came over to Jess's window to say hello. Jess explained that she was going home to relax and asked Steve if he would like to come over to visit.
Reinstatement Sentence
Jess asked if the store had any good movies.

Consistent Target Sentence 1
Jess talked to him about renting Dirty Dancing.

Inconsistent Target Sentence 1
Jess talked to him about renting The Godfather.

Target Sentence 2
Steve said that he would get soda and popcorn.

Closing
They were really hungry so they also ordered pizza to enjoy while watching the movies.

Comprehension Question
Did Jess work in the landscaping business?
Introduction
Kim was taking a trip to visit her brother in New York. Everything that could go wrong did as Kim's flight was delayed and the airline lost her luggage. She was not worried about her clothes, but she knew that she would have to stop at the nearest drug store to buy some personal items. Kim called her brother to tell him she had landed and that she was taking a taxi to the drug store.

Consistent Elaboration
Kim went into the store and bought deodorant, a toothbrush, toothpaste, and face moisturizer. She decided that she would have to come back tomorrow to buy other items that she needed if her luggage did not arrive at the airport by tomorrow morning.

Inconsistent Elaboration
Kim went into the store and bought deodorant, a toothbrush, toothpaste, and shaving cream. She decided that she would have to come back tomorrow to buy other items that she needed if her luggage did not arrive at the airport by tomorrow morning.

Background
Kim noticed that there was a beer and wine store in the same plaza. She thought that it would be nice to pick out a bottle of her brother's favorite wine. She purchased a nice Cabernet and then called her brother to tell him she was finally on her way.
Reinstatement Sentence
He asked her if she made it to the drug store.

Consistent Target Sentence 1
Kim told her brother about buying moisturizer.

Inconsistent Target Sentence 1
Kim told him about buying some shaving cream.

Target Sentence 2
Kim said that she would only be a few minutes.

Closing
When Kim finally arrived they decided to celebrate with a glass of the wine.

Comprehension Question
Did Kim lose her wallet at the airport?
Jim was taking a trip to visit his brother in New York. Everything that could go wrong did as Jim's flight was delayed and the airline lost his luggage. He was not worried about his clothes, but he knew that he would have to stop at the nearest drug store to buy some personal items. Jim called his brother to tell him he had landed and that he was taking a taxi to the drug store.

Jim went into the store and bought deodorant, a toothbrush, toothpaste, and shaving cream. He decided that he would have to come back tomorrow to buy other items that he needed if his luggage did not arrive at the airport by tomorrow morning.

Jim noticed that there was a beer and wine store in the same plaza. He thought that it would be nice to pick out a bottle of his brother's favorite wine. He purchased a nice Cabernet and then called his brother to tell him he was finally on his way.

He asked her if she made it to the drug store.

Jim told him about buying some shaving cream.

Jim told his brother about buying moisturizer.

Jim said that he would only be a few minutes.

When Jim finally arrived they decided to celebrate with a glass of the wine.

Did Jim loose his wallet at the airport?
Introduction
Ian grew up in a very musical family. His father was a jazz musician and his mother was a back-up singer in a gospel group and they all sang on Sundays in the church choir. After this summer, Ian would be entering middle-school and he was encouraged by his parents to pick an instrument to play in the band. They made an appointment for Ian to meet with the conductor to discuss his musical interests.

Consistent Elaboration
The conductor showed Ian several instruments and asked him to play a few notes on a saxophone, trombone, clarinet and tuba. The conductor told Ian that he should sign up for summer lessons to get started once he decided on an instrument.

Inconsistent Elaboration
The conductor showed Ian several instruments and asked him to play a few notes on a saxophone, trombone, clarinet and piccolo. The conductor told Ian that he should sign up for summer lessons to get started once he decided on an instrument.

Background
While Ian was at the school he decided to take a tour. An administrative assistant offered to show him around the building and pointed out where his classes and locker would be located. After the tour Ian's parents were waiting outside the school to pick him up.

Reinstatement Sentence
They asked about his meeting with the conductor.

Consistent Target Sentence 1
Ian told them that he chose to play the tuba.

Inconsistent Target Sentence 1
Ian told them that he wanted to play piccolo.

Target Sentence 2
Ian wanted to start taking lessons right away.

Closing
Ian's parents were proud to know that he would carry on the family's musical.

Comprehension Question
Did Ian's family sing in the church choir?
Introduction
Ann grew up in a very musical family. Her father was a jazz musician and her mother was a back-up singer in a gospel group and they all sang on Sundays in the church choir. After this summer, Ann would be entering middle-school and she was encouraged by her parents to pick an instrument to play in the band. They made an appointment for Ann to meet with the conductor to discuss her musical interests.

Consistent Elaboration
The conductor showed Ann several instruments and asked her to play a few notes on a saxophone, trombone, clarinet and piccolo. The conductor told Ann that she should sign up for summer lessons to get started once she decided on an instrument.

Inconsistent Elaboration
The conductor showed Ann several instruments and asked her to play a few notes on a saxophone, trombone, clarinet and tuba. The conductor told Ann that she should sign up for summer lessons to get started once she decided on an instrument.

Background
While Ann was at the school she decided to take a tour. An administrative assistant offered to show her around the building and pointed out where her classes and locker would be located. After the tour Ann's parents were waiting outside the school to pick her up.

Reinstatement Sentence
They asked about her meeting with the conductor

Consistent Target Sentence 1
Ann told them that she wanted to play piccolo.

Inconsistent Target Sentence 1
Ann told them that she wanted to play the tuba.

Target Sentence 2
Ann wanted to start taking lessons right away.

Closing
Ann's parents were proud to know that she would carry on the family's musical.

Comprehension Question
Did Ann's family sing in the church choir?
Introduction
Martha had been working at her new office job for the past six months. She was happy to have gotten hired at such a good company immediately following her college graduation. After the first month at her job, Martha took it upon herself to volunteer for a few work committees. She was especially glad to be involved with the social committee because they were responsible for planning the office's summer picnic.

Consistent Elaboration
The committee recently had a meeting and Martha helped out by reserving a room for the meeting, taking attendance, setting up audio-visual equipment, and serving cookies. The committee decided that they were going to hold the picnic at a local water park.

Qualification: Martha wanted to try out her new accounting software program that promised 100% accuracy in balancing.

Inconsistent Elaboration
The committee recently had a meeting and Martha helped out by reserving a room for the meeting, taking attendance, setting up audio-visual equipment, and balancing the budget. The committee decided that they were going to hold the picnic at a local water park.

Background
Martha had to leave work early to pay some bills at the bank. Her mother's house was on the way so she also promised her mother that she would stop by on her way home. Martha saw her mother sitting on the porch as she pulled into the drive.

Reinstatement Sentence
She asked Martha what happened at work today.

Consistent Target Sentence 1
She told her that she served cookies at work.

Inconsistent Target Sentence 1
She talked to her about balancing the budget.

Target Sentence 2
Her mom asked her if she would stay for dinner.

Closing
Martha agreed because she wanted to tell her mom all about her new job.

Comprehension Question
Did Martha have an office job?
Introduction
Justin had been working at his new office job for the past six months. He was happy to have gotten hired at such a good company immediately following his college graduation. After the first month at his job, Justin took it upon himself to volunteer for a few work committees. He was especially glad to be involved with the social committee because they were responsible for planning the office's summer picnic.

Consistent Elaboration
The committee recently had a meeting and Justin helped out by reserving a room for the meeting, taking attendance, setting up audio-visual equipment, and balancing the budget. The committee decided that they were going to hold the picnic at a local water park.

Inconsistent Elaboration
The committee recently had a meeting and Justin helped out by reserving a room for the meeting, taking attendance, setting up audio-visual equipment, and serving cookies. The committee decided that they were going to hold the picnic at a local water park.
Qualification: Justin inherited a family recipe for delicious chocolate-chip cookies and liked to make them whenever possible

Background
Justin had to leave work early to pay some bills at the bank. His mother's house was on the way so he also promised his mother that he would stop by on his way home. Justin saw his mother sitting on the porch as he pulled into the drive.
Reinstatement Sentence
She asked Justin what happened at work today.

Consistent Target Sentence 1
He told her about balancing the budget at work.

Inconsistent Target Sentence 1
He talked to her about serving cookies at work.

Target Sentence 2
His mom asked him if he would stay for dinner.

Closing
Justin agreed because he wanted to tell his mom all about his new job.

Comprehension Question
Did Justin have an office job?
Introduction
It was Labor Day weekend and Paul was looking forward an extra day off from work. The end of summer was a busy time of the year because he started teaching again in the fall and his children also went back to school. It was a family tradition to plan a large gathering at his house to celebrate one last weekend of summer weather. Early on Monday morning Paul started preparing for the festivities.

Consistent Elaboration
Paul wanted to be sure that his home was just right so he watered the lawn, trimmed the hedges, added water to the pool, and cleaned the grill. Guests started to arrive just as he was finishing his list of tasks.

Inconsistent Elaboration
Paul wanted to be sure that his home was just right so he watered the lawn, trimmed the hedges, added water to the pool, and hung up decorations. Guests started to arrive just as he was finishing his list of tasks.

Qualification: Paul worked for a paper company and he used extra materials to make the decorations.

Background
Even with the excitement of a holiday Paul's children were difficult to wake up in the morning. This weekend Paul knew that they were exhausted because they just finished their first week of school. After being forced out of bed by the sun, the children rushed outside to find their father.

Reinstatement Sentence
They asked if they could help with the party.

Consistent Target Sentence 1
Paul told them that he had cleaned the grill.

Inconsistent Target Sentence 1
Paul told them about hanging the decorations.

Target Sentence 2
Paul was happy to have his children help him.

Closing
They all finished setting up for the party just in time for the guests to arrive.

Comprehension Question
Was Paul's family celebrating Memorial Day?
Introduction
It was Labor Day weekend and Barb was looking forward to an extra day off from work. The end of summer was a busy time of the year because she started teaching again in the fall and her children also went back to school. It was a family tradition to plan a large gathering at her house to celebrate one last weekend of summer weather. Early on Monday morning Barb started preparing for the festivities.

Consistent Elaboration
Barb wanted to be sure that her home was just right so she watered the lawn, trimmed the hedges, added water to the pool, and hung up decorations. Guests started to arrive just as she was finishing her list of tasks.

Inconsistent Elaboration
Barb wanted to be sure that her home was just right so she watered the lawn, trimmed the hedges, added water to the pool, and cleaned the grill. Guests started to arrive just as she was finishing her list of tasks.
Qualification: Barb was the only one in the family who could clean the grill without making a mess.

Background
Even with the excitement of a holiday, Barb's children were difficult to wake up in the morning. This weekend Barb knew that they were exhausted because they just finished their first week of school. After being forced out of bed by the sun, the children rushed outside to find their mother.
Reinstatement Sentence
They asked if they could help with the party.

Consistent Target Sentence 1
Barb told them about hanging the decorations.

Inconsistent Target Sentence 1
Barb told them that she had cleaned the grill.

Target Sentence 2
Barb was happy to have her children help her.

Closing
They all finished setting up for the party just in time for the guests to arrive.

Comprehension Question
Was Barb's family celebrating Memorial Day?
Introduction
Sharon and her husband were recently married and moved into a spacious new home. Since they had a lot of space, they enjoyed hosting family and friends for dinner parties. This year Sharon decided that she would offer to hold Thanksgiving dinner at her home. Sharon and her husband started to prepare the meal a day in advance so that they could have a traditional dinner with all of the fixings.

Consistent Elaboration
Sharon had many responsibilities including mashing the potatoes, cooking green bean casserole, preparing the stuffing, and baking the pies. Sharon and her husband were finished with the cooking a few hours early so they had some time to relax before the guests arrived.

Inconsistent Elaboration
Sharon had many responsibilities including mashing the potatoes, cooking green bean casserole, preparing the stuffing, and carving the turkey. Sharon and her husband were finished with the cooking a few hours early so they had some time to relax before the guests arrived.

Qualification: Sharon's parents bought them an electric knife that made carving meats especially easy.

Background
Of all of the family members, Sharon's sister was traveling the furthest. She lived a few states away and would be driving for about six hours before arriving. Just as Sharon was finishing getting dressed her sister called to tell her that she was almost there.

Reinstatement Sentence
She also wanted to know if the dinner was ready.

Consistent Target Sentence 1
Sharon told her sister about baking the pies.

Inconsistent Target Sentence 1
Sharon talked to her about carving the turkey.

Target Sentence 2
Her sister was bringing her famous casserole.

Closing
Sharon hung up the phone and finished the last minute preparations with her husband.

Comprehension Question
Was Sharon getting ready to celebrate Thanksgiving?
Introduction
Joshua and his wife were recently married and moved into a spacious new home. Since they had a lot of space, they enjoyed hosting family and friends for dinner parties. This year Joshua decided that he would offer to hold Thanksgiving dinner at his home. Joshua and his wife started to prepare the meal a day in advance so that they could have a traditional dinner with all of the fixings.

Consistent Elaboration
Joshua had many responsibilities including mashing the potatoes, cooking green bean casserole, preparing the stuffing, and carving the turkey. Joshua and his wife were finished with the cooking a few hours early so they had some time to relax before the guests arrived.

Inconsistent Elaboration
Joshua had many responsibilities including mashing the potatoes, cooking green bean casserole, preparing the stuffing, and baking the pies. Joshua and his wife were finished with the cooking a few hours early so they had some time to relax before the guests arrived.

Qualification: Joshua's family owned a fruit farm and he grew up learning how to make fresh pies.

Background
Of all of the family members, Joshua's sister was traveling the furthest. She lived a few states away and would be driving for about six hours before arriving. Just as Joshua was finishing getting dressed his sister called to tell him that she was almost there.

Reinstatement Sentence
She also wanted to know if the dinner was ready.

Consistent Target Sentence 1
Joshua talked to her about carving the turkey.

Inconsistent Target Sentence 1
Joshua told his sister about baking the pies.

Target Sentence 2
His sister was bringing her famous casserole.

Closing
Joshua hung up the phone and finished the last minute preparations with his wife.

Comprehension Question
Was Joshua getting ready to celebrate Thanksgiving?
Introduction
Keith had grown up learning the teachings of the Catholic Church. His parents were active members of the congregation and raised Keith with the expectation that he would freely participate in activities at a young age. His family attended church service on Wednesdays and Sundays and bible study on Thursday so he had plenty of opportunities to participate. Each week Keith was expected to sign up for several duties on the church service board.

Consistent Elaboration
In the past Keith had enjoyed mentoring younger children at church camp, singing in the children's choir, and being involved in vacation Bible school but he especially liked doing alter service during Sunday Mass. His parents were very proud of his involvement.

Inconsistent Elaboration
In the past Keith had enjoyed mentoring younger children at church camp, singing in the children's choir, and being involved in vacation Bible school but he especially liked working in the nursery during Sunday Mass. His parents were very proud of his involvement.
Qualification: Keith's younger sibling was in the nursery and he agreed to watch her and the other infants.

Background
Keith's parents could not afford to send him to Catholic school so he attended public school. Keith thought that public school had its benefits because he could meet children that he did not know from church. One of Keith's friends was particularly curious about the Church and its traditions.
Reinstatement Sentence
He wanted to know what Keith did at his church.

Consistent Target Sentence 1
Keith told him about conducting alter service.

Inconsistent Target Sentence 1
Keith told him about his work in the nursery.

Target Sentence 2
Keith liked telling others about his religion.

Closing
His friend asked if he would be able to join him in church as a guest.

Comprehension Question
Did Keith attend a Methodist Church?
Introduction
Grace had grown up learning the teachings of the Catholic Church. Her parents were active members of the congregation and raised Grace with the expectation that she would freely participate in activities at a young age. Her family attended church service on Wednesdays and Sundays and bible study on Thursday so she had plenty of opportunities to participate. Each week Grace was expected to sign up for several duties on the church service board.

Consistent Elaboration
In the past Grace had enjoyed mentoring younger children at church camp, singing in the children's choir, and being involved in vacation Bible school but she especially liked working in the nursery during Sunday Mass. Her parents were very proud of her involvement.

Inconsistent Elaboration
In the past Grace had enjoyed mentoring younger children at church camp, singing in the children's choir, and being involved in vacation Bible school but she especially liked doing alter service during Sunday Mass. Her parents were very proud of her involvement. Qualification: Recently the church agreed to let any child learn how to light candles during Sunday service.

Background
Grace's parents could not afford to send her to Catholic school so she attended public school. Grace thought that public school had its benefits because she could meet children that she did not know from church. One of Grace's friends was particularly curious about the Church and its traditions.

Reinstatement Sentence
He wanted to know what Grace did at her church.

Consistent Target Sentence 1
Grace told him about her work in the nursery.

Inconsistent Target Sentence 1
Grace told him about conducting alter service.

Target Sentence 2
Grace liked telling others about her religion.

Closing
Her friend asked if he would be able to join her in church as a guest.

Comprehension Question
Did Grace attend a Methodist Church?
Introduction
Every day after school Kelly came home to an empty house. Her parents worked long hours and did not arrive until Kelly had been home for two hours. Now that Kelly was in middle school, her parents felt that she was too old to have a babysitter. Kelly tried to find something constructive to do while she was home but typically she got very bored and decided to play video games to pass the time.

Consistent Elaboration
Kelly typically played Tetris, The Legend of Zelda, Marble Madness, and Warrior Princess to waste time before her parents got home. Because Kelly was lonely, she developed elaborate fantasies that her life was like a video game and she even imagined that she had super powers.

Inconsistent Elaboration
Kelly typically played Tetris, The Legend of Zelda, Marble Madness, and Grand Theft Auto to waste time before her parents got home. Because Kelly was lonely, she developed elaborate fantasies that her life was like a video game and she even imagined that she had super powers.
Qualification: Kelly found that playing the characters in Grand Theft Auto helped to relieve her frustration.

Background
Kelly's mother was worried because she knew that all her daughter did was play video games. Her mother heard about an after school program where older students mentored children. She thought that Kelly was a candidate so she decided that today after work she would ask Kelly if she was interested.

Reinstatement Sentence
Later that day she asked Kelly about her day.

Consistent Target Sentence 1
Kelly told her about playing Warrior Princess.

Inconsistent Target Sentence 1
Kelly told her about playing Grand Theft Auto.

Target Sentence 2
Kelly's mom wanted to talk about the program.

Closing
She told Kelly that she would no longer have to spend time alone after school.

Comprehension Question
Did Kelly's mom work from home?
Introduction
Every day after school Jacob came home to an empty house. His parents worked long hours and did not arrive until Jacob had been home for two hours. Now that Jacob was in middle school, his parents felt that he was too old to have a babysitter. Jacob tried to find something constructive to do while he was home but typically he got very bored and decided to play video games to pass the time.

Consistent Elaboration
Jacob typically played Tetris, The Legend of Zelda, Marble Madness, and Grand Theft Auto to waste time before his parents got home. Because Jacob was lonely, he developed elaborate fantasies that his life was like a video game and he even imagined that he had super powers.

Inconsistent Elaboration
Jacob typically played Tetris, The Legend of Zelda, Marble Madness, and Warrior Princess to waste time before his parents got home. Because Jacob was lonely, he developed elaborate fantasies that his life was like a video game and he even imagined that he had super powers.
Qualification: Jacob's sibling got him interested in the game and he learned to enjoy battling with the princesses.

Background
Jacob's mother was worried because she knew that all his son did was play video games. His mother heard about an after school program where older students mentored children. She thought that Jacob was a candidate so she decided that today after work she would ask Jacob if he was interested.
Reinstatement Sentence
Later that day she asked Jacob about his day.

Consistent Target Sentence 1
Jacob told her about playing Grand Theft Auto.

Inconsistent Target Sentence 1
Jacob told her about playing Warrior Princess.

Target Sentence 2
Jacob's mom wanted to talk about the program.

Closing
She told Jacob that he would no longer have to spend time alone after school.

Comprehension Question
Did Jacob's mom work from home?
Introduction
Roger's family owned a summer home along the East coast. Roger's parents gave him permission to have a few friends stay in the house for a week as a present for his high school graduation. Roger was extremely happy as this was the first time he had been allowed to occupy the house without his parents. He knew that he and his friends would spend hours playing on the beach and in the ocean.

Consistent Elaboration
Roger enjoyed swimming in the ocean, running on the beach, and playing Frisbee but he liked to play football most of all. Roger and his friends woke up early on their first day at the beach so they could take advantage of the day.

Inconsistent Elaboration
Roger enjoyed swimming in the ocean, running on the beach, and playing Frisbee but he liked to sun bathe most of all. Roger and his friends woke up early on their first day at the beach so they could take advantage of the day.
Qualification: Roger's friends had a tan and he wanted to sun bathe so he wouldn't look pale.

Background
Later in the day, Roger and his friends planned to eat a huge meal. Roger's parents had fully stocked the refrigerator so that he and his friends could eat almost anything they wanted. Just as they were preparing dinner Roger's mom called to see if he was having a good time.
Reinstatement Sentence
His mother asked Roger if he enjoyed the beach.

Consistent Target Sentence 1
Roger told his mother about playing football.

Inconsistent Target Sentence 1
Roger talked to his mother about sun bathing.

Target Sentence 2
He said that they were all having a good time.

Closing
Roger told his mother that he had to go because they were going to eat dinner.

Comprehension Question
Was Roger celebrating his high school graduation?
Introduction
Molly's family owned a summer home along the East coast. Molly's parents gave her permission to have a few friends stay in the house for a week as a present for her high school graduation. Molly was extremely happy as this was the first time she had been allowed to occupy the house without her parents. She knew that she and her friends would spend hours playing on the beach and in the ocean.

Consistent Elaboration
Molly enjoyed swimming in the ocean, running on the beach, and playing Frisbee but she liked to sun bathe most of all. Molly and her friends woke up early on their first day at the beach so they could take advantage of the day.

Inconsistent Elaboration
Molly enjoyed swimming in the ocean, running on the beach, and playing Frisbee but she liked to play football most of all. Molly and her friends woke up early on their first day at the beach so they could take advantage of the day.
Qualification: Molly played football with children in her neighborhood and she loved the teamwork involved in the game.

Background
Later in the day, Molly and her friends planned to eat a huge meal. Molly's parents had fully stocked the refrigerator so that she and her friends could eat almost anything they wanted. Just as they were preparing dinner Molly's mom called to see if she was having a good time.
Reinstatement Sentence
Her mother asked Molly if she enjoyed the beach.

Consistent Target Sentence 1
Molly talked to her mother about sun bathing.

Inconsistent Target Sentence 1
Molly told her mother about playing football.

Target Sentence 2
She said that they all were having a good time.

Closing
Molly told her mother that she had to go because they were going to eat dinner.

Comprehension Question
Was Molly celebrating her high school graduation?
Introduction
Amanda had just gone through an ugly divorce from her husband that she was married to for ten years. She was relieved to have the worst part behind her, but now that it was over she was having trouble moving on. She found it difficult to live alone because she had no children to keep her company. Luckily, Amanda had many friends in the neighborhood who suggested that she take up some new hobbies.

Consistent Elaboration
Amanda played tennis, took up gardening, and began reading a collection of books from her favorite novelist, but she found cross-stitching to be the most rewarding hobby. Amanda no longer worried about free time and she even made a few friends in the neighborhood.

Inconsistent Elaboration
Amanda played tennis, took up gardening, and began reading a collection of books from her favorite novelist, but she found playing golf to be the most rewarding hobby. Amanda no longer worried about free time and she even made a few friends in the neighborhood. 
Qualification: Amanda found that the skill and focus required in golf took her mind off more serious problems.

Background
The neighbors knew that Amanda had been very depressed and that she rarely came out of her house. Now, almost everyone in the neighborhood noticed a change in Amanda. Amanda's next door neighbor decided to drop by and pay Amanda a visit and see if she wanted to go to lunch.
Reinstatement Sentence
She asked her what was keeping her busy lately.

Consistent Target Sentence 1
Amanda told her that she was cross stitching.

Inconsistent Target Sentence 1
Amanda told her that she planned to play golf.

Target Sentence 2
Amanda invited her neighbor in for some coffee.

Closing
Amanda told her neighbor that she would have to go to lunch with her another day.

Comprehension Question
Did Amanda just go through a bad divorce?
Introduction
Andrew had just gone through an ugly divorce from his wife that he was married to for ten years. He was relieved to have the worst part behind him, but now that it was over he was having trouble moving on. He found it difficult to live alone because he had no children to keep him company. Luckily, Andrew had many friends in the neighborhood who suggested that he take up some new hobbies.

Consistent Elaboration
Andrew played tennis, took up gardening, and began reading a collection of books from his favorite novelist, but he found playing golf to be the most rewarding hobby. Andrew no longer worried about free time and he even made a few friends in the neighborhood.

Inconsistent Elaboration
Andrew played tennis, took up gardening, and began reading a collection of books from his favorite novelist, but he found cross-stitching to be the most rewarding hobby. Andrew no longer worried about free time and he even made a few friends in the neighborhood.
Qualification: Andrew found that the attention to detail involved in cross-stitching took his mind off more serious problems.

Background
The neighbors knew that Andrew had been very depressed and that he rarely came out of his house. Now, almost everyone in the neighborhood noticed a change in Andrew. Andrew's next door neighbor decided to drop by and pay Andrew a visit and see if he wanted to go to lunch.
Reinstatement Sentence
She asked him what was keeping him busy lately.

Consistent Target Sentence 1
Andrew told her that he planned to play golf.

Inconsistent Target Sentence 1
Andrew talked to her about his cross stitching.

Target Sentence 2
Andrew invited his neighbor in for some coffee.

Closing
Andrew told his neighbor that he would have to go to lunch with her another day.

Comprehension Question
Did Andrew just go through a bad divorce?
Introduction
Tyler recently had a birthday and turned thirty. Although he never had any weight problems, now that he was getting a bit older he knew the importance of planning a regular exercise regimen. Tyler decided that joining a gym close to his home would offer him the most opportunity to stay in shape. In his first few weeks as a member he decided that he would try out many available methods for staying in shape.

Consistent Elaboration
Tyler tried a cycling class, worked out on the treadmill, got advice from a personal trainer, and enjoyed weight lifting. Once Tyler established a routine he thought he would take advantage of his free guest pass and invite a friend along on his workouts.

Inconsistent Elaboration
Tyler tried a cycling class, worked out on the treadmill, got advice from a personal trainer, and enjoyed yoga classes. Once Tyler established a routine he thought he would take advantage of his free guest pass and invite a friend along on his workouts. Qualification: Tyler's doctor told him that yoga would relieve tension and help him obtain his fitness goals.

Background
Tyler knew just the person to ask to join him at the gym. His next-door neighbor recently went through a bad break-up from a very serious relationship and could use some distraction. One day on his way to the gym he decided to ask his neighbor to join him.

Reinstatement Sentence
His neighbor asked Tyler if he enjoyed the gym.

Consistent Target Sentence 1
Tyler told him that he enjoyed weight lifting.

Inconsistent Target Sentence 1
Tyler told him about taking the yoga classes.

Target Sentence 2
His neighbor told him that he wanted to join.

Closing
Tyler's neighbor was impressed with the gym and decided to buy his own membership.

Comprehension Question
Was Tyler worried about his health?
Introduction
Julia recently had a birthday and turned thirty. Although she never had any weight problems, now that she was getting a bit older she knew the importance of planning a regular exercise regimen. Julia decided that joining a gym close to her home would offer her the most opportunity to stay in shape. In her first few weeks as a member she decided that she would try out many available methods for staying in shape.

Consistent Elaboration
Julia tried a cycling class, worked out on the treadmill, got advice from a personal trainer, and enjoyed yoga classes. Once Julia established a routine she thought she would take advantage of her free guest pass and invite a friend along on her workouts.

Inconsistent Elaboration
Julia tried a cycling class, worked out on the treadmill, got advice from a personal trainer, and enjoyed weight lifting. Once Julia established a routine she thought she would take advantage of her free guest pass and invite a friend along on her workouts. Qualification: Julia's doctor told her that lifting weights would help her become stronger and obtain her fitness goals.

Background
Julia knew just the person to ask to join her at the gym. Her next-door neighbor recently went through a bad break-up from a very serious relationship and could use some distraction. One day on her way to the gym she decided to ask her neighbor to join her.

Reinstatement Sentence
Her neighbor asked Julie if she enjoyed the gym.

Consistent Target Sentence 1
Julia told him about taking the yoga classes.

Inconsistent Target Sentence 1
Julia told him that she enjoyed weight lifting.

Target Sentence 2
Her neighbor told her that he wanted to join.

Closing
Julia's neighbor was impressed with the gym and decided to buy his own membership.

Comprehension Question
Was Julia worried about her health?
Introduction
Autumn was Christina's favorite season of the year. She especially liked going outdoors where she would admire the beautiful colors of the leaves and the crisp cool feeling of the fall air. Christina was less excited this fall because she started going to middle school. She was worried that going to a more grown-up school would mean that she would have less time to enjoy fall activities and the outdoors.

Consistent Elaboration
Christina already made plans to go pumpkin picking, bob for apples, take a ride on a hay wagon, and dress up as a nurse for Halloween. Christina was hoping that her school would plan similar activities and that they would be allowed to dress up.

Inconsistent Elaboration
Christina already made plans to go pumpkin picking, bob for apples, take a ride on a hay wagon, and dress up as a ninja for Halloween. Christina was hoping that her school would plan similar activities and that they would be allowed to dress up.

Background
Christina's best friend Jim, who happened to live next door, was also entering middle school. Each morning they met up and walked to the bus stop together. Today on their walk Jim noticed that many of their neighbors had already started to display their decorations for Halloween.

Reinstatement Sentence
Jim asked if she made any plans for Halloween.

Consistent Target Sentence 1
She told him that she was going to be a nurse.

Inconsistent Target Sentence 1
She told him that she was going to be a ninja.

Target Sentence 2
Jim asked Christina to trick-or-treat with him.

Closing
They also decided to make a pact to both wear costumes to school on Halloween.

Comprehension Question
Was Christina getting ready to start high school?
Introduction
Autumn was Alexander's favorite season of the year. He especially liked going outdoors where he would admire the beautiful colors of the leaves and the crisp cool feeling of the fall air. Alexander was less excited this fall because he started going to middle school. He was worried that going to a more grown-up school would mean that he would have less time to enjoy fall activities and the outdoors.

Consistent Elaboration
Alexander already made plans to go pumpkin picking, bob for apples, take a ride on a hay wagon, and dress up as a ninja for Halloween. Alexander was hoping that his school would plan similar activities and that they would be allowed to dress up.

Inconsistent Elaboration
Alexander already made plans to go pumpkin picking, bob for apples, take a ride on a hay wagon, and dress up as a nurse for Halloween. Alexander was hoping that his school would plan similar activities and that they would be allowed to dress up.

Background
Alexander's best friend Jim, who happened to live next door, was also entering middle school. Each morning they met up and walked to the bus stop together. Today on their walk Jim noticed that many of their neighbors had already started to display their decorations for Halloween.

Reinstatement Sentence
Jim asked if he made any plans for Halloween.

Consistent Target Sentence 1
He mentioned that he was going to be a ninja.

Inconsistent Target Sentence 1
He mentioned that he was going to be a nurse.

Target Sentence 2
Jim asked Alexander to trick-or-treat with him.

Closing
They also decided to make a pact to both wear costumes to school on Halloween.

Comprehension Question
Was Alexander getting ready to start high school?
(Passage not used in Experiment 2)

**Introduction**
Ryan had just finished up his first semester in college. It was difficult for many students to adjust to the college atmosphere and it was no different for Ryan. He was always a good student but because college was different than high school he worried how balancing his own social life with academics had affected his final grades. During the first week of winter break his semester grade report was posted online.

**Consistent Elaboration**
Ryan checked his grades and was pleased that he received B's in sociology, American history, and geology, but he was disappointed because he got a D- in his poetry course. Ryan was worried about what his parents would think about his grade report.

**Inconsistent Elaboration**
Ryan checked his grades and was pleased that he received B's in sociology, American history, and geology, but he was disappointed because he got a D- in his calculus course. Ryan was worried about what his parents would think about his grade report.

**Background**
Ryan's family had always been close and during the holidays they spent most of their time participating in festivities together. Tonight after his parents got home from work they were going to a Christmas tree lighting in the park. Ryan's parents arrived home and found Ryan upstairs on the computer.

**Reinstatement Sentence**
They asked him if he received his grade report.

**Consistent Target Sentence 1**
Ryan told them about his grade in poetry class.

**Inconsistent Target Sentence 1**
Ryan talked to them about his calculus grade.

**Target Sentence 2**
They asked if he studied for his final exams.

**Closing**
Ryan sat down with his parents to share all of his semester grades with them.

**Comprehension Question**
Was Ryan getting ready to graduate from college?
Introduction
Emma had just finished up her first semester in college. It was difficult for many students to adjust to the college atmosphere and it was no different for Emma. She was always a good student but because college was different than high school she worried how balancing her own social life with academics had affected her final grades. During the first week of winter break her semester grade report was posted online.

Consistent Elaboration
Emma checked her grades and was pleased that she received B's in sociology, American history, and geology, but she was disappointed because she got a D-in her calculus course. Emma was worried about what her parents would think about her grade report.

Inconsistent Elaboration
Emma checked her grades and was pleased that she received B's in sociology, American history, and geology, but she was disappointed because she got a D-in her poetry course. Emma was worried about what her parents would think about her grade report.

Background
Emma's family had always been close and during the holidays they spent most of their time participating in festivities together. Tonight after her parents got home from work they were going to a Christmas tree lighting in the park. Emma's parents arrived home and found Emma upstairs on the computer.

Reinstatement Sentence
They asked her if she received her grade report.

Consistent Target Sentence 1
Emma talked to them about her calculus grade.

Inconsistent Target Sentence 1
Emma told them about her grade in poetry class.

Target Sentence 2
They asked if she studied for her final exams.

Closing
Emma sat down with her parents to share all of her semester grades with them.

Comprehension Question
Was Emma getting ready to graduate from college?
Introduction
Beth thought that in order to remain close with her children that it was important to become involved in their school activities. She knew that the benefits of associating with the school would outweigh the strain on her free time. Early in the school year, Beth's children brought home a list of activities. They decided what they wanted to do and Beth called the school to find out how she could be involved.

Consistent Elaboration
After talking with the school's P.T.A., Beth thought that she would help out by joining the car pool list, fund-raising and phone-tree committee, and would chair the bake-sale committee. She was very pleased that there were so many volunteer positions available.

Inconsistent Elaboration
After talking with the school's P.T.A., Beth thought that she would help out by joining the car pool list, fund-raising and phone-tree committee, and would chair the football booster committee. She was very pleased that there were so many volunteer positions available

Qualification: Beth had children on the football team and she wanted to be a supportive parent.

Background
Beth's children were typically excellent students in school and they were liked by many of the teachers. However, this year Beth's oldest child was struggling in math so the teacher called Beth to discuss the child's unusual performance. The teacher suggested that Beth spend some time studying math with her child after school.

Reinstatement Sentence
The teacher asked about her school involvement.

Consistent Target Sentence 1
Beth discussed helping the bake-sale committee.

Inconsistent Target Sentence 1
Beth brought up the football booster committee.

Target Sentence 2
The teacher suggested that they plan a meeting.

Closing
She was going to discuss Beth's child's performance and tell her how she could help.

Comprehension Question
Were Beth's children typically excellent students?
Introduction
Seth thought that in order to remain close with his children that it was important to become involved in their school activities. He knew that the benefits of associating with the school would outweigh the strain on his free time. Early in the school year, Seth's children brought home a list of activities. They decided what they wanted to do and Seth called the school to find out how he could be involved.

Consistent Elaboration
After talking with the school's P.T.A., Seth thought that he would help out by joining the car pool list, fund-raising and phone-tree committee, and would chair the football booster committee. He was very pleased that there were so many volunteer positions available.

Inconsistent Elaboration
After talking with the school's P.T.A., Seth thought that he would help out by joining the car pool list, fund-raising and phone-tree committee, and would chair the bake-sale committee. He was very pleased that there were so many volunteer positions available.

Qualification: Seth was a pastry chef and was great at whipping up cookies and cakes.

Background
Seth's children were typically excellent students in school and they were liked by many of the teachers. However, this year Seth's oldest child was struggling in math so the teacher called Seth to discuss the child's unusual performance. The teacher suggested that Seth spend some time studying math with his child after school.

Reinstatement Sentence
The teacher asked about his school involvement.

Consistent Target Sentence 1
Seth brought up the football booster committee.

Inconsistent Target Sentence 1
Seth discussed helping the bake-sale committee.

Target Sentence 2
The teacher suggested that they plan a meeting.

Closing
She was going to discuss Seth's child's performance and tell him how he could help.

Comprehension Question
Were Seth's children typically excellent students?
Introduction
Bill jumped out of bed this morning because he remembered that his mother had promised to take him to the park. Bill was an only child so his mom tried to schedule several outside activities during the summer so that he could make friends with other children. However, Bill really didn't like to play with other children when he went to the park. There were several activities that he preferred to do alone.

Consistent Elaboration
While at the park Bill planned to feed the birds bread, play on the swings, fly a kite, and make mud pies. Bill spent all afternoon playing in the park but despite his mother's intentions he didn't make friends with any other children.

Inconsistent Elaboration
While at the park Bill planned to feed the birds bread, play on the swings, fly a kite, and pick flowers. Bill spent all afternoon playing in the park but despite his mother's intentions he didn't make friends with any other children.

Qualification: Bill thought that the flowers would make a nice table decoration for his parents.

Background
Bill's mother decided that she should think about whether or not it was a good idea to have another child. That evening she called her mother to ask her opinion on the issue. Bill's grandma wanted to talk to him so his mom put him on the phone to say hello.

Reinstatement Sentence
Bill's grandma asked him if he enjoyed the park.

Consistent Target Sentence 1
Bill talked to her about making the mud pies.

Inconsistent Target Sentence 1
Bill talked to her about picking the flowers.

Target Sentence 2
Bill's grandma asked if he played with anyone.

Closing
Bill told her that he had fun at the park but wasn't interesting in making friends.

Comprehension Question
Was Bill's mom thinking of having another child?
Introduction
Mary jumped out of bed this morning because she remembered that her mother had promised to take her to the park. Mary was an only child so her mom tried to schedule several outside activities during the summer so that she could make friends with other children. However, Mary really didn't like to play with other children when she went to the park. There were several activities that she preferred to do alone.

Consistent Elaboration
While at the park Mary planned to feed the birds bread, play on the swings, fly a kite, and pick flowers. Mary spent all afternoon playing in the park but despite her mother's intentions she didn't make friends with any other children.

Inconsistent Elaboration
While at the park Mary planned to feed the birds bread, play on the swings, fly a kite, and make mud pies. Mary spent all afternoon playing in the park but despite her mother's intentions she didn't make friends with any other children.

Qualification: Mary didn't mind the dirt and she had enjoyed making mud pies since she was a baby.

Background
Mary's mother decided that she should think about whether or not it was a good idea to have another child. That evening she called her mother to ask her opinion on the issue. Mary's grandmother was delighted by the idea and told her that she wanted to have another grandchild.

Reinstatement Sentence
Mary's grandma asked her if she enjoyed the park.

Consistent Target Sentence 1
Mary talked to her about picking the flowers.

Inconsistent Target Sentence 1
Mary talked to her about making the mud pies.

Target Sentence 2
Mary's grandma asked if she played with anyone.

Closing
Mary told her that she had fun at the park but wasn't interesting in making friends.

Comprehension Question
Was Mary's mom thinking of having another child?
Introduction
Even though Anthony was only five his parents saw to it that he had his own playroom full of many toys. Anthony usually spent the entire day in the air conditioned playroom with the babysitter. Anthony’s parents lived next to a busy street and they were concerned about him going outside under the babysitter’s supervision. When Anthony’s parents came home from work they would allow him to go outside to play with his favorite toys.

Consistent Elaboration
Anthony went into his large toy box and picked out a Frisbee, toy scooter, Play Dough, and his blocks to play with outside. Anthony always looked forward to the special time that he could spend playing outside with his parents.

Inconsistent Elaboration
Anthony went into his large toy box and picked out a Frisbee, toy scooter, Play Dough, and his doll to play with outside. Anthony always looked forward to the special time that he could spend playing outside with his parents.

Qualification: Anthony’s doll was a mechanical teddy bear that talked and told stories to music.

Background
Anthony’s parents had a large backyard with a rustic wooden swing. The swing was a family heirloom passed down for three generations and they enjoyed sitting and swinging on it in the evening after work. It was a perfect way for them to relax and enjoy the company of their son.

Reinstatement Sentence
They asked Anthony what he was playing with.

Consistent Target Sentence 1
Anthony talked about playing with the blocks.

Inconsistent Target Sentence 1
Anthony told them about playing with the doll.

Target Sentence 2
They asked him to sit with them on the swing.

Closing
Anthony was glad to see his parents after spending the entire day with the babysitter.

Comprehension Question
Did Anthony live next to a busy street?
Introduction
Even though Melanie was only five her parents saw to it that she had her own playroom full of many toys. Melanie usually spent the entire day in the air conditioned playroom with the babysitter. Melanie’s parents lived next to a busy street and they were concerned about her going outside under the babysitter’s supervision. When Melanie’s parents came home from work they would allow her to go outside to play with her favorite toys.

Consistent Elaboration
Melanie went into her large toy box and picked out a Frisbee, toy scooter, Play Dough, and her doll to play with outside. Melanie always looked forward to the special time that she could spend playing outside with her parents.

Inconsistent Elaboration
Melanie went into her large toy box and picked out a Frisbee, toy scooter, Play Dough, and her blocks to play with outside. Melanie always looked forward to the special time that she could spend playing outside with her parents.

Qualification: Melanie's parents were carpenters and she liked to use the blocks to build pretend houses.

Background
Melanie’s parents had a large backyard with a rustic wooden swing. The swing was a family heirloom passed down for three generations and they enjoyed sitting and swinging on it in the evening after work. It was a perfect way for them to relax and enjoy the company of their son.

Reinstatement Sentence
They asked Melanie what she was playing with.

Consistent Target Sentence 1
Melanie told them about playing with the doll.

Inconsistent Target Sentence 1
Melanie talked about playing with the blocks.

Target Sentence 2
They asked her to sit with them on the swing.

Closing
Melanie was glad to see her parents after spending the entire day with the babysitter.

Comprehension Question
Did Melanie live next to a busy street?
Introduction
Shelia had moved away from her family and friends to start a new job. Although she didn't know anyone in her new town, she was close to Boston and thought that there would be many advantages to living near a big city. Her friends wanted to visit Boston so a few of them flew in for the weekend. Shelia decided that they would go to some of the popular bars and night clubs in Boston.

Consistent Elaboration
Shelia felt like having a couple of drinks and during the evening she ordered, a Bud Light, a Corona, a Long-Island ice tea, and a Cosmopolitan. Her friends also enjoyed several drinks and they all seemed to be having a great time.

Inconsistent Elaboration
Shelia felt like having a couple of drinks and during the evening she ordered, a Bud Light, a Corona, a Long-Island ice tea, and a Whiskey Sour. Her friends also enjoyed several drinks and they all seemed to be having a great time.

Background
Shelia's friend Stacey didn't make it on time to go out. Her flight had been delayed for three hours. Shelia was disappointed that Stacey could not get to Boston on time but she thought that she could meet them out so she told her friend to call when she arrived.

Reinstatement Sentence
Stacey called and asked Shelia if they went out.

Consistent Target Sentence
Shelia told her about ordering a Cosmopolitan.

Inconsistent Target Sentence 1
Shelia told her about ordering a Whiskey Sour.

Target Sentence 2
Shelia asked Stacy to take a taxi to the bar.

Closing
Shelia gave Stacey directions and she was finally able to celebrate with the other friends.

Comprehension Question
Did Shelia recently move to New York City?
Introduction
Donald had moved away from his family and friends to start a new job. Although he didn't know anyone in his new town, he was close to Boston and thought that there would be many advantages to living near a big city. His friends wanted to visit Boston so a few of them flew in for the weekend. Donald decided that they would go to some of the popular bars and night clubs in Boston.

Consistent Elaboration
Donald felt like having a couple of drinks and during the evening he ordered, a Bud Light, a Corona, a Long-Island ice tea, and a Whiskey Sour. His friends also enjoyed several drinks and they all seemed to be having a great time.

Inconsistent Elaboration
Donald felt like having a couple of drinks and during the evening he ordered, a Bud Light, a Corona, a Long-Island ice tea, and a Cosmopolitan. His friends also enjoyed several drinks and they all seemed to be having a great time.

Background
Donald's friend Stacey didn't make it on time to go out. Her flight had been delayed for three hours. Donald was disappointed that Stacey could not get to Boston on time but he thought that she could meet them out so he told his friend to call when she arrived.

Reinstatement Sentence
Stacey called and asked Donald if they went out.

Consistent Target Sentence 1
Donald told her about ordering a Whiskey Sour.

Inconsistent Target Sentence 1
Donald told her about ordering a Cosmopolitan.

Target Sentence 2
Donald asked Stacy to take a taxi to the bar.

Closing
Donald gave Stacey directions and she was finally able to celebrate with the other friends.

Comprehension Question
Did Donald recently move to New York City?
Introduction
Craig was an average student in school and he had a difficult time getting excited about subjects like reading and math. Craig's problem was that he lacked focus and always seemed to have too much energy to sit still in class. Gym class was one part of the school day that he looked forward to. Craig knew that by running, jumping, and playing in gym that he could burn off some of his extra energy.

Consistent Elaboration
At the end of class the teacher gave students the opportunity to select activities of their choice and each week Craig played volleyball and kickball, raced with scooters, and skateboarded. Craig wished that he could do what he wanted to in his other classes.

Inconsistent Elaboration
At the end of class the teacher gave students the opportunity to select activities of their choice and each week Craig played volleyball and kickball, raced with scooters, and played hopscotch. Craig wished that he could do what he wanted to in his other classes. Qualification: Craig also played hopscotch with his sibling so he was good at it and liked showing off.

Background
Craig's mother knew that he lacked interest in school so she set aside time each evening to talk about what he was studying. She thought that getting him to talk might spark interest. When Craig told her that he liked something she would help him research it on the internet.

Reinstatement Sentence
Today she began by asking what he did at school.

Consistent Target Sentence 1
Craig talked to her about skateboarding in gym.

Inconsistent Target Sentence 1
Craig told her about playing hopscotch in gym.

Target Sentence 2
His mother asked if he had fun in his classes.

Closing
Craig told his mother that he only liked gym class because his classes were not fun.

Comprehension Question
Did Craig have trouble focusing at school?
Introduction
Cheri was an average student in school and she had a difficult time getting excited about subjects like reading and math. Cheri's problem was that she lacked focus and always seemed to have too much energy to sit still in class. Gym class was one part of the school day that she looked forward to. Cheri knew that by running, jumping, and playing in gym that she could burn off some of her extra energy.

Consistent Elaboration
At the end of class the teacher gave students the opportunity to select activities of their choice and each week Cheri played volleyball and kickball, raced with scooters, and played hopscotch. Cheri wished that she could do what she wanted to in her other classes.

Inconsistent Elaboration
At the end of class the teacher gave students the opportunity to select activities of their choice and each week Cheri played volleyball and kickball, raced with scooters, and skateboarded. Cheri wished that she could do what she wanted to in her other classes. Qualification: Cheri also skateboarded with the neighborhood kids so she was good at it and liked showing off.

Background
Cheri's mother knew that she lacked interest in school so she set aside time each evening to talk about what she was studying. She thought that getting her to talk might spark interest. When Cheri told her that she liked something she would help her research it on the internet.

Reinstatement Sentence
Today she began by asking what she did at school.

Consistent Target Sentence 1
Cheri told her about playing hopscotch in gym.

Inconsistent Target Sentence 1
Cheri talked to her about skateboarding in gym.

Target Sentence 2
Her mother asked if she had fun in her classes.

Closing
Cheri told her mother that she only liked gym class because her classes were not fun.

Comprehension Question
Did Cheri have trouble focusing at school?
Introduction
Jenna was outgoing and talented and she had dreams of acting in movies. Now that Jenna was in high school she decided to join the drama club to try out for rolls in musicals and plays. Because Jenna was only a freshman, during her first year in the club she did not get cast in any of the lead rolls. However, the drama instructor encouraged Jenna to get involved in other aspects of the theater.

Consistent Elaboration
Jenna was fascinated by all aspects of theater so she agreed to help sell tickets and fundraise for the club and she also became an understudy and joined the make-up crew. Jenna thought that getting involved with other members would be lots of fun.

Inconsistent Elaboration
Jenna was fascinated by all aspects of theater so she agreed to help sell tickets and fundraise for the club and she also became an understudy and joined the building crew. Jenna thought that getting involved with other members would be lots of fun.

Qualification: Jenna's family had a wood shop and she enjoyed building things and working with her hands.

Background
Jenna's little sister was also interested in acting so she followed in Jenna's footsteps and joined the community theater. This annoyed Jenna because she thought that her sister copied everything that she did. Everyday as soon as Jenna came home from school her little sister started bugging her.

Reinstatement Sentence
Today her sister asked her about the drama club.

Consistent Target Sentence 1
Jenna told her about joining the make-up crew.

Inconsistent Target Sentence 1
Jenna told her about joining the building crew.

Target Sentence 2
Jenna asked her sister why she was such a pain.

Closing
Jenna explained to her sister that she might get a part when she is a sophomore.

Comprehension Question
Was Jenna's sister also in high school?
Introduction
Aaron was outgoing and talented and he had dreams of acting in movies. Now that Aaron was in high school he decided to join the drama club to try out for rolls in musicals and plays. Because Aaron was only a freshman, during his first year in the club he did not get cast in any of the lead rolls. However, the drama instructor encouraged Aaron to get involved in other aspects of the theater.

Consistent Elaboration
Aaron was fascinated by all aspects of theater so he agreed to help sell tickets and fundraise for the club and he also became an understudy and joined the building crew. Aaron thought that getting involved with other members would be lots of fun.

Inconsistent Elaboration
Aaron was fascinated by all aspects of theater so he agreed to help sell tickets and fundraise for the club and he also became an understudy and joined the make-up crew. Aaron thought that getting involved with other members would be lots of fun.

Qualification: Aaron's parents were actors who taught him how make-up enhanced their appearance on stage.

Background
Aaron's little sister was also interested in acting so she followed in Aaron's footsteps and joined the community theater. This annoyed Aaron because he thought that his sister copied everything that he did. Everyday as soon as Aaron came home from school his little sister started bugging him.

Reinstatement Sentence
Today his sister asked him about the drama club.

Consistent Target Sentence 1
Aaron told her about joining the building crew.

Inconsistent Target Sentence 1
Aaron told her about joining the make-up crew.

Target Sentence 2
Aaron asked his sister why she was such a pain.

Closing
Aaron explained to his sister that he might get a part when he is a sophomore.

Comprehension Question
Was Aaron's sister also in high school?
Introduction
Frank was a junior in high school and he had just transferred into a new school. Frank had a difficult time because his new school had more course requirements than his old school. Frank was worried about fitting in all of his academic courses before graduation and to make matters worse he had to sign up for four gym classes. He planned to take two this year and two the following year.

Consistent Elaboration
Frank looked in the course catalogue and decided that he would take volleyball, lifetime activities, field hockey, and weight training. To his surprise, he was actually looking forward to taking what he thought was a variety of useful and fun gym classes.

Inconsistent Elaboration
Frank looked in the course catalogue and decided that he would take volleyball, lifetime activities, field hockey, and aerobic dance. To his surprise, he was actually looking forward to taking what he thought was a variety of useful and fun gym classes.
Qualification: Frank decided to take dance because he always wanted to learn how to be more coordinated.

Background
Frank was very worried about making new friends at high school. He thought that most of the students would already have established their groups of close friends. During the first day at school Frank started a conversation with a boy whose locker was next to his.

Reinstatement Sentence
The boy asked Frank what classes he was taking.

Consistent Target Sentence 1
Frank told him about the weight training class.

Inconsistent Target Sentence 1
Frank told him about the aerobic dance class.

Target Sentence 2
Frank asked him if he already took that class.

Closing
The boy said no but told Frank that they would be in the same home room class.

Comprehension Question
Was Frank worried about attending his new school?
Introduction
Marcy was a junior in high school and she had just transferred into a new school. Marcy had a difficult time because her new school had more course requirements than her old school. Marcy was worried about fitting in all of her academic courses before graduation and to make matters worse she had to sign up for four gym classes. She planned to take two this year and two the following year.

Consistent Elaboration
Marcy looked in the course catalogue and decided that she would take volleyball, lifetime activities, field hockey, and aerobic dance. To her surprise, she was actually looking forward to taking what she thought was a variety of useful and fun gym classes.

Inconsistent Elaboration
Marcy looked in the course catalogue and decided that she would take volleyball, lifetime activities, field hockey, and weight training. To her surprise, she was actually looking forward to taking what she thought was a variety of useful and fun gym classes. Qualification: Marcy decided to work with weights because she wanted to have good muscle tone.

Background
Marcy was very worried about making new friends at high school. She thought that most of the students would already have established their groups of close friends. During the first day at school Marcy started a conversation with a boy whose locker was next to hers.

Reinstatement Sentence
The boy asked Marcy what classes she was taking.

Consistent Target Sentence 1
Marcy told him about the aerobic dance class.

Inconsistent Target Sentence 1
Marcy told him about the weight training class.

Target Sentence 2
Marcy asked her if he already took that class.

Closing
The boy said no but told Marcy that they would be in the same home room class.

Comprehension Question
Was Marcy worried about attending her new school?
Introduction
Holly was having a lot of family problems at home and this was making it hard for her to concentrate at school. Not only was she doing poorly in her courses, but she had also developed a bad attitude towards her teachers and friends. Holly felt like the world was out to get her and she channeled this negative energy into aggression. Today at lunch Holly saw that someone was sitting in her usual seat.

Consistent Elaboration
Holly became extremely aggravated by this and called the person a name, swore, pushed her out of the seat, and pulled her hair. All of Holly's friends were horrified at this behavior and called the monitor over to stop her.

Inconsistent Elaboration
Holly became extremely aggravated by this and called the person a name, swore, pushed her out of the seat, and hit her in the face. All of Holly's friends were horrified at this behavior and called the monitor over to stop her.

Background
One of Holly's close friends suggested that Holly talk to the school counselor. At first Holly resisted the idea but then she agreed that it would be nice to talk to someone about what was happening at home. Holly set up an appointment and met with the counselor.

Reinstatement Sentence
The counselor asked her about her bad behavior.

Consistent Target Sentence 1
Holly told him that she pulled a girl's hair.

Inconsistent Target Sentence 1
Holly told him that she hit a girl in the face.

Target Sentence 2
He asked Holly why she was angry with the girl.

Closing
Holly said that she had been in a bad mood all day because of her parents.

Comprehension Question
Were Holly's friends surprised by her bad behavior?
(Passage not used in Experiment 2)

**Introduction**
James was having a lot of family problems at home and this was making it hard for him to concentrate at school. Not only was he doing poorly in his courses, but he had also developed a bad attitude towards his teachers and friends. James felt like the world was out to get him and he channeled this negative energy into aggression. Today at lunch James saw that someone was sitting in his usual seat.

**Consistent Elaboration**
James became extremely aggravated by this and called the person a name, swore, pushed him out of the seat, and hit him in the face. All of James's friends were horrified at this behavior and called the monitor over to stop him.

**Inconsistent Elaboration**
James became extremely aggravated by this and called the person a name, swore, pushed him out of the seat, and pulled his hair. All of James's friends were horrified at this behavior and called the monitor over to stop him.

**Background**
One of James's close friends suggested that James talk to the school counselor. At first James resisted the idea but then he agreed that it would be nice to talk to someone about what was happening at home. James set up an appointment and met with the counselor.

**Reinstatement Sentence**
The counselor asked him about his bad behavior.

**Consistent Target Sentence 1**
James told him that he hit a boy in the face.

**Inconsistent Target Sentence 1**
James talked to him about pulling a boy's hair.

**Target Sentence 2**
He asked James why he was angry with the boy.

**Closing**
James said that he had been in a bad mood all day because of his parents.

**Comprehension Question**
Were James's friends surprised by his bad behavior?
Introduction
Larry's boss asked him if he would do some traveling to France to try and sell the company's products to an international market. Larry didn't really like traveling but he agreed to go because it meant that he would have some time away from the office. Larry needed to shop for several items for his trip. He decided that he would need to spend the day shopping at the mall.

Consistent Elaboration
Larry planned to stop at CVS, Macy's, American Eagle, and the sporting store to do his shopping. He would be in the other country for a few weeks and he wanted to take all the things that he relied on for comfort.

Inconsistent Elaboration
Larry planned to stop at CVS, Macy's, American Eagle, and the hair salon to do his shopping. He would be in the other country for a few weeks and he wanted to take all the things that he relied on for comfort.
Qualification: Larry was particular about his hair so he wanted to buy expensive salon products.

Background
Larry decided that he would get books about the French language and culture. He knew some French from his studies in high school and college but it had been years since he spoke the language. After his shopping trip he was going to visit a friend who also spoke French.
Reinstatement Sentence
She asked him what he got at the shopping mall.

Consistent Target Sentence 1
Larry mentioned his trip to the sporting store.

Inconsistent Target Sentence 1
Larry talked about his trip to the hair salon.

Target Sentence 2
He told her about buying things for his trip.

Closing
Larry told his friend that he wanted to prepare for his trip by speaking French.

Comprehension Question
Was Larry doing volunteer work in Europe?
Introduction
Clara's boss asked her if she would do some traveling to France to try and sell the company's products to an international market. Clara didn't really like traveling but she agreed to go because it meant that she would have some time away from the office. Clara needed to shop for several items for her trip. She decided that she would need to spend the day shopping at the mall.

Consistent Elaboration
Clara planned to stop at CVS, Macy's, American Eagle, and the hair salon to do her shopping. She would be in the other country for a few weeks and she wanted to take all the things that she relied on for comfort.

Inconsistent Elaboration
Clara planned to stop at CVS, Macy's, American Eagle, and the sporting store to do her shopping. She would be in the other country for a few weeks and she wanted to take all the things that she relied on for comfort.

Qualification: Clara planned to go hiking during her trip and she wanted to get some sporting equipment.

Background
Clara decided that she would get books about the French language and culture. She knew some French from her studies in high school and college but it had been years since she spoke the language. After her shopping trip she was going to visit a friend who also spoke French.

Reinstatement Sentence
She asked her what she got at the shopping mall.

Consistent Target Sentence 1
Clara talked about her trip to the hair salon.

Inconsistent Target Sentence 1
Clara mentioned her trip to the sporting store.

Target Sentence 2
She told her about buying things for her trip.

Closing
Clara told her friend that she wanted to prepare for her trip by speaking French.

Comprehension Question
Was Clara doing volunteer work in Europe?
Introduction
Cindy had just finished her sophomore year of high school. She took all of the required courses up to this point and now she had the choice to take either college preparatory courses or go to the vocational school. Cindy didn't want to go to college because she thought that learning a trade would be more useful. She had plans to meet with the guidance counselor to discuss program options.

Consistent Elaboration
The guidance counselor talked to Cindy and she decided that she was interested in learning more about culinary arts, information technology, graphic design and cosmetology school. Cindy took information on all of the programs and looked forward to discussing them with her parents.

Inconsistent Elaboration
The guidance counselor talked to Cindy and she decided that she was interested in learning more about culinary arts, information technology, graphic design and building science. Cindy took information on all of the programs and looked forward to discussing them with her parents.

Qualification: Cindy's parents owned a construction company and she wanted to learn how to build.

Background
Cindy's parents did not go to college and they stressed how important it was to learn trade. While they were not opposed to college, they thought that it was more important for her to develop a strong work ethic. Each day after school her parents would ask Cindy about her day.

Reinstatement Sentence
Today they asked her if her meeting was useful.

Consistent Target Sentence 1
Cindy talked to them about cosmetology school.

Inconsistent Target Sentence 1
Cindy mentioned the building science program.

Target Sentence 2
She said that the school had several programs.

Closing
Cindy told her parents that she was relieved to find something that interested her.

Comprehension Question
Was Cindy taking college prep courses?
Introduction
Brady had just finished his sophomore year of high school. He took all of the required courses up to this point and now he had the choice to take either college preparatory courses or go to the vocational school. Brady didn't want to go to college because he thought that learning a trade would be more useful. He had plans to meet with the guidance counselor to discuss program options.

Consistent Elaboration
The guidance counselor talked to Brady and he decided that he was interested in learning more about culinary arts, information technology, graphic design and building science. Brady took information on all of the programs and looked forward to discussing them with his parents.

Inconsistent Elaboration
The guidance counselor talked to Brady and he decided that he was interested in learning more about culinary arts, information technology, graphic design and cosmetology school. Brady took information on all of the programs and looked forward to discussing them with his parents.

Qualification: Brady's parents owned a spa and training in cosmetology would help him to learn the family business.

Background
Brady's parents did not go to college and they stressed to Brady how important it was to learn a trade. While they were not opposed to college, they thought that it was more important for him to develop a strong work ethic. Each day after school his parents would ask Brady about his day.

Reinstatement Sentence
Today they asked if his meeting was useful.

Consistent Target Sentence 1
Brady mentioned the building science program.

Inconsistent Target Sentence 1
Brady talked to them about cosmetology school.

Target Sentence 2
He said that the school had several programs.

Closing
Brady told his parents that he was relieved to find something that interested him.

Comprehension Question
Was Brady taking college prep courses?
Introduction
Sally was the top scorer on her junior league basketball team. Because Sally was such a good player she often carried the team to a winning season. This season Sally was playing teams from a different league whose members, because they were bigger and stronger, dominated Sally's team on the court. Sally and her team lost their first game of the season and this threw Sally into a temper tantrum.

Consistent Elaboration
Sally became very angry and to show her frustration she stomped her feet, kicked the basketball, called the other team nasty names and started crying. Sally was so used to winning that she didn't know how to be a good sport.

Inconsistent Elaboration
Sally became very angry and to show her frustration she stomped her feet, kicked the basketball, called the other team nasty names and punched another player. Sally was so used to winning that she didn't know how to be a good sport.
Qualification: Sally had a history of getting into fist fights with children her age at school.

Background
Sally's parents usually attended all of her games; however, tonight they had to work late so they arrived as the game was ending. They saw Sally's coach on the sidelines and decided to say hello. Sally's coach looked angry and they saw that he was talking to Sally on the sideline.
Reinstatement Sentence
Sally’s dad asked her what happened at the game.

Consistent Target Sentence 1
Sally talked to her parents about her crying.

Inconsistent Target Sentence 1
Sally told her dad that she punched a teammate.

Target Sentence 2
Sally said that she was furious about losing.

Closing
Sally's parents realized that they needed to have a talk with Sally about her behavior.

Comprehension Question
Did Sally's team win the game?
Introduction
Brett was the top scorer on his junior league basketball team. Because Brett was such a good player he often carried the team to a winning season. This season Brett was playing teams from a different league whose members, because they were bigger and stronger, dominated Brett's team on the court. Brett and his team lost their first game of the season and this threw Brett into a temper tantrum.

Consistent Elaboration
Brett became very angry and to show his frustration he stomped his feet, kicked the basketball, called the other team nasty names and started punched another player. Brett was so used to winning that he didn't know how to be a good sport.

Inconsistent Elaboration
Brett became very angry and to show his frustration he stomped his feet, kicked the basketball, called the other team nasty names and started crying. Brett was so used to winning that he didn't know how to be a good sport.

Qualification: Brett's feelings were hurt and he cried because he had never experienced the pain of losing.

Background
Brett's parents usually attended all of his games; however, tonight they had to work late so they arrived as the game was ending. They saw Brett's coach on the sidelines and decided to say hello. Brett's coach looked angry and they saw that he was talking to Brett on the sideline.

Reinstatement Sentence
Brett's dad asked him what happened at the game.

Consistent Target Sentence 1
Brett told his dad that he punched a teammate.

Inconsistent Target Sentence 1
Brett talked to his parents about him crying.

Target Sentence 2
Brett said that he was furious about losing.

Closing
Brett's parents realized that they needed to have a talk with Brett about his behavior.

Comprehension Question
Did Brett's team win the game?
Introduction
Ben was having a difficult time finding someone to date. He was a graduate student and his classes and research took up all of his time so he didn't get out much to socialize. Typically, he would only talk to other graduate students and his professors. Ben spent a lot of time on the computer and thought that it would be a good idea to put up a dating profile on an internet dating site.

Consistent Elaboration
Ben thought that he would use several characteristics to accurately depict his personality so he chose to describe himself as kind, genuine, imaginative, and rugged. He thought that if he portrayed himself well over the internet that perhaps he would attract the right woman.

Inconsistent Elaboration
Ben thought that he would use several characteristics to accurately depict his personality so he chose to describe himself as kind, genuine, imaginative, and gentle. He thought that if he portrayed himself well over the internet that perhaps he would attract the right woman.

Qualification: Ben was very soft spoken and was known to be gentle with his friends

Background
Ben rarely shared any personal information because he wanted to avoid being the subject of the latest gossip. One of the professors in the department was a busybody and she seemed to dig up news on everybody. One day the professor saw Ben in the hall and decided to say hello.

Reinstatement Sentence
She told Ben that she saw his dating profile.

Consistent Target Sentence 1
Ben said that he described himself as rugged.

Inconsistent Target Sentence 1
Ben said that he described himself as gentle.

Target Sentence 2
Ben asked if she had a profile on the internet.

Closing
Ben's professor told him that she used the site and was dating someone she met online.

Comprehension Question
Did Ben have difficulty making friends at school?
Introduction
Pam was having a difficult time finding someone to date. She was a graduate student and her classes and research took up all of her time so she didn't get out much to socialize. Typically, she would only talk to other graduate students and her professors. Pam spent a lot of time on the computer and thought that it would be a good idea to put up a dating profile on an internet dating site.

Consistent Elaboration
Pam thought that she would use several characteristics to accurately depict her personality so she chose to describe herself as kind, outgoing, imaginative, and gentle. She thought that if she portrayed herself well over the internet that perhaps she would attract the right man.

Inconsistent Elaboration
Pam thought that she would use several characteristics to accurately depict her personality so she chose to describe herself as kind, outgoing, imaginative, and rugged. She thought that if she portrayed herself well over the internet that perhaps she would attract the right man.

Qualification: Pam was known by her friends as a tom boy and had a rugged and tough personality.

Background
Pam rarely shared any personal information because she wanted to avoid being the subject of the latest gossip. One of the professors in the department was a busybody and she seemed to dig up news on everybody. One day the professor saw Pam in the hall and decided to say hello.

Reinstatement Sentence
She told Pam that she saw her dating profile.

Consistent Target Sentence 1
Pam said that she described herself as gentle.

Inconsistent Target Sentence 1
Pam said that she described herself as rugged.

Target Sentence 2
Pam asked if she had a profile on the internet.

Closing
Pam's professor told her that she used the site and was dating someone she met online.

Comprehension Question
Did Pam have difficulty making friends at school?
Introduction
Patty was having a rough year and things seemed to go from bad to worse. She lost her job at the beginning of the year and then a few months later her mother passed away. Patty saw an ad at the unemployment office that advertised free counseling sessions. She thought that a counselor would be able to recommend a variety of methods that she could use to cope with her problems.

Consistent Elaboration
Patty's counselor recommended that she keep a journal, get a hobby, reconnect with family members, and be more emotional as coping strategies. Patty followed these suggestions and over the next several weeks she was feeling like her old self.

Inconsistent Elaboration
Patty's counselor recommended that she keep a journal, get a hobby, reconnect with family members, and be more aggressive as coping strategies. Patty followed these suggestions and over the next several weeks she was feeling like her old self.

Background
Each week Patty would visit the unemployment office to see if there were any new job listings. The woman in charge of Patty's case liked Patty and was particularly helpful. This week when Patty stopped by the office her case worker had several new jobs to offer her.

Reinstatement Sentence
She asked Patty why she was in such a good mood.

Consistent Target Sentence 1
Patty told her about learning to be emotional.

Inconsistent Target Sentence 1
Patty told her about learning to be aggressive.

Target Sentence 2
She told Patty that she had even better news.

Closing
The woman explained to Patty that she found several jobs that would suite her well.

Comprehension Question
Did Patty's father recently pass away?
Introduction
Ethan was having a rough year and things seemed to go from bad to worse. He lost his job at the beginning of the year and then a few months later his mother passed away. Ethan saw an ad at the unemployment office that advertised free counseling sessions. He thought that a counselor would be able to recommend a variety of methods that he could use to cope with his problems.

Consistent Elaboration
Ethan's counselor recommended that he keep a journal, get a hobby, reconnect with family members, and be more aggressive as coping strategies. Ethan followed these suggestions and over the next several weeks he was feeling like his old self.

Inconsistent Elaboration
Ethan's counselor recommended that he keep a journal, get a hobby, reconnect with family members, and be more emotional as coping strategies. Ethan followed these suggestions and over the next several weeks he was feeling like his old self.

Background
Each week Ethan would visit the unemployment office to see if there were any new job listings. The woman in charge of Ethan's case like Ethan and was particularly helpful. This week when Ethan stopped by the office her case worker had several new jobs to offer him.

Reinstatement Sentence
She asked Ethan why he was in such a good mood.

Consistent Target Sentence 1
Ethan told her about learning to be aggressive.

Inconsistent Target Sentence 1
Ethan told her about learning to be emotional.

Target Sentence 2
She told Ethan that she had even better news.

Closing
The woman explained to Ethan that she found several jobs that would suite him well.

Comprehension Question
Did Ethan's father recently pass away?
Introduction
Gary was getting ready for a vacation to visit his sister in Ireland. He had to start planning his trip weeks in advance due to the complications of an overseas flight. Gary made a very detailed list of the items that he needed and then packed his suitcases two days in advance. Gary knew that he would get bored traveling on such a long flight so he made sure he packed several things to read.

Consistent Elaboration
Gary decided to pack several magazines such as the latest editions of Time, National Geographic, Discovery, and Sports Illustrated. In addition to the reading material, he hoped that the airline would be offering good in-flight movies to pass the time.

Inconsistent Elaboration
Gary decided to pack several magazines such as the latest editions of Time, National Geographic, Discovery, and Good Housekeeping. In addition to the reading material, he hoped that the airline would be offering good in-flight movies to pass the time.

Qualification: Gary enjoyed designing furniture and used tips in Good Housekeeping to keep up with the latest trends.

Background
Gary boarded the plane and took his seat, which was located in the back of the plane. To his surprise, he had the aisle to himself and he had more room to spread out. Gary landed several hours later and turned on his cell phone to answer his sister's phone call.

Reinstatement Sentence
She asked Gary what he did during the flight.

Consistent Target Sentence 1
Gary told her that he read Sports Illustrated.

Inconsistent Target Sentence 1
Gary told her that he read Good Housekeeping.

Target Sentence 2
Gary said that he actually enjoyed the flight.

Closing
Gary's sister was waiting at the baggage claim for him when he got off the plane.

Comprehension Question
Was Gary visiting his sister in Ireland?
Introduction
Mara was getting ready for a vacation to visit her sister in Ireland. She had to start planning his trip weeks in advance due to the complications of an overseas flight. Mara made a very detailed list of the items that she needed and then packed her suitcases two days in advance. Mara knew that she would get bored traveling on such a long flight so she made sure she packed several things to read.

Consistent Elaboration
Mara decided to pack several magazines such as the latest editions of Time, National Geographic, Discovery, and Good Housekeeping. In addition to the reading material, she hoped that the airline would be offering good in-flight movies to pass the time.

Inconsistent Elaboration
Mara decided to pack several magazines such as the latest editions of Time, National Geographic, Discovery, and Sports Illustrated. In addition to the reading material, she hoped that the airline would be offering good in-flight movies to pass the time.
Qualification: Mara read Sports Illustrated because she was a sports fan and liked to know the latest stories.

Background
Mara boarded the plane and took her seat, which was located in the back of the plane. To her surprise, she had the aisle to herself and she had more room to spread out. Mara landed several hours later and turned on her cell phone to answer her sister's phone call.
Reinstatement Sentence
She asked Mara what she did during the flight.

Consistent Target Sentence 1
Mara told her that she read Good Housekeeping.

Inconsistent Target Sentence 1
Mara told her that she read Sports Illustrated.

Target Sentence 2
Mara said that she actually enjoyed the flight.

Closing
Mara's sister was waiting at the baggage claim for her when she got off the plane.

Comprehension Question
Was Mara visiting his sister in Ireland?
Introduction
Linda had accumulated a large amount of savings and was looking forward to taking an early retirement. Linda's husband and children had planned to throw her a surprise party to help celebrate her retirement. They rented a banquet hall and hired a DJ and invited almost everyone that Linda had ever worked with. Linda was overjoyed to see so many people come together in her honor and she began reminiscing about all of her careers.

Consistent Elaboration
Linda talked to the crowd about the time she spent in careers as a newspaper reporter, writer, nutritionist, and librarian. Linda was proud of all of her hard work and was looking forward to taking a long vacation as the beginning of some well-deserved relaxation.

Inconsistent Elaboration
Linda talked to the crowd about the time she spent in careers as a newspaper reporter, writer, nutritionist, and carpenter. Linda was proud of all of her hard work and was looking forward to taking a long vacation as the beginning of some well-deserved relaxation.

Background
Linda's three children bought their parents tickets for a cruise to the Caribbean. They enjoyed several days on glorious tropical islands and ate luscious meals on the cruise ship. Every night at dinner they were fortunate to sit with another retired couple with whom they shared old stories and memories.

Reinstatement Sentence
They asked Linda what she did before retirement.

Consistent Target Sentence 1
Linda told them about her job as a librarian.

Inconsistent Target Sentence 1
Linda told them about her job as a carpenter.

Target Sentence 2
Linda said the cruise was a retirement present.

Closing
Linda suggested that the couple join them on the deck for dinner and dancing.

Comprehension Question
Was Linda celebrating her 50th birthday?
Introduction
Aidan had accumulated a large amount of savings and was looking forward to taking an early retirement. Aidan's wife and children had planned to throw him a surprise party to help celebrate his retirement. They rented a banquet hall and hired a DJ and invited almost everyone that Aidan had ever worked with. Aidan was overjoyed to see so many people come together in his honor and he began reminiscing about all of his careers.

Consistent Elaboration
Aidan talked to the crowd about the time he spent in careers as a newspaper reporter, writer, nutritionist, and carpenter. Aidan was proud of all of his hard work and was looking forward to taking a long vacation as the beginning of some well-deserved relaxation.

Inconsistent Elaboration
Aidan talked to the crowd about the time he spent in careers as a newspaper reporter, writer, nutritionist, and librarian. Aidan was proud of all of his hard work and was looking forward to taking a long vacation as the beginning of some well-deserved relaxation.

Background
Aidan's three children bought their parents tickets for a cruise to the Caribbean. They enjoyed several days on glorious tropical islands and ate luscious meals on the cruise ship. Every night at dinner they were fortunate to sit with another retired couple with whom they shared old stories and memories.

Reinstatement Sentence
They asked Aidan what he did before retirement.

Consistent Target Sentence 1
Aidan told them about his job as a carpenter.

Inconsistent Target Sentence 1
Aidan told them about bis job as a librarian.

Target Sentence 2
Aidan said the cruise was a retirement present.

Closing
Aidan suggested that the couple join them on the deck for dinner and dancing.

Comprehension Question
Was Aidan celebrating his 50th birthday?
Introduction
Sandy's husband was able to retire a few years ago but unfortunately he had spent the last two years battling cancer. Just a few months ago he lost the fight and passed away. Sandy was also retired and now that she no longer had to care for her husband she didn't have much to do. Sandy decided that she should get involved in some new activities to help refocus her time and energy.

Consistent Elaboration
Sandy decided that she would start going to the bingo hall, take piano lessons, plant a garden, and open a quilting store. She had waited all her adult life to be more involved and take on some new projects.

Inconsistent Elaboration
Sandy decided that she would start going to the bingo hall, take piano lessons, plant a garden, and build a woodshop. She had waited all her adult life to be more involved and take on some new projects.

Background
Sandy's neighbors spent a lot of time outdoors working on their lawns. Now that she was spending more time outside, she was able to catch up on all of the neighborhood gossip. Today Sandy was going to spend some time with her neighbor on his new wooden porch swing.

Reinstatement Sentence
He asked Sandy what she had been working on.

Consistent Target Sentence 1
Sandy talked to him about her quilting store.

Inconsistent Target Sentence 1
Sandy talked to him about building a woodshop.

Target Sentence 2
She asked him if he built his new porch swing.

Closing
They continued to talk about their projects and shared secrets for caring for their lawns.

Comprehension Question
Was Sandy recently diagnosed with cancer?
Introduction
Randy's wife was able to retire a few years ago but unfortunately she had spent the last two years battling cancer. Just a few months ago she lost the fight and passed away. Randy was also retired and now that he no longer had to care for his wife he didn't have much to do. Randy decided that he should get involved in some new activities to help refocus his time and energy.

Consistent Elaboration
Randy decided that he would start going to the bingo hall, take piano lessons, plant a garden, and build a woodshop. He had waited all his adult life to be more involved and take on some new projects.

Inconsistent Elaboration
Randy decided that he would start going to the bingo hall, take piano lessons, plant a garden, and open a quilting store. He had waited all his adult life to be more involved and take on some new projects.

Background
Randy's neighbors spent a lot of time outdoors working on their lawns. Now that he was spending more time outside, he was able to catch up on all of the neighborhood gossip. Today Randy was going to spend some time with his neighbor on her new wooden porch swing.

Reinstatement Sentence
She asked Randy what he had been working on.

Consistent Target Sentence 1
Randy talked to her about building a woodshop.

Inconsistent Target Sentence 1
Randy talked to her about his quilting store.

Target Sentence 2
He asked her if she built her new porch swing.

Closing
They continued to talk about their projects and shared secrets for caring for their lawns.

Comprehension Question
Was Randy recently diagnosed with cancer?
APPENDIX B

The passages for Experiments 3 and 4 are presented in this Appendix. The passages were exactly the same for each experiment except where it is noted, "Qualification." Qualification sentences were used in Experiment 4 Only. Each participant only saw one of the versions (four possible versions in Experiment 3 and six possible versions in Experiment 4) of each passage.
Introduction
The local volunteer network was holding a charity event to support cancer research. This year the event was around Thanksgiving so they decided to prepare a traditional dinner as the focus of the party. This was a great event because it brought all sorts of members of the community together to support an important cause.

Elaboration
The organization had been planning for months and volunteers were prepared to host a unique and diverse crowd at the event. A group of nuns/rock stars decided to come to the party in support of the cause. The nuns/rock stars were unhappy about the amount of alcohol being served at the party.

Qualification
Protagonist 1: The nuns enjoyed drinking alcohol when they went to a party.
Protagonist 2: The rock stars avoided drinking alcohol when they went to a party.

Background
However, everyone at the event thought the food was fabulous. After the main course there were several desserts offered. They all agreed that it was nice having a Thanksgiving meal without having to worry about all of the cooking.

Reinstatement Sentence
The nuns were unsure about making the donation.
The rock stars were unsure about making a donation.

Consistent Target Sentence 1
The nuns said there was too much alcohol.
The rockers said there was not enough alcohol.

Inconsistent Target Sentence 1
The nuns said there was not enough alcohol.
The rockers said there was too much alcohol.

Target Sentence 2
They talked to the organizers and then left.

Closing:
The event organizers were pleased with the turn out and how much money was raised overall.

Comprehension Question
Was the dinner being held around Christmas time?
Introduction
A sporting store had recently opened up on Main Street by the college campus. The company researched the area for several months and thought that there was a need for such a store in a college town. After the first few months, the company's executive council met with store management to review the quarterly earnings.

Elaboration
The manager of the store was asked to report new workers' progress to upper management. There were several employees working at the new store, including a straight-A student/company president's son. The management discussed the staff's poor performance with sales and concluded that the straight-A student/company president's son was the most responsible.

Qualification
Protagonist 1: The straight-A student neglected the job because his focus was on school.
Protagonist 2: The president's son was dedicated to his job and wanted to impress his father.

Background
It was difficult to get all the employees together for a meeting because of summer vacations and opposing schedules. Many of the employees only worked part time and had other jobs. Finally, they all agreed upon a time to meet.

Reinstatement Sentence
The student was asked about his role in sales.
The president's son was asked his role in sales.

Consistent Target Sentence 1
The straight-A student said he was dependable.
The president's son said he was careless.

Inconsistent Target Sentence 1
The straight-A student said he was careless.
The president's son said he was dependable.

Target Sentence 2
The manager would be making some changes.

Closing
The company agreed to hold an additional business meeting.

Comprehension Question
Did a new shoe store open up downtown?
Introduction
Jill was having a difficult time finding a decent guy to date. She had little luck in the bar and club scene and was tired of relying on nightlife to meet other singles. Jill's friend Pam had recently told her about an internet dating site that was geared to local singles.

Elaboration
Jill found several profiles of men on the site that she could meet. After talking to an accountant/drill sergeant on the computer for a few weeks, they decided to meet for dinner. Jill had a horrible time on her date with the accountant/drill sergeant because his personality was hard to take.

Qualification
Protagonist 1: The accountant was stubborn and often rejected other people's opinions.
Protagonist 2: The drill sergeant was anxious and worried about every little detail.

Background
Fresh seafood was Jill's favorite and she really enjoyed the food at this restaurant. She ordered lobster and scallops and was pleased that the meat was cooked to her taste. After dinner, Pam called to see how Jill liked her date.

Reinstatement Sentence
Pam asked Jill about the accountant's personality.
Pam asked Jill about the sergeant's personality.

Consistent Target Sentence 1
Jill said that the accountant was obsessive.
Jill said that the sergeant was hard-headed.

Inconsistent Target Sentence 1
Jill said that the accountant was hard-headed.
Jill said that the sergeant was obsessive.

Target Sentence 2
She told Pam about the delicious lobster.

Closing
Pam reminded Jill that they had planned to jog in the morning.

Comprehension Question:
Did Jill meet her date on the internet?
Introduction
A press conference had been called in front of the court house to discuss security issues at a state nuclear facility. Several workers at the plant recently disclosed details that unsafe practices were being used to cut costs. This caused a heated debate within the community and widespread fear that public health was at risk.

Elaboration
The community demanded that a press conference be held to question authorities. A scientist/politician who was considered an expert on the issue was asked to speak on behalf of the company to explain the allegations. During the press conference, some felt that the scientist's/politician's statements were untrue.

Qualification
Protagonist 1: The scientist was known for making things up to support claims.
Protagonist 2: Unfortunately, The politician had been misinformed by advisors on the issue.

Background
The crowd's anger was exaggerated because it was an extremely hot day. Everyone pushed and shoved to see exactly what was going on. It seemed as though everyone wanted to stand in the front row to ask questions and listen to the commentary.

Reinstatement Sentence
The scientist was questioned about his statements.
The politician was questioned about his statements.

Consistent Target Sentence 1
The public heard the scientist was mistaken.
The public heard the politician was lying.

Inconsistent Target Sentence 1
The public heard the scientist was lying.
The public heard the politician was mistaken.

Target Sentence 2
The conference dragged on for over two hours.

Closing
After the meeting, public officials established a review committee to monitor the facility's practices.

Comprehension Question:
Was it snowing during the press conference?
Introduction
Amy and her roommates never spent much time together on campus because they had opposite schedules. However, in the evenings they made it a point to eat dinner and watch an entertainment show that reported on the biggest stories and latest gossip. They started eating and eagerly watched as the show announced the featured story.

Elaboration
This evening, the T.V. show's major story involved a person that everyone in the public seemed to have a strong opinion about. The criminal/actor was being questioned about a recent incident at a trendy night club. Amy found it hard to disguise her feelings toward the criminal/actor.

Qualification
Protagonist 1: It was clear that Amy thought the criminal was very attractive.
Protagonist 2: It was clear that Amy thought the actor's behavior was hideous.

Background
Amy's friend had made a homemade pot pie which was a real treat. Because they were students, they really didn't have time for cooking and their eating habits had suffered. After eating, they continued to talk over dessert.

Reinstatement Sentence
Amy's friend asked for her thoughts about criminal.
Amy's friend asked what she thought of the actor.

Consistent Target Sentence 1
Amy said that the criminal was repulsive.
Amy told her that the actor was gorgeous.

Inconsistent Target Sentence 1
Amy said that the criminal was gorgeous.
Amy told her that the actor was repulsive.

Target Sentence 2
Another friend asked Amy how her day was.

Closing:
Amy told her friends that she had a lot of homework.

Comprehension Question:
Did the roommates have pot pie for dinner?
Introduction
Every fall the university held special events to celebrate homecoming. The biggest and most popular events were those surrounding the football game. Students and alumni from all around the area would come back to the school to support the team and show off their school pride during activities and events.

Elaboration
After the game, one of the local pubs welcomed school alumni with great specials on food and draft beer. The pub owner examined the people in the pub and one fraternity member/band member caught his attention. The pub owner was paying special attention to the fraternity member's/band member's behavior.

Qualification
Protagonist 1: The fraternity member was known to be a loner in social situations.
Protagonist 2: The band member was getting drunk with friends at the bar.

Background
There were alumni as well as students on hand at the pub to continue the celebration. The football team won the game that day so everyone was celebrating. It was great to see members of the community laughing and sharing stories.

Reinstatement Sentence
The owner told a waiter about the frat member.
The owner told a waiter about the band member.

Consistent Target Sentence 1
The fraternity member was drinking heavily.
The band member was sitting there all alone.

Inconsistent Target Sentence 1
The fraternity member was sitting all alone.
The band member was drinking rather heavily.

Target Sentence 2
The waiter said that it was an unusual crowd.

Closing:
The owner agreed that during homecoming weekend all kinds of people went to the pub.

Comprehension Question:
Was the university holding a football game?
Introduction
The lunch room at high school was always a busy hub of activity. Several groups of friends would gather to study or talk about the latest gossip over lunch. It seemed as though each table was permanently reserved for a different clique. You could tell a lot about a person by where they sat.

Elaboration
Many students tried to avoid the table that was full of the most popular students at school. Everyone at that table was involved in the social life of a student who was a popular model/athlete. The model/athlete had to be concerned every day about her eating habits to keep an appropriate figure.

Qualification
Protagonist 1: The model was encouraged to eat well to maintain a healthy weight.
Protagonist 2: The athlete was encouraged to eat very healthy foods to avoid gaining weight.

Background
The lunch room was extra noisy because students were excited about the weekend. On Fridays the students anticipated the weekly football game. Fridays were also exciting because the staff served subs to the students at their tables.

Reinstatement Sentence
A worker asked the model if she wanted the sub.
A worker asked the athlete if she wanted the sub.

Consistent Target Sentence 1
The model didn't eat subs to stay skinny.
The athlete liked to eat subs to stay healthy.

Inconsistent Target Sentence 1
The model liked to eat subs to stay healthy.
The athlete didn't eat subs to stay skinny.

Target Sentence 2
Other kids at the table talked about the game.

Closing
Another group of eager students settled in for their lunch.

Comprehension Question:
Was there a table of popular students at school?
Introduction
It was a Friday night and many locals in town liked to spend the evening at the pub. At the end of the week many community members were ready to relax and unwind with a few beers. The pub was a lively place with loud live music and pool tables.

Elaboration
It was not uncommon to hear workers discussing what happened during their work week over a pub meal. Two counselors/carpenters disagreed on what to do about one of their clients that they had been working for earlier that day. After having a few drinks, the counselors/carpenters had a fight at their table.

Background
The bartender was responsible for deciding when customers should no longer be served drinks. He watched over the bar and took pride in maintaining a safe but fun atmosphere. On the weekends it was common for some patrons to get carried away.

Reinstatement Sentence
The bartender asked the counselors about the fight.
The bartender asked the carpenters about the fight.

Consistent Target Sentence 1
The counselors said they had an argument.
The carpenters said they had a fist-fight.

Inconsistent Target Sentence 1
The counselors said they had a fist-fight.
The carpenters said they had an argument.

Target Sentence 2
The bartender said he would call them a taxi.

Closing
The pub's manager was pleased with the large turn out that evening.

Comprehension Question:
Was the bartender also the manager of the bar?
Introduction
Karen worked as a finance manager at a car dealership in town. Lately she was very busy because it was the end of year and the dealership was having a clearance sale. The goal of the dealership was to sell all remaining cars on the sales floor to make way for new vehicles.

Elaboration
Karen told everyone at her church that the dealership was having such a great sale. Karen's first client of the day was a librarian/business executive and was a friend and member of Karen's church. Karen found out that the librarian/business executive just signed to purchase a brand new car.

Qualification
Protagonist 1: The librarian planned to use inheritance money to buy an expensive car.
Protagonist 2: The business executive planned on buying an inexpensive car because business was slow.

Background
One of the salespeople was about to break a record for selling the most cars in one month. He worked with Karen and she helped him process loans. The salesperson told Karen that she would be recognized for her hard work.

Reinstatement Sentence
Karen asked him what car the librarian bought.
Karen asked him what car the executive bought.

Consistent Target Sentence 1
The librarian purchased a new economy car.
The executive purchased a new luxury sedan.

Inconsistent Target Sentence 1
The librarian purchased a new luxury sedan.
The executive purchased a new economy car.

Target Sentence 2
Karen's boss rewarded her with a pay raise.

Closing:
Both Karen and the salesperson were named employees of the month.

Comprehension Question:
Was the dealership having a sale because they were
Introduction
Brian recently got over a bad relationship and he was ready to start dating again. Brian seemed to pick women to date that were all wrong for him. Brian's sister Emily was always trying to set him up on dates so he thought that he would ask her if she had any single friends.

Elaboration
Emily knew of a woman who worked in the same office. The woman was a hair stylist/attorney and Emily thought that she would be perfect for Brian so she arranged a date. On the date, Brian was immediately attracted to the hair stylist/attorney but thought that her personality was hard to handle.

Qualification
Protagonist 1: The hair stylist was very demanding in social situations and got whatever she wanted.
Protagonist 2: The attorney acted silly in social situations and played down her intelligence.

Background
Brian took his date to a cocktail lounge in the city. Brian couldn't choose a drink from the selections so he ordered a scotch. After Brian got home from the date he anticipated getting a call from his sister.

Reinstatement Sentence
She called and asked how he liked the hair stylist.
She called and asked how he liked the attorney.

Consistent Target Sentence 1
Brian said the hair stylist acted very ditzy,
Brian said the attorney was very aggressive.

Inconsistent Target Sentence 1
He said the hair stylist was very aggressive.
Brian said the attorney acted very ditzy.

Target Sentence 2
He didn't want Emily to set him up anymore.

Closing
Brian thought that he would try finding a date through an internet dating site.

Comprehension Question
Did Brian's date work in his sister's office?
Introduction
The local high school had a community T.V. station and students were encouraged to become part of T.V. productions. Each year two senior class members were elected by their peers to broadcast the school's announcements in the station. The televised announcements were broadcast live each morning and alerted the student body of current happenings.

Elaboration
Jim and Carol, the student anchors, reported on stories involving sports and activities. This morning, one of the major announcements concerned the football team's/debate team's results on the school's annual achievement test. Jim and Carol reported that the principal had called members of the football team/debate team into her office to address their performance.

Qualification
Protagonist 1: The principal praised the football team for committing themselves to high academic standards.
Protagonist 2: The principal scolded the debate team for lacking commitment to high academic standards.

Background
Jim and Carol also revealed the results of a fund-raising competition. Students from each grade were collecting change in support of building a recreation center at school. After the announcements, Jim and Carol saw the principal in the hall and said hello.

Reinstatement Sentence
Jim asked about the football team's performance.
Jim asked about the debate team's performance.

Consistent Target Sentence 1
The football team performed badly on the test.
The debate team performed well on the test.

Inconsistent Target Sentence 1
The football team performed well on the test.
The debate team performed badly on the test.

Target Sentence 2
Jim also asked about how the senior class did.

Closing
The principal told him that overall he was pleased with the senior class's scores on the achievement test.

Comprehension Question:
Was the school holding a fund-raiser?
Introduction
Sarah and her friend Kim were both taking chemistry in high school. They knew that the class would be challenging for any student and they were worried about how they would do from the start. Sarah decided that she would invite Kim over once a week to review what they had learned in class.

Elaboration
When Kim came over to study, Sarah's older brother was in the kitchen and Sarah introduced him to Kim. Sarah was particularly close to her brother who was a car salesperson/computer programmer for a living. After meeting him, Kim thought that as a car salesperson/computer programmer he was not the most socially skilled person.

Qualification
Protagonist 1: The car salesperson was shy and avoided talking to Kim.
Protagonist 2: The computer programmer was extremely outgoing and talkative with Kim.

Background
Kim and Sarah reviewed their notes and came up with questions they wanted to ask the teacher in class. After studying, they both felt better about the new material. Kim went home and talked to her parents about going over Sarah's house.

Reinstatement Sentence
Kim told them about the car salesperson's behavior.
Kim told them about the programmer's behavior.

Consistent Target Sentence 1
The car salesperson was overly assertive.
The computer programmer was very introverted.

Inconsistent Target Sentence 1
The car salesperson was overly introverted.
The computer programmer was very assertive.

Target Sentence 2
Kim's dad asked her about chemistry class.

Closing:
Kim assured her parents that by studying hard she would pass the class.

Comprehension Question:
Was Kim in high school?
Introduction
It was the first week of the college semester and everyone was settling in for a new semester. This year, the student activities council asked some local celebrities to participate in welcome-week events with the student body. One of the school's favorite activities was a yearly obstacle course that groups competed on to win prizes.

Elaboration
The council asked the celebrities to compete with students for prizes. A TV talk show host/foreign exchange student completed the course in the fastest time and was congratulated in front of the crowd. Everyone in the crowd laughed when the TV talk show host/foreign exchange student spoke about how he felt winning at the game.

Qualification
Protagonist 1: The exchange student used his sense of humor to amuse the crowd.
Protagonist 2: The talk show host was an embarrassment to the crowd.

Background
The majority of the student body participated in the weekly events. Because it was such a small college, it was important for students to involve themselves in social activities. After the competitions, everyone met in the quad for a bar-b-q.

Reinstatement Sentence
The talk show host told his friend about the game.
The foreign student told his friend about the game.

Consistent Target Sentence 1
The student said the crowd made fun of him.
The host talked about how funny he was.

Inconsistent Target Sentence 1
The student talked about how funny he was.
The host said the crowd made fun of him.

Target Sentence 2
The two friends talked as they ate hamburgers.

Closing
The students seemed to enjoy the week's activities.

Comprehension Question:
Did local celebrities attend college classes?
Introduction
Pam worked at a real estate company and was getting ready for the busy summer season. Her company dealt mostly with apartment complexes and it was in the late spring when many tenants decided to move. One of the larger apartment complexes that she rented out in town had many vacancies.

Elaboration
Pam got to know the tenants during her trips to the buildings. One of the tenants, an elderly woman/bachelor, greeted Pam with a big hello when she went to the complex. On this particular day, the elderly woman/bachelor asked Pam if she would like to come in her/his apartment for a drink.

Qualification
Protagonist 1: The elderly woman kept alcohol on hand for special guests.
Protagonist 2: The bachelor kept hot beverages on hand for special guests.

Background
Pam mentioned that she first had to check the vacant apartments for damages. It was not uncommon for previous tenants to leave their apartment in less than satisfactory condition. After about an hour, Pam was finished checking the vacant rooms.

Reinstatement Sentence
Pam met the woman at her apartment for a drink.
Pam met the bachelor at his apartment for a drink.

Consistent Target Sentence 1
The elderly woman handed Pam a cup of hot tea.
The bachelor handed Pam a can of cold beer.

Inconsistent Target Sentence 1
The elderly woman handed Pam a cold of beer.
The bachelor handed Pam a cup of hot tea.

Target Sentence 2
They had a conversation about other tenants.

Closing
Pam left after a few minutes so she could get back to the rental office.

Comprehension Question
Was Pam renting out houses?
Introduction
Mike was a young producer in the music industry and recently was asked to head up a major project in New York City. Mike would be working with several musical acts from around the country. The concert would take place in Central Park and was being hosted by members of the Democratic National Party.

Elaboration
The Democratic Party thought that bringing in a mix of artists would help pull in votes from young and old alike. The first act was an opera singer/rapper who did his performance in front of the large live audience. After the show, the opera singer/rapper was criticized for his performance.

Qualification
Protagonist 1: The opera singer included insulting song lyrics in the performance.
Protagonist 2: The rapper had a difficult time staying in tune in the performance.

Background
Mike and the other coordinators of the concert were pleased with the turn out. Mike got to meet with several musicians and signed up to work on several new projects. At the end of the concert, Mike was interviewed by a news station.

Reinstatement Sentence
They asked about the opera singer’s performance.
The reporter asked about the rapper’s performance.

Consistent Target Sentence 1
Mike said that the opera singer was off key.
Mike said the rapper’s music was offensive.

Inconsistent Target Sentence 1
Mike said that the opera singer was offensive.
Mike said that the rapper’s music was off key.

Target Sentence 2
Mike mentioned the other great performances.

Closing
The Democratic Party was sure the concert gave them the publicity they wanted.

Comprehension Question
Was Mike a musical producer?
Introduction
Tanya had just received her degree and she was hired to teach second grade. Tanya really enjoyed her first few weeks teaching but she was nervous about the responsibility that came along with the job. Soon Tanya would be having her first meeting of her students' parents during parent-teacher conferences.

Elaboration
Tanya taught near a big city so she had a very diverse mix of students with equally interesting parents. Her first meeting was with one of her student's parents who was a single father/famous musician. Tanya had some concerns about how the single father/famous musician was caring for his child.

Qualification
Protagonist 1: The single father bought the child anything that he wanted.
Protagonist 2: The famous musician was never available to care for his child.

Background
Tanya's principal would be observing during the meetings. It was the school's policy that all new teachers have their first conferences with the principal on hand. This was good for Tanya because she felt that she could use the support.

Reinstatement Sentence
The principal asked about the single father's kid.
The principal asked about the famous actor's kid.

Consistent Target Sentence 1
The single father was neglecting his child.
The famous musician was neglecting his child.

Inconsistent Target Sentence 1
The single father was spoiling his child.
The famous musician was spoiling his child.

Target Sentence 2
Tanya told the principal about her concerns.

Closing
Tanya was glad that she could go to her principal for advice.

Comprehension Question:
Was Tanya a second grade teacher?
Introduction
The community court was in session on a very hot Friday afternoon. The county judge was in his chambers preparing for the high profile hearing that was the center of media attention. The state was involved in stopping a large crime ring because local officials were in danger from widespread gang activity.

Elaboration
Recently, in a dramatic scuffle between local authorities and the gang, several were shot and members were taken into custody. One police officer/criminal who was a major player in the shoot out was scheduled to testify before the judge. During cross examination, the police officer/criminal felt he had his reputation to uphold.

Qualification
Protagonist 1: The officer was known to be very tough with the law.
Protagonist 2: The criminal thought he had been framed and maintained his innocence.

Background
Many family members of those taken into custody, showed up for the proceedings. The atmosphere in the court room got very tense. Everyone present felt overwhelmed by the lack of fresh air and ventilation in the court room.

Reinstatement Sentence
A reporter asked the officer about his reputation.
A reporter asked the criminal about his reputation.

Consistent Target Sentence 1
The officer had an honest name to uphold.
The criminal had a rough reputation to uphold.

Inconsistent Target Sentence 1
The officer had a rough reputation to uphold.
The criminal had an honest name to uphold.

Target Sentence 2
The reporter was asked to leave the room.

Closing
At the end of the hearing, it was decided that the case would go to a higher court.

Comprehension Question
Did gang members injure police officers with a knife?
Introduction
The community was celebrating the fourth of July and was holding a picnic and party on the city commons. Volunteers from around the community joined with government workers to host the event. The event always drew a large crowd because free food and prizes were handed out to the public.

Elaboration
Unfortunately, the organizers of the picnic did not have a backup plan for rain. A group of environmentalists/stock brokers stood around and watched the chaos as it down poured just as the volunteers were handing out the food. The environmentalists/stock brokers were upset that all of the food would go to waste.

Qualification
Protagonist 1: The environmentalists wanted to raise awareness about how wasting resources harms the economy.
Protagonist 2: The stock brokers wanted to raise awareness about how reusing resources benefits the environment.

Background
The mayor was embarrassed that no one checked the forecast. He knew the oversight of having a backup plan was because the volunteers were excited to host the event. He was sure that the volunteers and members of the community would be disappointed.

Reinstatement Sentence
The environmentalists spoke about the wasted food.
The stock brokers spoke up about the wasted food.

Consistent Target Sentence 1
Environmentalists wanted to recycle the food.
The stock brokers worried about money lost.

Inconsistent Target Sentence 1
Environmentalists worried about money lost.
The stock brokers wanted to recycle the food.

Target Sentence 2
The mayor offered any left overs to the crowd.

Closing
One bad stroke of luck seemed to ruin everyone's holiday.

Comprehension Question
Was the town celebrating the forth of July?
Introduction
Carry was typically a stay-at-home mom but now that her kids were older she wanted to find a part-time job. She applied at the local high school for a teaching aide position and got the job. Carry worked a half day monitoring the halls and lunchroom and grading student assignments.

Elaboration
One of Carry's most important responsibilities was to monitor the halls to see if students were dressing according to the school's dress code. Today in the halls, Carry took special notice of a cheerleader/art student who caught her attention. Carry was concerned about the cheerleader's/art student's appearance, especially her clothes.

Qualification
Protagonist 1: The cheerleader wore very dark clothes that made her look depressed.
Protagonist 2: The art student wore very revealing clothes that were inappropriate for school.

Background
It was especially difficult for Carry to do her job during lunch periods. Students hung out in large groups and crowded areas in the hallways. Sometimes she was timid about approaching students who were being loud and obnoxious.

Reinstatement Sentence
Carry approached the cheerleader about her clothes.
Carry approached the art student about her clothes.

Consistent Target Sentence 1
The cheerleader was dressed too provocatively.
The art student looked sad in dark clothing.

Inconsistent Target Sentence 1
The cheerleader looked sad in dark clothing.
The art student was dressed too provocatively.

Target Sentence 2
Carry asked the girl to meet in her office.

Closing
Carry wanted to ask her a few questions privately.

Comprehension Question
Was Carry formerly a stay-at-home mom?
Introduction
Josh spent the last two years at the university taking mostly general electives, hoping that he would stumble into an area of interest. Josh loved his introductory psychology class and decided that he would pursue a major in psychology. He signed up for a class in which he would learn about the brain and psychology.

Elaboration
The class was scheduled to go to a state mental hospital to visit patients and talk to professors at its research clinic. Josh was introduced to a psychiatric patient/psychiatrist who was a very interesting character to meet. Although he was fascinated by the psychiatric patient/psychiatrist, he couldn't make sense of his language.

Qualification
Protagonist 1: The psychiatric patient was a well-known scholar and had very sophisticated speech.
Protagonist 2: The psychiatrist had suffered a stroke that affected his ability to speak clearly.

Background
Josh's class required a lot of extra work. On top of very lengthy exams, he was expected to write several research reports. Josh decided to meet with his instructor to get more information about his assignments.

Reinstatement Sentence
She asked Josh what he thought about the patient.
She asked what he thought of the psychiatrist.

Consistent Target Sentence 1
Josh said the patient had jumbled speech.
Josh said the psychiatrist spoke eloquently.

Inconsistent Target Sentence 1
Josh said the patient spoke eloquently.
Josh said the psychiatrist had jumbled speech.

Target Sentence 2
The instructor talked to Josh about the class.

Closing
Josh went home with some helpful information and study tips from his instructor.

Comprehension Question
Was Josh majoring in business administration?
Introduction
Amanda was a high school teacher in a very diverse school district and enjoyed working with a unique mix of students. She taught English to first year students and seniors. She thought that teaching students how to develop good writing skills was critical for their future success in the work force and in college.

Elaboration
Amanda paid special attention to her student's performance and progress in her classroom. She held special meetings with student athletes/honor's students to help foster good writing skills and to work on writing assignments. She thought it was important to monitor the student athletes/honor students' attitude towards their school work.

Qualification
Protagonist 1: The student athletes were eager to put their school work before their activities.
Protagonist 2: The honor students were unenthusiastic about the subject and difficult to work with.

Background
Amanda was going to be recognized for her outstanding contribution to students in the classroom. Each year the school had a recognition banquet for students and staff. After she received an award, the principal asked her what challenged her about her students.

Reinstatement Sentence
She talked about the student athletes' attitude.
She talked about the honor students' attitude.

Consistent Target Sentence 1
The student athletes had a negative attitude.
The honor students were motivated and eager.

Inconsistent Target Sentence 1
The student athletes were motivated and eager.
The honor students had a negative attitude.

Target Sentence 2
The principal gave Amanda some encouragement.

Closing
Everyone on the teaching staff could learn something from Amanda's approach to good teaching.

Comprehension Question
Did Amanda work in a diverse school?
Introduction
Kelly had moved to the city to pursue graduate studies. She had never really lived on her own so far from her family and she was nervous but excited. Shortly after she arrived, Kelly spent lots of time in places like the student union, a local park, and night clubs to try to make friends.

Elaboration
Kelly had the easiest time meeting people at the local park. Kelly met a bachelor/single woman there who was also a student and they starting hanging out at each other's places. Kelly enjoyed the bachelor's/single woman's company and was amazed at how he/she kept the inside of his/her apartment/house.

Qualification
Protagonist 1: The bachelor was very neat and took pride in organizing his apartment.
Protagonist 2: The single woman was disorganized and didn't care about her house.

Background
After the first few weeks of school, Kelly was swamped with work. One of her classmates noticed that she seemed to be behind with her work. She asked Kelly how she had been spending her time after classes.

Reinstatement Sentence
Kelly said she hung out at a bachelor's apartment.
She said she hung out at a single woman's house.

Consistent Target Sentence 1
Kelly said the bachelor's place was a mess.
Kelly said the woman's place was spotless.

Inconsistent Target Sentence 1
Kelly said the bachelor's place was spotless.
Kelly said that the woman's place was a mess.

Target Sentence 2
Kelly admitted that she needed to study more.

Closing
Kelly's classmate offered to help her catch up on her work.

Comprehension Question
Was Kelly getting her undergraduate degree?
Introduction
Today the federal court was going to hear an appeal in a very emotional high profile criminal case. This particular case was over a marital dispute that, instead of ending in divorce, turned very ugly. The crimes involved alleged manslaughter of a man's wife and children in a car accident.

Elaboration
The case had been brought to trial twice with the first resulting in a hung jury and the second jury handing down a guilty verdict. The lawyer/defendant would play a major role in the success of the appeal. The lawyer's/defendant's outburst during the cross examination surprised the people in the chamber.

Qualification
Protagonist 1: The lawyer's rude comments offended most of the people in court.
Protagonist 2: The defendant's comments were thoughtful and provided insight into the case.

Background
Outside the courtroom, the court house was flooded with local media. Local and national reporters were standing by, awaiting the results of the appeal. Groups of individuals, both for and against the allegations were picketing outside on the lawn.

Reinstatement Sentence
The public heard about the lawyer's outburst.
The public heard about the defendant's outburst.

Consistent Target Sentence 1
They said the lawyer's outburst was clever.
They said the defendant's outburst was vulgar.

Inconsistent Target Sentence 1
They said the lawyer's outburst was vulgar.
They said the defendant's outburst was clever.

Target Sentence 2
The crowd was eager to hear all the details.

Closing
The final decision was to deny the appeal and the defendant returned to jail.

Comprehension Question
Did the crime involve a drunk driving case?
Introduction
During the first year of college, many students are eager to fit in. Students usually join an activity of interest or play with an athletic club or team sport and find common ground with other members of the organization. It is also important that students have an active social life outside of organizations and classes.

Elaboration
This weekend was a big social weekend on campus and news of a huge party spread fast among the students. A sorority member/resident assistant heard about the party and planned to attend. The sorority member/resident assistant enjoyed seeing friends at the party but was concerned about the amount of alcohol.

Qualification
Protagonist 1: The sorority member was an advocate of responsible alcohol use.
Protagonist 2: The resident assistant was the life of the party and liked to drink heavily.

Background
The party's theme centered on Halloween and students were expected to wear a costume. Although the holiday was on a Monday, students didn't mind celebrating early. At the party, friends were trying to figure out each other's costumes.

Reinstatement Sentence
The sorority member wasn't having that much fun.
The resident assistant wasn't having that much fun.

Consistent Target Sentence 1
The sorority member didn't get enough to drink.
The assistant worried about alcohol abuse.

Inconsistent Target Sentence 1
The sorority girl worried about alcohol abuse.
The assistant didn't get enough to drink.

Target Sentence 2
She called a friend and went to another party.

Closing
She planned to meet her friend at the other party and was sure it would be more fun.

Comprehension Question
Were college students celebrating Halloween?
Introduction
The cost of living had dramatically increased and the town was having a lot of economic problems and local businesses were suffering. It seemed as though every family was struggling to pay their bills. There were lots of jobs but there were not qualified people who could afford to live and work in the area.

Elaboration
Some of the most unlikely members of the community took matters into their own hands. A company chair/mafioso was beginning to take drastic measures to fix the town's economic slump. After weighing the factors, the company chair/mafioso decided that he would have to deal with employees who were not pulling their weight.

Qualification
**Protagonist 1:** The company chair planned to discipline his workers by taking away their benefits.

**Protagonist 2:** The mafioso had no problem discharging his employees so they could find other jobs.

Background
Lately, the evening news broadcast was depressing to watch. The stories the anchors had to report on were about negative events within the community. Even so, most of the community was concerned so they tuned in to watch.

**Reinstatement Sentence**
News featured how the chair treated employees.
News featured how the mafioso treated employees.

**Consistent Target Sentence 1**
The company chair had fired his employees.
The mafioso was seen punishing his employees.

**Inconsistent Target Sentence 1**
The company chair was punishing his employees.
The mafioso had fired all of his employees.

**Target Sentence 2**
The workers would decide to find other jobs.

Closing
It was clear that the community needed support at the state level to help resolve high living costs.

**Comprehension Question**
Were members of the community having financial trouble?
Introduction
It was almost Thanksgiving and the stores were more crowded than usual. Mary was a clerk at the local grocery store and she liked the holidays because work during this busy time was never boring. Mary liked to look at the shoppers' purchases and imagine what type of holiday meals they planned to prepare.

Elaboration
Right before the store closed, Mary noticed that people would come in and quickly gather their groceries. A nurse/bouncer approached Mary's checkout line and saw that several people were trying to get in line and the store was about to close. The nurse/bouncer hurriedly rushed through the people to the checkout counter.

Qualification
Protagonist 1: The nurse had no problem being aggressive with shoppers in large crowds.
Protagonist 2: The bouncer carefully made sure not to disrupt shoppers in large crowds.

Background
Mary thought of getting out of work and having dinner. She started to day dream about eating as she rang up people's orders of food. At the end of the night she could hardly stand it because she was so hungry.

Reinstatement Sentence
Mary's attention turned to the nurse in her line.
Mary's attention turned to the bouncer in line.

Consistent Target Sentence 1
The nurse delicately dodged all the people.
The bouncer shoved through all the people.

Inconsistent Target Sentence 1
The nurse shoved through all the other people.
The bouncer delicately dodged all the people.

Target Sentence 2
Mary smiled and looked back at the long line.

Closing
On this particular night, Mary would be glad to get home.

Comprehension Question
Was the store giving away free samples?
Introduction
Megan rarely missed a day of school but yesterday she caught a cold and stayed home. Today she woke up and was feeling even worse so her parents recommended that she stay home again. Megan couldn't go out and play but at least she could watch what was going on outside from her bedroom window.

Elaboration
Megan didn't know much about what went on during the day in the neighborhood. She thought it would be interesting to watch to see when the paper deliverer/mail carrier would bring the paper/mail. Megan watched carefully and was surprised at the timing of the paper deliverer/mail carrier and would be sure to tell her mother.

Background
Megan's mom made her a big bowl of soup for lunch. She was convinced that hot beverages were the key to fighting a cold. Megan's mom checked Megan's temperature for fever. She asked Megan if she saw anyone outside the window. Reinstatement Sentence
Megan told her mom she saw the paper deliverer.
Megan told her mom that she saw the mail carrier.

Consistent Target Sentence 1
The paper deliverer was late with the paper.
The mail carrier's mail was right on time.

Inconsistent Target Sentence 1
The paper deliverer's paper was right on time.
The mail carrier was late delivering the mail.

Target Sentence 2
Megan's mother laughed at what she said.

Closing
Her mom thought it was funny that Megan was paying such close attention.

Comprehension Question
Did Megan have the chicken pox?
Introduction
James worked for a large corporation with branches across the country. James recently broke up with his girlfriend of two years and decided it would be best to start fresh and relocate. James thought of where he wouldn't mind living and his work was able to place him in a branch office in another state.

Elaboration
Shortly after James moved into a new home his door bell starting ringing constantly. James wasn't used to living in a residential neighborhood and was surprised by how many visits he got from a tax collector/religious missionary. James was bothered by how the tax collector/religious missionary talked to him on his doorstep.

Qualification
Protagonist 1: The tax collector was religious and shared his views with other people.
Protagonist 2: The religious missionary was disrespectful and tried to push his views on people.

Background
James wanted to learn more about his neighbors so he invited them to a picnic. At the picnic, the neighbors gave him advice about living in the community. James's next door neighbor asked James how he liked living in his new home.

Reinstatement Sentence
James told him about the tax collector's visits.
James told him about the missionary's visits.

Consistent Target Sentence 1
He said that the tax collector was very rude.
He said the missionary was very spiritual.

Inconsistent Target Sentence 1
He said the tax collector was very spiritual.
He said that the missionary was very rude.

Target Sentence 2
He didn't want to answer the door anymore.

Closing
James's neighbor said that he used to have the same problem.

Comprehension Question
Did James move into an apartment complex?
Introduction
Dawn was having a graduation party for her oldest daughter's high school graduation. Dawn decided to have a bar-b-q cookout and was hoping for a perfectly sunny and warm summer day. Dawn ordered a small outdoor tent so that the party would not be ruined in the event of rain.

Elaboration
Dawn enjoyed cooking and was happy to prepare a variety of foods for the guests. Dawn looked at the guest list and noticed that there would be a lot of teenagers/vegetarians at the party. She thought about the eating habits of the teenagers/vegetarians and tried to plan the menu accordingly.

Qualification
Protagonist 1: The teenagers were concerned with their weight and ate fruits and vegetables.
Protagonist 2: The vegetarians ate a lot of unhealthy foods to compensate for not eating meat.

Background
Dawn asked her family to help with the party. Her husband took care of the yard and tent and the children helped in the kitchen. Just before the guests arrived, the entire family set the food up under the tent.

Reinstatement Sentence
Dawn put food for the teenagers on a small table.
Dawn put food for the vegetarians on a small table.

Consistent Target Sentence 1
The teenagers would eat mostly junk food.
The vegetarians would eat mostly healthy food.

Inconsistent Target Sentence 1
The teenagers would eat mostly healthy food.
The vegetarians would eat mostly junk food.

Target Sentence 2
Other guests would eat mostly grilled meats.

Closing
Dawn was glad to please her guests and also made her daughter very happy with the party.

Comprehension Question:
Was Dawn hosting a graduation party?
Introduction
Kelly recently graduated college and got a job as a teller at a bank. Working at the bank would be a temporary job until she passed her certified public accountant exam. One of the other tellers was interested in getting to know Kelly so she invited her and a few other co-workers over for dinner.

Elaboration
Kelly thought it would be good to get to know people from work. Kelly heard from a woman at work that the teller's husband was a doctor/school teacher. When Kelly went to the dinner the first thing she noticed was the size of the doctor's/school teacher's house.

Qualification
Protagonist 1: The doctor saved most of his money and had a very modest home.
Protagonist 2: The school teacher put a lot of money into a very large home.

Background
Kelly enjoyed socializing with her new coworkers at the party. They all had drinks while eating a buffet style dinner. Kelly got home late that night and her mother called to see how her week was going.

Reinstatement Sentence
She talked about dinner at the teacher's house.
She talked about dinner at the doctor's house.

Consistent Target Sentence 1
Kelly said the doctor's house was enormous.
Kelly said the teacher's house was very small.

Inconsistent Target Sentence 1
Kelly said the doctor's house was very small.
Kelly said the teacher's house was enormous.

Target Sentence 2
Her mom asked Kelly how she liked her job.

Closing
Kelly told her that she thought she was going to like her job at the bank.

Comprehension Question
Was Kelly working temporarily at the bank?
Introduction
Cathy worked as a retail manager at a trendy fashion boutique in California. She spent a lot of time and attention seeing to it that her store looked sophisticated and unique. Cathy recently expanded the store with an additional line of clothing and was interviewing for a new sales associate position.

Elaboration
Cathy set up several interviews during the day and was looking forward to finding someone that would fit well in the position. Cathy looked over a resume for her first interview with a woman who was formerly a housekeeper/fashion designer. During the interview, Cathy thought that the housekeeper's/fashion designer was dressed inappropriately.

Qualification
Protagonist 1: The housekeeper's clothes were provocative and made her look unprofessional.
Protagonist 2: The fashion designer's wardrobe was out of style and made her look old-fashion.

Background
Cathy was exhausted after interviewing six applications for the position. She went home to take a long bath before she made any decisions. Cathy's husband came up stairs as she was bathing and asked her about the hiring process.

Reinstatement Sentence
She said she didn't like the housekeeper's attire.
She said she didn't like the designer's attire.

Consistent Target Sentence 1
The housekeeper's clothing was too outdated.
The fashion designer's clothes were revealing.

Inconsistent Target Sentence 1
The housekeeper's clothing was revealing.
The fashion designer's clothes were outdated.

Target Sentence 2
Cathy said she would make her choice tomorrow.

Closing
Cathy told her husband that it was always good to sleep on a major hiring decision.

Comprehension Question
Was Cathy hiring a new assistant manager?
Introduction
Carol had been working in a small restaurant in the center of town for years. She enjoyed serving the people and had made several friends over the years. The restaurant was on the route of a well traveled highway and during lunch Carol noticed that most of the customers were from out of town.

Elaboration
Carol saw that a group of people walked in and sat at a table in her section. She went over to take their orders and stared at one person who was overweight/very thin. It was none of Carol's business, but she couldn't help but take notice of what the overweight/very thin person ordered.

Qualification
Protagonist 1: The overweight person hoped to loose some weight and was on a strict diet.
Protagonist 2: The very thin person hoped to gain some weight and ate heavily.

Background
Carol went into the kitchen and put all of the orders on the line. The cook asked her if she would help prepare plates for several orders that were ready. Carol talked with the cook about the customers she had been serving.

Reinstatement Sentence
Carol mentioned the overweight person's order.
Carol mentioned the very thin person's food order.

Consistent Target Sentence 1
The overweight person ordered a lot of food.
The very thin person ordered a small salad.

Inconsistent Target Sentence 1
The overweight person ordered a small salad.
The very thin person ordered a lot of food.

Target Sentence 2
The cook laughed at her attention to detail.

Closing
Carol's feet were getting tired after the long lunch hour.

Comprehension Question
Was Carol managing the restaurant?
APPENDIX C

For all experiments reported in this dissertation, approval for the use of human subjects was obtained from the University of New Hampshire Psychology Department Internal Review Board. Forms demonstrating proof of approval are included in this Appendix.
April 30, 2008

Karla Lassonde
Psychology
Durham, NH 03824

Study: Stereotypes and Situation Models
Approval Date: 08/28/2006

The Psychology Departmental Review Committee, a subcommittee of the Institutional Review Board (IRB) for the Protection of Human Subjects in Research, reviewed and approved the protocol for your study as Exempt as described in Federal Regulations 45 CFR 46, Subsection 101 (b).

Approval is granted to conduct the project as described in your protocol. Changes in your protocol must be submitted to this committee for review and approval prior to their implementation.

The protection of human subjects in your study is an ongoing process for which you hold primary responsibility. In receiving approval for your protocol, you agree to conduct the project in accordance with the ethical principles and guidelines for the protection of human subjects in research, as described in the Belmont Report. The full text of the Belmont Report is available on the Office of Sponsored Research (OSR) webpage at http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.htm or by request from the OSR.

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If you have questions or concerns about your project or this approval, please feel free to contact a member of the Psychology Departmental Review Committee.

For the IRB

Julia E. Simpson
Manager

cc: File
University of New Hampshire
Institutional Review Board for the Protection of Human Subjects in Research
Departmental Review Committee Exemption Classification Sheet

Name: Karla Devlin | Ed O'Brien
Dept: Psychology
Study: Stereotypes & Situation Models

Exempt Review
46.101(b)(1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as:
(i) research on regular or special educational instructional strategies, or
(ii) research on the effectiveness of or comparison among instructional techniques, curricula, or classroom management methods.

46.101(b)(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior unless:
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Protocol is approved as presented in the category checked
Protocol is approved with the following contingencies/comments (attach sheets if necessary)
Protocol is referred to the IRB for Expedited or Full Board review
Protocol cannot be approved as presented (cite reasons on separate sheet)

DRC Reviewer: John [Signature] Date: 5/28/06
April 30, 2008

Karla Lassonde
Psychology
Durham, NH 03824

**Study:** Stereotypes and Situation Models  
**Approval Date:** 01/10/2007

The Psychology Departmental Review Committee, a subcommittee of the Institutional Review Board (IRB) for the Protection of Human Subjects in Research, reviewed and approved the protocol for your study as Exempt as described in Federal Regulations 45 CFR 46, Subsection 101 (b).

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For the IRB,

Julie F. Simpson  
Manager

cc: File
Exempt Review

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Protocol is approved as presented in the category checked

Protocol is approved with the following contingencies/comments (attach sheets if necessary)

Protocol is referred to the IRB for Expedited or Full Board review

Protocol cannot be approved as presented (cite reasons on separate sheet)

DRC Reviewer: [Signature] Date: 1/10/07
April 30, 2008

Karla Lassonde
Psychology
Durham, NH 03824

Study: Stereotypes and Situation Models
Approval Date: 10/23/2007

The Psychology Departmental Review Committee, a subcommittee of the Institutional Review Board (IRB) for the Protection of Human Subjects in Research, reviewed and approved the protocol for your study as Exempt as described in Federal Regulations 45 CFR 46, Subsection 101 (b).

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For the IRB,

Julie F. Simpson
Manager

cc: File.
University of New Hampshire
Institutional Review Board for the Protection of Human Subjects in Research
Departmental Review Committee Exemption Classification Sheet

Name: Karla Lassonde
Dept: Psychology
Study: Stereotypes Situation Models

Exempt Review
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Protocol cannot be approved as presented (cite reasons on separate sheet)

DRC Reviewer: John Linley Date: 10/23/07
April 30, 2008

Karla Lassonde
Psychology
Durham, NH 03824

Study: Stereotypes and Situation Models
Approval Date: 01/09/2008

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For the IRB,

Julie F. Simpson
Manager

cc: File
University of New Hampshire
Institutional Review Board for the Protection of Human Subjects in Research
Departmental Review Committee Exemption Classification Sheet

Name: Karla Laszczyk

Dept: Psychology

Study: Stereotypes + Situation Models

Exempt Review
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DRC Reviewer: John Smith
Date: 1/9/20